LC-32LE63x
LC-40LE63x
LC-46LE63x

1st Edition

SHARP

SERVICE MANUAL

Issued: 3rd June 2011

LED LCD COLOUR TELEVISION

DVB-T / DVB-C (HDTV), PAL B/G, I / SECAM B/G, D/K, L/L' SYSTEM COLOUR TELEVISION

MODELS

LC-32LE630E
LC-40LE630E
LC-46LE630E

LC-32LE630RU
LC-40LE630RU
LC-46LE630RU

LC-32LE632E
LC-40LE632E
LC-46LE632E

LC-32LU630E
LC-40LU630E
LC-46LU630E

LC-32LX630E
LC-40LX630E
LC-46LX630E

LC-32LU632E
LC-40LU632E

LC-32LX632E
LC-40LX632E

In the interests of user safety (required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

CONTENTS

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to chage without notice.

ELECTRICAL SPECIFICATIONS

Specifications

Item			32" LCD COLOUR TV, Models: LC-32LE630E, LC-32LE630RU, LC-32LE632E, LC-32LU630E, LC-32LX630E, LC-32LU632E, LC-32LX632E.	40" LCD COLOUR TV, Models: LC-40LE630E, LC-40LE630RU, LC-40LE632E, LC-40LU630E, LC-40LX630E, LC-40LU632E, LC-40LX632E.	46" LCD COLOUR TV, Models: LC-46LE630E, LC-46LE630RU, LC-46LE632E, LC-46LU630E, LC-46LX630E.
LCD Panel			32" BLACK TFT LCD LED TV	40" BLACK TFT LCD LED TV	46" BLACK TFT LCD LED TV
Resolution			6.220.800 dots (1.920 x 1.080 pixels) / 100 Hz		
Video Colour System			PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60		
TV Functions	TV Standard	Analogue	CCIR (B/G, I, D/K, L/L')		
		Digital	DVB-T (2K/8K OFDM)(H.264), DVB-C, DVB-S/S2 (L*632 only)		
	Receiving Channel	VHF/UHF	E2–E69 ch, F2–F10 ch, I21–I69 ch, IR A–IR J ch (Digital: IR A ch–E69 ch)		
		CATV	Hyper-band, S1–S41 ch		
	TV-Tuning System		Auto Preset 999 ch: non-Nordic / 9999 ch: Nordic (ATV: 99 ch), Auto Label, Auto Sort / Auto Preset 9999 ch (SAT)		
	STEREO / BILINGUAL		NICAM/A2		
Viewing angles			H: 176°, V: 176°		
Audio Amplifier			10 W + 5 W + 5 W		
Speaker			Woffer Ø 70 mm, tweeter (Ø 11 mm) x 2		
Terminals	TV Antenna		UHF/VHF 75 Ω Din type (Analogue & Digital) / Satellite 75 Ω F type (L*632 only)		
	SERVICE (Rear)		Ø 3.5 mm jack		
	SCART (Rear)		SCART (AV input, RGB input, TV output, Y/C input)		
	PC INPUT (Rear bottom)		VGA (D-Sub 15pin), Audio input: Ø 3.5 mm jack (shared with DVI)		
	COMPONENTS (Rear)		COMPONENT IN: Y/PB(CB)/PR(CR), RCA (AUDIO R/L)		
	HDMI1 (Rear bottom)		HDMI, Audio input: Ø 3.5 mm jack (shared with PC INPUT), ARC		
	HDMI2 (Rear bottom)		HDMI, Audio input: Ø 3.5 mm jack (shared with PC INPUT)		
	ETHERNET (10/100) (Rear bottom)		Network connector		
	HDMI3 (Side)		HDMI, Audio input: Ø 3.5 mm jack (shared with PC INPUT)		
	SD Slot (Side)		Only for video store		
	USB (Side)		USB 2.0 HOST (A Type) (For optional Wi-Fi dongle, Software Updating and Multimedia play back)		
	C. I. (Common Interface) (Side)		EN50221, R206001, CI+ specification		
	Headphones (Side)		Ø 3.5 mm jack (Audio output)		
	Digital Audio output (Rear bottom)		RCA S/PDIF digital audio output		
OSD language			Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Russian, Slovak, Slovene, Spanish, Swedish, Turkish, Ukrainian, Byelorussian, Romanian, Croatian.		
Electronic Owners Manual			Integrated		
Power Requirement			AC 220–240 V, 50 Hz		
Power Consumption (IEC62087 Method)			85 W (< 0.15 W Standby)	108 W (< 0.15 W Standby)	125 W (< 0.15 W Standby)
Weight			8.5 Kg (Without stand), 10.0 Kg (With stand)	12.5 Kg (Without stand), 14.7 Kg (With stand)	16.95 Kg (Without stand), 19.9 Kg (With stand)
Operating Temperature			0 °C to +40 °C		

Cautions regarding use in high and low temperature environments

- When the unit is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the LCD panel to malfunction. Storage temperature: –20°C to +60°C.

- As a part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

ELECTRICAL SPECIFICATIONS (continued)

Environmental specifications

	32"	40" 630/631	40" 632	46"
*1 On-Mode (W) (HOME MODE)	41	48	49	56
*2 Energy-Saving-Mode (W)	37	44		48
*3 Standby-Mode (W)	<0.15	<0.15		<0.15
*4 Off Mode (W)	<0.001	<0.001		<0.001
*5 Annual Energy Consumption (kWh)	60	70	72	82
*6 Annual Energy Consumption Energy-Saving-Mode (kWh)	54	65		70

***1** Measured according to IEC 62087 Ed. 2.

***2** For further information about the Energy Save function, please see related pages in the electronic user manual.

***3** Measured according to IEC 62301 Ed. 1.

***4** Measured according to IEC 62301 Ed. 1.

***5** Annual energy consumption is calculated on the basis of the On-Mode (HOME MODE) power consumption, watching TV 4 hours a day, 365 days a year.

***6** Annual energy consumption is calculated on the basis of the Energy-Save-Mode power consumption, watching TV 4 hours a day, 365 days a year.

NOTE

- The power consumption of On-Mode varies depending on the images the TV displays.

IMPORTANT SERVICE SAFETY PRECAUTION

Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:

WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.

> **CAUTION**: FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE
>
> 32” F1 (T3.15/AH/250V), 40” F101 (T3.15AH/250V),
>
> 46” F101 (T3.15/AH/250V).

BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

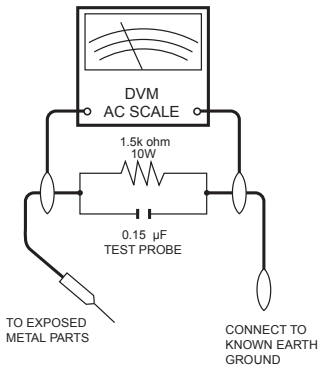
Before returning the receiver to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.

• Plug the AC cord directly into a 220~240 volt AC outlet. (Do not use an isolation transformer for this test).
•Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.

- •A true RMS reading multimeter should be used for this test, especially where the equipment uses a switch mode power supply which may result in very non-sinusoidal leakage current.
- •Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.

All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)
Any reading of 1.05V peak (this corresponds to 0.7 mA. peak AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



SAFETY NOTICE

Many electrical and mechanical parts in LCD television have special safety-related characteristics.
These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.
Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by “⚠“.

For continued protection, replacement parts must be identical to those used in the original circuit.
The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

PRECAUTIONS FOR USING LEAD-FREE SOLDER

1 Employing lead-free solder

"ALL PWB" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.
Example:

Indicates lead-free solder of tin, silver and copper.

Indicates lead-free solder of tin, silver and nickel.

2 Using lead-free wire solder

When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.
As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldering bit, contact our service station or service branch in your area.

3 Soldering

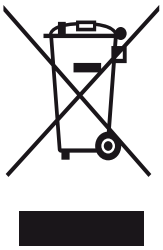
As the melting point of lead-free solder (Sn-Ag-Cu) is about 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solder wettability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, Since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.
Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.
If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.
When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Be careful when replacing parts with polarity indication on the PWB silk.

Lead-free wire solder for servicing.

Part No.	★	Description	Code
ZHNDAi123250E	J	ϕ0.3mm 250g(1roll)	BL
ZHNDAi126500E	J	ϕ0.6mm 500g(1roll)	BK
ZHNDAi12801KE	J	ϕ1.0mm 1kg(1roll)	BM

END OF LIFE DISPOSAL



Attention: Your product is marked with this symbol. It means that used electrical and electronic products should not be mixed with general household waste. There is a separate collection system for these products.

A. Information on Disposal for Users (private households)

1. In the European Union

Attention: If you want to dispose of this equipment, please do not use the ordinary dust bin!

Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment.
Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge*. In some countries* your local retailer may also take back your old product free of charge if you purchase a similar new one.
*) Please contact your local authority for further details.

If your used electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements.

By disposing of this product correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

2. In other Countries outside the EU

If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal.

For Switzerland: Used electrical or electronic equipment can be returned free of charge to the dealer, even if you don't purchase a new product. Further collection facilities are listed on the homepage of www.swico.ch or www.sens.ch.

B. Information on Disposal for Business Users

1. In the European Union

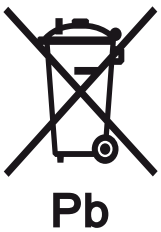
If the product is used for business purposes and you want to discard it:

Please contact your SHARP dealer who will inform you about the take-back of the product. You might be charged for the costs arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

For Spain: Please contact the established collection system or your local authority for take-back of your used products.

2. In other Countries outside the EU

If you wish to discard of this product, please contact your local authorities and ask for the correct method of disposal.



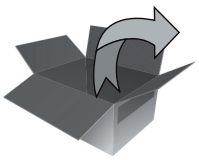
The battery supplied with this product contains traces of Lead.

For EU: The crossed-out wheeled bin implies that used batteries should not be put to the general household waste! There is a separate collection system for used batteries, to allow proper treatment and recycling in accordance with legislation. Please contact your local authority for details on the collection and recycling schemes.

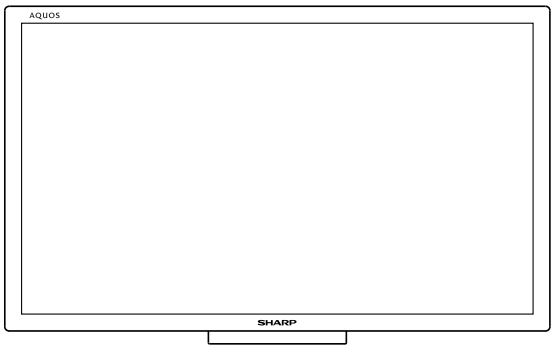
For Switzerland: The used battery is to be returned to the selling point.

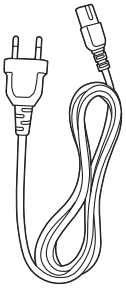
For other non-EU countries: Please contact your local authority for correct method of disposal of the used battery.

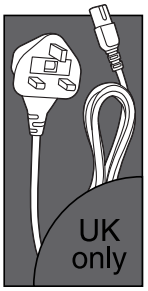
OPERATION MANUAL

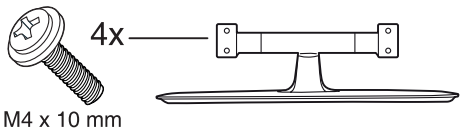


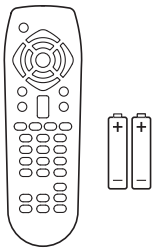
EN What's in the box
DE Lieferumfang
FR Contenu de l'emballage
NL Wat zit er in de doos?
IT Contenuto della confezione
ES Contenido de la caja
PT Conteúdo da embalagem
DK Hvad er der i kassen
SV Förpackningens innehåll
NO Innholdet i esken
SU Toimituksen sisältö
GR Περιεχόμενα συσκευασίας
RU Комплект поставки
PL Zawartość opakowania
HU A doboz tartalma
SK Čo je v balení?
CZ Obsah dodávky
TR Kutuda neler var
SI Kaj je v škatli
RO Ce se află în cuti
ET Kasti sisu
LV Komplektācija
LT Kas yra rinkinyje
UK Комплектація упаковки
HR Što se nalazi u kutiji

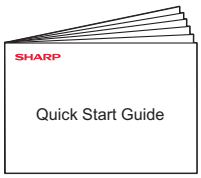


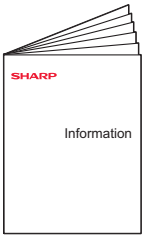


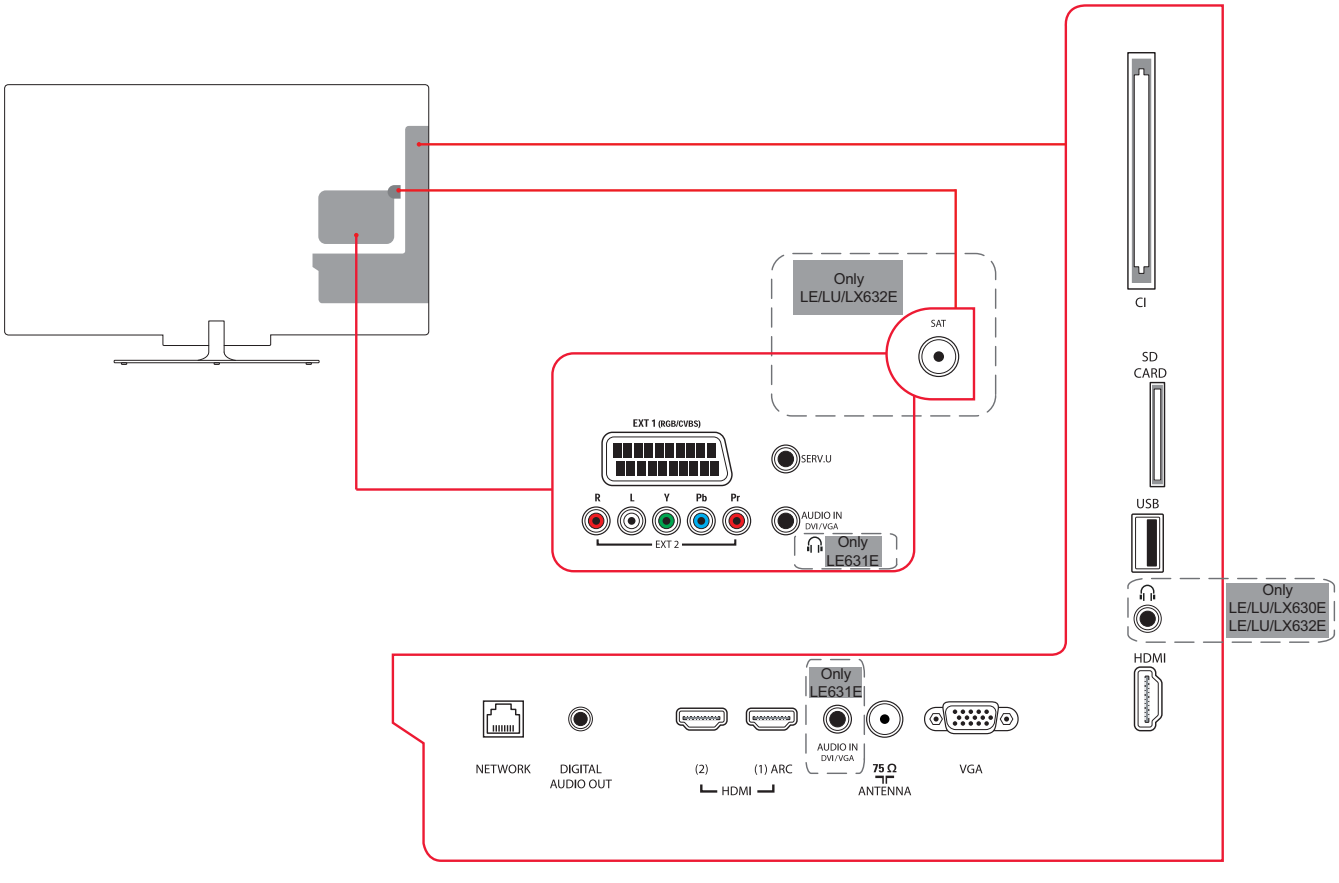




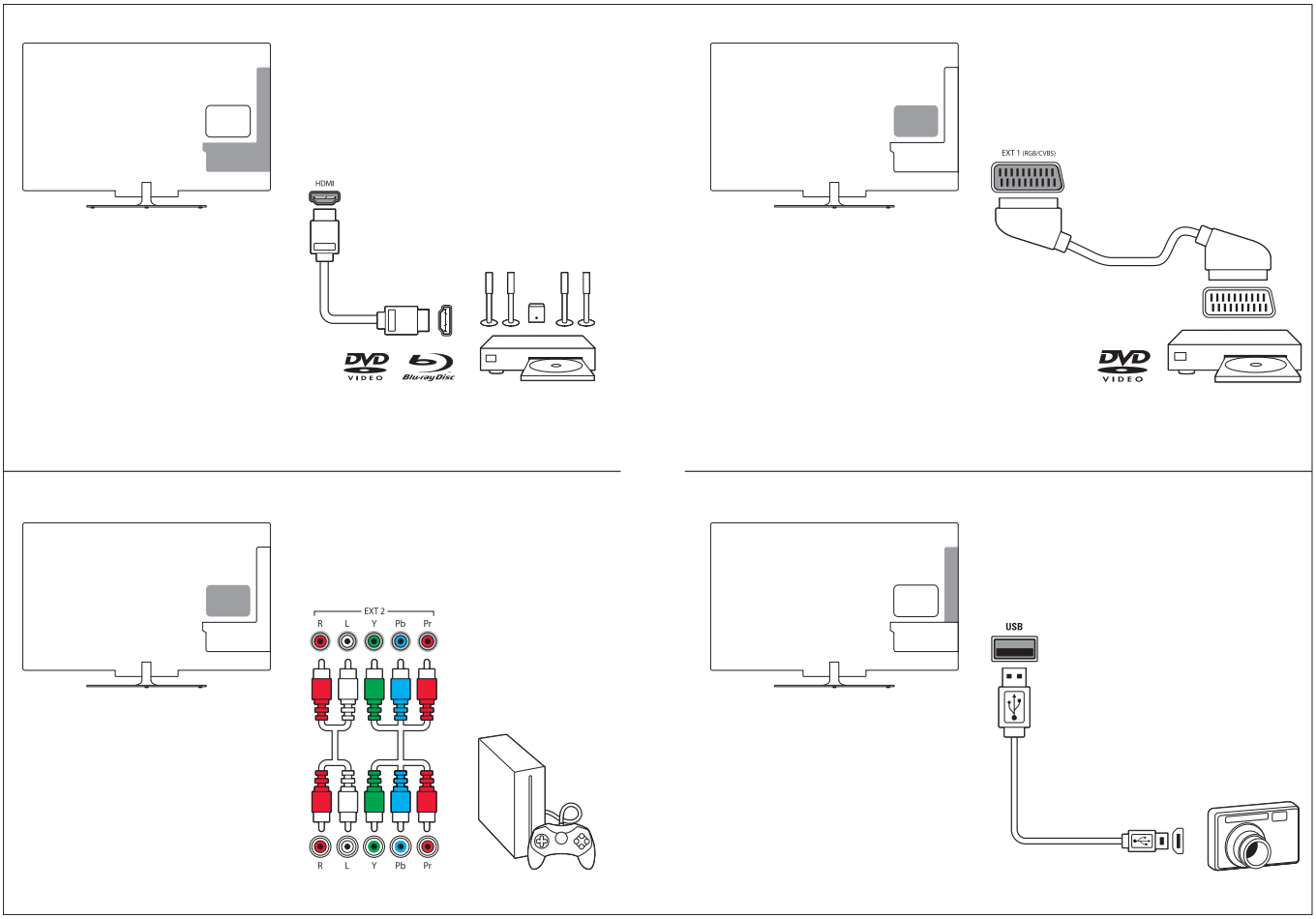








Operation Manual (Continued)



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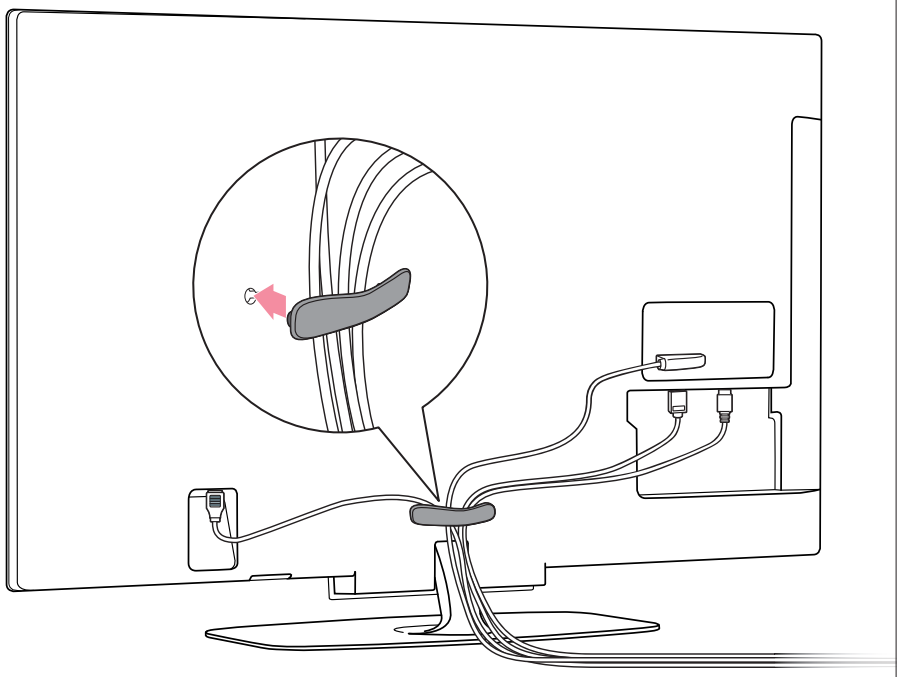
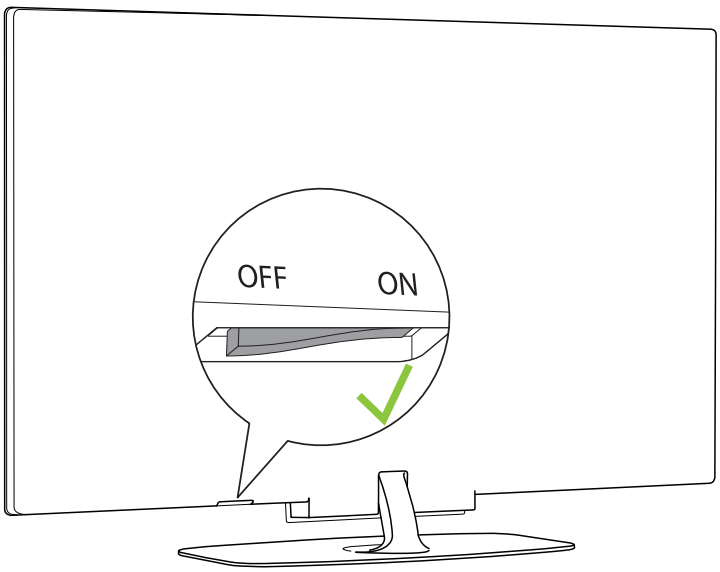
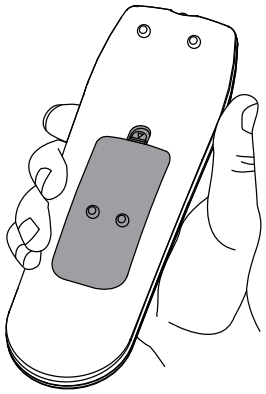


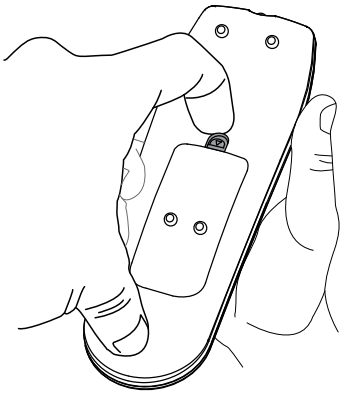
EN Manage cables
DE Kabel managen
FR Gestion des câbles
NL Kabels beheren
IT Gestione dei cavi
ES Manejo de los cables
PT Gerir os cabos
DK Håndter kabler
SV Hantera kablar
NO Ordne kablene
SU Kaapelien hallinta
GR Διαχείριση καλωδίων
RU Установка кабелей
PL Układanie przewodów
HU Kábelek elvezetése
SK Usporiadanie káblov
CZ Správa kabelů
TR Kabloları yönetme
SI Napeljite kable
RO Verif cați cablurile
ET Hallake kaableid
LV Pieslēdziet kabeļus
LT Kabelių jungimas
UK Поводження з кабелями
HR Rukovanje kabelima



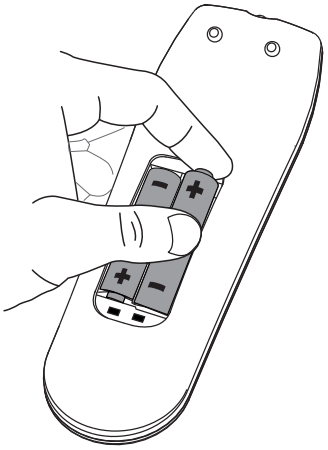
EN Check that the power switch is on
DE Stellen Sie sicher, dass der Netzschalter eingeschaltet ist
FR Vérifiez que l'appreil est sous tension
NL Controleer of de schakelaar aan staat
IT Verificare che l'intrruttore di alimentazione sia acceso
ES Comprobar que el interruptor de encendido está activado
PT Verificar que o intrruptor está ligado
DK Kontroller, at tænd/sluk-knappen står på tænd
SV Kontrollera att strömbrytaren är på
NO Kontroller at av/på-knappen er på
SU Virtakytkimen asennon tarkistaminen
GR Ελέγξτε εάν είναι ενεργοποιημένος ο διακόπτης ισχύος
RU Проверьте, включена ли кнопка питания
PL Zasilanie powinno być włączone
HU Ellenőrizze, hogy a készülék be van-e kapcsolva
SK Skontrolujte, či je zapnutý hlavný vypínač
CZ Zkontrolujte, zda je zařízení zapnuto
TR Güç düğmesinin açık olduğundan emin olun
SI Preverite, ali je vklopno stikalo vklopljeno
RO Verificați dacă coutatorul este pornit
ET Kontrollige, kas toide on sisselülitatud
LV Pārbaudiet, vai barošana ir ieslēgta
LT Patikrinkite, ar įjungtas maitinimo mygtukas
UK Перевірте, чи увімкнено живлення
HR Provjerite je li uključen prekidač napajanja

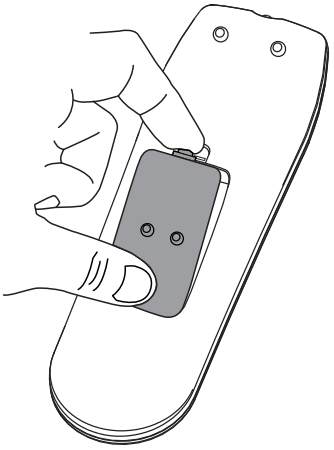
Operation Manual (Continued)



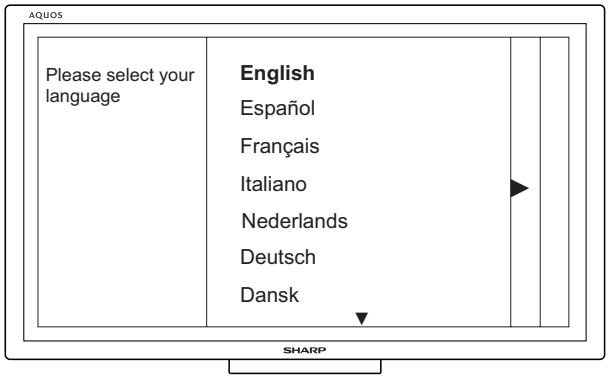


EN Insert batteries
DE Batterien einsetzen
FR Insertion des piles
NL Batterijen plaatsen
IT Inserimento delle batterie
ES Insertar pilas
PT Inserir baterias
DK Isæt batterier
SV Hantera kablar
NO Sett inn batteriene
SU Paristojen asettaminen paikoilleen
GR Εισαγωγή μπαταριών
RU Установка элементов питания
PL Wkładanie baterii
HU Elemek behelyezése
SK Vloženie batérií
CZ Vložte baterie
TR Pilleri takma
SI Vstavite baterije
RO Introduceți bateriile
ET Sisestage patareid
LV Ievietojiet baterijas
LT Baterijų įdėjimas
UK Встановлення батарей
HR Umetanje baterija



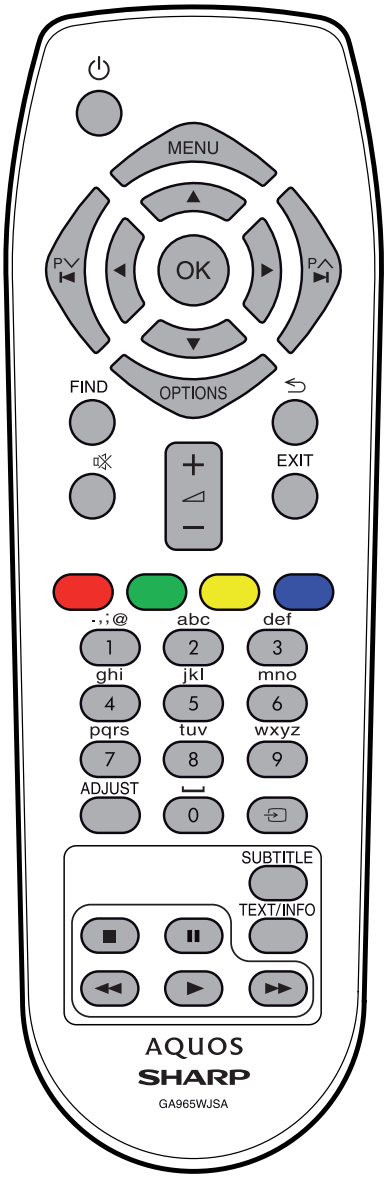


First Installation



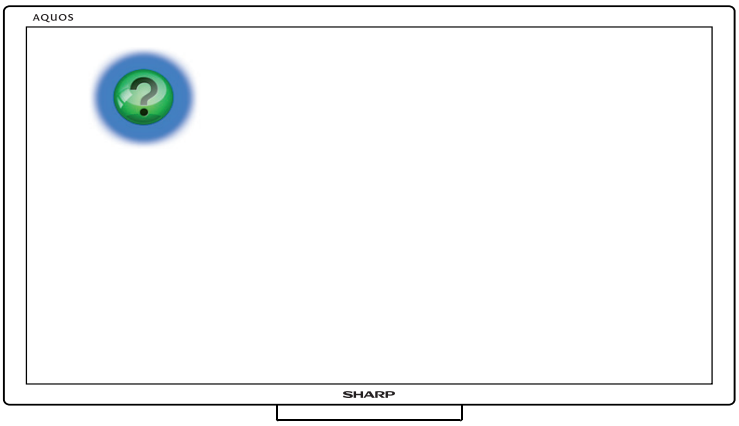
EN Select your language and follow the onscreen instructions
DE Wählen Sie Ihre Sprache und folgen Sie den Anweisungen am Bildschirm
FR Sélectionnez votre langue et suivez les instructions à l'écran
NL Selecteer uw taal en volg de instructies op het scherm
IT Selezionare la lingua e seguire le istruzioni a video
ES Seleccione su idioma y siga las instrucciones en pantalla
PT Seleccionar o idioma e seguir as instruções no ecrã
DK Vælg sprog, og følg instruktionerne på skærmen
SV Kontrollera att strömbrytaren är på
NO Velg språk og følg instruksjonene på skjermen
SU Valitse kieli ja toimi näyttöön tulevien ohjeiden mukaan
GR Επιλέξτε γλώσσα και ακολουθήστε τις οδηγίες που εμφανίζονται στην οθόνη
RU Выберите язык и следуйте инструкциям на экране
PL Wybierz język i postępuj zgodnie z instrukcjami wyświetlanymi na ekranie
HU Válassza ki a nyelvet, és kövesse a képernyőn látható utasításokat
SK Vyberte jazyk a postupujte podľa pokynov na obrazovke
CZ Vyberte jazyk a postupujte dle pokynů na obrazovce
TR Dili seçin ve ekrandaki talimatları uygulayın
SI Izberite jezik in sledite navodilom na zaslonu
RO Selectați limba şi urmați instrucțiunile de pe ecran
ET Izaberite svoj jezik i sledite uputstva na ekranu
LV Atlasiet valodu un ievērojiet ekrānā redzamos norādījumus
LT Pasirinkite savo kalbą ir vykdykite instruk-cijas ekrane
UK Виберіть мову і виконуйте екранні вказівки
HR Odaberite svoj jezik i slijedite upute na zaslonu

Operation Manual (Continued)

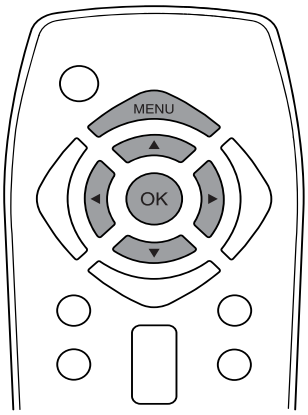


LE63x Series Remote Control

Operation Manual (Continued)



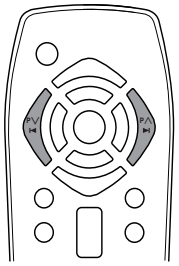
EN Onscreen help
DE Bildschirmhilfe
FR Aide à l'écran
NL Help op het scherm
IT Guida a video
ES Ayuda en pantalla
PT Ajuda no ecrã
DK Skærmhjælp
SV Hjälp på skärmen
NO Hjelp på skjermen
SU Näyttöohje
GR Βοήθεια στην οθόνη
RU Электронная справка
PL Pomoc wyświetlana na ekranie
HU Képernyősúgó
SK Pomocník na obrazovke
CZ Nápověda na obrazovce
TR Ekran yardımı
SI Zaslonska pomoč
RO Asistență pe ecran
ET Ekraanil kuvatav abi
LV Palīdzība ekrānā
LT Pagalba ekrane
UK Екранна довідка
HR Zaslonska pomoć



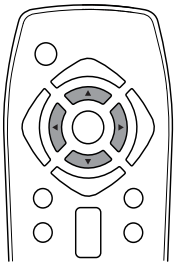
EN Menu
Menu screen on/off
DE Menü
Zum Anzeigen/Schließen des „Menü"
FR Menu
Marche/arrêt de l'écran du « Menu »
NL Menu
Menu scherm aan/uit
IT Menu
Schermata di Menu attivata / disattvata
ES Menú
Activa/desactiva la pantalla del menú
PT Menu
Faz surgir/desaparecer o ecrã do menu
DK Menu
Menu-skærm til/fra
SV Meny
In/urkoppling av meny-skärm
NO Meny
Meny-skjermbilde på/av
SU Valikko
Valikko-ruutu päälle tai pois päältä
GR Μενού
Ενεργοποίηση / Απενεργοποίηση της οθόνης μενού.
RU Меню
Включение/выключение экрана тв меню
PL Menu
Wyświetla ekranu menu
HU Menü
A menü képernyő be- és kikapcsolására szolgál
SK Menu
Zobrazenie menu zapnuté/vypnuté.
CZ Menu
Zobrazení/skrytí menu
TR Menü
menü ekranını açar/kapar
SI Meni
Prikaz zaslona meni
RO Meniu
Afişaţi ecranul menu
ET Menüü
Menüü ekraan sisse/välja.
LV Izvēlne
Loga izvēlne atvēršana/aizvēršana.
LT Meniu
Meniu ekrano įjungimas arba išjungimas.
UK Меню
Увімкнення/вимкнення екрану меню.
HR Izbornik
Prikaži izbornik na zaslonu

EN Back
Return to the previous page
DE Zurück
Zurück zur vorherigen Seite
FR Retour
Retourner à la page précédente
NL Terug
Naar vorige pagina terugkeren
IT Precedente
Tornare alla pagina precedente
ES Retroceder
Volver a la página anterior
PT Voltar
Regressar à página anterior
DK Tilbage
Gå tilbage til forrige side
SV Tillbaka
Återgå till föregående sida
NO Tilbake
Gå tilbake til forrige siden
SU Palaa
Palaa edelliselle sivulle
GR Πίσω
Επιστροφή στην προηγούμενη σελίδα
RU Назад
Возврат к предыдущей странице
PL Wstecz
Wróć do poprzedniej strony
HU Vissza
Visszalépés az előző oldalra
SK Späť
Návrat na predchádzajúcu stranu
CZ Zpět
Návrat na předchozí stránku
TR Arka
Önceki sayfaya dönün
SI Nazaj
Vrnitev na prejšnjo stran
RO Înapoi
Reveniţi la pagina anterioară
ET Tagasi
Tagasi eelmisele lehele
LV Atpakaļ
Atgriezieties iepriekšējā lapā
LT Atgal
Grįžimas į ankstesnį puslapį
UK Назад
Повернутися до попередньої сторінки
HR Prethodna
Povratak na prethodnu stranicu

Operation Manual (Continued)

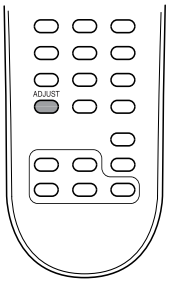


EN Previous / Next
Switch channels or menu pages
DE Vorherige / Nächste Seite
Sender oder Menüseiten auswählen
FR Précédent / Suivant
Changer de chaîne ou pages du menu
NL Vorige / Volgende
Door zender- of menupagina's bladeren
IT Precedente / Successivo
Cambiare canale o pagina del menu
ES Anterior / Siguiente
Cambiar canales o páginas de menú
PT Anterior / Seguinte
Alternar canais ou páginas de menu
DK Forrige / Næste
Skift kanaler eller menusider
SV Föregående / Nästa
Byta kanaler eller menysidor
NO Forrige / Neste
Bytt kanal eller menyside
SU Edellinen / Seuraava
Vaihda kanavaa tai valikkosivua
GR Προηγούμενο / Επόμενο
Εναλλαγή καναλιών ή σελίδων μενού
RU Назад / Далее
Переключение каналов или страниц меню
PL Poprzedni / Następny
Przełącz kanały albo strony menu
HU Előző / Következő
Csatornák vagy menüoldalak váltása
SK Predchádzajúce / Ďalšie
Prepínanie kanálov a stránok ponuky
CZ Předchozí / Další
Přepínání kanálů nebo stránek nabídky
TR Önceki / Sonraki
Kanal veya menü sayfası değiştirin
SI Prejšnji / Naslednji
Preklapljanje kanalov ali strani v meniju
RO Înapoi / Înainte
Comutați canalele sau paginile de meniu
ET Eelmine / Järgmine
Vahetage kanaleid või menüü lehti
LV Lepriekšējais / Nākamais
Pārslēdziet kanālus vai izvēlnes lapas
LT Ankstesnis / kitas
Kanalų arba meniu puslapių perjungimas
UK Назад / Далі
Перемикання каналів чи сторінок меню
HR Prethodno / Sljedeće
Promjena kanala ili stranica izbornika



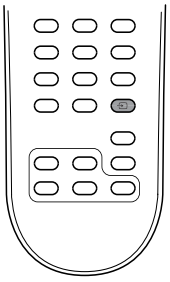
EN Navigation
Navigate menus or make selections
DE Navigationstasten
Durch Sender oder Menüseiten navigieren
FR Touches de navigation
Parcourir les menus ou faire des sélections
NL Navigatie
Door menu's navigeren of selectie maken
IT Navigazione
Sfogliare i menu o effettuare una selezione
ES Navegación
Navegar por los menú o hacer selecciones
PT Navegação
Navegar nos menus ou efectuar seleções
DK Navigationsknapper
Naviger i menuer eller foretag valg
SV Navigering
Navigera i menyer eller göra val
NO Navigering
Naviger i menyer eller gjør valg
SU Siirtyminen
Siirry valikoissa tai tee valintoja
GR Πλοήγηση
Περιήγηση στα μενού ή κάντε επιλογές
RU Навигация
Навигация по меню или выбор установок
PL Nawigacja
Przeglądanie różnych menu albo dokonywanie wyboru
HU Navigáció
Navigáció vagy kiválasztás a menüben
SK Navigačné tlačidlo
Pohyb v ponukách alebo uskutočnenie výberu
CZ Ovládání
Procházení nabídek nebo volba položek
TR Gezinme
Menülerde gezinin veya seçim yapın
SI Krmarjenje
Premikanje po menijih ali izbiranje
RO Navigare
Navigați prin meniuri sau faceți selecții
ET Navigeerimine
Navigeerige menüüdes või tehke valikuid
LV Navigācija
Pārvietojieties izvēlnēs vai atzīmējiet
LT Naršymas
Meniu naršymas arba pasirinkimas
UK Навігація
Навігація меню або вибір
HR Navigacija
Pregled izbornika ili odabir

EN Find
Access channel list
DE Suchen
Senderliste aufrufen
FR Rechercher
Accéder à la liste des chaînes
NL Zoeken
Toegang tot lijst met zenders
IT Trova
Accesso all'elenco dei canali
ES Buscar
Acceder a la lista de canales
PT Localizar
Aceder à lista de canais
DK Find
Få adgang til kanalliste
SV Hitta
Få åtkomst till kanallista
NO Søk
Åpne kanallisten
SU Etsi
Avaa kanavaluettelo
GR Εύρεση
Πρόσβαση στον κατάλογο καναλιών
RU Найти
Доступ к списку каналов
PL Znajdź
Dostęp do listy kanałów
HU Keresés
A csatornalista megnyitása
SK Tlačidlo vyhľadávania
Prístup do zoznamu kanálov
CZ Vyhledat
Otevření seznamu kanálů
TR Bul
Kanal listesine erişin
SI Iskanje
Dostop do seznama kanalov
RO Găseşte
Accesați lista de canale
ET Leia
Juurdepääs kanalite loendile
LV Atrast
Piekļūstiet kanālu sarakstam
LT Leškoti
Kanalų sąrašo prieiga
UK Знайти
Доступ до списку каналів
HR Pronađi
Pristup popisu kanala



EN Adjust
Adjust TV settings
DE Anpassen
Fernsehereinstellungen anpassen
FR Régler
Régler les paramètres du téléviseur
NL Aanpassen
Tv-instellingen aanpassen
IT Regola
Regolare le impostazioni del televisore
ES Ajustar
Ajustar configuración del televisor
PT Ajustar
Ajustar definições de TV
DK Juster
Juster tv-indstillinger
SV Justera
Justera TV-inställningar
NO Juster
Juster TV-innstillinger
SU Säädä
Säädä television asetuksia
GR Ρύθμιση
Προσαρμογή των ρυθμίσεων τηλεόρασης
RU Настройка
Настройка параметров телевизора
PL Reguluj
Regulacja ustawień telewizora
HU Beállítás
A TV beállításainak módosítása
SK Tlačidlo úpravy
Úprava nastavení televízora
CZ Úprava
Úprava nastavení televizoru
TR Ayarla
TV ayarlarını yapın
SI Prilagajanje
Prilagajanje nastavitev TV-sprejemnika
RO Reglare
Reglați setările televizorului
ET Reguleeri
Reguleerige teleri sätteid
LV Pielāgot
Pielāgojiet TV iestatījumus
LT Reguliuoti
TV nustatymų regul-iavimas
UK Налаштувати
Налаштувати параметри телемовлення
HR Podesi
Podešavanje postavki TV-a

Operation Manual (Continued)

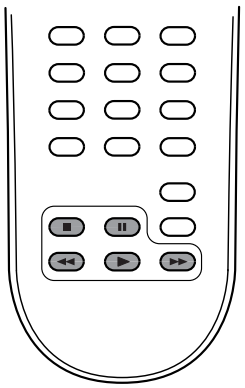


EN Source
Access connected devices
DE Quelle
Angeschlossene Geräte aufrufen
FR Source
Accéder aux périphériques connectés
NL Bron
Toegang tot aangesloten apparaten
IT Sorgente
Accesso ai dispositivi collegati
ES Fuente
Acceder a dispositivos conectados
PT Origem
Aceder a dispositivos ligados
DK Kilde
Få adgang til tilsluttede enheder
SV Källa
Få åtkomst till anslutna enheter
NO Kilde
KildeÅpne tilkoblede enheter
SU Lähde
Avaa liitetyt laitteet
GR Πηγή
Πρόσβαση στις συνδεδεμένες συσκευές

RU Источник
Доступ к подключенным устройствам
PL Źródło
Dostęp do podłączonych urządzeń
HU Forrás
A csatlakoztatott készülékek elérése
SK Zdroj
Prístup k pripojeným zariadeniam
CZ Zdroj
Otevření nabídky připojených zařízení
TR Kaynak
Bağlı cihazlara erişin
SI Vir
Dostop do priključenih naprav
RO Sursă
Accesați aparate conectate
ET Allikas
Juurdepääs ühendatud seadmetele
LV Avots
Piekļūstiet pievienotajām ierīcēm
LT Šaltinis
Prijungtų įrenginių prieiga
UK Джерело
Доступ до підключених пристроїв
HR Izvor
Pristup priključenim uređajima

EN Options
Access TV options
DE Optionen
Fernseheroptionen aufrufen
FR Options
Accéder aux options du téléviseur
NL Opties
Toegang tot tv-opties
IT Opzioni
Accesso alle opzioni del televisore
ES Opciones
Acceder a opciones del televisor
PT Opções
Aceder a opções de TV
DK Indstillinger
Få adgang til tv-indstillinger
SV Alternativ
Få åtkomst till TV-alternativ
NO Alternativer
Åpne TV-alternativer
SU Asetukset
Avaa television asetukset
GR Επιλογές
Πρόσβαση στις επιλογές τηλεόρασης

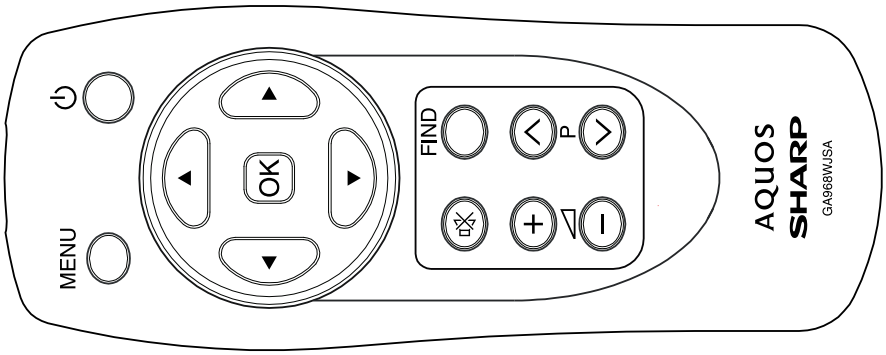
RU Параметры
Доступ к параметрам телевизора
PL Opcje
Dostęp do opcji telewizora
HU Lehetőségek
A TV beállításainak elérése
SK Možnosti
Prístup k možnostiam televízora
CZ Možnosti
Otevření možností televizoru
TR Seçenekler
TV seçeneklerine erişin
SI Možnosti
Dostop do možnosti TV-sprejemnika
RO Opțiuni
Accesați opțiunile TV
ET Valikud
Juurdepääs teleri valikutele
LV Opcijas
Piekļūstiet TV opcijām
LT Parinktys
TV parinkčių prieiga
UK Параметри
Доступ до параметрів телемовлення
HR Opcije
Pristup TV opcijama



EN Play button
Control video or music play
DE Wiedergabetaste
Wiedergabe von Videos oder Musik steuern
FR Touche de lecture
Contrôler la lecture de la vidéo ou de la musique
NL Afspeelknop
Afspelen van muziek of video bedienen
IT Pulsante di riproduzione
Controllare la riproduzi-one di video o musica
ES Botón de reproducción
Controlar la reproducción de vídeo o de música
PT Botão Reproduzir
Controlar vídeo ou reproduzir música
DK Afspilningsknap
Styr video eller musikafspilning
SV Uppspelningsknapp
Kontrollera video- eller musikuppspelning
NO Spill av-knapp
Kontroller video- eller musikkavspilling
SU Toista-painike
Hallitse videon tai musiikin toistoa
GR Κουμπί αναπαραγωγής
Έλεγχος βίντεο ή αναπαραγωγή μουσικής

RU Кнопка запуска воспроизведения
Управление воспроизведением видео или музыки
PL Przycisk odtwarzania
Odtwarzanie filmów wideo lub muzyki
HU Lejátszás gomb
Videó vagy zene lejátszásának vezérlése
SK Tlačidlo prehrávania
Ovládanie prehrávania videa alebo hudby
CZ Tlačítko Přehrát
Ovládání přehrávání videa nebo hudby
TR Oynat düğmesi
Video veya müziği kontrol edin
SI Tipka za predvajanje
Nadzor predvajanja videa ali glasbe
RO Buton redare
Control video sau redare muzică
ET Taasesitusnupp
Juhtige videote või muusika esitamist
LV Poga Atskaņot
Kontrolējiet video vai mūzikas atskaņošanu
LT Leidimo mygtukas
Vaizdo įrašo arba muzikos leidimo valdymas
UK Кнопка відтворення
Керування відтворенням відео чи музики
HR Tipka Play
Upravljanje videom ili sviranje glazbe

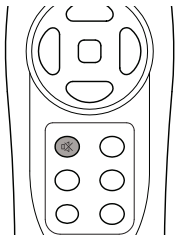
Operation Manual (Continued)



Additional Remote Control for LU63x and LX63x Series

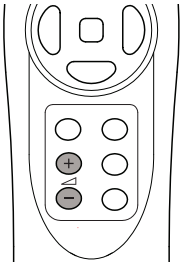
EN Menu
Menu screen on/off
DE Menü
Zum Anzeigen/Schließen des „Menü“
FR Menu
Marche/arrêt de l'écran du « Menu »
NL Menu
Menu scherm aan/uit
IT Menu
Schermata di Menu attivata / disattvata
ES Menú
Activa/desactiva la pantalla del menú
PT Menu
Faz surgir/desaparecer o ecrã do menu
RU Меню
Включение/выключение экрана тв меню
PL Menu
Wyświetla ekranu menu

EN Navigation
Navigate menus or make selections
DE Navigationstasten
Durch Sender oder Menüseiten navigieren
FR Touches de navigation
Parcourir les menus ou faire des sélections
NL Navigatie
Door menu's navigeren of selectie maken
IT Navigazione
Sfogliare i menu o effettuare una selezione
ES Navegación
Navegar por los menú o hacer selecciones
PT Navegação
Navegar nos menus ou efectuar selecções
RU Навигация
Навигация по меню или выбор установок
PL Nawigacja
Przeglądanie różnych menu albo dokonywanie wyboru

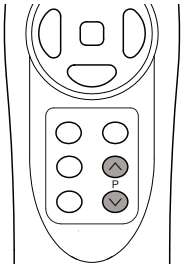


EN Mute
TV sound on/off
DE Stumm
Schaltet den TV-Ton ein/aus
FR Sourdine
Marche/arrêt du son de téléviseur
NL Geluiddemping
Voor het in/uitschakelen van het TV-geluid
IT Silenziatore
Audio TV attivato/disattivato
ES Silenciar
Activa/desactiva el sonido del TV
PT Silenciar
Liga e desliga o som do televisor
RU Приглушение
Включение/выключение звука телевизора
PL Wyciszenie
Wł./wył. dźwięku telewizora.

EN Find
Access channel list
DE Suchen
Senderliste aufrufen
FR Rechercher
Accéder à la liste des chaînes
NL Zoeken
Toegang tot lijst met zenders
IT Trova
Accesso all'elenco dei canali
ES Buscar
Acceder a la lista de canales
PT Localizar
Aceder à lista de canais
RU Найти
Доступ к списку каналов
PL Znajdź
Dostęp do listy kanałów



EN Volume
Increase/ decrease the TV volume
DE Lautstärke
Erhöht/senkt die TV-Lautstärke
FR Volume
Augmente/baisse le volume sonore du téléviseur
NL Volume
Voor het verhogen/verlagen van het TV-volume
IT Volume
Alzare/abassare il volume del televisore
ES Volumen
Aumenta/disminuye el volumen del TV
PT Volume
Aumenta/disminui o volume do TV
RU Громкость
Повышение/понижение громкости звука телевизора
PL Głośność
Zwiększa/zmniejsza głośność



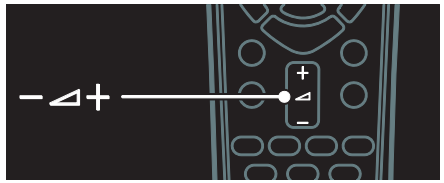
EN P ∧/∨
Select the TV channel
DE P ∧/∨
Wählt den TV-Kanal
FR P ∧/∨
Sélectionne le canal télévisé
NL P ∧/∨
Voor het kiezen van het TV-kanaal
IT P ∧/∨
Selezionare il canale TV
ES P ∧/∨
Selecciona el canal de televisión
PT P ∧/∨
Selecciona o canal de televiçao
RU P ∧/∨
Выбор телевизионного канала
PL P ∧/∨
Wybiera kanał telewizyjny

Specifications are subject to change without previous notice

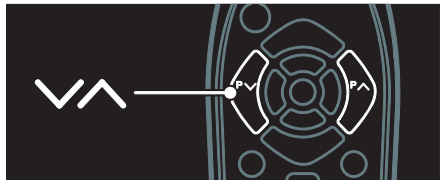
1 Get started

TV tour

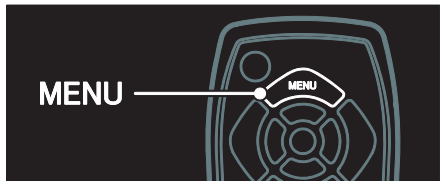
Remote control



To adjust the volume.



To switch TV channels.



To open or close the **Menu**.

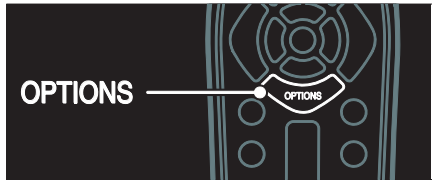
In the Menu, access connected devices, picture and sound settings, and other useful features.

To open or close the **Source menu**.

In the Source menu, access connected devices.

To open or close the **Find menu**.

In the Find menu, access the channel list.

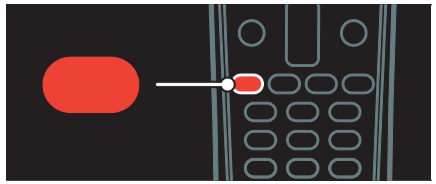


To open or close the **Options menu**.

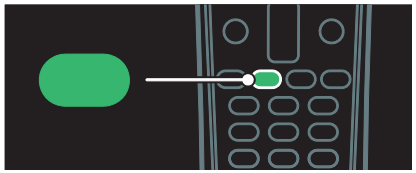
Options menus offer convenient settings for TV channels or programmes.

To return to the previous menu page.

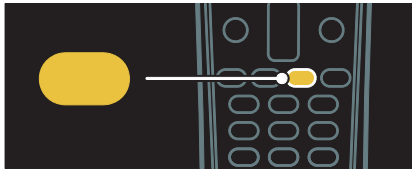
To exit from a menu or function.



To select a red menu option or watch TV demonstration clips.



To select a green menu option or to access energy efficient settings.

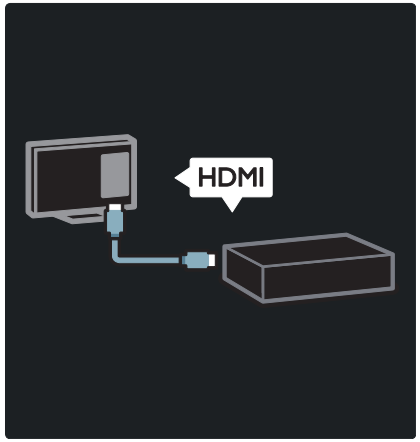


To select a yellow menu option or to access the electronic user manual.

Read more about the remote control in **Use your TV > Controls > Remote control** (Page 10).
Alternatively, look at the index in **Search for...**

Press ▲ to select the next TV tour.

Connect devices



For the best picture and sound quality, connect a DVD, Blu-ray disc player, or game console through HDMI (TM).

To watch a device, add it to the TV menu.

1. Press **MENU** > **[Add your devices]**.
2. Follow the onscreen instructions.

Note: If you are prompted to select the TV connection, select the connector that this device uses. See **Connect your TV > Connect devices** (Page 33) for information on connection.

If a Link operation or HDMI-Consumer Electronic Control (HDMI-CEC) compliant device is connected to the TV, it is automatically added to the TV menu when both devices are switched on.

To watch a connected device
1. Press **MENU**.
2. Select the newly added device icon.

REVISION LIST

1. Revision List

Manual :xxxxxxxxxxxx
First Edition

TECHNICAL SPECIFICATIONS, DIVERSITY AND CONNECTIONS

2. Technical Specifications, Diversity and Connections

Index of this chapter:

Notes:

- Figures can deviate due to the different set executions.
- Specifications are indicative (subject to change).

2.1 Technical Specifications

For on-line product support please use the CTN links in Table 2-1. Here is product information available, as well as getting started, user manuals, frequently asked questions and software & drivers.

Table 2-1 Described Model Numbers and Diversity

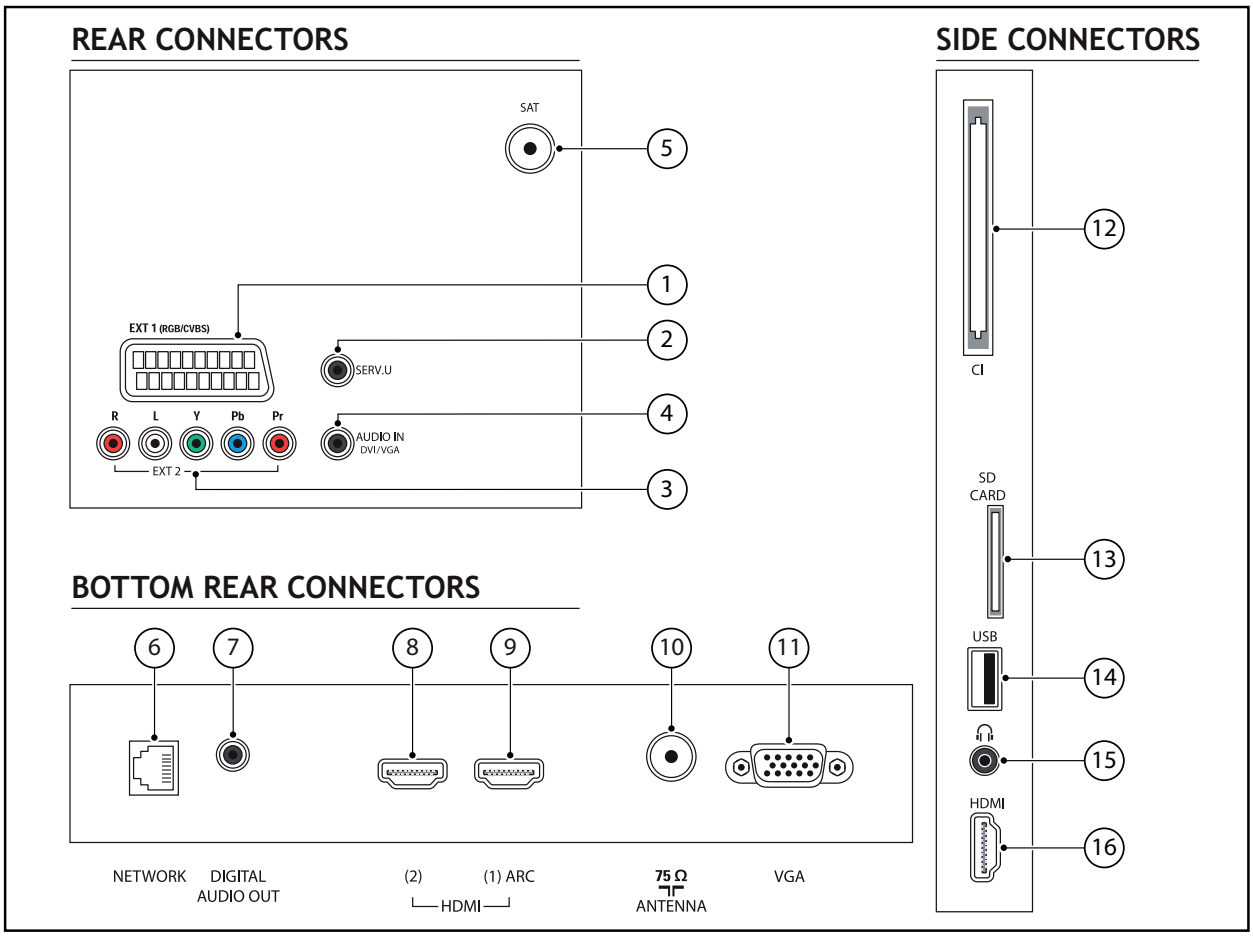
CTN	Cabinet & Mechanical Parts	SSB	2	4			7		9	10								
		PWB		Mechanics			Descript.			Schematics								
		3139 123 xxxxx	Conection Overview	Wiring Dressing	Assembly Removal	LCD Removal	PSU	B01 Tuner	Wiring Diagram	B02 (PNX85500)	B03 (DC/ / Class D)	B04 (I / O)	B05 (DDR)	B06 (DDR)	B07 (DVBS-Supp.) Only 632 Series.	B08 (DVBS-Supp.)	B09 (non-DVBS-conn.)	E (IR/LED/key Board)
LC-32L*630E/RU	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page
LC-32L*632E	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page
LC-40L*630E/RU	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page
LC-40L*632E	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page
LC-46L*630E/RU	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page
LC-46L*632E	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page

2.2 Directions for Use

You can download this information from the SHARP's Global Intranet site:
http://www.global.sharp.co.jp/
(Click on e-Service.)

Technical Specification, Diversity and Connections (continued)

2.3 Connections



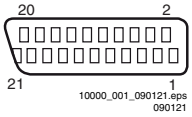
19100_043_110214.eps
110216

Figure 2-1 Connection overview

Note: The following connector colour abbreviations are used (acc. to DIN/IEC 757): Bk= Black, Bu= Blue, Gn= Green, Gy= Grey, Rd= Red, Wh= White, Ye= Yellow.

2.3.1 Rear Connections

1 - EXT1: Video RGB - In, CVBS - In/Out, Audio - In/Out



10000_001_090121.eps
090121

Figure 2-2 SCART connector

1	- Audio R	0.5 V_{RMS} / 1 kohm	⊖→
2	- Audio R	0.5 V_{RMS} / 10 kohm	→
3	- Audio L	0.5 V_{RMS} / 1 kohm	⊖→
4	- Ground Audio	Gnd	⏚
5	- Ground Blue	Gnd	⏚
6	- Audio L	0.5 V_{RMS} / 10 kohm	→
7	- Video Blue	0.7 V_{PP} / 75 ohm	⊖⊖→
8	- Function Select	0 - 2 V: INT	
		4.5 - 7 V: EXT 16:9	
		9.5 - 12 V: EXT 4:3	→
9	- Ground Green	Gnd	⏚
10	- n.c.		
11	- Video Green	0.7 V_{PP} / 75 ohm	→
12	- n.c.		
13	- Ground Red	Gnd	⏚
14	- Ground P50	Gnd	⏚
15	- Video Red	0.7 V_{PP} / 75 ohm	→
16	- Status/FBL	0 - 0.4 V: INT	
		1 - 3 V: EXT / 75 ohm	→
17	- Ground Video	Gnd	⏚
18	- Ground FBL	Gnd	⏚
19	- Video CVBS/Y	1 V_{PP} / 75 ohm	⊖→
20	- Video CVBS	1 V_{PP} / 75 ohm	→
21	- Shield	Gnd	⏚

2 - Service Connector (UART)

1	- Ground	Gnd	⏚
2	- UART_TX	Transmit	⊖→
3	- UART_RX	Receive	→

3 - EXT2: Cinch: Video YPbPr - In, Audio - In

Gn	- Video Y	1 V_{PP} / 75 ohm	→◎
Bu	- Video Pb	0.7 V_{PP} / 75 ohm	→◎
Rd	- Video Pr	0.7 V_{PP} / 75 ohm	→◎
Rd	- Audio - R	0.5 V_{RMS} / 10 kohm	→◎
Wh	- Audio - L	0.5 V_{RMS} / 10 kohm	→◎

4 - Cinch: Audio - In (VGA/DVI)

Rd	- Audio R	0.5 V_{RMS} / 10 kohm	→◎
Wh	- Audio L	0.5 V_{RMS} / 10 kohm	→◎

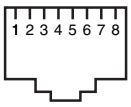
5 - SAT - In

-	- F-type	Coax, 75 ohm	⊤⊤

Technical Specification, Diversity and Connections (continued)

2.3.2 Rear Connections - Bottom

6 - RJ45: Ethernet



10000_025_090121.eps
090121

Figure 2-3 Ethernet connector

1	- TD+	Transmit signal	⊖→
2	- TD-	Transmit signal	⊖→
3	- RD+	Receive signal	⊕→
4	- CT	Centre Tap: DC level fixation	
5	- CT	Centre Tap: DC level fixation	
6	- RD-	Receive signal	⊕→
7	- GND	Gnd	⏚
8	- GND	Gnd	⏚

7 - Cinch: S/PDIF - Out

Bk	- Coaxial	0.4 - 0.6V_{PP} / 75 ohm	⊖→◎

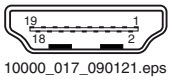
8 - HDMI 2: Digital Video, Digital Audio - In

10000_017_090121.eps
090428

Figure 2-4 HDMI (type A) connector

1	- D2+	Data channel	⊕→
2	- Shield	Gnd	⏚
3	- D2-	Data channel	⊕→
4	- D1+	Data channel	⊕→
5	- Shield	Gnd	⏚
6	- D1-	Data channel	⊕→
7	- D0+	Data channel	⊕→
8	- Shield	Gnd	⏚
9	- D0-	Data channel	⊕→
10	- CLK+	Data channel	⊕→
11	- Shield	Gnd	⏚
12	- CLK-	Data channel	⊕→
13	- Easylink/CEC	Control channel	⊕⊖→
14	- n.c.		
15	- DDC_SCL	DDC clock	⊕→
16	- DDC_SDA	DDC data	⊕⊖→
17	- Ground	Gnd	⏚
18	- +5V		⊕→
19	- HPD	Hot Plug Detect	⊕→
20	- Ground	Gnd	⏚

9 - HDMI 1: Digital Video - In, Digital Audio with ARC - In/ Out



10000_017_090121.eps
090428

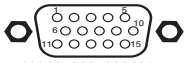
Figure 2-5 HDMI (type A) connector

1	- D2+	Data channel	⊕→
2	- Shield	Gnd	⏚
3	- D2-	Data channel	⊕→
4	- D1+	Data channel	⊕→
5	- Shield	Gnd	⏚
6	- D1-	Data channel	⊕→
7	- D0+	Data channel	⊕→
8	- Shield	Gnd	⏚
9	- D0-	Data channel	⊕→
10	- CLK+	Data channel	⊕→
11	- Shield	Gnd	⏚
12	- CLK-	Data channel	⊕→
13	- Easylink/CEC	Control channel	⊕⊖→
14	- ARC	Audio Return Channel	⊖→
15	- DDC_SCL	DDC clock	⊕→
16	- DDC_SDA	DDC data	⊕⊖→
17	- Ground	Gnd	⏚
18	- +5V		⊕→
19	- HPD	Hot Plug Detect	⊕→
20	- Ground	Gnd	⏚

10 - Aerial - In

-	- IEC-type (EU)	Coax, 75 ohm	⊓⊓

11 - VGA: Video RGB - In



10000_002_090121.eps
090127

Figure 2-6 VGA Connector

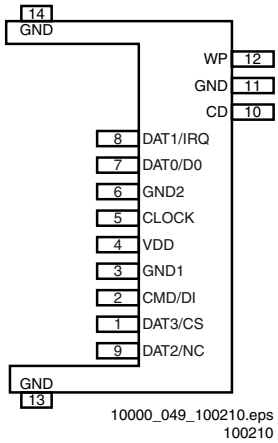
1	- Video Red	0.7 V_{PP} / 75 ohm	⊕→
2	- Video Green	0.7 V_{PP} / 75 ohm	⊕→
3	- Video Blue	0.7 V_{PP} / 75 ohm	⊕→
4	- n.c.		
5	- Ground	Gnd	⏚
6	- Ground Red	Gnd	⏚
7	- Ground Green	Gnd	⏚
8	- Ground Blue	Gnd	⏚
9	- +5V_{DC}	+5 V	⊕→
10	- Ground Sync	Gnd	⏚
11	- n.c.		
12	- DDC_SDA	DDC data	⊕→
13	- H-sync	0 - 5 V	⊕→
14	- V-sync	0 - 5 V	⊕→
15	- DDC_SCL	DDC clock	⊕→

2.3.3 Side Connections

12 - Common Interface

68p	- See diagram B01A Common Interface		⊕⊖→

13 - SD-Card: Secure Digital Card - In/Out (optional)



10000_049_100210.eps
100210

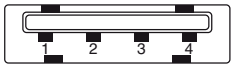
Figure 2-7 SD-Card connector

1	- DAT3/CS	Signal	⊕⊖→
2	- CMD/DI	Signal	⊖→
3	- GND1	Gnd	⏚
4	- Vdd	Supply	⊖→
5	- CLOCK	Signal	⊖→
6	- GND2	Gnd	⏚
7	- DAT0/D0	Signal	⊕⊖→
8	- DAT1/IRQ	Signal	⊕⊖→
9	- DAT2/NC	Signal	⊕⊖→
10	- CD	Signal	⊕→
11	- GND	Gnd	⏚

Technical Specification, Diversity and Connections (continued)

12	- WP	Signal	
13	- GND	Gnd	
14	- GND	Gnd	

14 - USB2.0



10000_022_090121.eps
090121

Figure 2-8 USB (type A)

1	- +5V		
2	- Data (-)		
3	- Data (+)		
4	- Ground	Gnd	

15 - Head phone (Output)

Bk	- Head phone	32 - 600 ohm / 10 mW	

16 - HDMI : Digital Video, Digital Audio - In

See 8 - HDMI 2: Digital Video, Digital Audio - In

2.4 Chassis Overview

Refer to chapter Block Diagrams for PWB/CBA locations.

PRECAUTIONS, NOTES AND ABBREVIATION LIST

3. Precautions, Notes and Abbreviation List

Index of this chapter:

3.1 Safety Instructions

Safety regulations require the following **during** a repair:

- Connect the set to the Mains/AC Power via an isolation transformer (> 800 VA).
- Replace safety components, indicated by the symbol ⚠, only by components identical to the original ones. Any other component substitution (other than original type) may increase risk of fire or electrical shock hazard.

Safety regulations require that **after** a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the Mains/AC Power lead for external damage.
- Check the strain relief of the Mains/AC Power cord for proper function.
- Check the electrical DC resistance between the Mains/AC Power plug and the secondary side (only for sets that have a Mains/AC Power isolated power supply):
  1. Unplug the Mains/AC Power cord and connect a wire between the two pins of the Mains/AC Power plug.
  2. Set the Mains/AC Power switch to the “on” position (keep the Mains/AC Power cord unplugged!).
  3. Measure the resistance value between the pins of the Mains/AC Power plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be between 4.5 MΩ and 12 MΩ.
  4. Switch “off” the set, and remove the wire between the two pins of the Mains/AC Power plug.
- Check the cabinet for defects, to prevent touching of any inner parts by the customer.

3.2 Warnings

- All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. Make sure that, during repair, you are connected with the same potential as the mass of the set by a wristband with resistance. Keep components and tools also at this same potential.
- Be careful during measurements in the high voltage section.
- Never replace modules or other components while the unit is switched “on”.
- When you align the set, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

3.3 Notes

3.3.1 General

- Measure the voltages and waveforms with regard to the chassis (= tuner) ground (⏚), or hot ground (⏚), depending on the tested area of circuitry. The voltages and waveforms shown in the diagrams are indicative. Measure them in the Service Default Mode with a colour bar signal and stereo sound (L: 3 kHz, R: 1 kHz unless stated otherwise) and picture carrier at 475.25 MHz for PAL, or 61.25 MHz for NTSC (channel 3).
- Where necessary, measure the waveforms and voltages with (⊓) and without (⊼) aerial signal. Measure the voltages in the power supply section both in normal operation (⏻) and in stand-by (⏻). These values are indicated by means of the appropriate symbols.

3.3.2 Schematic Notes

- All resistor values are in ohms, and the value multiplier is often used to indicate the decimal point location (e.g. 2K2 indicates 2.2 kΩ).
- Resistor values with no multiplier may be indicated with either an “E” or an “R” (e.g. 220E or 220R indicates 220 Ω).
- All capacitor values are given in micro-farads ($\mu = \times 10^{-6}$), nano-farads ($n = \times 10^{-9}$), or pico-farads ($p = \times 10^{-12}$).
- Capacitor values may also use the value multiplier as the decimal point indication (e.g. 2p2 indicates 2.2 pF).
- An “asterisk” (*) indicates component usage varies. Refer to the diversity tables for the correct values.

3.3.3 Spare Parts

For the latest spare part overview, consult the Spare Part at the end of this document.

3.3.5 Lead-free Soldering

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free soldering tin. If lead-free solder paste is required, please contact the manufacturer of your soldering equipment. In general, use of solder paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free soldering tin. The solder tool must be able:
  – To reach a solder-tip temperature of at least 400°C.
  – To stabilize the adjusted temperature at the solder-tip.
  – To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature of around 360°C - 380°C is reached and stabilized at the solder joint. Heating time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C, otherwise wear-out of tips will increase drastically and flux-fluid will be destroyed. To avoid wear-out of tips, switch “off” unused equipment or reduce heat.
- Mix of lead-free soldering tin/parts with leaded soldering tin/parts is possible but SHARP recommends strongly **to avoid** mixed regimes. If this cannot be avoided, carefully clear the solder-joint from old tin and re-solder with new tin.

Precautions, Notes and Abrreviattion List (continued)

3.3.7 Board Level Repair (BLR) or Component Level Repair (CLR)

If a board is defective, consult your repair procedure to decide if the board has to be exchanged or if it should be repaired on component level.
If your repair procedure says the board should be exchanged completely, do not solder on the defective board. Otherwise, it cannot be returned to the O.E.M. supplier for back charging!

3.3.8 Practical Service Precautions

- **It makes sense to avoid exposure to electrical shock.** While some sources are expected to have a possible dangerous impact, others of quite high potential are of limited current and are sometimes held in less regard.
- **Always respect voltages**. While some may not be dangerous in themselves, they can cause unexpected reactions that are best avoided. Before reaching into a powered TV set, it is best to test the high voltage insulation. It is easy to do, and is a good service precaution.

3.4 Abbreviation List

0/6/12	SCART switch control signal on A/V board. 0 = loop through (AUX to TV), 6 = play 16 : 9 format, 12 = play 4 : 3 format
AARA	Automatic Aspect Ratio Adaptation: algorithm that adapts aspect ratio to remove horizontal black bars; keeps the original aspect ratio
ACI	Automatic Channel Installation: algorithm that installs TV channels directly from a cable network by means of a predefined TXT page
ADC	Analogue to Digital Converter
AFC	Automatic Frequency Control: control signal used to tune to the correct frequency
AGC	Automatic Gain Control: algorithm that controls the video input of the feature box
AM	Amplitude Modulation
AP	Asia Pacific
AR	Aspect Ratio: 4 by 3 or 16 by 9
ASF	Auto Screen Fit: algorithm that adapts aspect ratio to remove horizontal black bars without discarding video information
ATSC	Advanced Television Systems Committee, the digital TV standard in the USA
ATV	See Auto TV
Auto TV	A hardware and software control system that measures picture content, and adapts image parameters in a dynamic way
AV	External Audio Video
AVC	Audio Video Controller
AVIP	Audio Video Input Processor
B/G	Monochrome TV system. Sound carrier distance is 5.5 MHz
BDS	Business Display Solutions (iTV)
BLR	Board-Level Repair
BTSC	Broadcast Television Standard Committee. Multiplex FM stereo sound system, originating from the USA and used e.g. in LATAM and AP-NTSC countries
B-TXT	Blue TeleteXT
C	Centre channel (audio)
CEC	Consumer Electronics Control bus: remote control bus on HDMI connections
CL	Constant Level: audio output to connect with an external amplifier
CLR	Component Level Repair
CP	Connected Planet / Copy Protection
CSM	Customer Service Mode
CTI	Color Transient Improvement: manipulates steepness of chroma transients
CVBS	Composite Video Blanking and Synchronization
DAC	Digital to Analogue Converter
DBE	Dynamic Bass Enhancement: extra low frequency amplification
DCM	Data Communication Module. Also referred to as System Card or Smartcard (for iTV).
DDC	See “E-DDC”
D/K	Monochrome TV system. Sound carrier distance is 6.5 MHz
DFI	Dynamic Frame Insertion

Precautions, Notes and Abrreviattion List (continued)

DFU	Directions For Use: owner's manual
DMR	Digital Media Reader: card reader
DMSD	Digital Multi Standard Decoding
DNM	Digital Natural Motion
DNR	Digital Noise Reduction: noise reduction feature of the set
DRAM	Dynamic RAM
DRM	Digital Rights Management
DSP	Digital Signal Processing
DST	Dealer Service Tool: special remote control designed for service technicians
DTCP	Digital Transmission Content Protection; A protocol for protecting digital audio/video content that is traversing a high speed serial bus, such as IEEE-1394
DVB-C	Digital Video Broadcast - Cable
DVB-T	Digital Video Broadcast - Terrestrial
DVD	Digital Versatile Disc
DVI(-d)	Digital Visual Interface (d= digital only)
E-DDC	Enhanced Display Data Channel (VESA standard for communication channel and display). Using E-DDC, the video source can read the EDID information form the display.
EDID	Extended Display Identification Data (VESA standard)
EEPROM	Electrically Erasable and Programmable Read Only Memory
EMI	Electro Magnetic Interference
EPG	Electronic Program Guide
EPLD	Erasable Programmable Logic Device
EU	Europe
EXT	EXTernal (source), entering the set by SCART or by cinches (jacks)
FDS	Full Dual Screen (same as FDW)
FDW	Full Dual Window (same as FDS)
FLASH	FLASH memory
FM	Field Memory or Frequency Modulation
FPGA	Field-Programmable Gate Array
FTV	Flat TeleVision
Gb/s	Giga bits per second
G-TXT	Green TeleteXT
H	H_sync to the module
HD	High Definition
HDD	Hard Disk Drive
HDCP	High-bandwidth Digital Content Protection: A “key” encoded into the HDMI/DVI signal that prevents video data piracy. If a source is HDCP coded and connected via HDMI/DVI without the proper HDCP decoding, the picture is put into a “snow vision” mode or changed to a low resolution. For normal content distribution the source and the display device must be enabled for HDCP “software key” decoding.
HDMI	High Definition Multimedia Interface
HP	HeadPhone
I	Monochrome TV system. Sound carrier distance is 6.0 MHz
I^2C	Inter IC bus
I^2D	Inter IC Data bus
I^2S	Inter IC Sound bus
IF	Intermediate Frequency
IR	Infra Red
IRQ	Interrupt Request
ITU-656	The ITU Radio communication Sector (ITU-R) is a standards body subcommittee of the International Telecommunication Union relating to radio communication. ITU-656 (a.k.a. SDI), is a digitized video format used for broadcast grade video. Uncompressed digital component or digital composite signals can be used. The SDI signal is self-synchronizing, uses 8 bit or 10 bit data words, and has a maximum data rate of 270 Mbit/s, with a minimum bandwidth of 135 MHz.
ITV	Institutional TeleVision; TV sets for hotels, hospitals etc.
LS	Last Status; The settings last chosen by the customer and read and stored in RAM or in the NVM. They are called at start-up of the set to configure it according to the customer's preferences
LATAM	Latin America
LCD	Liquid Crystal Display
LED	Light Emitting Diode
L/L'	Monochrome TV system. Sound carrier distance is 6.5 MHz. L' is Band I, L is all bands except for Band I
LS	Loudspeaker
LVDS	Low Voltage Differential Signalling
Mbps	Mega bits per second
M/N	Monochrome TV system. Sound carrier distance is 4.5 MHz
MHEG	Part of a set of international standards related to the presentation of multimedia information, standardised by the Multimedia and Hypermedia Experts Group. It is commonly used as a language to describe interactive television services
MIPS	Microprocessor without Interlocked Pipeline-Stages; A RISC-based microprocessor
MOP	Matrix Output Processor
MOSFET	Metal Oxide Silicon Field Effect Transistor, switching device
MPEG	Motion Pictures Experts Group
MPIF	Multi Platform InterFace
MUTE	MUTE Line
MTV	Mainstream TV: TV-mode with Consumer TV features enabled (iTV)
NC	Not Connected
NICAM	Near Instantaneous Compounded Audio Multiplexing. This is a digital sound system, mainly used in Europe.
NTC	Negative Temperature Coefficient, non-linear resistor
NTSC	National Television Standard Committee. Color system mainly used in North America and Japan. Color carrier NTSC M/N= 3.579545 MHz, NTSC 4.43= 4.433619 MHz (this is a VCR norm, it is not transmitted off-air)
NVM	Non-Volatile Memory: IC containing TV related data such as alignments
O/C	Open Circuit
OSD	On Screen Display
OAD	Over the Air Download. Method of software upgrade via RF transmission. Upgrade software is broadcasted in TS with TV channels.
OTC	On screen display Teletext and Control; also called Artistic (SAA5800)
P50	Project 50: communication protocol between TV and peripherals
PAL	Phase Alternating Line. Color system mainly used in West Europe (color carrier= 4.433619 MHz) and South America (color carrier PAL M=

Precautions, Notes and Abrreviattion List (continued)

	3.575612 MHz and PAL N= 3.582056 MHz)
PCB	Printed Circuit Board (same as “PWB”)
PCM	Pulse Code Modulation
PDP	Plasma Display Panel
PFC	Power Factor Corrector (or Pre-conditioner)
PIP	Picture In Picture
PLL	Phase Locked Loop. Used for e.g. FST tuning systems. The customer can give directly the desired frequency
POD	Point Of Deployment: a removable CAM module, implementing the CA system for a host (e.g. a TV-set)
POR	Power On Reset, signal to reset the uP
PSDL	Power Supply for Direct view LED backlight with 2D-dimming
PSL	Power Supply with integrated LED drivers
PSLS	Power Supply with integrated LED drivers with added Scanning functionality
PTC	Positive Temperature Coefficient, non-linear resistor
PWB	Printed Wiring Board (same as “PCB”)
PWM	Pulse Width Modulation
QRC	Quasi Resonant Converter
QTNR	Quality Temporal Noise Reduction
QVCP	Quality Video Composition Processor
RAM	Random Access Memory
RGB	Red, Green, and Blue. The primary color signals for TV. By mixing levels of R, G, and B, all colors (Y/C) are reproduced.
RC	Remote Control
RC5 / RC6	Signal protocol from the remote control receiver
RESET	RESET signal
ROM	Read Only Memory
RSDS	Reduced Swing Differential Signalling data interface
R-TXT	Red TeleteXT
SAM	Service Alignment Mode
S/C	Short Circuit
SCART	Syndicat des Constructeurs d'Appareils Radiorécepteurs et Téléviseurs
SCL	Serial Clock I^2C
SCL-F	CLock Signal on Fast I^2C bus
SD	Standard Definition
SDA	Serial Data I^2C
SDA-F	DAta Signal on Fast I^2C bus
SDI	Serial Digital Interface, see “ITU-656”
SDRAM	Synchronous DRAM
SECAM	SEequence Couleur Avec Mémoire. Color system mainly used in France and East Europe. Color carriers= 4.406250 MHz and 4.250000 MHz
SIF	Sound Intermediate Frequency
SMPS	Switched Mode Power Supply
SoC	System on Chip
SOG	Sync On Green
SOPS	Self Oscillating Power Supply
SPI	Serial Peripheral Interface bus; a 4-wire synchronous serial data link standard
S/PDIF	Sony Philips Digital InterFace
SRAM	Static RAM
SRP	Service Reference Protocol
SSB	Small Signal Board
SSC	Spread Spectrum Clocking, used to reduce the effects of EMI
STB	Set Top Box
STBY	STand-BY
SVGA	800 × 600 (4:3)
SVHS	Super Video Home System
SW	Software
SWAN	Spatial temporal Weighted Averaging Noise reduction
SXGA	1280 × 1024
TFT	Thin Film Transistor
THD	Total Harmonic Distortion
TMDS	Transmission Minimized Differential Signalling
TS	Transport Stream
TXT	TeleteXT
TXT-DW	Dual Window with TeleteXT
UI	User Interface
uP	Microprocessor
UXGA	1600 × 1200 (4:3)
V	V-sync to the module
VESA	Video Electronics Standards Association
VGA	640 × 480 (4:3)
VL	Variable Level out: processed audio output toward external amplifier
VSB	Vestigial Side Band; modulation method
WYSIWYR	What You See Is What You Record: record selection that follows main picture and sound
WXGA	1280 × 768 (15:9)
XTAL	Quartz crystal
XGA	1024 × 768 (4:3)
Y	Luminance signal
Y/C	Luminance (Y) and Chrominance (C) signal
YPbPr	Component video. Luminance and scaled color difference signals (B-Y and R-Y)
YUV	Component video

MECHANICAL INSTRUCTIONS

4. Mechanical Instructions

Index of this chapter:

Notes:

- Figures below can deviate slightly from the actual situation, due to the different set executions.

4.1 Cable Dressing LC-xx63xE/RU series Styling

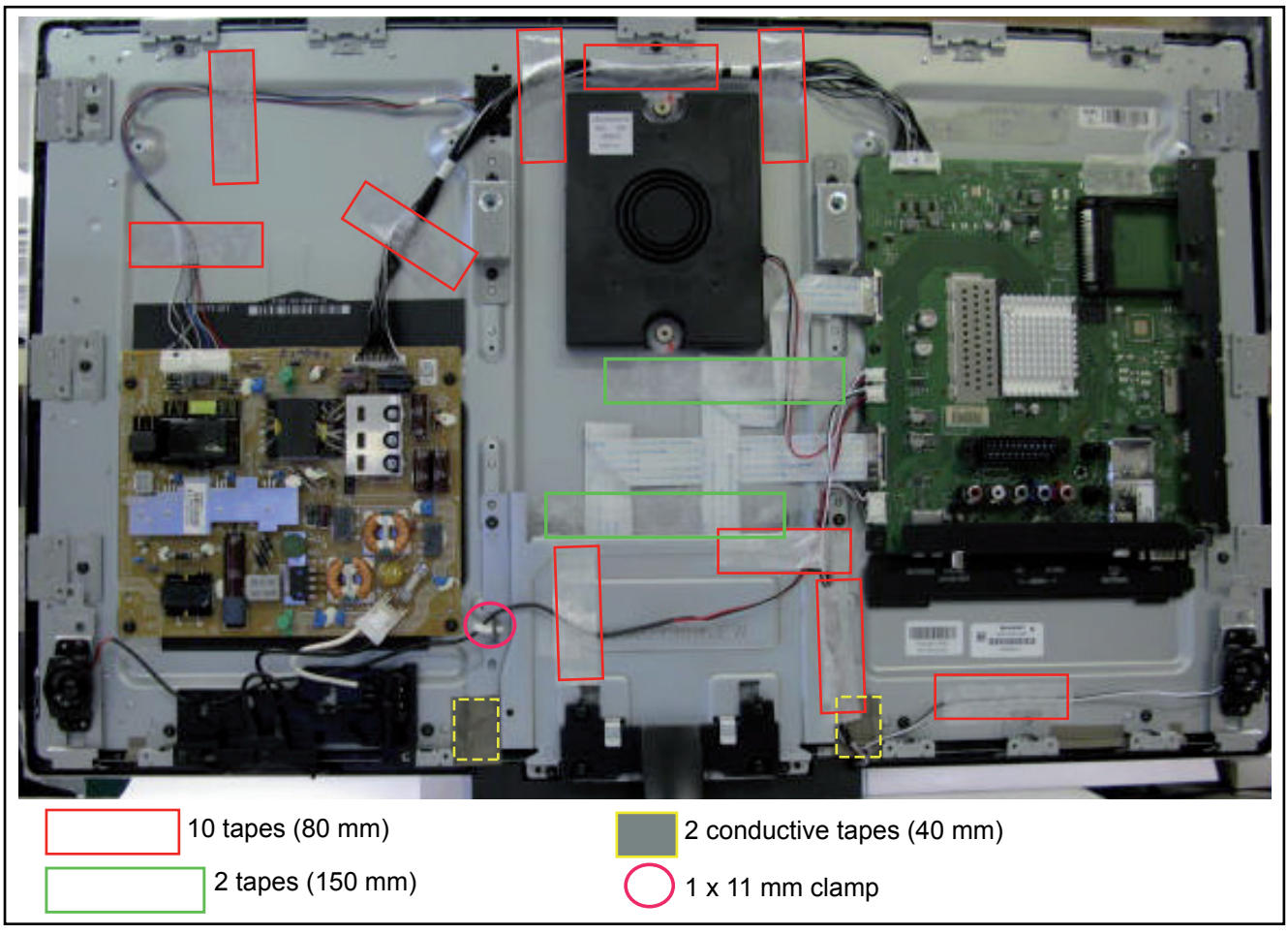


Figure 4-1 Cable dressing LC-32LE63x Series

Mechanical Instructions (continued)

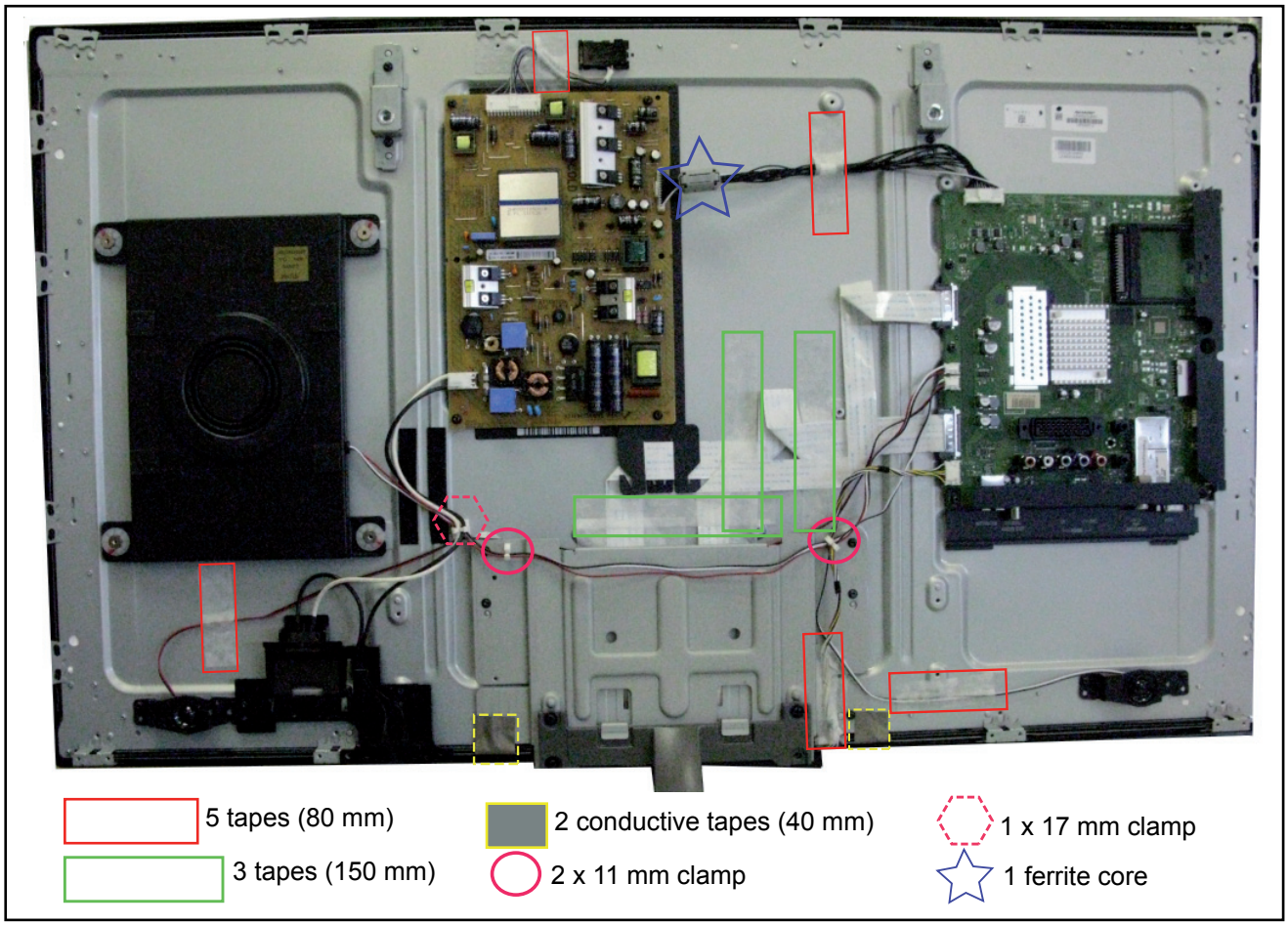


Figure 4-2 Cable dressing LC-40/46LE63x series

4.2 Service Positions

For easy servicing of a TV set, the set should be put face down on a soft flat surface, foam buffers or other specific workshop tools. Ensure that a stable situation is created to perform measurements and alignments. When using foam bars take care that these always support the cabinet and **never** only the display. **Caution:** Failure to follow these guidelines can seriously damage the display!
Ensure that ESD safe measures are taken.

4.3 Assy/Panel Removal Sundance Styling (LC-xxLE63xE/RU series)

The instructions in this section also apply to the LC-xxLE63xE/RU series.

For the 40" and 46" sets, additional instructions (rear cover removal) apply. Refer to subsection **Additional instructions for 40/46LE63xE/RU** and **Removing of Major Parts.**

The instructions apply to the 32LE63xE/RU.

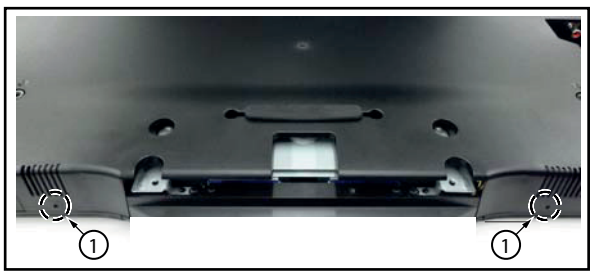
4.3.1 Rear Cover

Warning: Disconnect the mains power cord before you remove the rear cover.
Note: it is **not** necessary to remove the stand while removing the rear cover.

1. Remove all screws of the rear cover.
2. Lift the rear cover from the TV. Make sure that wires and flat coils are not damaged while lifting the rear cover from the set.

   Additional instructions for 40/46LE63xE/RU sets have a dedicated method to open the bottom catches when removing the rear cover.

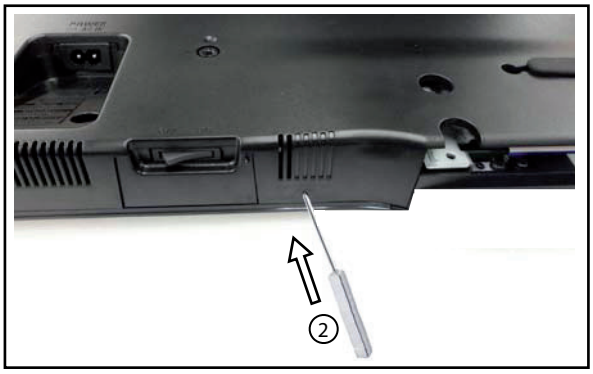
Refer to Figure 4-4 and Figure 4-5 for details.



19100_04 8_110216.eps
110315

Figure 4-4 Bottom catches 40" and 46" sets -1-

Mechanical Instructions (continued)



19100_049_110216.eps
110315

Figure 4-5 Bottom catches 40" and 46" sets -2-

It is advised to lay the set with front facing down before executing this operation.

1. Remove all screws from the rear cover.
2. Use a round rod (diameter 2 mm) and insert it in one of the holes [1].
3. Push the catch located inside the rear cover away by inserting the rod [2] through the hole and lifting the rear cover at the same time.
4. Repeat the same procedure on the other hole.

4.3.2 Speakers

Tweeters

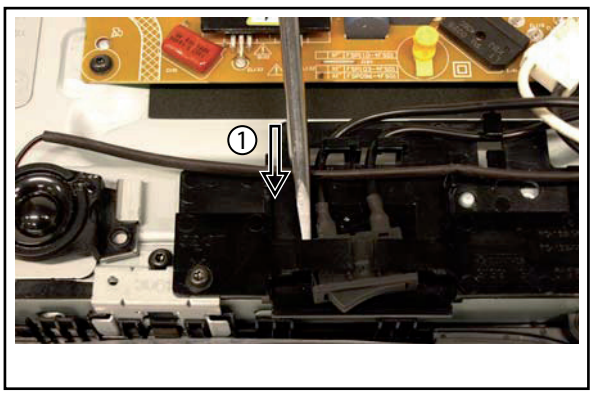
Each tweeter unit is mounted with one screw.
When defective, replace the whole unit.

Subwoofer

The central subwoofer is located in the centre of the set and is secured by two bosses.
When defective, replace the whole unit.

4.3.3 Mains Switch

Refer to Figure 4-6 for details.



19100_047_110216.eps
110315

Figure 4-6 Mains switch

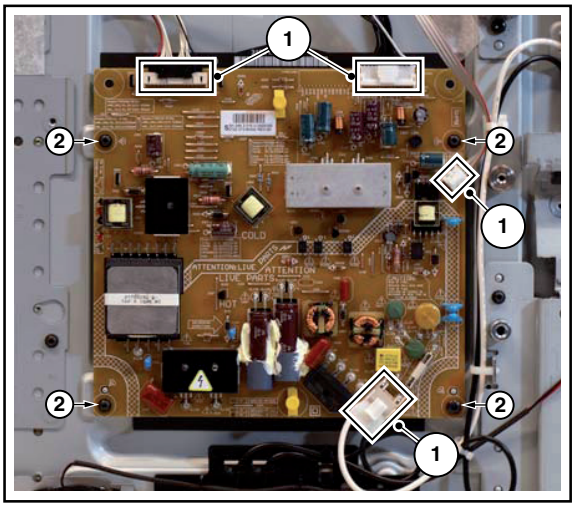
The mains switch is mounted on a plastic subframe and can be removed without removing the subframe.

1. Use a screwdriver and push the switch out of its casing [1].
2. Unplug the connectors [2].

When defective, replace the whole unit.

4.3.4 Main Power Supply

Refer to Figure 4-7 for details.



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110216

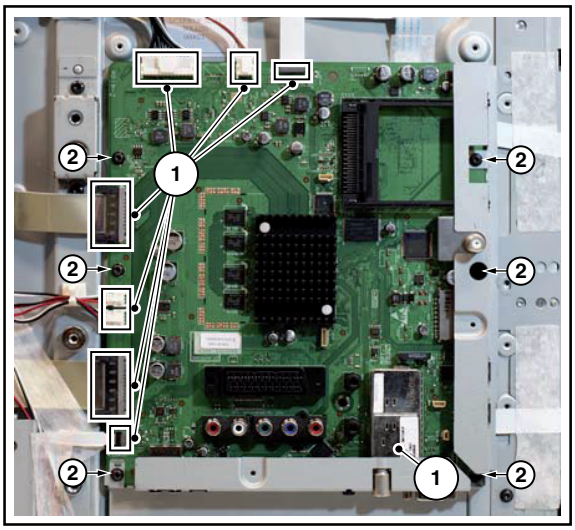
Figure 4-7 Main Power Supply

1. Unplug all connectors [1].
2. Remove the fixation screws [2].
3. Take the board out.

When defective, replace the whole unit.

4.3.5 Small Signal Board (SSB)

Refer to Figure 4-8 for details.



19100_051_110216.eps
110216

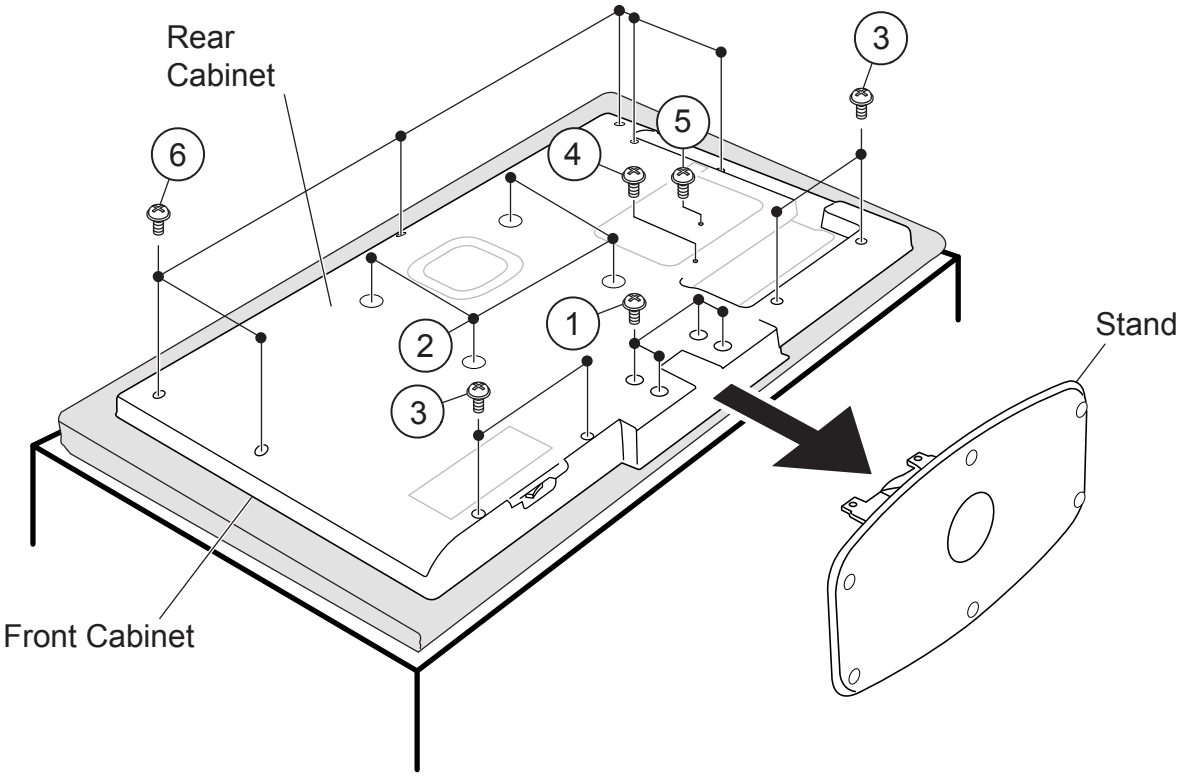
Figure 4-8 SSB

1. Unplug all connectors [1].
2. Remove the fixation screws [2].
3. Take the board out.

When remounting, ensure that the side shielding is positioned correctly.

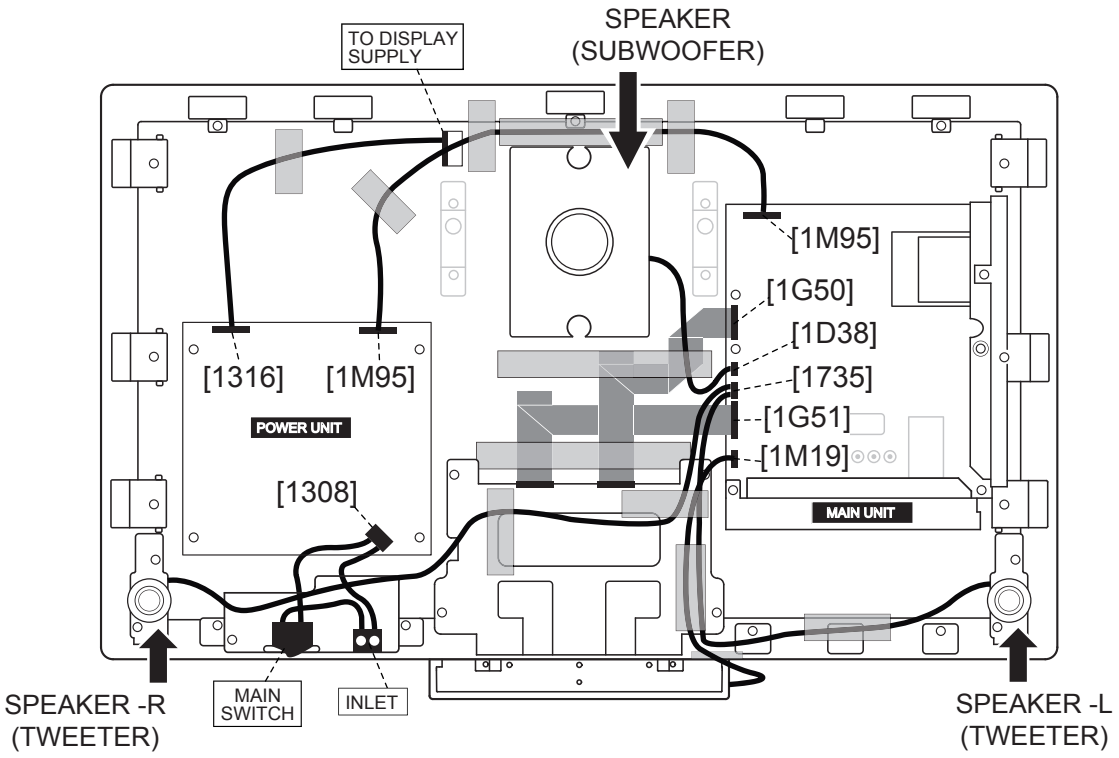
4.3.7 Removing of major Parts 32”

1. Remove the 4 lock screws ① and detach the Stand.
2. Remove the 4 screw hole plugs ② .
3. Remove the 4 lock screws ③, 1 lock screw ④ , 1 lock screw ⑤, 6 lock screws ⑥ and detach the Rear Cabinet.



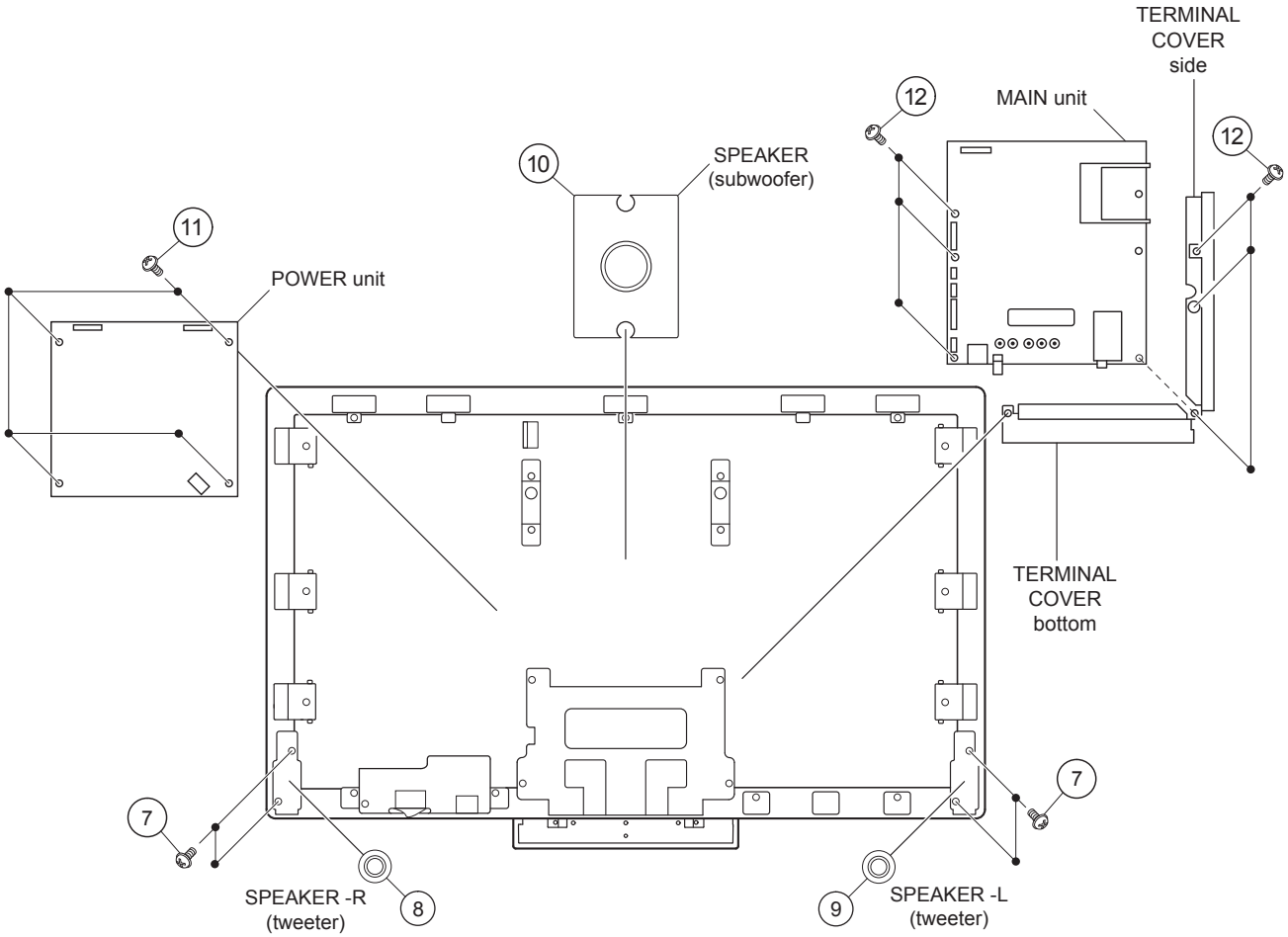
4.3.7 Removing of major Parts 32" (Continued)

4. Disconnect all the connectors from all the PWBs.



4.3.7 Removing of major Parts 32” (Continued)

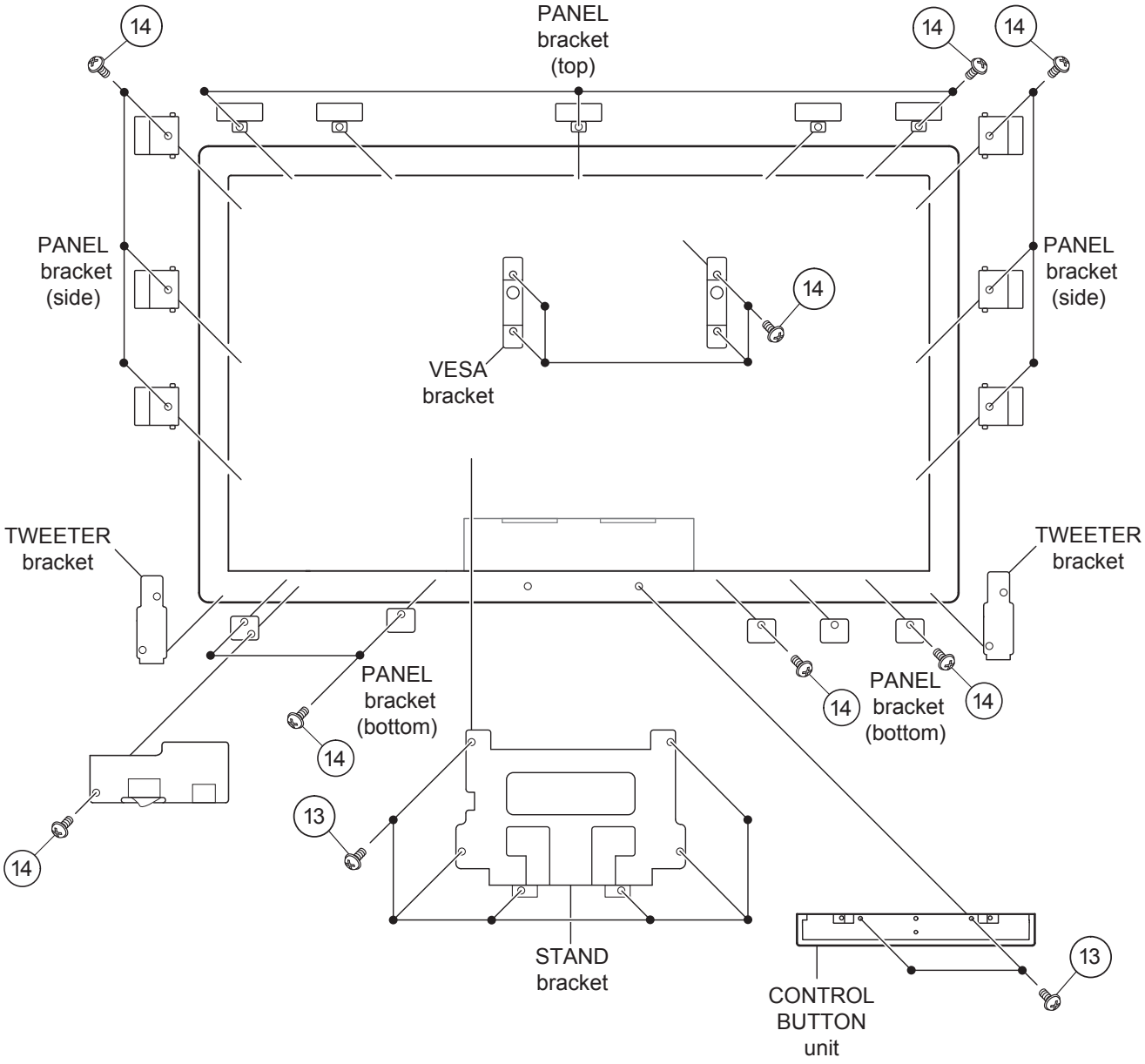
5. Remove the 4 lock screws ⑦ and detach the SPEAKER (tweeters) (R) ⑧, (L) ⑨.
6. Remove the SPEAKER (subwoofer) ⑩,
7. Remove the 4 lock screws ⑪, and detach the POWER unit.
8. Remove the 6 lock screws ⑫ and detach the TERMINAL COVER side, bottom and the MAIN unit.



4.3.7 Removing of major Parts 32” (Continued)

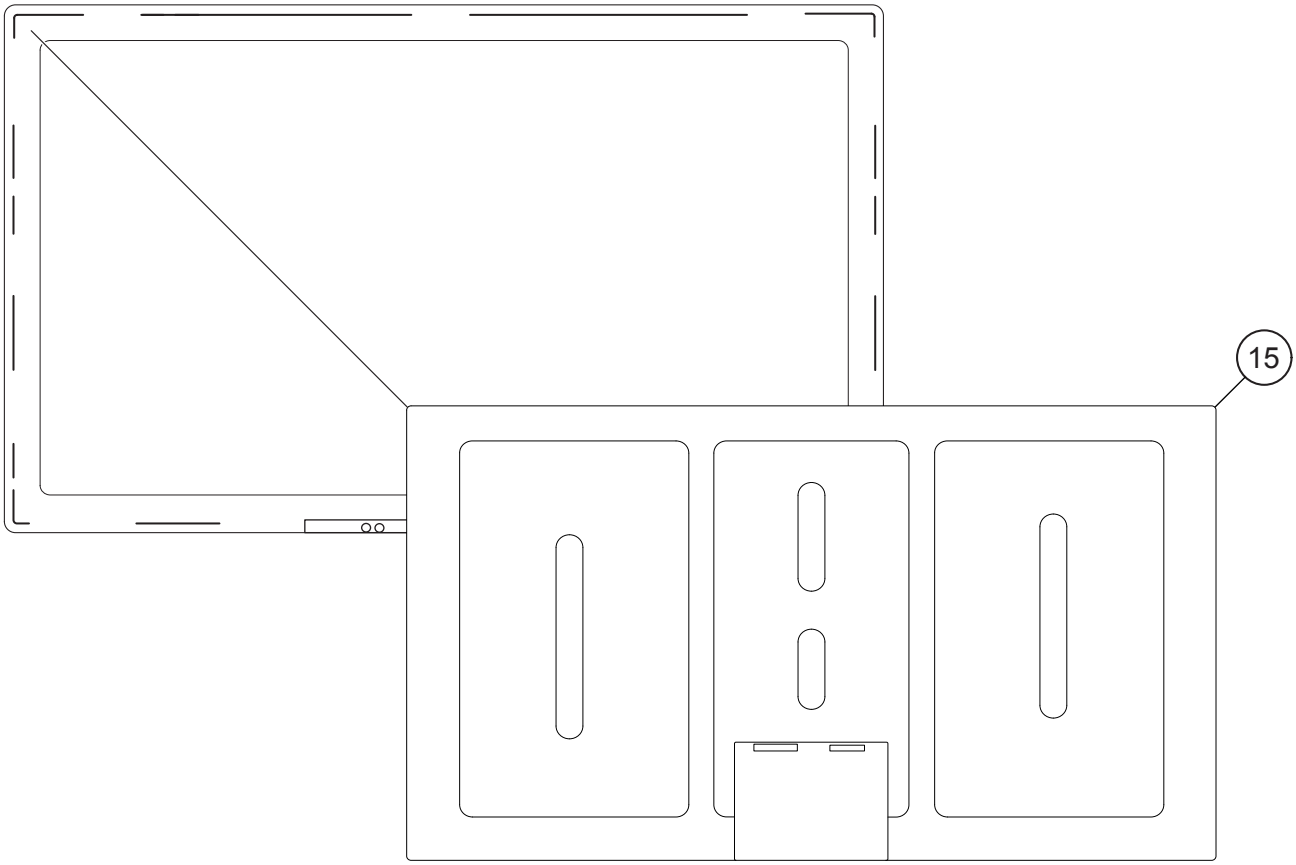
9. Remove the 8 lock screws ⑬ and detach the STAND bracket and the CONTROL BUTTON unit.

10. Remove the 18 lock screws ⑭ and detach the PANEL brackets top/side and bottom, VESA brackets and TWEETER brackets.



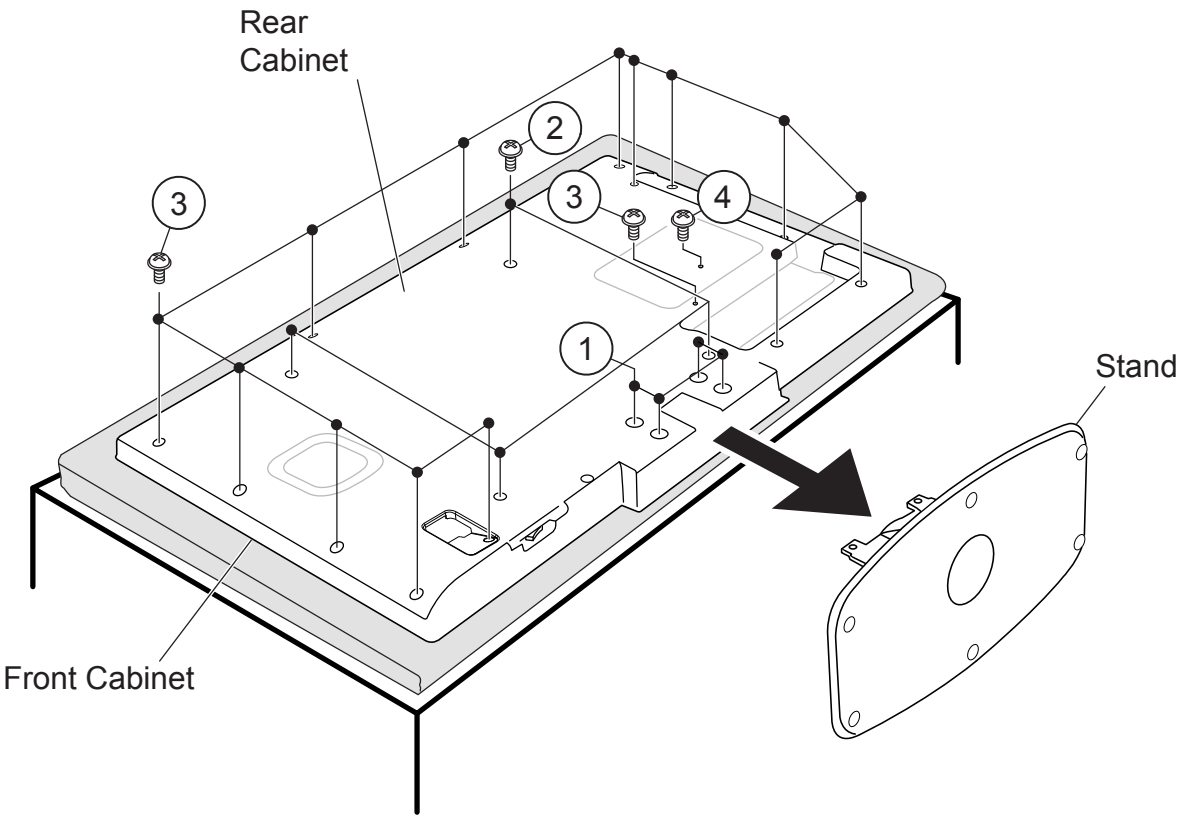
4.3.7 Removing of major Parts 32” (Continued)

11. Detach the PANEL ⑮.



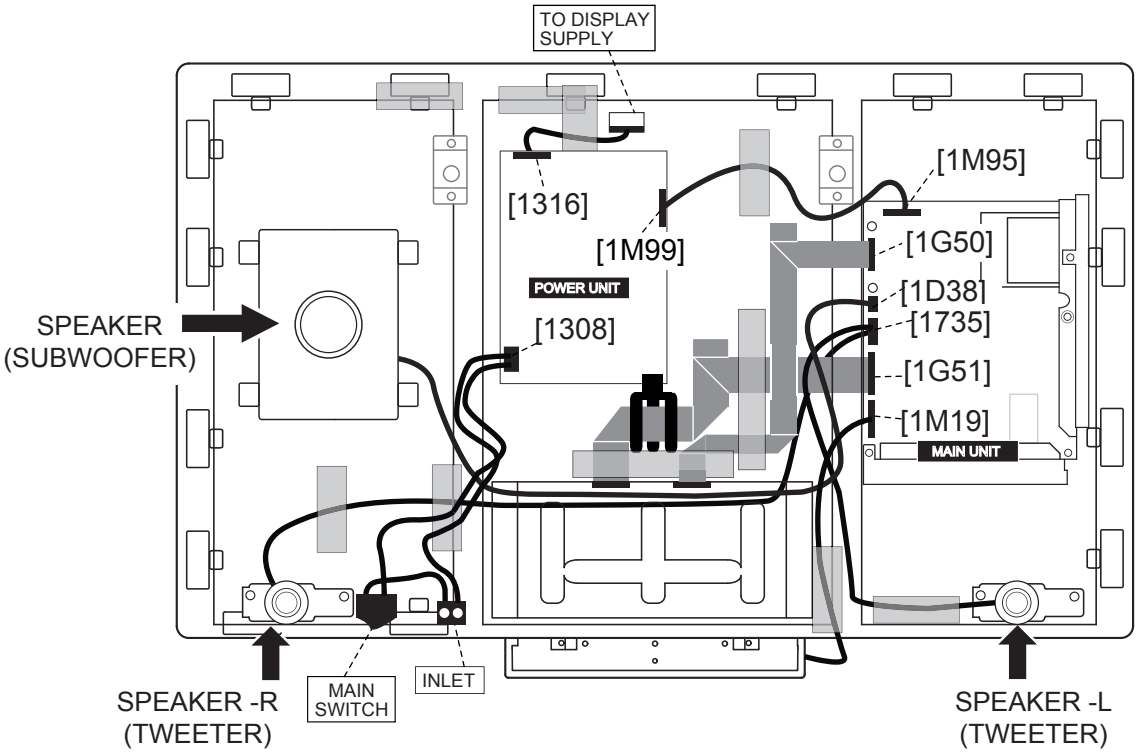
4.3.8 Removing of major Parts 40”

1. Remove the 4 lock screws ① and detach the Stand.
2. Remove the 4 screw hole plugs ② .
3. Remove the 14 lock screws ③, 1 lock screw ④ and detach the Rear Cabinet.



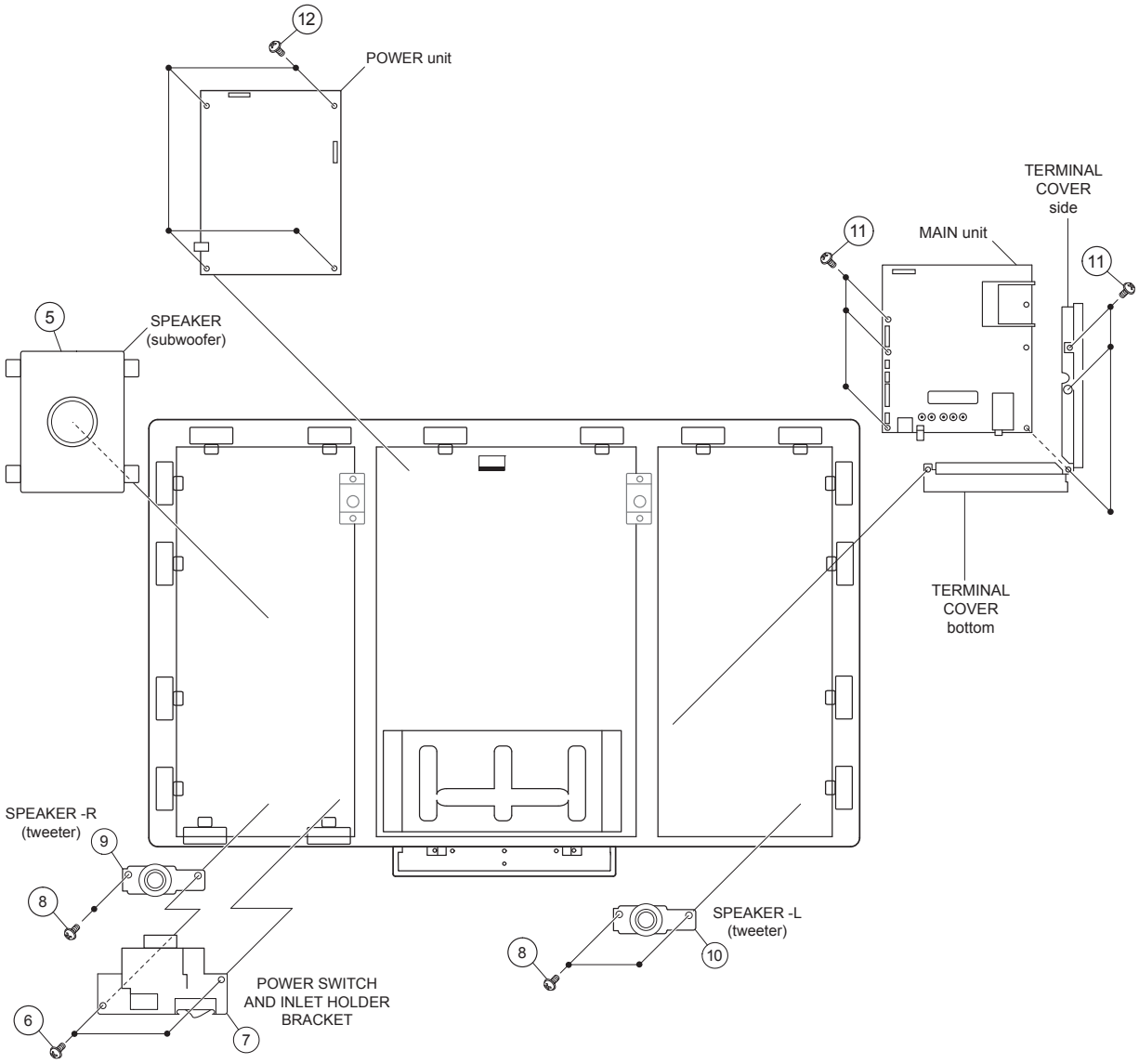
4.3.8 Removing of major Parts 40" (Continued)

4. Disconnect all the connectors from all the PWBs.



4.3.8 Removing of major Parts 40” (Continued)

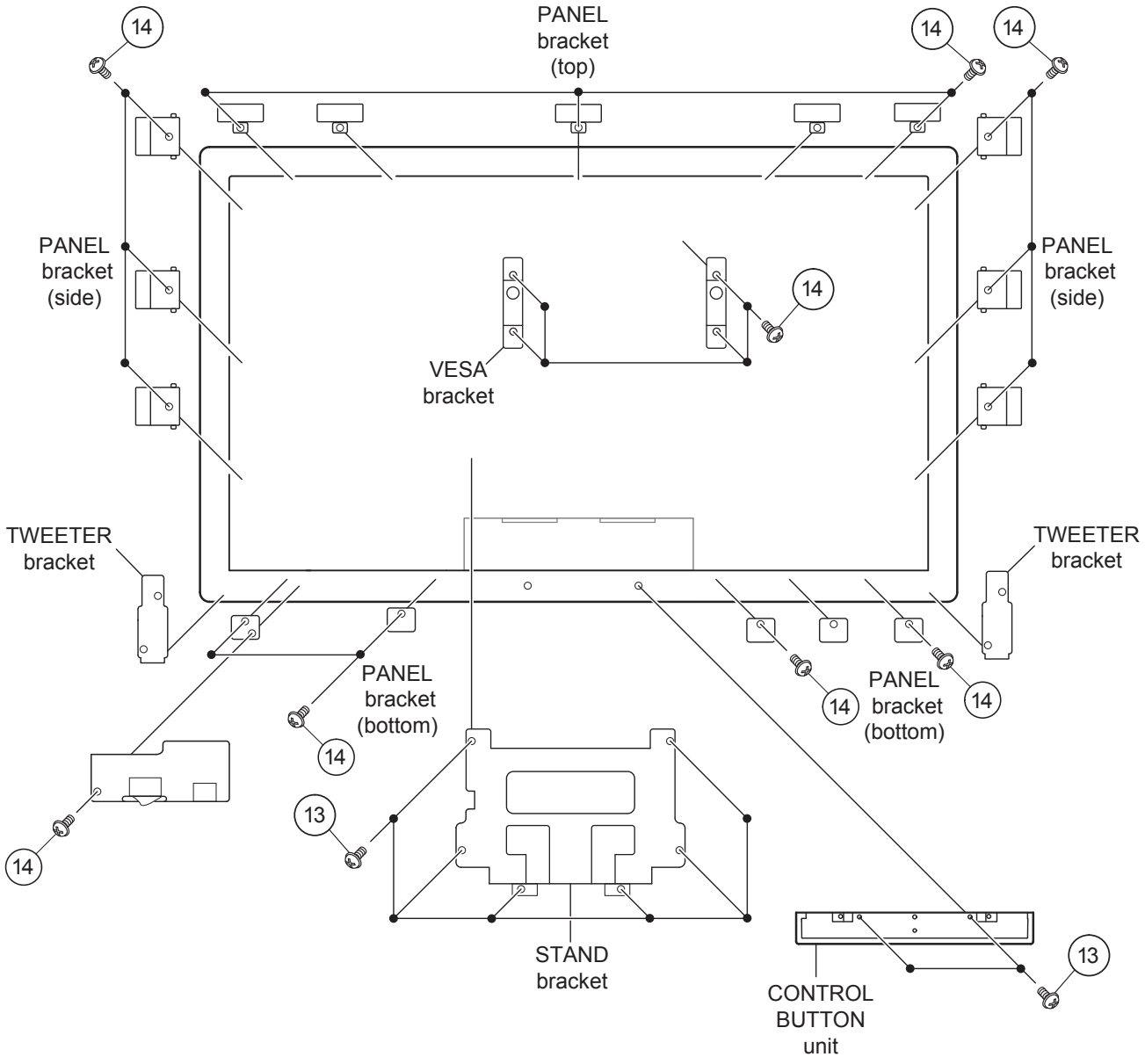
5. Remove the SPEAKER (subwoofer) ⑤.
6. Remove the 2 lock screws ⑥ and detach the POWER SWITCH and INLET HOLDER BRACKET ⑦.
7. Remove the 3 lock screws ⑧, and detach the SPEAKER (tweeter) R ⑨ and SPEAKER (tweeter) L ⑩.
8. Remove the 6 lock screws ⑪ and detach the TERMINAL COVER side, bottom and the MAIN unit.
9. Remove the 4 lock screws ⑫ and detach the POWER UNIT.



4.3.8 Removing of major Parts 40” (Continued)

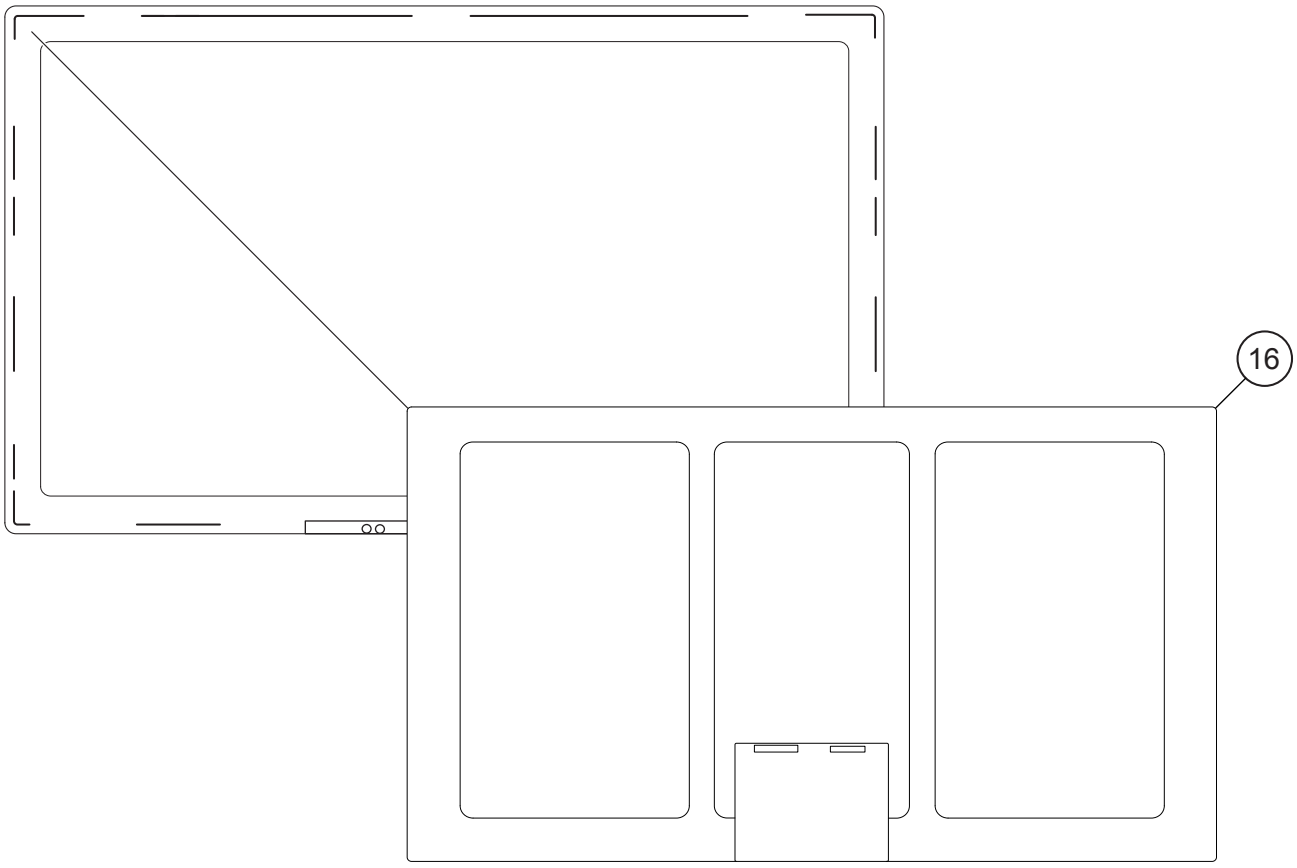
9. Remove the 8 lock screws ⑬ and detach the STAND bracket and the CONTROL BUTTON unit.

10. Remove the 18 lock screws ⑭ and detach the PANEL brackets top/side and bottom, VESA brackets and TWEETER brackets.



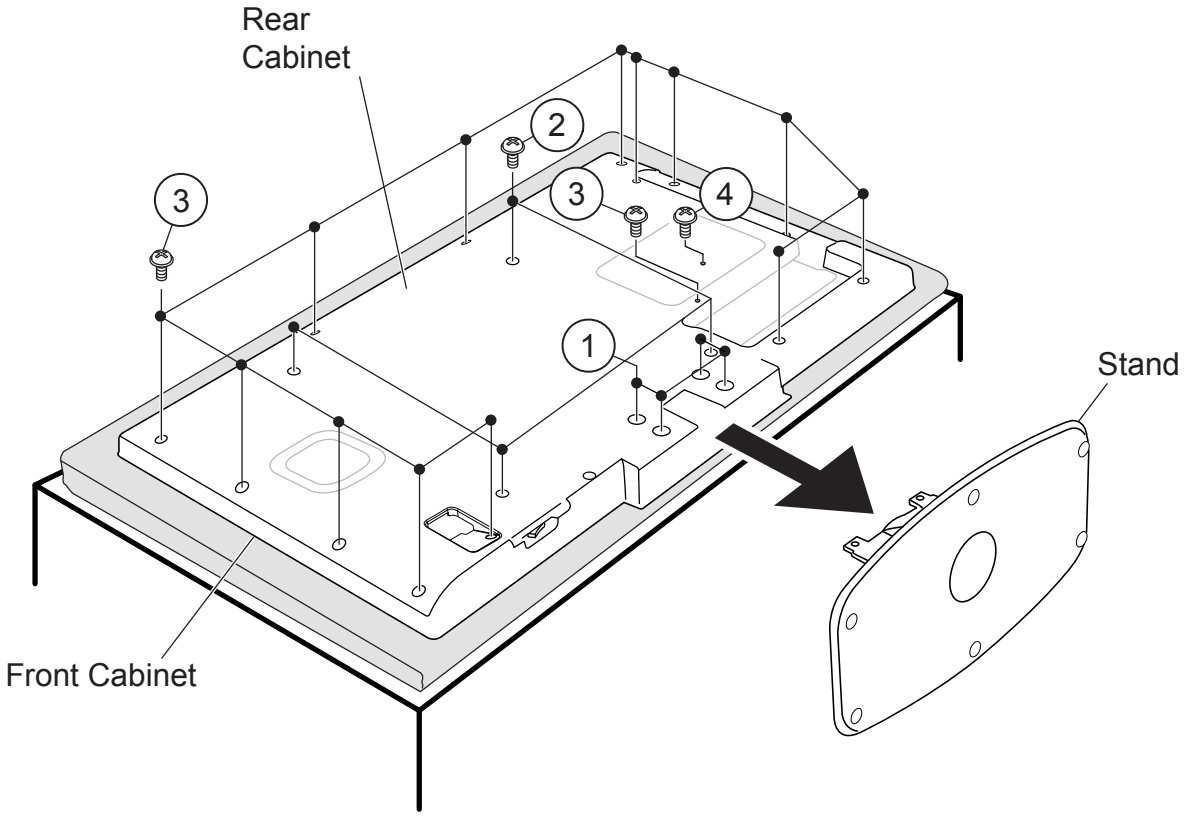
4.3.8 Removing of major Parts 40” (Continued)

14. Detach the PANEL ⑯.



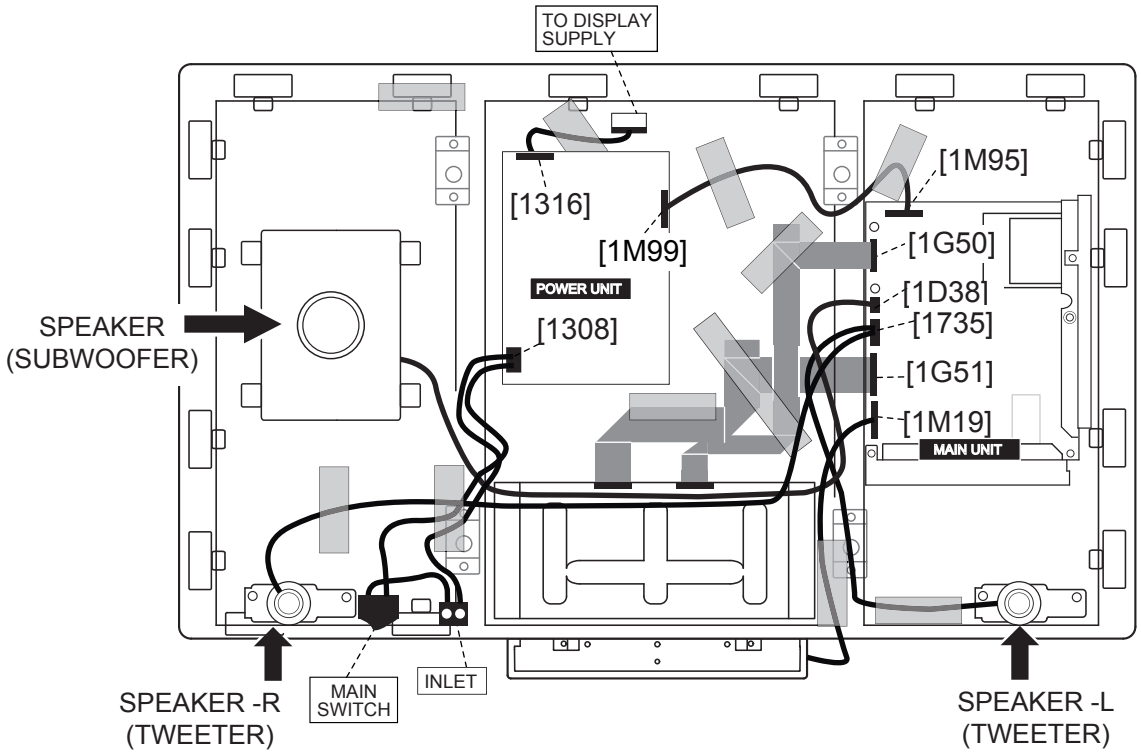
4.3.9 Removing of major Parts 46”

1. Remove the 4 lock screws ① and detach the Stand.
2. Remove the 4 screw hole plugs ② .
3. Remove the 14 lock screws ③, 1 lock screw ④ and detach the Rear Cabinet.



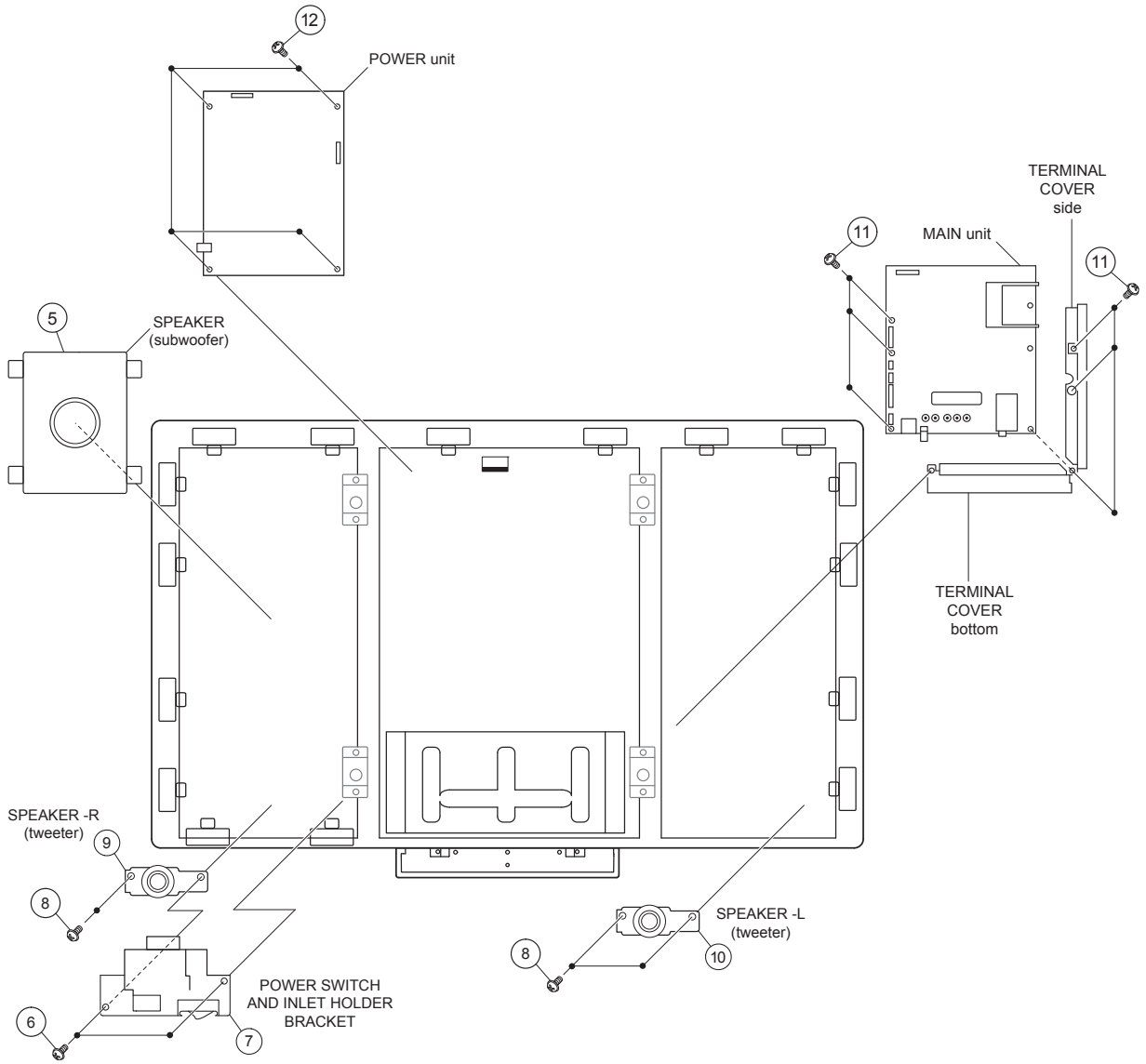
4.3.9 Removing of major Parts 46” (Continued)

4. Disconnect all the connectors from all the PWBs.



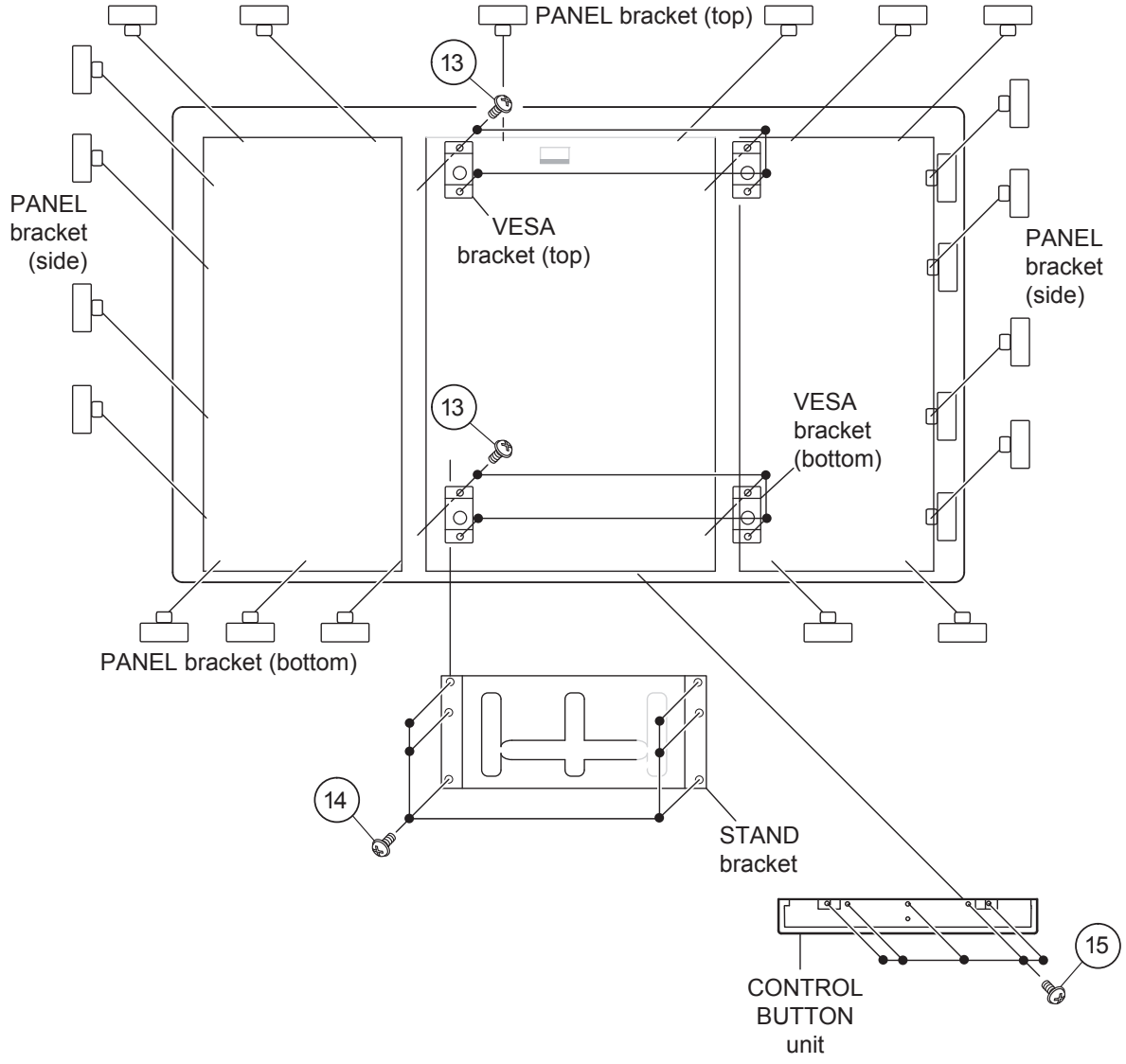
4.3.9 Removing of major Parts 46” (Continued)

5. Remove the SPEAKER (subwoofer) ⑤.
6. Remove the 2 lock screws ⑥ and detach the POWER SWITCH and INLET HOLDER BRACKET ⑦.
7. Remove the 3 lock screws ⑧, and detach the SPEAKER (tweeter) R ⑨ and SPEAKER (tweeter) L ⑩.
8. Remove the 6 lock screws ⑪ and detach the TERMINAL COVER side, bottom and the MAIN unit.
9. Remove the 4 lock screws ⑫ and detach the POWER UNIT.



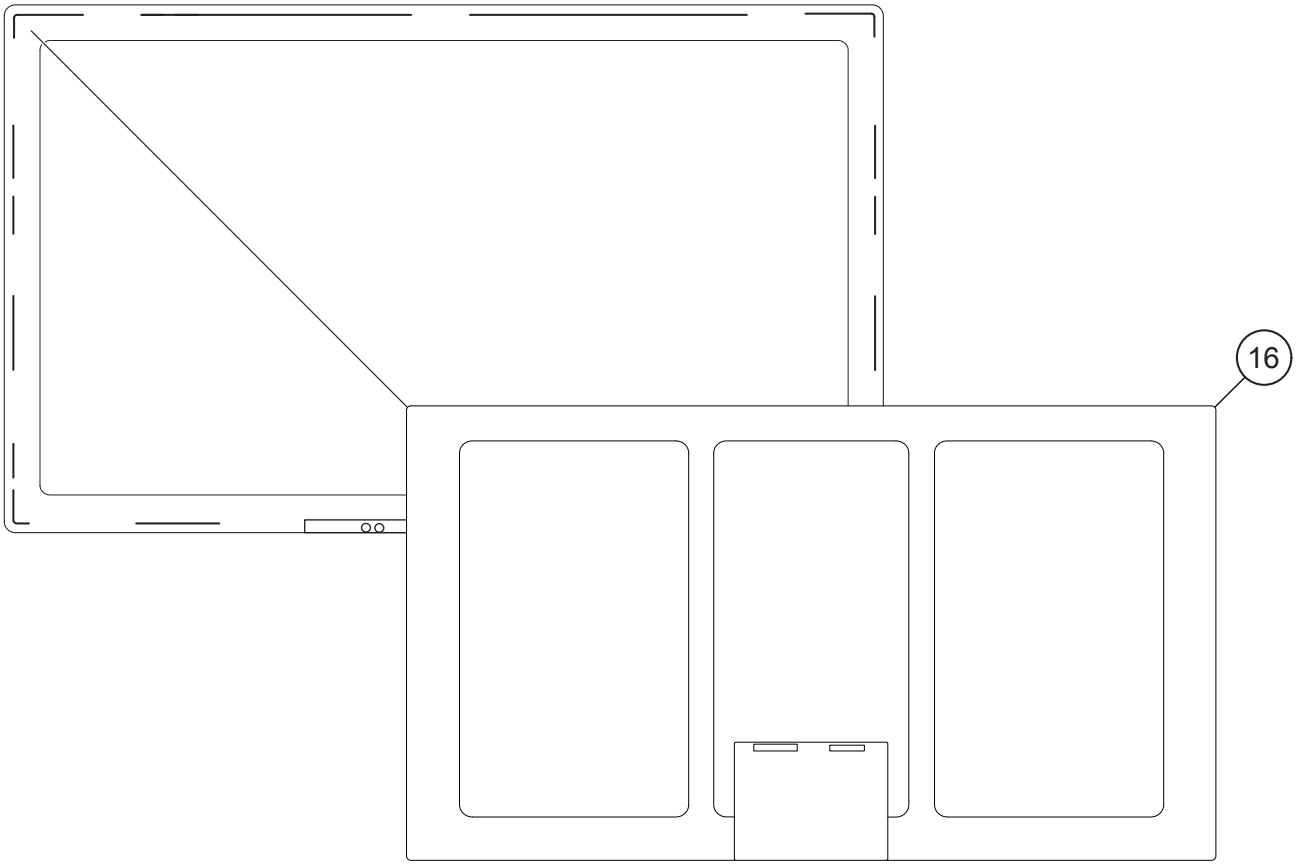
4.3.9 Removing of major Parts 46” (Continued)

10. Remove the 6 PANEL brackets top, 8 PANEL brackets side and 4 PANEL brackets bottom.
11. Remove the 8 lock screws ⑬ and detach the Vesa brackets top and bottom.
12. Remove the 6 lock screws ⑭ and detach the STAND bracket.
13. Remove the 5 lock screws ⑮ and detach the CONTROL BUTTON.

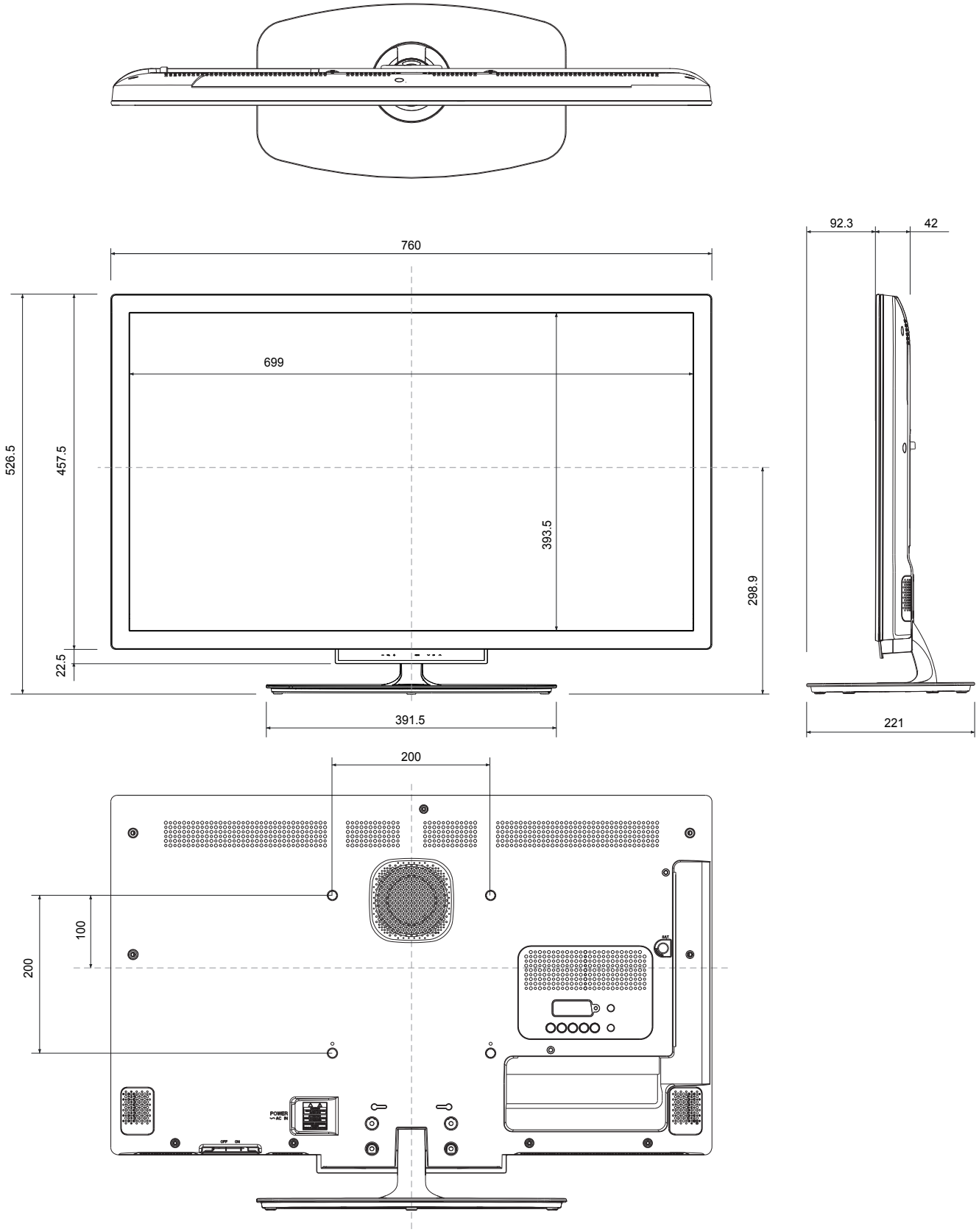


4.3.9 Removing of major Parts 46” (Continued)

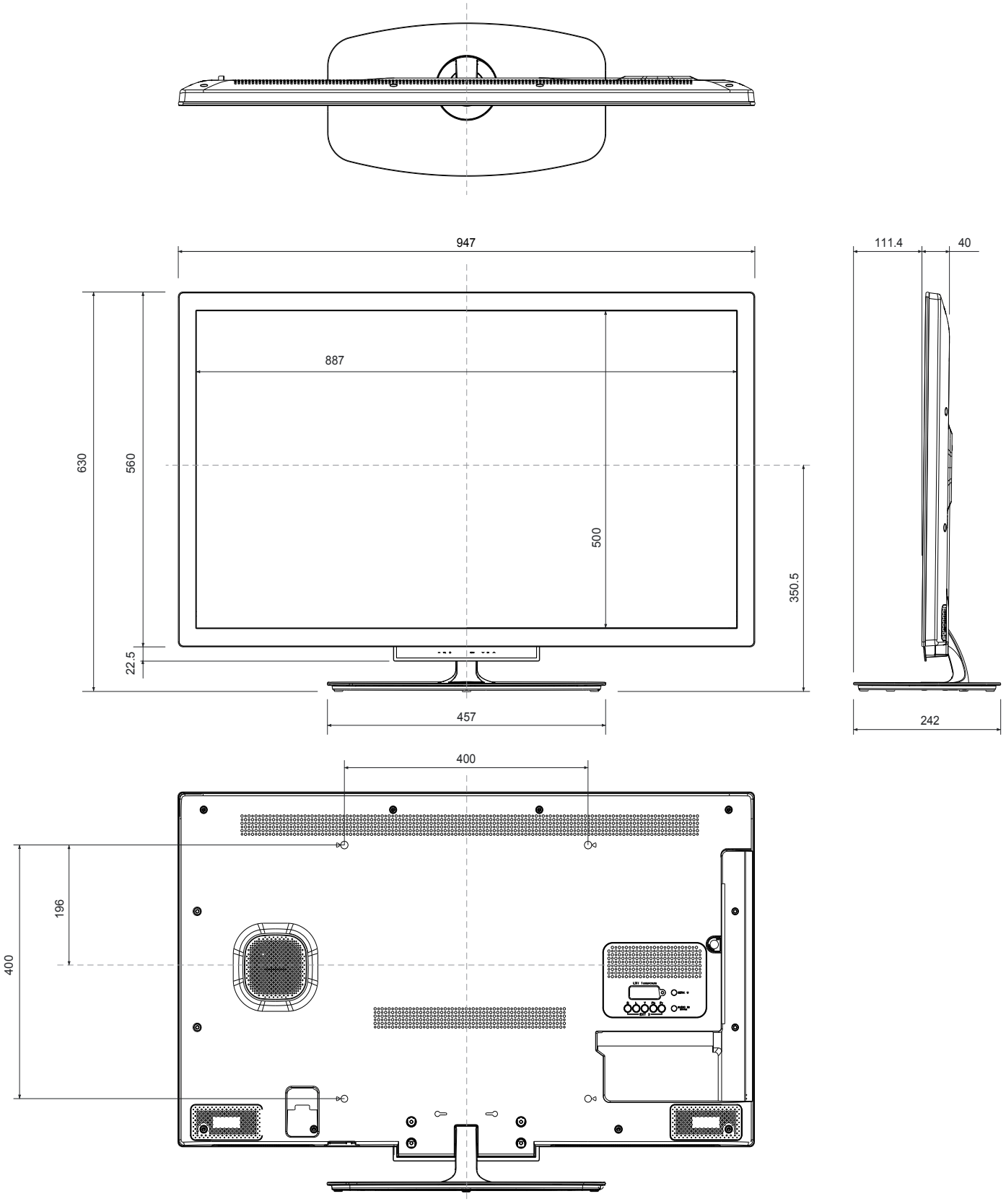
14. Detach the PANEL ⑯.



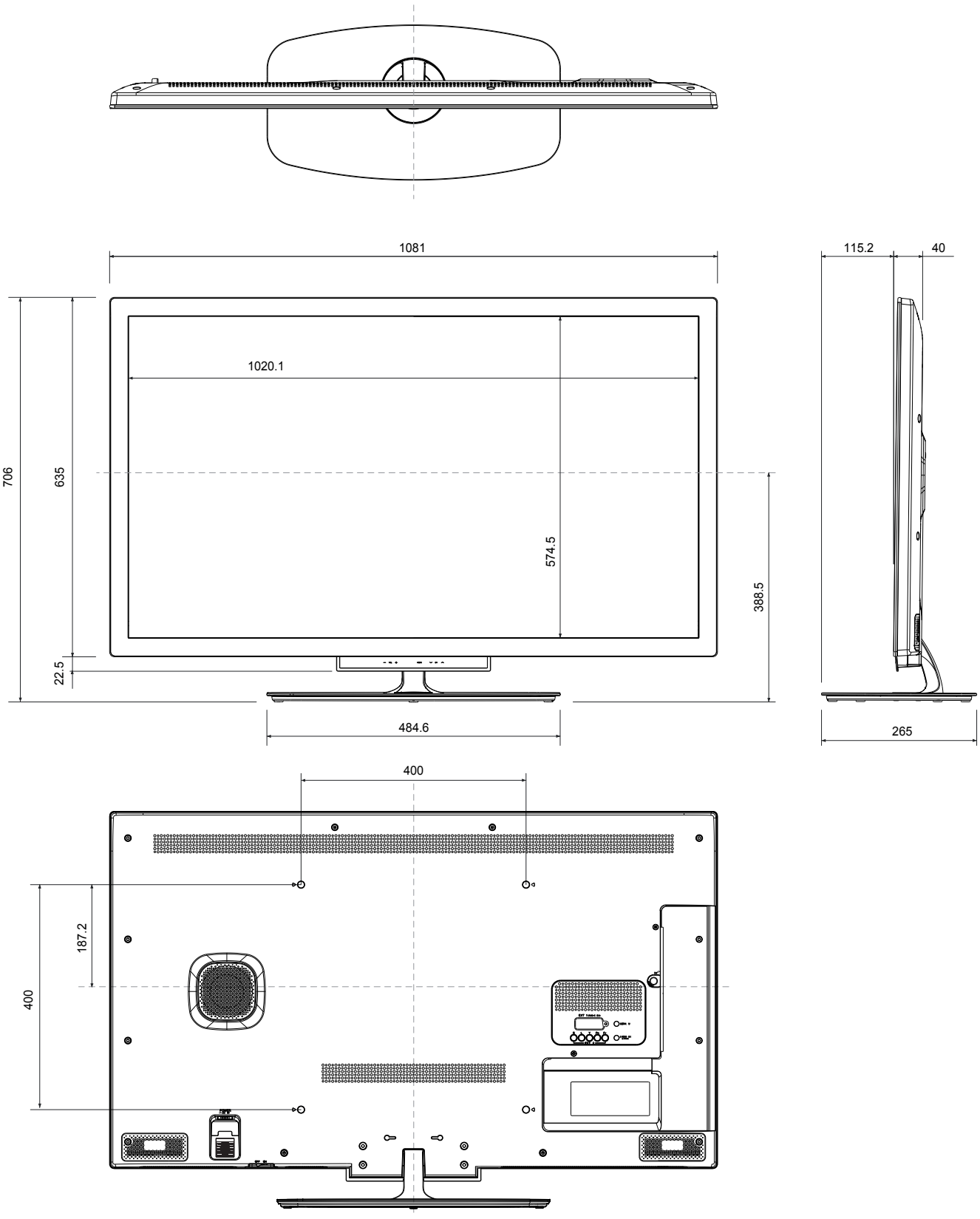
4.4 Dimensions 32”



4.5 Dimensions 40”



4.6 Dimensions 46”



SERVICE MODES, ERROR CODES AND FAULT FINDING

5. Service Modes, Error Codes and Fault Finding

Index of this chapter:

5.1 Test Points

As most signals are digital, it will be difficult to measure waveforms with a standard oscilloscope. However, several key ICs are capable of generating test patterns.

Perform measurements under the following conditions:
- Service Default Mode.
- Video: Colour bar signal.
- Audio: 3 kHz left, 1 kHz right.

5.2 Service Modes

Service Default mode (SDM) and Service Alignment Mode (SAM) offers several features for the service technician, while the Customer Service Mode (CSM) is used for communication between the call centre and the customer.

5.2.1 Service Default Mode (SDM)

Purpose
- To create a pre-defined setting, to get the same measurement results as given in this manual.
- To override SW protections detected by stand-by processor and make the TV start up to the step just before protection (a sort of automatic stepwise start-up). See section "5.3 Stepwise Start-up".
- To start the blinking LED procedure where only LAYER 2 errors are displayed. (see also section "5.5 Error Codes").

Specifications

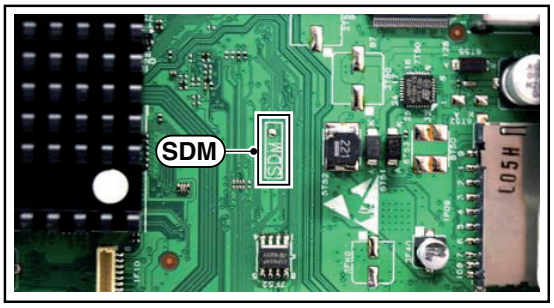
Table 5-1 SDM default settings

Region	Freq. (MHz)	Default system
Europe, AP(PAL/Multi)	475.25	PAL B/G
Europe, AP DVB-T	546.00 PID Video: 0B 06 PID PCR: 0B 06 PID Audio: 0B 07	DVB-T

- All picture settings at 50% (brightness, colour, contrast).
- Sound volume at 25%.
- All service-unfriendly modes (if present) are disabled, like:
  - (Sleep) timer.
  - Child/parental lock.
  - Picture mute (blue mute or black mute).
  - Automatic volume levelling (AVL).
  - Skip/blank of non-favourite pre-sets.

How to Activate SDM

For this chassis there are two kinds of SDM: an **analogue SDM** and a **digital SDM**. Tuning will happen according Table 5-1.
- **Analogue SDM**: use the standard RC-transmitter and key in the code "062596", directly followed by the "MENU" (or "HOME") button.
  Note: It is possible that, together with the SDM, the main menu will appear. To switch it "off", push the "MENU" (or "HOME") button again.
  Analogue SDM can also be activated by grounding for a moment the solder path on the SSB, with the indication "SDM" (see Service mode pad).
- **Digital SDM**: use the standard RC-transmitter and key in the code "062593", directly followed by the "MENU" (or "HOME") button.
  Note: It is possible that, together with the SDM, the main menu will appear. To switch it "off", push the "MENU" (or "HOME") button again.



19100_057_110217.eps
110217

Figure 5-1 Service mode pad

After activating this mode, "SDM" will appear in the upper right corner of the screen (when a picture is available).

How to Navigate

When the "MENU" (or "HOME") button is pressed on the RC transmitter, the TV set will toggle between the SDM and the normal user menu.

How to Exit SDM

Use one of the following methods:
- Switch the set to STAND-BY via the RC-transmitter.
- Via a standard customer RC-transmitter: key in "00"-sequence.

5.2.2 Service Alignment Mode (SAM)

Purpose
- To perform (software) alignments.
- To change option settings.
- To easily identify the used software version.
- To view operation hours.
- To display (or clear) the error code buffer.

How to Activate SAM

Via a standard RC transmitter: Key in the code "062596" directly followed by the "INFO" or "OK" button. After activating SAM with this method a service warning will appear on the screen, continue by pressing the "OK" button on the RC.

Service Modes, Error Codes, and Fault Finding (continued)

Contents of SAM

- **Hardware Info.**
  - **A. SW Version.** Displays the software version of the main software (**example:** S5551_0.9.21.0 AAAAB_X.Y.W.Z).
    - **AAAA**= the chassis name.
    - **B**= the SW branch version. This is a sequential number (this is no longer the region indication, as the software is now multi-region).
    - **X.Y.W.Z**= the software version, where X is the main version number (different numbers are not compatible with one another) and Y.W.Z is the sub version number (a higher number is always compatible with a lower number).
  - **B. STBY PROC Version.** Displays the software version of the stand-by processor.
  - **C. Production Code.** Displays the production code of the TV, this is the serial number as printed on the back of the TV set. Note that if an NVM is replaced or is initialized after corruption, this production code has to be re-written to NVM.

- **Operation Hours.** Displays the accumulated total of operation hours (not the stand-by hours). Every time the TV is switched "on/off", 0.5 hours is added to this number.
- **Errors** (followed by maximum 10 errors). The most recent error is displayed at the upper left (for an error explanation see section "5.5 Error Codes").
- **Reset Error Buffer.** When "cursor right" (or "OK" button) pressed here, followed by the "OK" button, the error buffer is reset.
- **Alignments.** This will activate the "ALIGNMENTS" sub-menu. See Chapter 6. Alignments.
- **Dealer Options.** Extra features for the dealers.
- **Options.** Extra features for Service. For more info regarding option codes, see chapter 6. Alignments. Note that if the option code numbers are changed, these have to be confirmed with pressing the "OK" button before the options are stored, otherwise changes will be lost.
- **Initialize NVM.** The moment the processor recognizes a corrupted NVM, the "initialize NVM" line will be highlighted. Now, two things can be done (dependent of the service instructions at that moment):
  - Save the content of the NVM for development analysis, before initializing. This will give the Service department an extra possibility for diagnosis (e.g. when Development asks for this).
  - Initialize the NVM.

Note: When the NVM is corrupted, or replaced, there is a high possibility that no picture appears because the display code is not correct. So, before initializing the NVM via the SAM, a picture is necessary and therefore the correct display option has to be entered. Refer to Chapter 6. Alignments for details. To adapt this option, it's advised to use a method via a standard RC (described below).

Changing the display option via a standard RC: Key in the code "062598" directly followed by the "MENU" (or "HOME") button and "XXX" (where XXX is the 3 digit decimal display code as mentioned on the below table).

Table 5-1-2 Display options

Size	Display option
32"	327
40"	329
46"	330

Make sure to key in all three digits, also the leading zero's. If the above action is successful, the front LED will go out as an indication that the RC sequence was correct. After the display option is changed in the NVM, the TV will go to the Stand-by mode. If the NVM was corrupted or empty before this action, it will be initialized first (loaded with default values). This initializing can take up to 20 seconds.

How to Navigate

- In SAM, the menu items can be selected with the "CURSOR-DOWN/UP/LEFT/RIGHT" knob of the RC transmitter.

- **Store - go right.** All options and alignments are stored when pressing "cursor right" (or the "OK" button) and then the "OK"-button.
- **Operation hours display.** Displays the accumulated total of operation hours of the screen itself. In case of a display replacement, reset to "0" or to the consumed operation hours of the spare display.
- **SW Maintenance.**
  - **SW Events.** In case of specific software problems, the development department can ask for this info.
  - **HW Events.** In case of specific software problems, the development department can ask for this info :
    - Event 26: refers to a power dip, this is logged after the TV set reboots due to a power dip.
    - Event 17: refers to the power OK status, sensed even before the 3 x retry to generate the error code.
- **Test settings.** For development purposes only.
- **Development file versions.** Not useful for Service purposes, this information is only used by the development department.
- **Upload to USB.** To upload several settings from the TV to an USB stick, which is connected to the SSB. The items are "Channel list", "Personal settings", "Option codes", "Alignments", "Identification data" (includes the set type and prod code + all 12NC like SSB, display, boards), "History list". The "All" item supports to upload all several items at once.
  First a directory "repair\" has to be created in the root of the USB stick.
  To upload the settings, select each item separately, press "cursor right" (or the "OK" button), confirm with "OK" and wait until the message "Done" appears. In case the download to the USB stick was not successful, "Failure" will be displayed. In this case, check if the USB stick is connected properly and if the directory "repair" is present in the root of the USB stick. Now the settings are stored onto the USB stick and can be used to download into another TV or other SSB. Uploading is of course only possible if the software is running and preferably a picture is available. This method is created to be able to save the customer's TV settings and to store them into another SSB.
- **Download from USB.** To download several settings from the USB stick to the TV, same way of working needs to be followed as described in "Upload to USB". To make sure that the download of the channel list from USB to the TV is executed properly, it is necessary to restart the TV and tune to a valid preset if necessary. The "All" item supports to download all several items at once.

- **NVM editor.** For NET TV the set "type number" must be entered correctly.Also the production code (serial number) can be entered here via the RC-transmitter. Correct data can be found on the side/rear sticker.

"CURSOR UP/DOWN" key on the RC-transmitter. The selected item will be highlighted. When not all menu items

Service Modes, Error Codes, and Fault Finding (continued)

fit on the screen, move the “CURSOR UP/DOWN” key to display the next/previous menu items.
- With the “CURSOR LEFT/RIGHT” keys, it is possible to:
  – (De) activate the selected menu item.
  – (De) activate the selected sub menu.
- With the “OK” key, it is possible to activate the selected action.

How to Exit SAM
Use one of the following methods:
- Switch the TV set to STAND-BY via the RC-transmitter.
- Via a standard RC-transmitter, key in “00” sequence, or select the “BACK” key.

5.2.3 Customer Service Mode (CSM)

Purpose
When a customer is having problems with his TV-set, he can call his dealer or the Customer Helpdesk. The service technician can then ask the customer to activate the CSM, in order to identify the status of the set. Now, the service technician can judge the severity of the complaint. In many cases, he can advise the customer how to solve the problem, or he can decide if it is necessary to visit the customer.
The CSM is a read only mode; therefore, modifications in this mode are not possible.

When in this chassis CSM is activated, a test pattern will be displayed during 5 seconds (1 second Blue, 1 second Green and 1 second Red, then again 1 second Blue and 1 second Green). This test pattern is generated by the PNX51X0 (located on the 200Hz board as part of the display). So if this test pattern is shown, it could be determined that the back end video chain (PNX51X0 and display) is working.For TV sets without the PNX51X0 inside, every menu from CSM will be used as check for the back end chain video.

When CSM is activated **and** there is a USB stick connected to the TV set, the software will dump the CSM content to the USB stick. The file (CSM_model number_serial number.txt) will be saved in the root of the USB stick. This info can be handy if no information is displayed.

When in CSM mode (and a USB stick connected), pressing “OK” will create an **extended CSM dump** file on the USB stick. This file (Extended_CSM_model number_serial number.txt) contains:
- The normal CSM dump information,
- All items (from SAM “load to USB”, but in readable format),
- Operating hours,
- Error codes,
- SW/HW event logs.

To have fast feedback from the field, a flashdump can be requested by development. When in CSM, push the “red” button and key in serial digits ‘2679’ (same keys to form the word ‘COPY’ with a cellphone). A file “Dump_model number_serial number.bin” will be written on the connected USB device. This can take 1/2 minute, depending on the quantity of data that needs to be dumped.

Also when CSM is activated, the LAYER 1 error is displayed via blinking LED. Only the latest error is displayed (see also section 5.5 Error Codes).

How to Activate CSM

Key in the code “123654” via the standard RC transmitter.
Note: Activation of the CSM is only possible if there is no (user) menu on the screen!

How to Navigate
By means of the “CURSOR-DOWN/UP” knob on the RC-transmitter, can be navigated through the menus.

Contents of CSM
The contents are reduced to 3 pages: General, Software versions and Quality items. The group names itself are not shown anywhere in the CSM menu.

General
- **Set Type.** This information is very helpful for a helpdesk/ workshop as reference for further diagnosis. In this way, it is not necessary for the customer to look at the rear of the TV-set. Note that if an NVM is replaced or is initialized after corruption, this set type has to be re-written to NVM. The update can be done via the NVM editor available in SAM.
- **Production Code.** Displays the production code (the serial number) of the TV. Note that if an NVM is replaced or is initialized after corruption, this production code has to be re-written to NVM. The update can be done via the NVM editor available in SAM.
- **Installed date.** Indicates the date of the first installation of the TV. This date is acquired via time extraction.
- **Options 1.** Gives the option codes of option group 1 as set in SAM (Service Alignment Mode).
- **Options 2.** Gives the option codes of option group 2 as set in SAM (Service Alignment Mode).
- **12NC SSB.** Gives an identification of the SSB as stored in NVM. Note that if an NVM is replaced or is initialized after corruption, this identification number has to be re-written to NVM. This identification number is the 12nc number of the SSB.
- **12NC display.** Shows the 12NC of the display.
- **12NC supply.** Shows the 12NC of the power supply.
- **12NC 200Hz board.** Shows the 12NC of the 200Hz Panel (when present).
- **12NC AV PIP.** Shows the 12NC of the AV PIP board (when present).

Software versions
- **Current main SW.** Displays the build-in main software version. In case of field problems related to software, software can be upgraded. As this software is consumer upgradeable, it will also be published on the Internet.
  Example: S5551_0.9.21.0
- **Stand-by SW.** Displays the build-in stand-by processor software version. Upgrading this software will be possible via USB (see section 5.9 Software Upgrading)
  Example: STBY_89.167.00
- **e-UM version.** Displays the electronic user manual SW-version (12NC version number). Most significant number here is the last digit.
- **AV PIP software.**
- **3D dongle software version.**

Quality items
- **Signal quality.** Bad / average /good (not for DVB-S).
- **Ethernet MAC address.** Displays the MAC address present in the SSB.
- **Wireless MAC address.** Displays the wireless MAC address to support the Wi-Fi functionality.
- **BDS key.** Indicates if the set is in the BDS status.
- **CI module.** Displays status if the common interface module is detected.
- **CI + protected service.** Yes/No.
- **Event counter** :
  S : 000X 0000(number of software recoveries : SW EVENT-LOG #(reboots)
  S : 0000 000X (number of software events : SW EVENT-LOG #(events)
  H : 000X 0000(number of hardware errors)
  H : 0000 000X (number of hardware events : SW EVENT-LOG #(events).

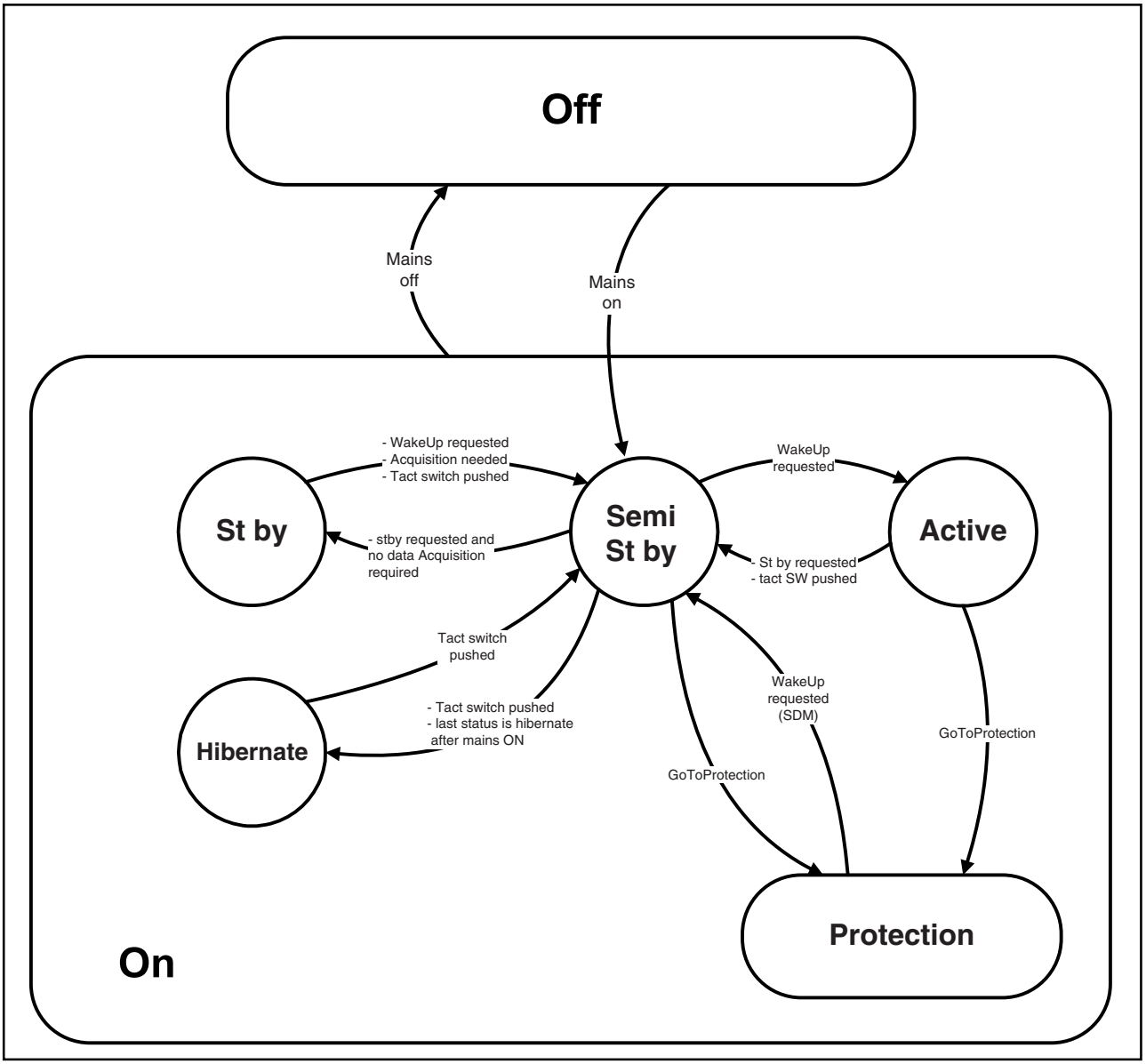
Service Modes, Error Codes, and Fault Finding (continued)

How to Exit CSM
Press “MENU” (or "HOME") / “Back” key on the RC-transmitter.

5.3 Stepwise Start-up

When the TV is in a protection state due to an error detected by stand-by software (error blinking is displayed) **and** SDM is activated via shortcutting the SDM solder path on the SSB, the TV starts up until it reaches the situation just before protection. So, this is a kind of automatic stepwise start-up. In combination with the start-up diagrams below, you can see which supplies are present at a certain moment. Caution: in case the start-up in this mode with a faulty FET 7U0X is done, you can destroy all IC’s supplied by the +1V8 and +1v1, due to overvoltage (12V on XVX-line). It is recommended to measure first the FET 7U0X or others FET’s on shortcircuit before activating SDM via the service pads.

The abbreviations “SP” and “MP” in the figures stand for:
- SP: protection or error detected by the **S**tand-by **P**rocessor.
- MP: protection or error detected by the MIPS **M**ain **P**rocessor.



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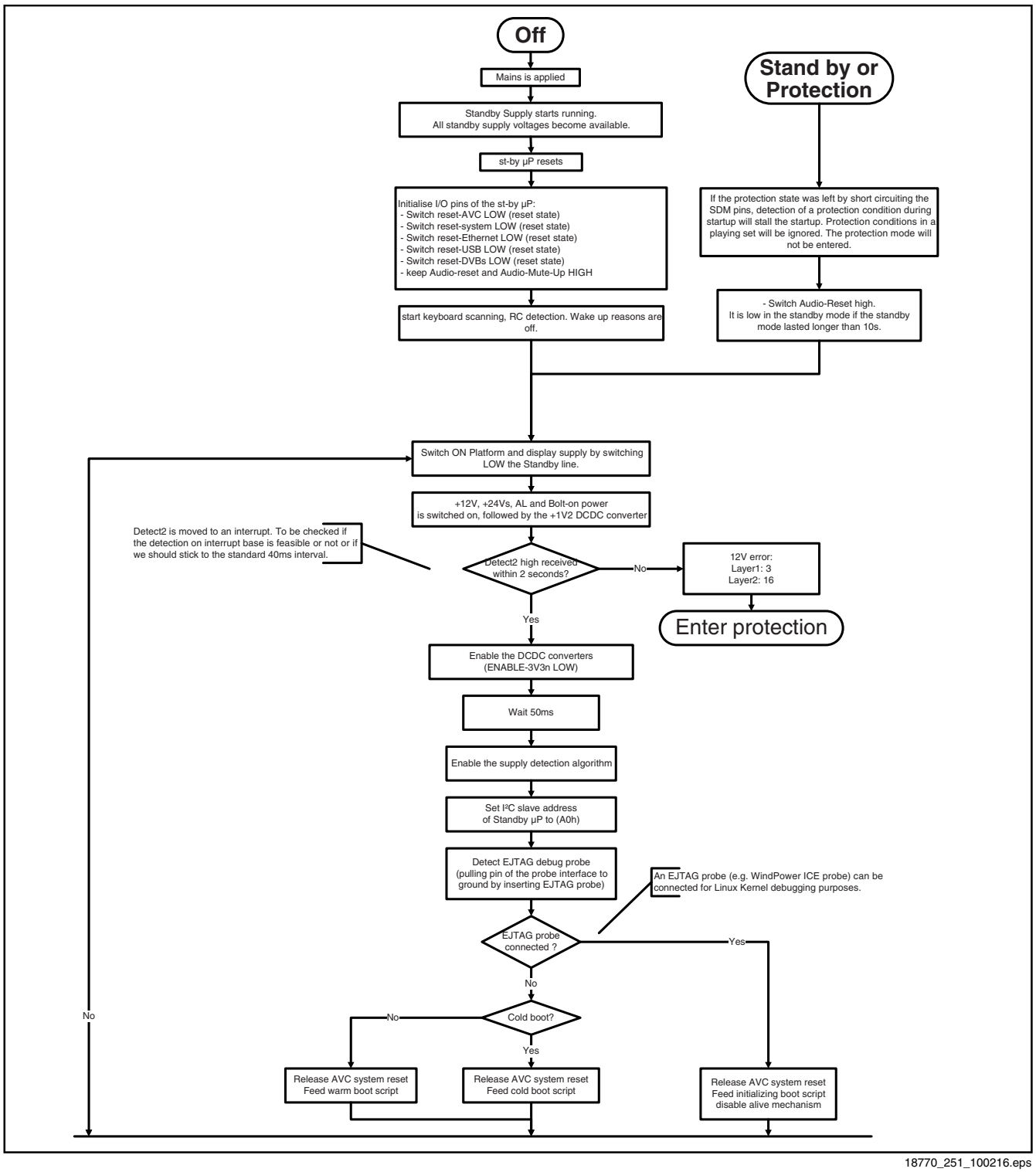
100402

Figure 5-3 Transition diagram

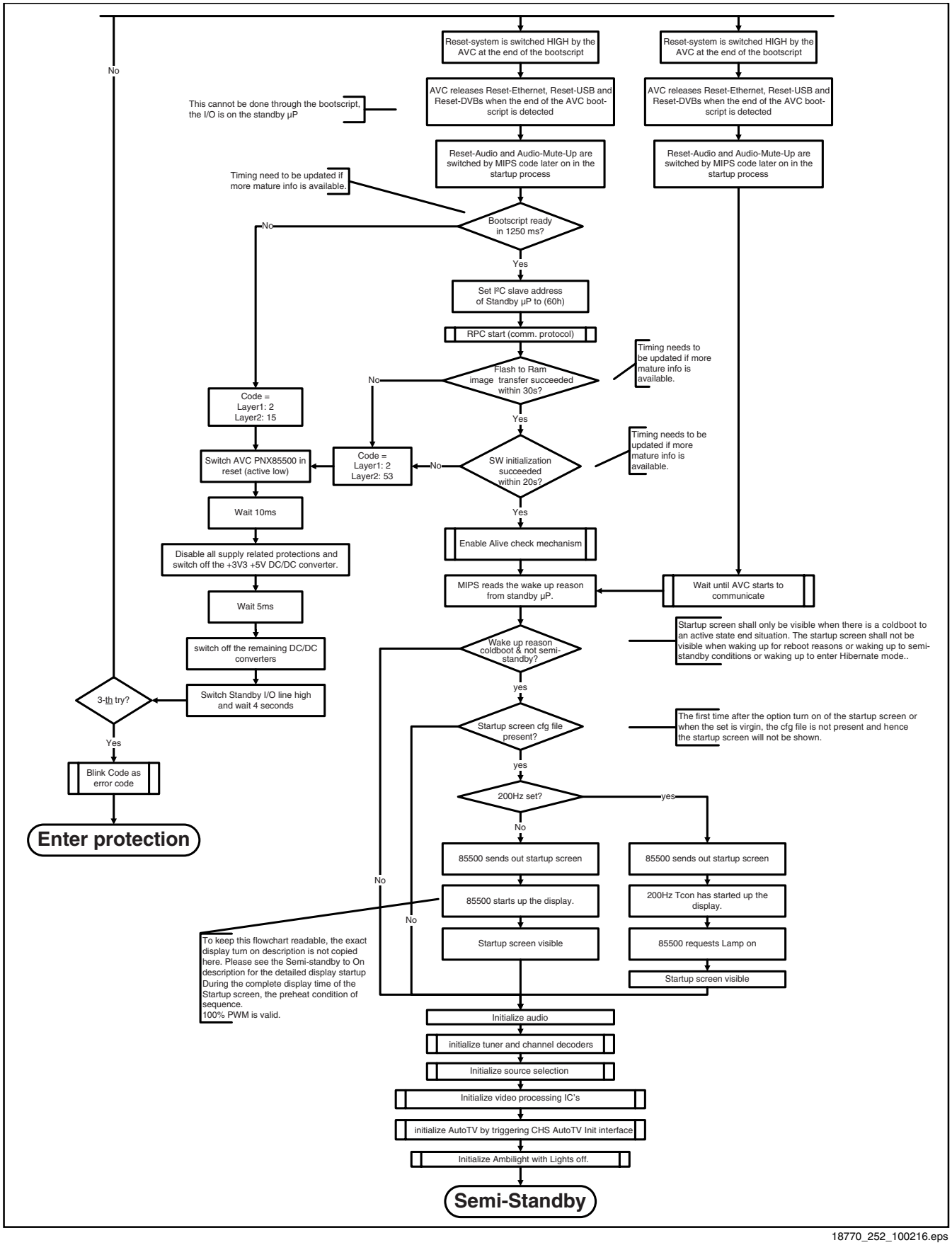
Service Modes, Error Codes, and Fault Finding (continued)



18770_251_100216.eps
100216

Figure 5-4 “Off” to “Semi Stand-by” flowchart (part 1)

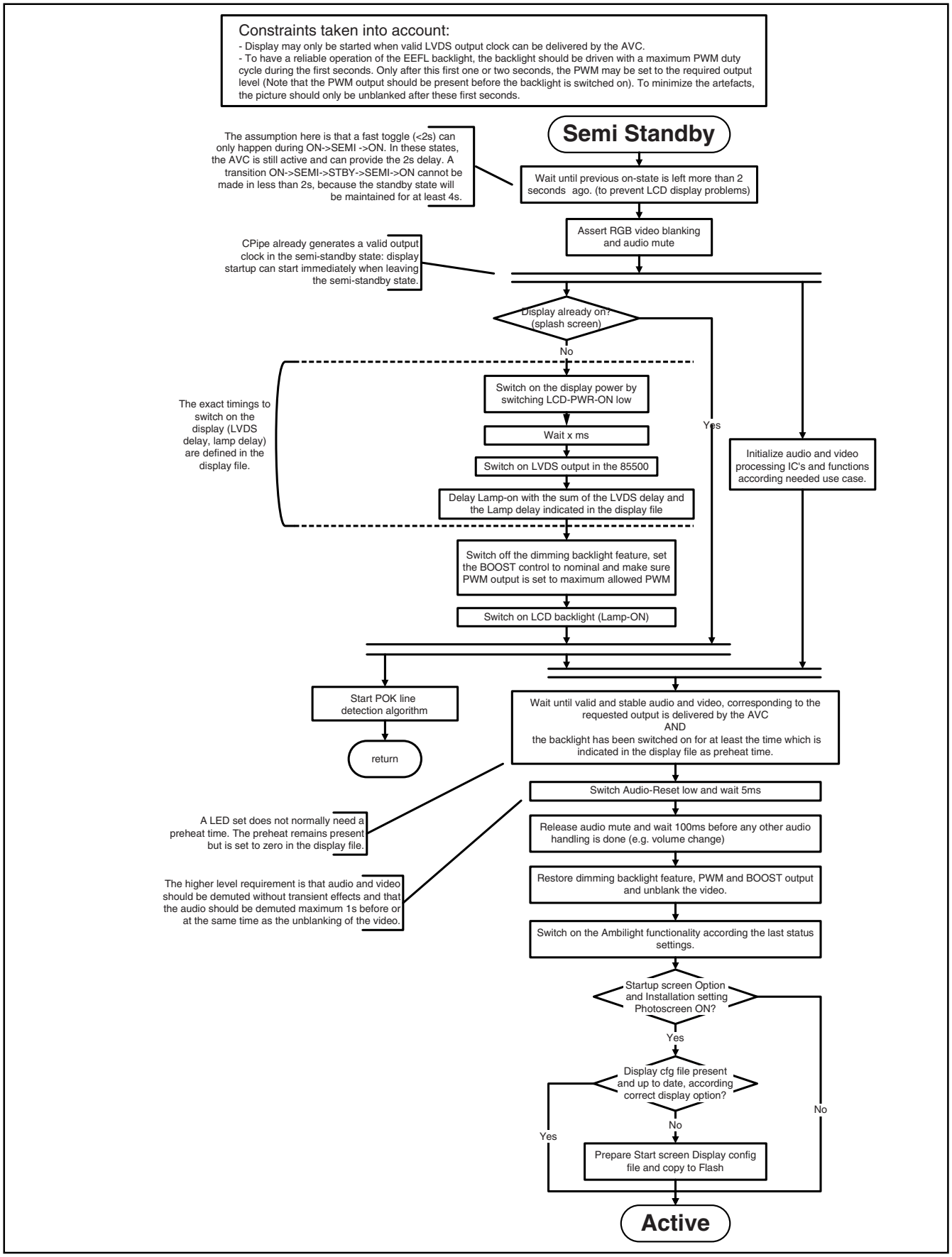
Service Modes, Error Codes, and Fault Finding (continued)



18770_252_100216.eps
100216

Figure 5-5 "Off" to "Semi Stand-by" flowchart (part 2)

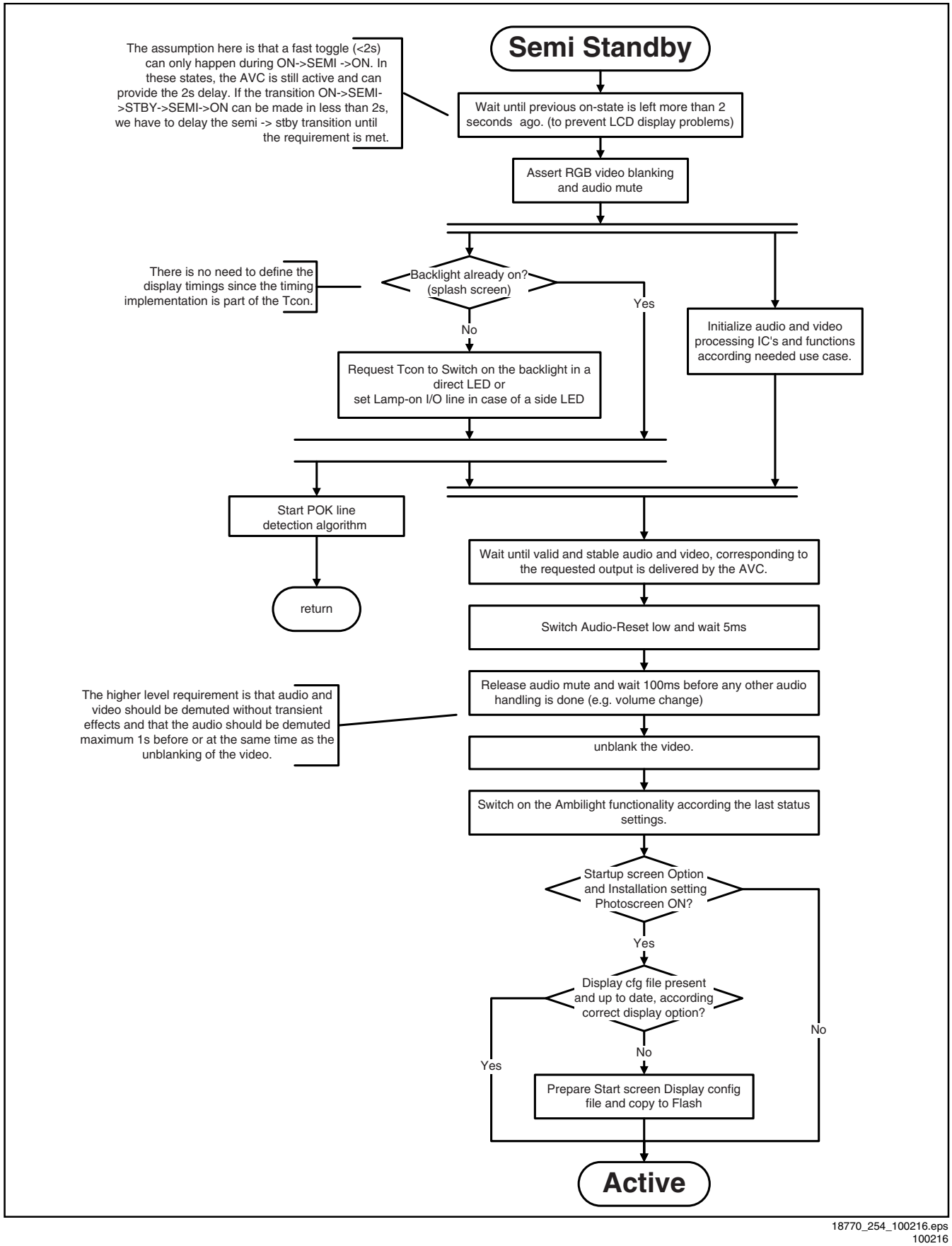
Service Modes, Error Codes, and Fault Finding (continued)



18770_253_100216.eps
100216

Figure 5-6 “Semi Stand-by” to “Active” flowchart (EEFL or LED backlight 50/100 Hz only)

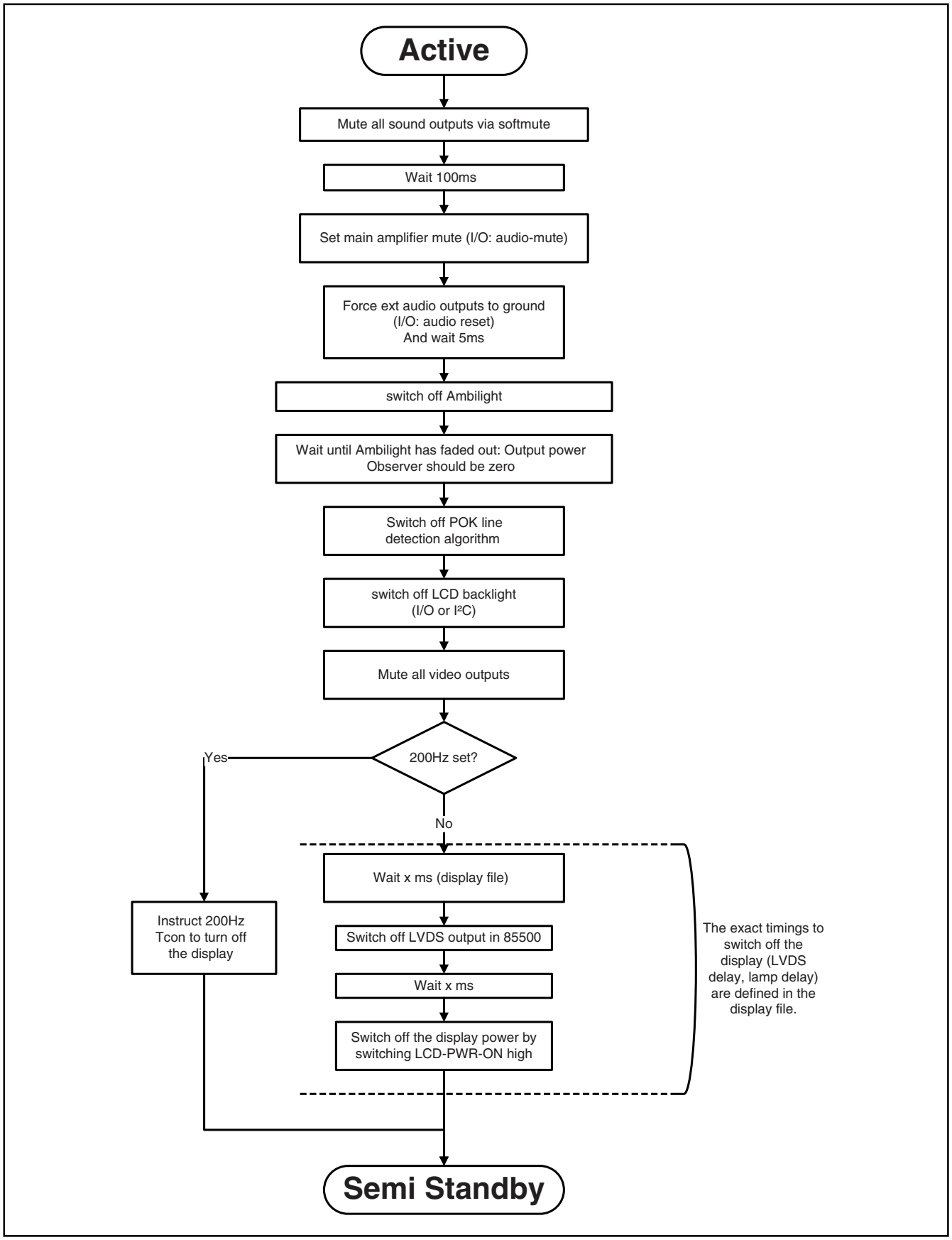
Service Modes, Error Codes, and Fault Finding (continued)



18770_254_100216.eps
100216

Figure 5-7 “Semi Stand-by” to “Active” flowchart (LED backlight 200 Hz)

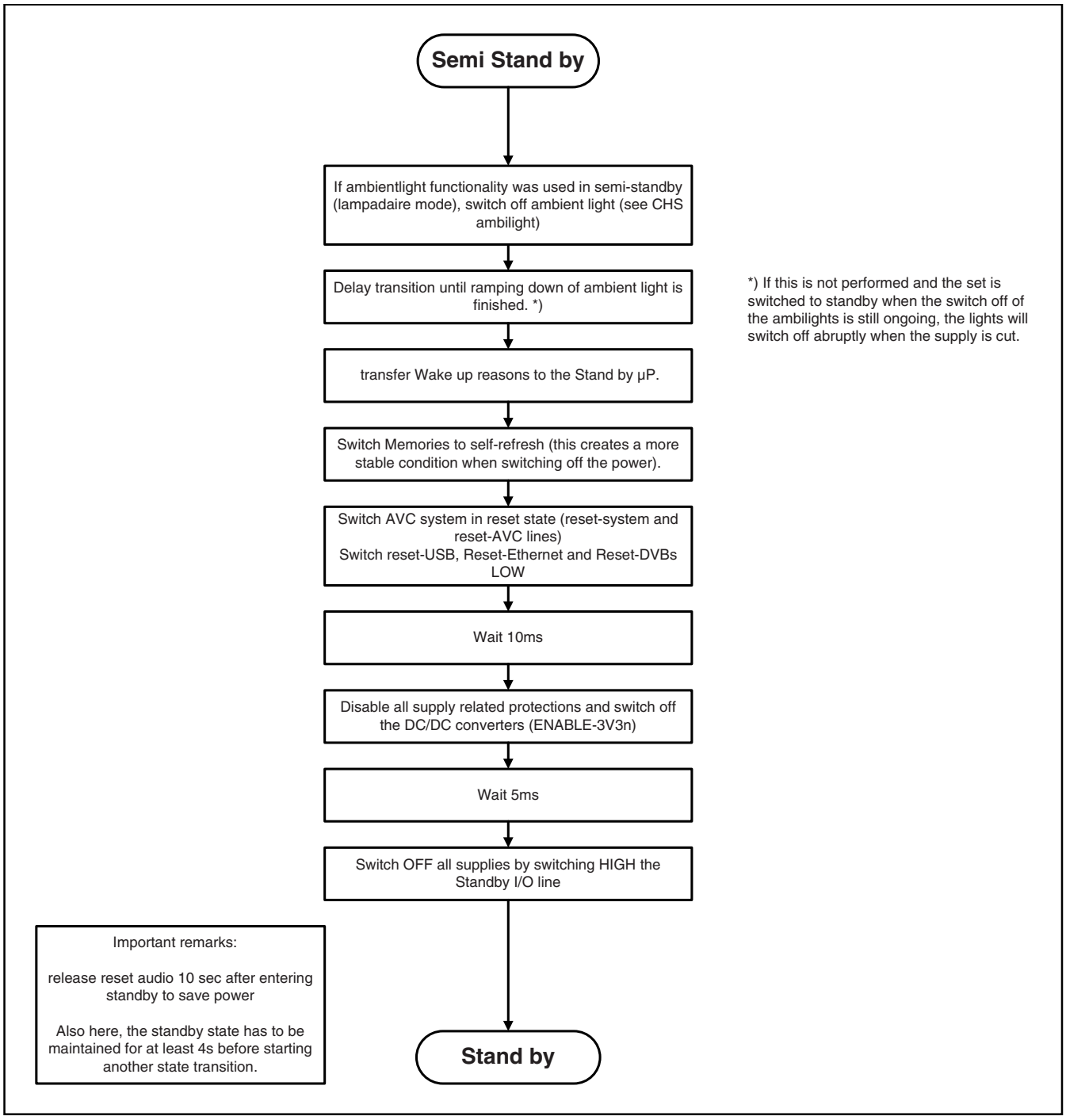
Service Modes, Error Codes, and Fault Finding (continued)



18770_255_100216.eps
100216

Figure 5-8 "Active" to "Semi Stand-by" flowchart

Service Modes, Error Codes, and Fault Finding (continued)



18770_256_100216.eps
100216

Figure 5-9 "Semi Stand-by" to "Stand-by" flowchart

Service Modes, Error Codes, and Fault Finding (continued)

5.5 Error Codes

5.5.1 Introduction

The error code buffer contains all detected errors since the last time the buffer was erased. The buffer is written from left to right, new errors are logged at the left side, and all other errors shift one position to the right.
When an error occurs, it is added to the list of errors, provided the list is not full. When an error occurs and the error buffer is full, then the new error is not added, and the error buffer stays intact (history is maintained).
To prevent that an occasional error stays in the list forever, the error is removed from the list after more than 50 hrs. of operation.
When multiple errors occur (errors occurred within a short time span), there is a high probability that there is some relation between them.

New in this chassis is the way errors can be displayed:

- **If no errors are there, the LED should not blink at all in CSM or SDM. No spacer must be displayed as well.**
- **There is a simple blinking LED procedure for board level repair (home repair) so called LAYER 1 errors** next to the existing errors which are LAYER 2 errors (see Table 5-2).
  - LAYER 1 errors are one digit errors.
  - LAYER 2 errors are 2 digit errors.
- **In protection mode**.
  - From consumer mode: **LAYER 1.**
  - From SDM mode: **LAYER 2**.
- **Fatal errors, if I2C bus is blocked and the set reboots, CSM and SAM are not selectable**.
  - From consumer mode: **LAYER 1.**
  - From SDM mode: **LAYER 2**.
- In CSM mode.
  - When entering CSM: error **LAYER 1** will be displayed by blinking LED. Only the latest error is shown.
- In SDM mode.
  - When SDM is entered via Remote Control code or the hardware pins, **LAYER 2** is displayed via blinking LED.
- Error display on screen.
  - In CSM no error codes are displayed on screen.
  - In SAM the complete error list is shown.

Basically there are three kinds of errors:

- **Errors detected by the Stand-by software which lead to protection.** These errors will always lead to protection and an automatic start of the blinking LED LAYER 1 error. (see section "5.6 The Blinking LED Procedure").
- **Errors detected by the Stand-by software which not lead to protection.** In this case the front LED should blink the involved error. See also section "5.5 Error Codes, 5.5.4 Error Buffer". Note that it can take up several minutes before the TV starts blinking the error (e.g. LAYER 1 error = 2, LAYER 2 error = 15 or 53).
- **Errors detected by main software (MIPS).** In this case the error will be logged into the error buffer and can be read out via blinking LED method LAYER 1-2 error, or in case picture is visible, via SAM.

5.5.2

Use one of the following methods:

- On screen via the SAM (only when a picture is visible). E.g.:
  - **00 00 00 00 00**: No errors detected
  - **23 00 00 00 00**: Error code 23 is the last and only detected error.
  - **37 23 00 00 00**: Error code 23 was first detected and error code 37 is the last detected error.
  - **Note that no protection errors can be logged in the error buffer.**

Service Modes, Error Codes, and Fault Finding (continued)

- Via the blinking LED procedure. See section 5.5.3 How to Clear the Error Buffer.

5.5.3 How to Clear the Error Buffer

Use one of the following methods:
- By activation of the "RESET ERROR BUFFER" command in the SAM menu.
- If the content of the error buffer has not changed for 50+ hours, it resets automatically.

5.5.4 Error Buffer

In case of non-intermittent faults, clear the error buffer before starting to repair (**before** clearing the buffer, write down the content, as this history can give significant information). This to ensure that old error codes are no longer present.
If possible, check the entire contents of the error buffer. In some situations, an error code is only the result of another error code and not the actual cause (e.g. a fault in the protection detection circuitry can also lead to a protection).
There are several mechanisms of error detection:
- Via error bits in the status registers of ICs.
- Via polling on I/O pins going to the stand-by processor.
- Via sensing of analog values on the stand-by processor or the PNX8550.
- Via a "not acknowledge" of an I^2C communication.

Take notice that some errors need several minutes before they start blinking or before they will be logged. So in case of problems wait 2 minutes from start-up onwards, and then check if the front LED is blinking or if an error is logged.

Table 5-2 Error code overview

Description	Layer 1	Layer 2	Monitored by	Error/ Prot	Error Buffer/ Blinking LED	Device	Defective Board
I^2C3	2	13	MIPS	E	BL / EB	SSB	SSB
I^2C2	2	14	MIPS	E	BL / EB	SSB	SSB
I^2C4	2	18	MIPS	E	BL / EB	SSB	SSB
PNX doesn't boot (HW cause)	2	15	Stby µP	P	BL	PNX8550	SSB
12V	3	16	Stby µP	P	BL	/	Supply
Inverter or display supply	3	17	MIPS	E	EB	/	Supply
PNX51X0	2/9	21	MIPS	E	EB	PNX51X0	200 Hz board
HDMI mux	2	23	MIPS	E	EB	Sil9x87A	SSB
I2C switch	2	24	MIPS	E	EB	PCA9540	SSB
Channel dec DVB-S	2	28	MIPS	E	EB	STV0903	SSB
Lnb controller	2	31	MIPS	E	EB	LNBH23	SSB
Tuner	2	34	MIPS	E	EB	DTT 71300	SSB
Main nvm	2	35	MIPS	E	EB	STM24C64	SSB
Tuner DVB-S	2	36	MIPS	E	EB	STV6110	SSB
T° sensor SSB/set	2	42	MIPS	E	EB	LM 75	T° sensor
T° sensor LED driver/Tcon	7	42	MIPS	E	EB	LM 75	T° sensor
PNX doesn't boot (SW cause)	2	53	Stby µP	P	BL	PNX8550	SSB
Display	5	64	MIPS	E	BL / EB	Altera	Display

Extra Info

- **Rebooting.** When a TV is constantly rebooting due to internal problems, most of the time no errors will be logged or blinked. This rebooting can be recognized via a Hyperterminal (for Hyperterminal settings, see section "5.8 Fault Finding and Repair Tips, 5.8.7 Logging). It's shown that the loggings which are generated by the main software keep continuing.
- **Error 13 (I2C bus 3, SSB bus blocked).** Current situation: when this error occurs, the TV will constantly reboot due to the blocked bus.
- **Error 14 (I2C bus 2, TV set bus blocked).** Current situation: when this error occurs, the TV will constantly reboot due to the blocked bus.
- **Error 18 (I^2C bus 4, Tuner bus blocked)**. In case this bus is blocked, short the "SDM" solder paths on the SSB during startup, LAYER error 2 = 18 will be blinked.
- **Error 15 (PNX8550 doesn't boot)**. Indicates that the main processor was not able to read his bootscript. This error will point to a hardware problem around the PNX8550 (supplies not OK, PNX 8550 completely dead, I^2C link between PNX and Stand-by Processor broken, etc...). When error 15 occurs it is also possible that I^2C1 bus is blocked (NVM). I^2C1 can be indicated in the schematics as follows: SCL-UP-MIPS, SDA-UP-MIPS.
  LAYER 2 error = 28 will be logged and displayed via the Other root causes for this error can be due to hardware problems regarding the DDR's and the bootscript reading from the PNX8550.
- **Error 16 (12V)**. This voltage is made in the power supply and results in protection (LAYER 1 error = 3) in case of absence. When SDM is activated we see blinking LED LAYER 2 error = 16.
- **Error 17 (Invertor or Display Supply)**. Here the status of the "Power OK" is checked by software, no protection will occur during failure of the invertor or display supply (no picture), only error logging. LED blinking of LAYER 1 error = 3 in CSM, in SDM this gives LAYER 2 error = 17.
- **Error 21 (PNX51X0)**. When there is no I^2C communication towards the PNX51X0 after start-up, LAYER 2 error = 21 will be logged and displayed via the blinking LED procedure if SDM is switched on. This device is located on the 200 Hz panel from the display.
- **Error 23 (HDMI)**. When there is no I^2C communication towards the HDMI mux after start-up, LAYER 2 error = 23 will be logged and displayed via the blinking LED procedure if SDM is switched on.
- **Error 24 (I2C switch)**. When there is no I^2C communication towards the I^2C switch, LAYER 2 error = 24 will be logged and displayed via the blinking LED procedure when SDM is switched on. Remark: this only works for TV sets with an I^2C controlled screen included.
- **Error 28 (Channel dec DVB-S)**. When there is no I^2C communication towards the DVB-S channel decoder, blinking LED procedure if SDM is switched on.

Service Modes, Error Codes, and Fault Finding (continued)

- **Error 31 (Lnb controller)**. When there is no I²C communication towards this device, LAYER 2 error = 31 will be logged and displayed via the blinking LED procedure if SDM is activated.
- **Error 34 (Tuner)**. When there is no I²C communication towards the tuner during start-up, LAYER 2 error = 34 will be logged and displayed via the blinking LED procedure when SDM is switched on.
- **Error 35 (main NVM)**. When there is no I²C communication towards the main NVM during start-up, LAYER 2 error = 35 will be displayed via the blinking LED procedure when SDM is switched “on”. All service modes (CSM, SAM and SDM) are accessible during this failure, observed in the Uart logging as follows: "<< ERRO >>> PFPOW_.C: First Error (id19, Layer_1= 2 Layer_= 35)".
- **Error 36 (Tuner DVB-S)**. When there is no I²C communication towards the DVB-S tuner during start-up, LAYER 2 error = 36 will be logged and displayed via the blinking LED procedure when SDM is switched “on”.
- **Error 42 (Temp sensor)**. Only applicable for TV sets equipped with temperature devices.
- **Error 53**. This error will indicate that the PNX8550 has read his bootscript (when this would have failed, error 15 would blink) but initialization was never completed because of hardware problems (NAND flash, ...) or software initialization problems. Possible cause could be that there is no valid software loaded (try to upgrade to the latest main software version). Note that it can take a few minutes before the TV starts blinking LAYER 1 error = 2 or in SDM, LAYER 2 error = 53.
- **Error 64**. Only applicable for TV sets with an I²C controlled screen.

5.6 The Blinking LED Procedure

5.6.1 Introduction

The blinking LED procedure can be split up into two situations:

- **Blinking LED procedure LAYER 1 error.** In this case the error is automatically blinked when the TV is put in CSM. This will be only one digit error, namely the one that is referring to the defective board (see table “5-2 Error code overview”) which causes the failure of the TV. This approach will especially be used for home repair and call centres. The aim here is to have service diagnosis from a distance.
- **Blinking LED procedure LAYER 2 error.** Via this procedure, the contents of the error buffer can be made visible via the front LED. In this case the error contains 2 digits (see table “5-2 Error code overview”) and will be displayed when SDM (hardware pins) is activated. This is especially useful for fault finding and gives more details regarding the failure of the defective board.

Important remark:
For an empty error buffer, the LED should not blink at all in CSM or SDM. No spacer will be displayed.

When one of the blinking LED procedures is activated, the front LED will show (blink) the contents of the error buffer. Error codes greater then 10 are shown as follows:

1. “n” long blinks (where “n” = 1 to 9) indicating decimal digit
2. A pause of 1.5 s
3. “n” short blinks (where “n”= 1 to 9)
4. A pause of approximately 3 s,
5. When all the error codes are displayed, the sequence finishes with a LED blink of 3 s (spacer).
6. The sequence starts again.

Example: Error 12 8 6 0 0.
After activation of the SDM, the front LED will show:

1. One long blink of 750 ms (which is an indication of the decimal digit) followed by a pause of 1.5 s
2. Two short blinks of 250 ms followed by a pause of 3 s
3. Eight short blinks followed by a pause of 3 s
4. Six short blinks followed by a pause of 3 s
5. One long blink of 3 s to finish the sequence (spacer).
6. The sequence starts again.

5.6.2 How to Activate

Use one of the following methods:

- **Activate the CSM**. The blinking front LED will show only the latest layer 1 error, this works in “normal operation” mode or automatically when the error/protection is monitored by the Stand-by processor.
  In case no picture is shown and there is no LED blinking, read the logging to detect whether “error devices” are mentioned. (see section “5.8 Fault Finding and Repair Tips, 5.8.7 Logging”).
- **Activate the SDM**. The blinking front LED will show the entire content of the LAYER 2 error buffer, this works in “normal operation” mode or when SDM (via hardware pins) is activated when the tv set is in protection.

5.7 Protections

5.7.1 Software Protections

Most of the protections and errors use either the stand-by microprocessor or the MIPS controller as detection device. Since in these cases, checking of observers, polling of ADCs, and filtering of input values are all heavily software based, these protections are referred to as software protections. There are several types of software related protections, solving a variety of fault conditions:

- **Related to supplies:** presence of the +5V, +3V3 and 1V2 needs to be measured, no protection triggered here.
- **Protections related to breakdown of the safety check mechanism.** E.g. since the protection detections are done by means of software, failing of the software will have to initiate a protection mode since safety cannot be guaranteed any more.

Remark on the Supply Errors
The detection of a supply dip or supply loss during the normal playing of the set does not lead to a protection, but to a cold reboot of the set. If the supply is still missing after the reboot, the TV will go to protection.

Protections during Start-up
During TV start-up, some voltages and IC observers are actively monitored to be able to optimise the start-up speed, and to assure good operation of all components. If these monitors do not respond in a defined way, this indicates a malfunction of the system and leads to a protection. As the observers are only used during start-up, they are described in the start-up flow in detail (see section “5.3 Stepwise Start-up”).

5.7.2 Hardware Protections

The only real hardware protection in this chassis appears in case of an audio problem e.g. DC voltage on the speakers. This protection will only affect the Class D audio amplifier (item 7D10; see diagram B03A) and puts the amplifier in a continuous burst mode (cyclus approximately 2 seconds).

Repair Tip

- There still will be a picture available but no sound. While the Class D amplifier tries to start-up again, the cone of the loudspeakers will move slowly in one or the other direction until the initial failure shuts the amplifier down, this cyclus starts over and over again. The headphone amplifier will also behaves similar.

Service Modes, Error Codes, and Fault Finding (continued)

5.8 Fault Finding and Repair Tips

Read also section "5.5 Error Codes, 5.5.4 Error Buffer, Extra Info".

5.8.2 Audio Amplifier

The Class D-IC 7D10 has a powerpad for cooling. When the IC is replaced it must be ensured that the powerpad is very well pushed to the PWB while the solder is still liquid. This is needed to insure that the cooling is guaranteed, otherwise the Class D-IC could break down in short time.

5.8.3 AV PIP

To check the AV PIP board (if present) functionality, a dedicated tespattern can be invoke as follows: select the "multiview" icon in the User Interface and press the "OK" button. Apply for the main picture an extended source, e.g. HDMI input. Proceed by entering CSM (push '123654' on the remote control) and press the yellow button. A coloured testpattern should appear now, generated by the AV PIP board (this can take a few seconds).

5.8.4 CSM

When CSM is activated and there is a USB stick connected to the TV, the software will dump the complete CSM content to the USB stick. The file (Csm.txt) will be saved in the root of the USB stick. If this mechanism works it can be concluded that a large part of the operating system is already working (MIPS, USB...)

5.8.5 DC/DC Converter

Description basic board

The basic board power supply consists of 4 DC/DC converters and 5 linear stabilizers. All DC/DC converters have +12V input voltage and deliver:

- +1V1 supply voltage (1.15V nominal), for the core voltage of PNX855xx, stabilized close to the point of load; SENSE+1V1 signal provides the DC-DC converter the needed feedback to achieve this.
- +1V8 supply voltage, for the DDR2 memories and DDR2 interface of PNX855xx.
- +3V3 supply voltage (3.30V nominal), overall 3.3 V for onboard IC's, for non-63x series SSB diversities only.
- +5V (5.15V nominal) for USB, WIFI and Conditional Access Module and +5V5-TUN for +5V-TUN tuner stabilizer.

The linear stabilizers are providing:

- +1V2 supply voltage (1.2V nominal), stabilized close to PNX855xx device, for various other internal blocks of PNX855xx; SENSE+1V2 signal provides the needed feedback to achieve this.
- +2V5 supply voltage (2.5V nominal) for LVDS interface and various other internal blocks of PNX855xx; for 63x series SSB diversities the stabilizer is 7UD2 while for the other diversities 7UC0 is used.
- +3V3 supply voltage (3V3 nominal) for 63x series SSB diversities, provided by 7UD3; in this case the 12V to 3V3 DC-DC converter is not present.
- +5V-TUN supply voltage (5V nominal) for tuner and IF amplifier.

+3V3-STANDY (3V3 nominal) is the permanent voltage, supplying the Stand-by microprocessor inside PNX855xx.

Supply voltage +1V1 is started immediately when +12V voltage becomes available (+12V is enabled by STANDBY signal when "low"). Supply voltages +3V3, +2V5, +1V8, +1V2 and +5V-TUN are switched "on" by signal ENABLE-3V3 when "low", provided that +12V (detected via 7U40 and 7U41) is present.

+12V is considered OK (=> DETECT2 signal becomes "high", +12V to +1V8, +12V to +3V3, +12V to +5V DC-DC converter can be started up) if it rises above 10V and doesn't drop below 9V5. A small delay of a few milliseconds is introduced between the start-up of 12V to +1V8 DC-DC converter and the two other DC-DC converters via 7U48 and associated components.

Description DVB-S2:

- LNB-RF1 (0V = disabled, 14V or 18V in normal operation) LNB supply generated via the second conversion channel of 7T03 followed by 7T50 LNB supply control IC. It provides supply voltage that feeds the outdoor satellite reception equipment.
- +3V3-DVBS (3V3 nominal), +2V5-DVBS (2V5 nominal) and +1V-DVBS (1.03V nominal) power supply for the silicon tuner and channel decoder. +1V-DVBS is generated via a 5V to 1V DC-DC converter and is stabilized at the point of load (channel decoder) by means of feedback signal SENSE+1V0-DVBS. +3V3-DVBS and +2V5-DVBS are generated via linear stabilizers from +5V-DVBS that by itself is generated via the first conversion channel of 7T03.

At start-up, +24V becomes available when STANDBY signal is "low" (together with +12V for the basic board), when +3V3 from the basic board is present the two DC-DC converters channels inside 7T03 are activated. Initially only the 24V to 5V converter (channel 1 of 7T03 generating +5V-DVBS) will effectively work, while +V-LNB is held at a level around 11V7 via diode 6T55. After 7T05 is initialized, the second channel of 7T03 will start and generates a voltage higher then LNB-RF1 with 0V8. +5V-DVBS start-up will imply +3V3-DVBS start-up, with a small delay of a few milliseconds => +2V5-DVBS and +1V-DVBS will be enabled.

If +24V drops below +15V level then the DVB-S2 supply will stop, even if +3V3 is still present.

Debugging

The best way to find a failure in the DC/DC converters is to check their start-up sequence at power "on" via the mains cord, presuming that the stand-by microprocessor and the external supply are operational. Take STANDBY signal "high"-to-"low" transition as time reference.
When +12V becomes available (maximum 1 second after STANDBY signal goes "low") then +1V1 is started immediately. After ENABLE-3V3 goes "low", all the other supply voltages should rise within a few milliseconds.

Tips

- Behaviour comparison with a reference TV550 platform can be a fast way to locate failures.
- If +12V stays "low", check the integrity of fuse 1U40.
- Check the integrity (at least no short circuit between drain and source) of the power MOS-FETs before starting up the platform in SDM, otherwise many components might be damaged. Using a ohmmeter can detect short circuits between any power rail and ground or between +12V and any other power rail.
- Short circuit at the output of an integrated linear stabilizer (7UC0, 7UD2 or 7UD3) will heat up this device strongly.
- Switching frequencies should be 500 kHz ...600 kHz for 12 V to 1.1 V and 12 V to 1.8 V DC-DC converters,

Service Modes, Error Codes, and Fault Finding (continued)

900 kHz for 12 V to 3.3 V and 12 V to 5 V DC-DC converters. The DVB-S2 supply 24 V to 5 V and 24 V to +V LNB DC-DC converters operates at 300 kHz while for 5 V to 1.1 V DC-DC converter 900 kHz is used.

5.8.6 Exit "Factory Mode"

When an "F" is displayed in the screen's right corner, this means the set is in "Factory" mode, and it normally happens after a new SSB is mounted. To exit this mode, push the "VOLUME minus" button on the TV's local keyboard for 10 seconds (this disables the continuous mode).
Then push the "SOURCE" button for 10 seconds until the "F" disappears from the screen.

5.8.7 Logging

When something is wrong with the TV set (f.i. the set is rebooting) you can check for more information via the logging in Hyperterminal. The Hyperterminal is available in every Windows application via Programs, Accessories, Communications, Hyperterminal.

After start-up of the Hyperterminal, fill in a name (f.i. "logging") in the "Connection Description" box, then apply the following settings:
1. COMx
2. Bits per second = 115200
3. Data bits = 8
4. Parity = none
5. Stop bits = 1
6. Flow control = none

During the start-up of the TV set, the logging will be displayed. This is also the case during rebooting of the TV set (the same logging appears time after time). Also available in the logging is the "Display Option Code" (useful when there is no picture), look for item "DisplayRawNumber" in the beginning of the logging. Tip: when there is no picture available during rebooting you are able to check for "error devices" in the logging (LAYER 2 error) which can be very helpful to determine the failure cause of the reboot. For protection state, there is no logging.

5.8.8 Guidelines Uart logging

Description possible cases:

Uart loggings are displayed:
- When Uart loggings are coming out, the first conclusion we can make is that the TV set is starting up and communication with the flash RAM seems to be supported. The PNX855xx is able to read and write in the DRAMs.
- We can not yet conclude : Flash RAM and DRAMs are fully operational/reliable.There still can be errors in the data transfers, DRAM erros, read/write speed and timing control.

No Uart logging at all:
- In case there is no Uart logging coming out, check if the startup script can be send over the I^2C bus (3 trials to startup) + power supplies are switched on and stable.
- No startup will end up in a blinking LED status : error LAYER 1 = "2", error LAYER 2 = "53" (startup with SDM solder paths short).
- Error LAYER 2 = "15" (hardware cause) is more related to a supply issue while error LAYER 2 = "53" (software cause) refers more to boot issues.

Uart loggings reporting fault conditions, error messages, error codes, fatal errors:
- Failure messages should be checked and investigated.For instance fatal error on the PNX51x0: check startup of the back-end processor, supplies..reset, I^2C bus. => error mentioned in the logging as: *51x0 failed to start by itself*.
- Some failures are indicated by error codes in the logging, check with error codes table (see Table "5-2 Error code overview").e.g. => <<<ERROR>>>PLFPOW_MERR.C : First Error (id=10,Layer_1=2,Layer_2=23).
- I^2C bus error mentioned as e.g.: " I^2C bus 4 blocked".
- Not all failures or error messages should be interpreted as fault.For instance root cause can be due to wrong option codes settings => e.g. "DVBS2Suppoprted : False/True.

In the Uart log startup script we can observe and check the enabled loaded option codes.

Defective sectors (bad blocks) in the Nand Flash can also be reported in the logging.

Startup in the SW upgrade application and observe the Uart logging:
Starting up the TV set in the Manual Software Upgrade mode will show access to USB, meant to copy software content from USB to the DRAM.Progress is shown in the logging as follows: "cosupgstdcmds_mcmdwritepart: Programming 102400 bytes, 40505344 of 40607744 bytes programmed".

Startup in Jett Mode:
Check Uart logging in Jet mode mentioned as : "JETT UART READY".

Uart logging changing preset:
=> COMMAND: calling DFB source = RC6, system=0, key = 4".

5.8.9 Loudspeakers

Make sure that the volume is set to minimum during disconnecting the speakers in the ON-state of the TV. The audio amplifier can be damaged by disconnecting the speakers during ON-state of the set!

5.8.10 PSL

In case of no picture when CSM (test pattern) is activated and backlight doesn't light up, it's recommended first to check the inverter on the PSL + wiring (LAYER 2 error = 17 is displayed in SDM).

5.8.11 Tuner

Attention: In case the tuner is replaced, always check the tuner options!

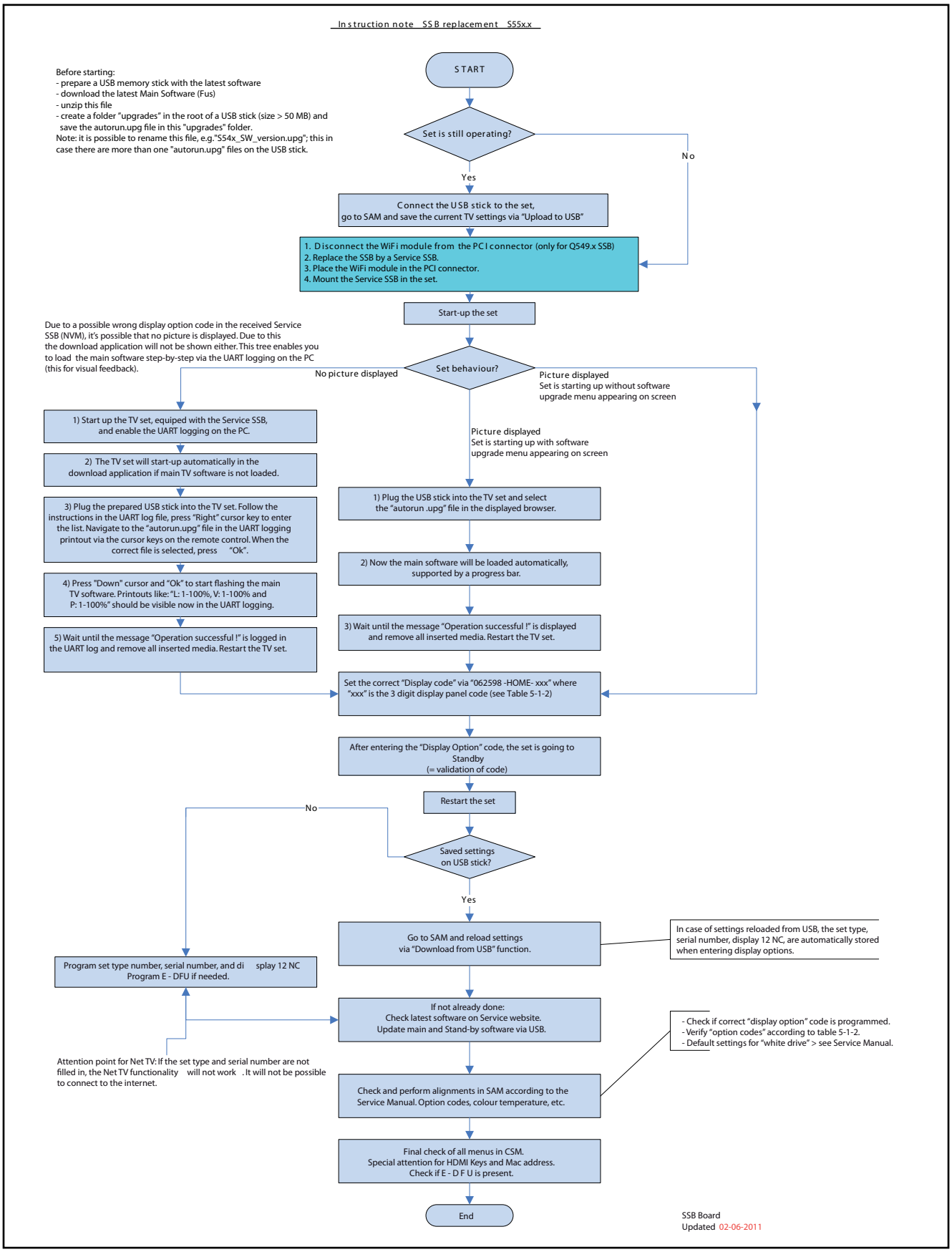
5.8.12 Display option code

Attention: In case the SSB is replaced, always check the display option code in SAM, even when picture is available. Performance with the incorrect display option code can lead to unwanted side-effects for certain conditions.

Service Modes, Error Codes, and Fault Finding (continued)

5.8.13 SSB Replacement

Follow the instructions in the flowchart in case a SSB has to be exchanged. See figure "SSB replacement flowchart".



Service Modes, Error Codes, and Fault Finding (continued)

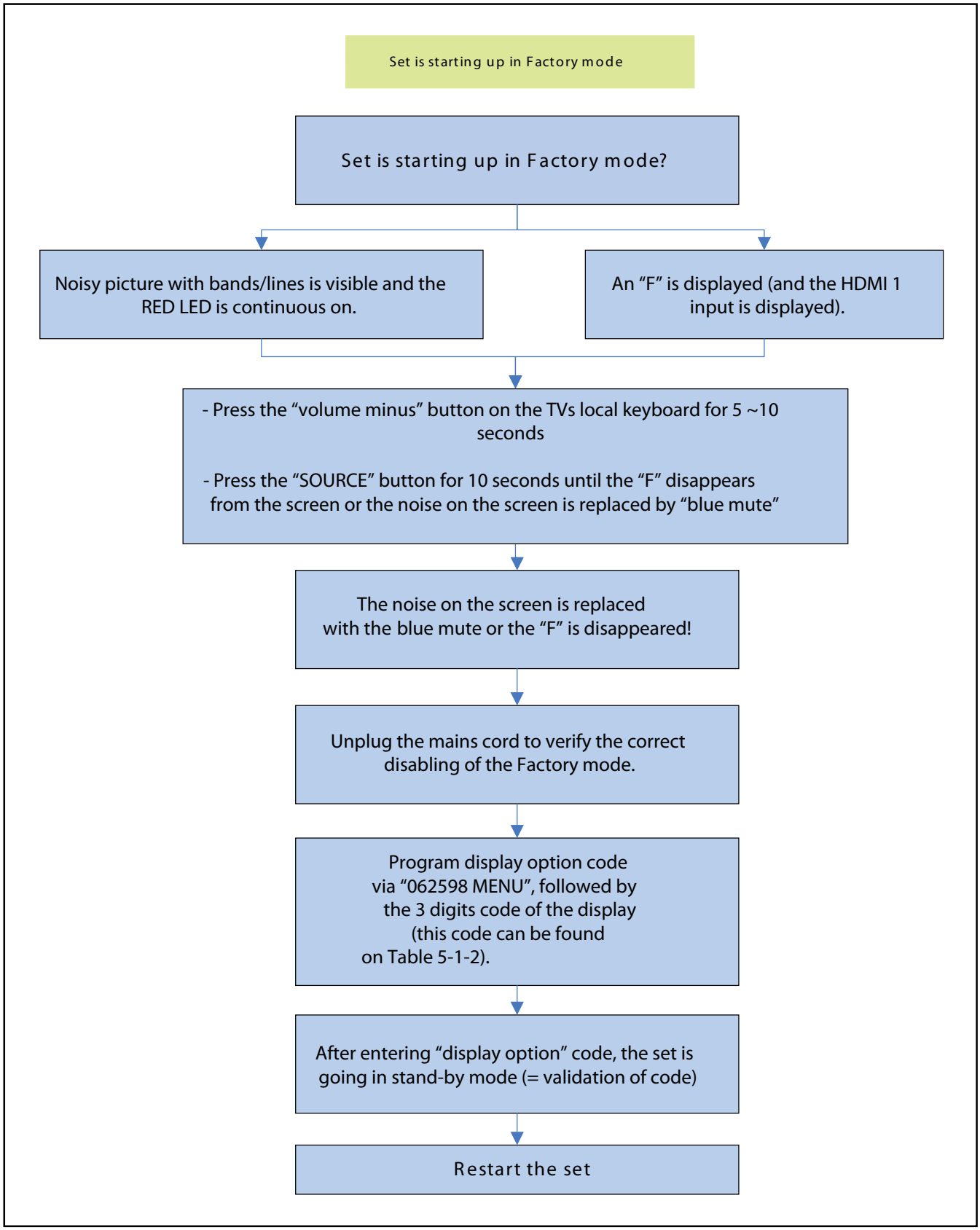
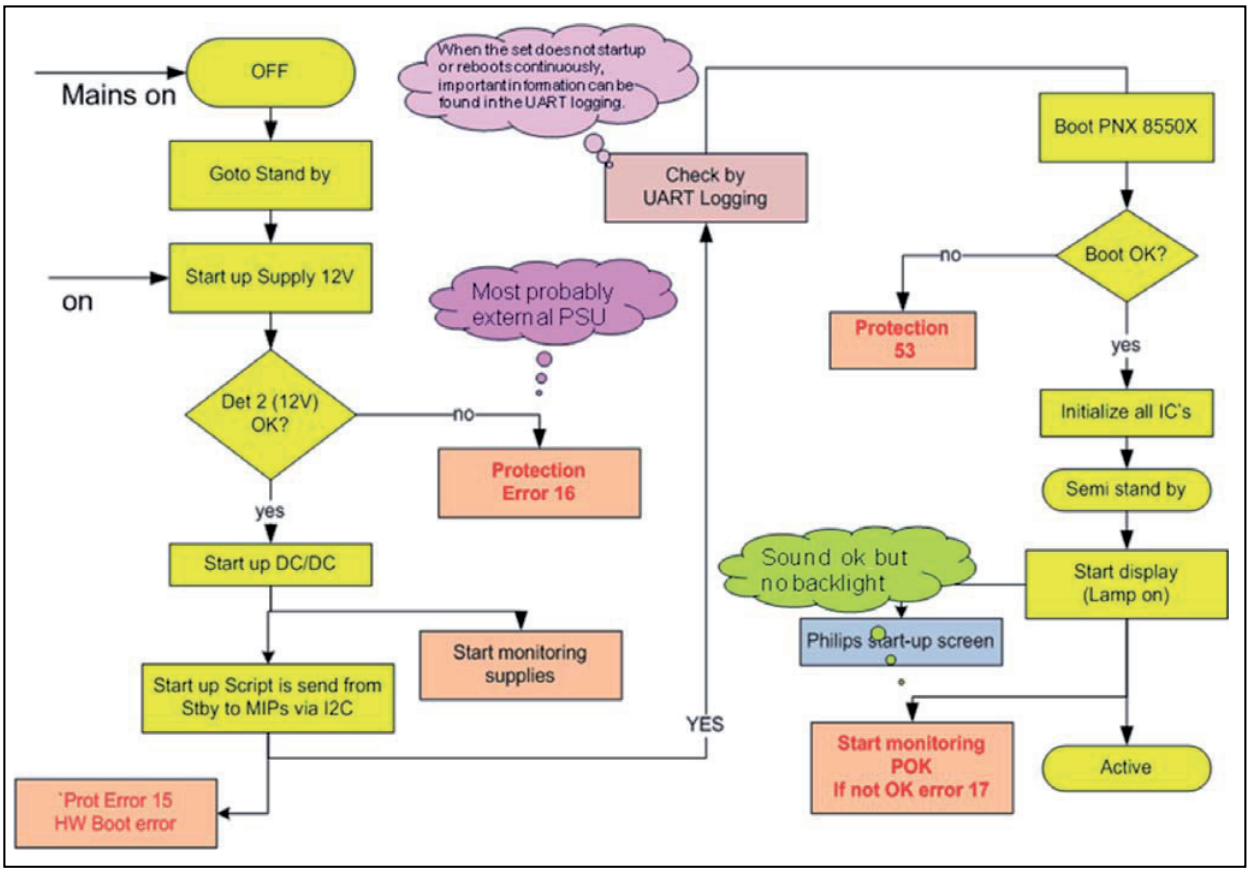


Figure 5-12 SSB replacement flowchart - Factory mode

Service Modes, Error Codes, and Fault Finding (continued)



18753_211_100811.eps
100811

Figure 5-13 SSB start-up

5.9 Software Upgrading

5.9.1 Introduction

The set software and security keys are stored in a NAND-Flash, which is connected to the PNX855xx.

It is possible **for the user** to upgrade the **main** software via the USB port. This allows replacement of a software image in a stand alone set, without the need of an E-JTAG debugger. A description on how to upgrade the main software can be found in the electronic User Manual.

Important: When the NAND-Flash must be replaced, a new SSB must be ordered, due to the presence of the security keys! (CI +, MAC address, ...).
Perform the following actions after SSB replacement:
1. Set the correct option codes (see Table 6-6).
2. Update the TV software => see the eUM (electronic User Manual) for instructions.
3. Perform the alignments as described in chapter 6 (section 6.5 Reset of Repaired SSB).
4. Check in CSM if the CI + key, MAC address.. are valid.

For the correct order number of a new SSB, always refer to the Spare Parts list!

5.9.2 Main Software Upgrade

- The “UpgradeAll.upg” file is only used in the factory.

Automatic Software Upgrade
In “normal” conditions, so when there is no major problem with the TV, the main software and the default software upgrade application can be upgraded with the “AUTORUN.UPG” (FUS part of the one-zip file: e.g. 3104 337 05661 _FUS _S5551_x.x.x.x_prod.zip). This can also be done by the consumers themselves, but they will have to get their software from the www.sharp-eu.com site or via the Software Update Assistant in the user menu (see eUM). The “autorun.upg” file must be placed in the root of the USB stick.
How to upgrade:
1. Copy “AUTORUN.UPG” to the root of the USB stick.
2. Insert USB stick in the set while the set is operational. The set will restart and the upgrading will start automatically. As soon as the programming is finished, a message is shown to remove the USB stick and restart the set.

Manual Software Upgrade
In case that the software upgrade application does not start automatically, it can also be started manually.
How to start the software upgrade application manually:
1. Disconnect the TV from the Mains/AC Power.
2. Press the “OK” button on a SHARP TV remote control.

Service Modes, Error Codes, and Fault Finding (continued)

3. The software upgrade application will start.

Attention!
In case the download application has been started **manually**, the “autorun.upg” will maybe not be recognized.
What to do in this case:
1. Create a directory “UPGRADES” on the USB stick.
2. Rename the “autorun.upg” to something else, e.g. to “software.upg”. Do not use long or complicated names, keep it simple. Make sure that “AUTORUN.UPG” is no longer present in the root of the USB stick.
3. Copy the renamed “upg” file into this directory.
4. Insert USB stick into the TV.
5. The renamed “upg” file will be visible and selectable in the upgrade application.

Back-up Software Upgrade Application
If the default software upgrade application does not start (could be due to a corrupted boot sector) via the above described method, try activating the “back-up software upgrade application”.
How to start the “back-up software upgrade application” manually:
1. Disconnect the TV from the Mains/AC Power.
2. Press the “CURSOR DOWN”-button on SHARP TV remote control while reconnecting the TV to the Mains/AC Power.
3. The back-up software upgrade application will start.

5.9.3 Stand-by Software Upgrade via USB

In this chassis it is possible to upgrade the Stand-by software via a USB stick. The method is similar to upgrading the main software via USB.
Use the following steps:
1. Create a directory “UPGRADES” on the USB stick.
2. Copy the Stand-by software (part of the one-zip file, e.g. StandbyFactory_88.0.0.0.upg) into this directory.
3. Insert the USB stick into the TV.
4. Start the download application manually (see section “Manual Software Upgrade”.
5. Select the appropriate file and press the “OK” button to upgrade.

5.9.4 Content and Usage of the One-Zip Software File

Below the content of the One-Zip file is explained, and instructions on how and when to use it.

- **BalanceFPGA_S55XX_x.x.x.x_prod.zip.** Contains the BalanceFPGA software in “upg” format.
- **FUS_S55XX_x.x.x.x_prod.zip.** Contains the “autorun.upg” which is needed to upgrade the TV main software and the software download application.
- **PNX5130UPG_S55XX_x.x.x.x_prod.zip.** Contains the PNX5130 software in “upg” format.
- **StandbySW_S55XX_x.x.x.x_prod.zip.** Contains the StandbyFactory software in “upg” format.
- **ProcessNVM_S55XX_x.x.x.x_prod.zip..** Default NVM content. Must be programmed via USB, be aware that all alignments stored in NVM are overwritten here.

5.9.5 UART logging 2K10 (see section “5.8 Fault Finding and Repair Tips, 5.8.7 Logging)

ALIGNMENTS

6. Alignments

Index of this chapter:

6.1 General Alignment Conditions

Perform all electrical adjustments under the following conditions:

- Power supply voltage (depends on region):
  - **AP-NTSC:** 120 VAC or 230 V_{AC} / 50 Hz (± 10%).
  - **AP-PAL-multi:** 120 - 230 V_{AC} / 50 Hz (± 10%).
  - **EU:** 230 V_{AC} / 50 Hz (± 10%).
  - **LATAM-NTSC:** 120 - 230 V_{AC} / 50 Hz (± 10%).
  - **US:** 120 V_{AC} / 60 Hz (± 10%).
- Connect the set to the mains via an isolation transformer with low internal resistance.
- Allow the set to warm up for approximately 15 minutes.
- Measure voltages and waveforms in relation to correct ground (e.g. measure audio signals in relation to AUDIO_GND).
  Caution: It is not allowed to use heat sinks as ground.
- Test probe: Ri > 10 MΩ, Ci < 20 pF.
- Use an isolated trimmer/screwdriver to perform alignments.

6.1.1 Alignment Sequence

- First, set the correct options:
  - In SAM, select “Option numbers”.
  - Fill in the option settings for “Group 1” and “Group 2” according to Table 6-6 (see also paragraph 6.4 Option Settings).
  - Press OK on the remote control before the cursor is moved to the left.
  - In submenu “Option numbers” select “Store” and press OK on the RC.
- OR:
  - In main menu, select “Store” again and press OK on the RC.
  - Switch the set to Stand-by.
- Warming up (>15 minutes).

6.2 Hardware Alignments

Not applicable.

6.3 Software Alignments

Put the set in SAM mode (see Chapter 5. Service Modes, Error Codes, and Fault Finding). The SAM menu will now appear on the screen. Select ALIGNMENTS and go to one of the sub menus. The alignments are explained below.
The following items can be aligned:

- White point

To store the data:

- Press OK on the RC **before the cursor is moved to the left**
- In main menu select “Store” and press OK on the RC
- Switch the set to stand-by mode.

For the next alignments, supply the following test signals via a video generator to the RF input:

- **EU/AP-PAL models:** a PAL B/G TV-signal with a signal strength of at least 1 mV and a frequency of 475.25 MHz
- **US/AP-NTSC models:** an NTSC M/N TV-signal with a signal strength of at least 1 mV and a frequency of 61.25 MHz (channel 3).
- **LATAM models:** an NTSC M TV-signal with a signal strength of at least 1 mV and a frequency of 61.25 MHz (channel 3).

6.3.1 White Point

- Choose “TV menu”, “Setup”, “More TV Settings” and then “Picture” and set picture settings as follows:

Picture Setting	
Contrast	100
Brightness	50
Colour	0
Light Sensor	Off
Picture format	Unscaled

- In menu “Picture”, choose “Pixel Plus HD” and set picture settings as follows:

Picture Setting	
Dynamic Contrast	Off
Dynamic Backlight	Off
Colour Enhancement	Off
Gamma	0

- Go to the SAM and select “Alignments”-> “White point”.

White point alignment LCD screens:

- Use a 100% white screen (format: 720p50) to the HDMI input and set the following values:
  - “Colour temperature”: “Cool”.
  - All “White point” values to: “127”.

In case you have a colour analyser:

- Measure, in a dark environment, with a calibrated contactless colour analyser (Minolta CA-210 or Minolta CS-200) in the centre of the screen and note the x, y value.
- Change the pattern to 90% white screen. If a Quantum Data generator is used, select the “GreyAll” test pattern at level = 230.
- Adjust the correct x, y coordinates (while holding one of the White point registers R, G or B on 127) by means of decreasing the value of one or two other white points to the correct x, y coordinates (see Table 6-1 White D alignment values - LED - Minolta CA-210. Tolerance: dx: +/- 0.002, dy: +/- 0.002.

- Repeat this step for the other colour temperatures that need to be aligned.
- When finished press OK on the RC and then press STORE (in the SAM root menu) to store the aligned values to the NVM.
- Restore the initial picture settings after the alignments.

Table 6-1 White D alignment values - LED - Minolta CA-210

Value	Cool (9420K)	Normal (8120K)	Warm (6080K)
x	0.280	0.291	0.318
y	0.293	0.308	0.341

Alignments (continued)

6.4 Option Settings

6.4.1 Introduction

The microprocessor communicates with a large number of I²C ICs in the set. To ensure good communication and to make digital diagnosis possible, the microprocessor has to know which ICs to address. The presence / absence of these PNX51XX ICs (back-end advanced video picture improvement IC which offers motion estimation and compensation features (commercially called HDNM) plus integrated Ambilight control) is made known by the option codes.

Notes:

- After changing the option(s), save them by pressing the OK button on the RC before the cursor is moved to the left, select STORE in the SAM root menu and press OK on the RC.
- The new option setting is only active after the TV is switched “off” / “stand-by” and “on” again with the mains switch (the NVM is then read again).

6.4.2 Dealer Options

For dealer options, in SAM select “Dealer options”.
See Table 6-6 SAM mode overview.

6.4.3 (Service) Options

From 2011 onwards, it is not longer possible to change individual option settings in SAM. Options can only be changed all at once by using the option codes as described in section 6.4.4.

6.4.4 Opt. No. (Option numbers)

Select this sub menu to set all options at once (expressed in two long strings of numbers).
An option number (or “option byte”) represents a number of different options. When you change these numbers directly, you can set all options very quickly. All options are controlled via eight option numbers.
When the NVM is replaced, all options will require resetting. To be certain that the factory settings are reproduced exactly, you must set both option number lines. You can find the correct option numbers on Table 6-6 (following page.)

The first line (group 1) indicates hardware options 1 to 4, the second line (group 2) indicate software options 5 to 8.
Every 5-digit number represents 16 bits (so the maximum value will be 65536 if all options are set).
When all the correct options are set, the sum of the decimal values of each Option Byte (OB) will give the option number.

6.4.5 Option Code Overview

Refer to the Table 6-6 for the correct option codes.
Important: after having edited the option numbers as described above, you **must press OK** on the remote control **before the cursor is moved to the left**!

6.5 Reset of Repaired SSB

After a repaired SSB has been mounted in the set (set repair on board level), the type number (CTN) and production code of the TV has to be set according to the type plate of the set. For this, you can use the NVM editor in SAM. This action also ensures the correct functioning of the “Net TV” feature and access to the Net TV portals.

After a SSB repair, the original channel map can be restored, provided that the original channel map was stored on a USB stick before repair was commenced and that basic functionality of the TV, needed for this procedure, was not hampered as a result of the defect. The procedure of “channel map cloning” is clearly described in the (electronic) user manual.

In case of a display replacement, reset the “Operation hours display” to “0”, or to the operation hours of the replacement display.

Table 6-6 Option numbers

Series	Tuner combination	Model name	option numbers		Destination
			Option number 1	Option number 2	
LE630E	DVB-T/C	LC-46LE630E	00008 00001 15397 04287	43850 34311 33024 00012	For Pan Europe
		LC-40LE630E	00008 00001 15397 04287	43849 34311 33024 00012	
		LC-32LE630E	00008 00001 15397 02239	43847 34311 33024 00012	
LE630RU	DVB-T/C	LC-46LE630RU	00008 00001 15397 04287	43850 34311 33024 00012	For Russia
		LC-40LE630RU	00008 00001 15397 04287	43849 34311 33024 00012	
		LC-32LE630RU	00008 00001 15397 02239	43847 34311 33024 00012	
LE631E	DVB-T/T2/C	LC-46LE631E	00008 00001 15421 04287	43850 34311 33024 00011	For UK/Nordic
		LC-40LE631E	00008 00001 15421 04287	43849 34311 33024 00011	
		LC-32LE631E	00008 00001 15421 02239	43847 34311 33024 00011	
LE632E	DVB-T/S2/C	LC-46LE632E	00008 00001 15397 04287	44874 34311 33024 00012	For Germany etc
		LC-40LE632E	00008 00001 15397 04287	44873 34311 33024 00012	
		LC-32LE632E	00008 00001 15397 02239	44871 34311 33024 00012	
LU630E	DVB-T/C	LC-46LU630E	00008 00001 15397 04287	43850 34311 33024 00012	For Pan Europe
		LC-40LU630E	00008 00001 15397 04287	43849 34311 33024 00012	
		LC-32LU630E	00008 00001 15397 02239	43847 34311 33024 00012	
LU632E	DVB-T/S2/C	LC-46LU632E	00008 00001 15397 04287	44874 34311 33024 00012	For Germany etc
		LC-40LU632E	00008 00001 15397 04287	44873 34311 33024 00012	
		LC-32LU632E	00008 00001 15397 02239	44871 34311 33024 00012	
LX630E	DVB-T/C	LC-46LX630E	00008 00001 15397 04287	43850 34311 33024 00012	For Pan Europe
		LC-40LX630E	00008 00001 15397 04287	43849 34311 33024 00012	
		LC-32LX630E	00008 00001 15397 02239	43847 34311 33024 00012	
LX632E	DVB-T/S2/C	LC-46LX632E	00008 00001 15397 04287	44874 34311 33024 00012	For Germany etc
		LC-40LX632E	00008 00001 15397 04287	44873 34311 33024 00012	
		LC-32LX632E	00008 00001 15397 02239	44871 34311 33024 00012	

Alignments (continued)

6.5.1 SSB identification

Whenever ordering a new SSB, it should be noted that the correct ordering number (12nc) of a SSB is located on a sticker on the SSB. The format is <12nc SSB><serial number>. The ordering number of a “Service” SSB is the same as the ordering number of an initial “factory” SSB.

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090319

Figure 6-1 SSB identification

6.6 Total Overview SAM modes

Table 6-6 SAM mode overview

Main Menu	Sub-menu 1	Sub-menu 2	Sub-menu 3	Description
Hardware Info	A. SW version	e.g. “S5551_0.9.21.0”		Display TV & Stand-by SW version and CTN serial number
	B. Stand-by processor version	e.g. “STDBY_89.167.5.0”		
	C. Production code	e.g. “see type plate”		
Operation hours				Displays the accumulated total of operation hours.TV switched “on/off” & every 0.5 hours is increase one
Errors				Displayed the most recent errors
Reset error buffer				Clears all content in the error buffer
Alignment	White point	Colour temperature	Normal	3 different modes of colour temperature can be selected
			Warn	
			Cool	
		White point red		LCD White Point Alignment. For values, see Table 6-1 White D alignment values
		White point green		
		White point blue		
Dealer options	Virgin mode	Off/On		Select Virgin mode On/Off. TV starts up / does not start up (once) with a language selection menu after the mains switch is turned “on” for the first time (virgin mode)
	E-sticker	Off/On		Select E-sticker On/Off (USP’s on-screen)
	Auto store mode	None		
		PDC/VPS		
		TXT page		
		PDC/VPS/TXT		
Option numbers	Group 1	e.g. “00008.00001.15421.02239”		The first line (group 1) indicates hardware options 1 to 4
	Group 2	e.g. “44816.34311.33024.00000”		The second line (group 2) indicates software options 5 to 8
	Store			Store after changing
Initialise NVM				N.A.
Store				Select Store in the SAM root menu after making **any** changes
Operation hours display		0003		In case the display must be swapped for repair, you can reset the “”Display operation hours” to “0”. So, this one does keeps up the lifetime of the display itself (mainly to compensate the degeneration behaviour)
Software maintenance	Software events	Display		Display information is for development purposes
		Clear		
		Test reboot		
		Test cold reboot		
		Test application crash		
	Hardware events	Display		Display information is for development purposes
		Clear		

Alignments (continued)

Main Menu	Sub-menu 1	Sub-menu 2	Sub-menu 3	Description
Test setting	Digital info	Current frequency: 538		
		QAM modulation: 64-qam		Display information is for development purposes
		Symbol rate:		
		Original network ID: 12871		
		Network ID: 12871		
		Transport stream ID: 2		
		Service ID: 3		
		Hierarchical modulation: 0		
		Selected video PID: 35		
		Selected main audio PID: 99		
		Selected 2nd audio PID: 8191		
	Install start frequency	000		Install start frequency from “0” MHz
	Install end frequency	999		Install end frequency as “999” MHz
	Default install frequency			
	Installation	Digital only		Select Digital only or Digital + Analogue before installation
		Digital + Analogue		
Development file versions	Development 1 file version	Display parameters DISPT5.0.9.7		Display information is for development purposes
		Acoustics parameters ACSTS 5.2.6.6		
		PQ - TV550 1.0.27.7		
		PQS- Profile set		
		PQF - Fixed settings		
		PQU - User styles		
	Development 2 file version	12NC one zip software		Display information is for development purposes
		Initial main software		
		NVM version (e.g.)“S5551_0.9.16.0”		
		Flash units software		
		Temp com file version none		
Upload to USB	Channel list			To upload several settings from the TV to an USB stick
	Personal settings			
	Option codes			
	Alignments			
	Identification data			
	History list			
	All (options included)			
Download from USB	Channel list			To download several settings from the USB stick to the TV
	Personal settings			
	Option codes			
	Alignments			
	Identification data			
	All (options included)			
NVM editor	Type number (Press “OK” to enter)	see type plate		Enter the model name, e.g. LC32LE630E (whitout “-”)
	Production Code (Press “OK” to enter)	see type plate		Serial Number

CIRCUIT DESCRIPTIONS

7. Circuit Descriptions

Index of this chapter:

Notes:

- Only **new** circuits (circuits that are not published recently) are described.
- Figures can deviate slightly from the actual situation, due to different set executions.
- For a good understanding of the following circuit descriptions, please use the wiring-, block- (see chapter 9. Block Diagrams) and circuit diagrams (see chapter 10. Circuit Diagrams and PWB Layouts).Where necessary, you will find a separate drawing for clarification.

7.1 Introduction

The LE63x chassis uses the PNX855xx chipset. The major deltas S551 are:

•support of DVB-T2 (“second generation” DVBT).

- implementation of “passive” 3D
- removal of TCON from the SSB (comes with the display)
- changed power architecture

7.1.1 Implementation

Key components of this chassis are:

- PNX855xx System-On-Chip (SOC) TV Processor
- TX26xx Hybrid Tuner (DVB-T/C, analogue)
- STV6110AT DVB-S Satellite Tuner
- SII9x87 HDMI Switch
- TPA312xD2PWP Class D Power Amplifier
- LAN8710 Dual Port Gigabit Ethernet media access controller.

7.1.2 TV550 Architecture Overview

For details about the chassis block diagrams refer to chapter 9. Block Diagrams. An overview of the TV550 2011 architecture can be found in Figure 7-1.

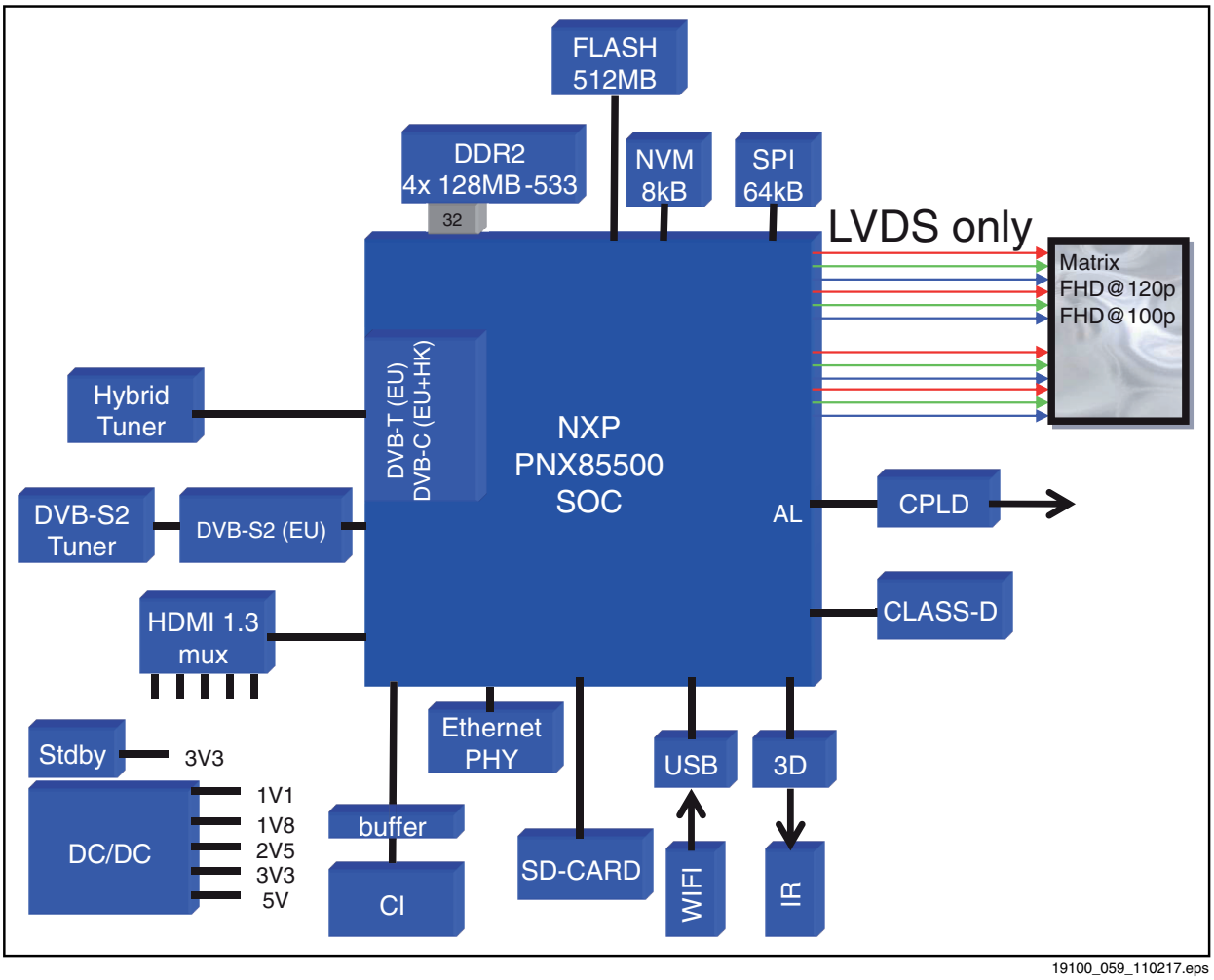

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Figure 7-1 Architecture of TV550 platform 2011

Circuit Descriptions (continued)

7.1.3 SSB Cell Layout

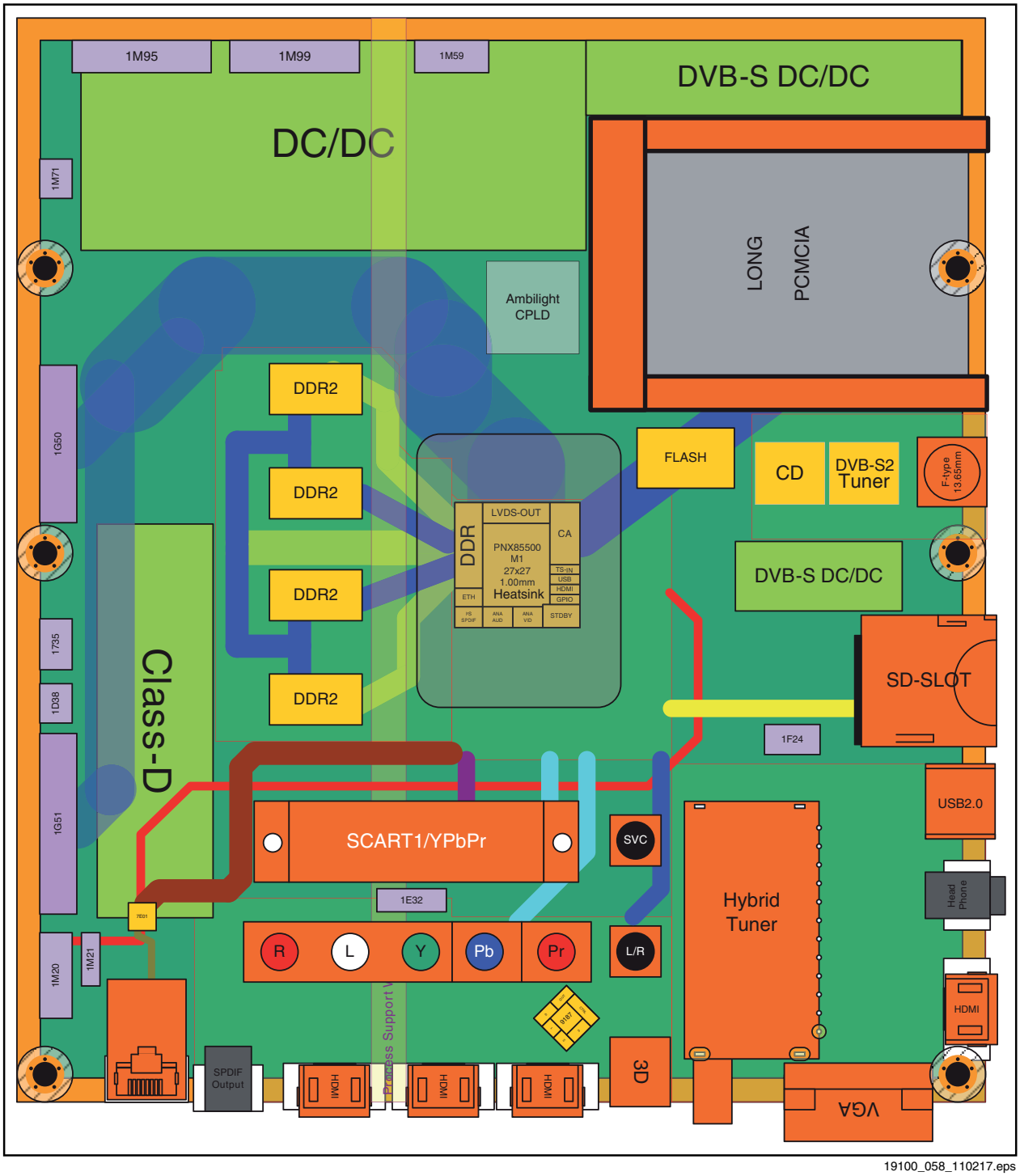

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Figure 7-2 SSB layout cells (top view)

Circuit Descriptions (continued)

7.2 Power Supply

7.2.1 Power Supply Unit

All power supplies are a black box for Service. When defective, a new board must be ordered and the defective one must be returned, unless the main fuse of the board is broken. Always replace a defective fuse with one with the correct specifications! This part is available in the regular market. Consult the Parts Listing at the end of this document for the order codes of the boards

In this manual, no detailed information is available because of design protection issues.

7.2.2 Connector overview (series xxLE63xE/RU)

Table 7-1 Connector overview 32" sets

	Connector		
no.	**1308**	**1316**	**1M95**
Descr.	**Mains**	**to display**	**to SSB**
Pin	**CN1**	**CN2**	**CN4**
1	N	A2	+3V3SB
2	L	n.c.	Standby
3	-	pin 5	GND1
4	-	n.c.	GND1
5	-	pin 3	+12V3
6	-	n.c.	+12V3
7	-	OCD	+Vsnd
8	-	n.c.	GND1
9	-	A1	BL-ON-OFF
10	-	n.c.	BL-DIM1
11	-	pin 13	BL-I-CTRL
12	-	n.c.	POK
13	-	pin 11	+24V
14	-	n.c.	GND1
15	-	GND1	-

Table 7-2 Connector overview 46" sets

	Connector		
no.	**1308**	**1316**	**1M95**
Descr.	**Mains**	**to display**	**to SSB**
Pin	**CN1**	**CN2**	**CN4**
1	N	Anode 1+	+3V3stdby
2	L	n.c.	Standby
3	-	Cathode 1-	GND1
4	-	n.c.	GND1
5	-	Anode 2+	+12V
6	-	n.c.	+12V
7	-	Cathode 2-	+Vsnd (+24V)
8	-	n.c.	GND_SND
9	-	Anode 3+	BL-ON-OFF
10	-	n.c.	BL-DIM1 (Vsync)
11	-	Cathode 3-	BL-I-CTRL
12	-	n.c.	POK
13	-	Anode 4+	+24V (AL2_DVBS)
14	-	n.c.	GND1
15	-	Cathode 4-	-

Table 7-3 Connector overview 40" sets

	Connector		
no.	**1308**	**1316**	**1M95**
Descr.	**Mains**	**to display**	**to SSB**
Pin	**CN1**	**CN2**	**CN4**
1	N	Anode 1+	+3V3stdby
2	L	n.c.	Standby
3	-	Cathode 1-	GND1
4	-	n.c.	GND1
5	-	Anode 2+	+12V
6	-	n.c.	+12V
7	-	Cathode 2-	+Vsnd (+24V)
8	-	n.c.	GND_SND
9	-	Anode 3+	BL-ON-OFF
10	-	n.c.	BL-DIM1 (Vsync)
11	-	Cathode 3-	BL-I-CTRL
12	-	n.c.	POK
13	-	Anode 4+	+24V (AL2_DVBS)
14	-	n.c.	GND1
15	-	Cathode 4-	-

7.3 DC/DC Converters

The on-board DC/DC converters deliver the following voltages (depending on set execution):

- +3V3-STANDBY, permanent voltage for the Stand-by controller, LED/IR receiver and controls; connector 1M95 pin 1
- +12V, input from the power supply for TV550 common (active mode); connector 1M95 pins 6, 7 and 8
- +24V, input from the power supply for DVB-S2 (in active mode); connector 1M09 pins 1 and 2
- +1V1, core voltage supply for PNX855xx; has to be started up first and switched "off" last (diagram B03B)
- +1V2, supply voltage for analogue blocks inside PNX855xx
- +1V8, supply voltage for DDR2 (diagram B03B)
- +2V5, supply voltage for analogue blocks inside PNX855xx (see diagram B03E)
- +3V3, general supply voltage (diagram B03E)
- +5V, supply voltage for USB and CAM (diagram B03E)
- +5V-TUN, supply voltage for tuner (diagram B03E)
- +V-LNB, input voltage for LNB supply IC (item no. 7T50)
- +5V-DVBS, input intermediate supply voltage for DVB-S2 (diagram B08A)
- +3V3-DVBS, clean voltage for silicon tuner and DVB-S2 channel decoder
- +2V5-DVBS, clean voltage for DVB-S2 channel decoder
- +1V-DVBS, core voltage for DVB-S2 channel decoder.

A +12 V under-voltage detector (see diagram B03C) enables the 12V to 3.3V and 12V to 5V DC/DC converters via the ENABLE-3V3-5V line, and the 12V to 1.8V DC/DC converter via the ENABLE-1V8 line. DETECT2 is the signal going to the Stand-by microcontroller and ENABLE-3V3n is the signal coming from the Stand-by microcontroller.

Diagram B03D contains the following linear stabilisers:

- +2V5 stabiliser, built around item no. 7UCO
- +5V-TUN stabiliser, built around items no. 7UA6 and 7UA7
- +1V2 stabiliser, built around items no. 7UA3 and 7UA4.

Diagram B08A contains the DVB-S2-related DC/DC converters and -stabilisers:

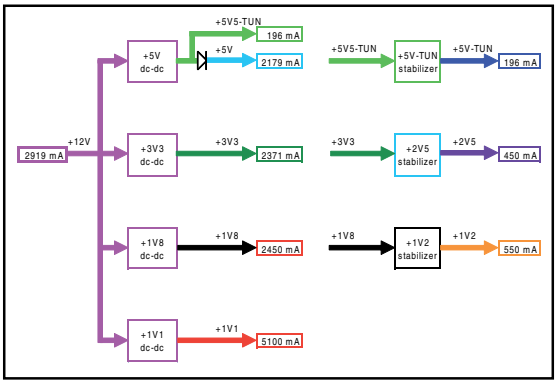
- a +24V under-voltage detection circuitry is built around item no. 7T04
- the switching frequency of the 24 to 14...20V switched mode converter is 350 kHz (item no. 7T03 and +V-LNB lines)
- the output signal on the +V-LNB line goes to the LNBH23Q (item no. 7T50)
- the LNBH23Q (item no. 7T50) sends a feedback signal via the V0-CNTRL line

Circuit Descriptions (continued)

- the switching frequency of the +5V-DVBS to +1-DVBS switched mode converter is 900 kHz (item no. 7T00)
- a delay line for the +2V5-DVBS and +1V-DVBS lines is created with item no. 3T03 (R=10k) and 2T06 (C=100n)
- a 3.3V to 2.5V linear stabiliser is built around item no. 7T01
- a 5V to 3.3V linear stabiliser is built around item no. 7T02.

Diagram B08B contains the DVB-S2 LNB supply:
- the +V-LNB signal comes from item no. 7T03
- the V0-CTRL signal goes to item no. 7T03
- the LNB-RF1 goes to the LNB.

Figures gives a graphical representation of the DC/DC converters with its current consumptions:



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100426

Figure 7-3 DC/DC converters

7.4 Front-End Analogue and DVB-T, DVB-C; ISDB-T reception

7.4.1 European/China region

The Front-End for the European/China region consist of the following key components:

- Hybrid Tuner
- Switchable SAW filter 7/8 MHz (Eur.), or single SAW filter (8 MHz) (China)
- Bandpass filter
- Amplifier
- PNX855xx SoC TV processor with integrated DVB-T and DVB-C channel decoder and analogue demodulator.

Below find a block diagram of the front-end application for this region.

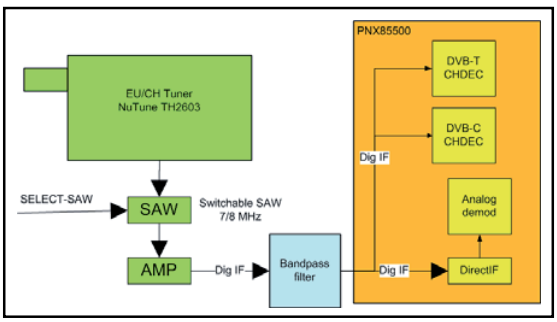

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Figure 7-4 Front-End block diagram European/China region

7.5 Front-End DVB-S(2) reception

The Front-End for the DVB-S(2) application consist of the following key components:

- Satellite Tuner; I^2C address 0xC6 (bridged via channel decoder)
- Channel decoder; I^2C address 0xD0
- LNB switching regulator; I^2C address 0x14
- Amplifier
- PNX855xx SoC TV processor with integrated DVB-T and DVB-C channel decoder and analogue demodulator.

Below find a block diagram of the front-end application for DVB-S(2) reception.

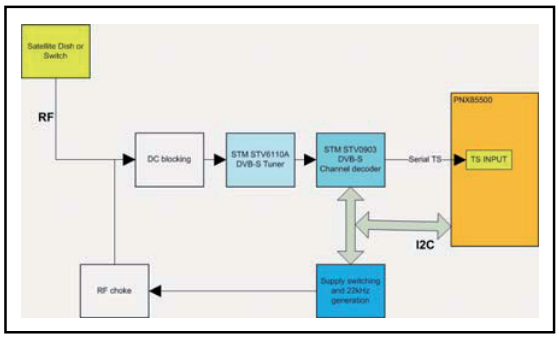

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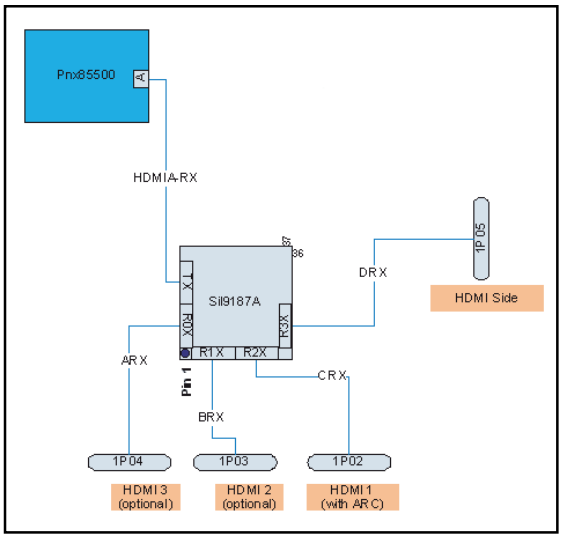
Figure 7-5 Front-End block diagram DVB-S(2) reception

This application supports the following protocols:
- Polarization selection via supply voltage (18V = horizontal, 13V = vertical)
- Band selection via “toneburst” (22 kHz): tone “on” = “high” band, tone “off” = “low” band
- Satellite (LNB) selection via DiSEqC 1.0 protocol
- Reception of DVB-S (supporting QPSK encoded signals) and DVB-S2 (supporting QPSK, 8PSK, 16APSK and 32APSK encoded signals), introducing LDPC low-density parity check techniques.

7.6 HDMI

In this platform, the Silicon Image Sil9x87 HDMI multiplexer is implemented. Refer to figure 7-6 HDMI input configuration for the application.

Circuit Descriptions (continued)



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100203

Figure 7-6 HDMI input configuration

The following multiplexers can be used:
- Sil9187A (does not support “Instaport” technology for fast switching between input signals)
- Sil9287B (supports “Instaport” technology for fast switching between input signals).

The hardware default I^2C addresses are:
- Sil9187A: 0xB0/0xB2 (random: software workaround)
- Sil9287B: 0xB2 (fixed).

The Sil9x87 has the following specifications:
- +5V detection mechanism
- Stable clock detection mechanism
- Integrated EDID
- RT control
- HPD control
- Sync detection
- TMDS output control
- CEC control
- EDID stored in Sil9x87, therefore there are no EDID pins on the SSB.

7.7 Video and Audio Processing - PNX855xx

The PNX855xx is the main audio and video processor (or System-on-Chip) for this platform. It has the following features:

- Multi-standard digital video decoder (MPEG-2, H.264, MPEG-4)
- Integrated DVB-T/DVB-C channel decoder
- Integrated CI+
- Integrated motion accurate picture processing (MAPP2)
- High definition ME/MC
- 2D LED backlight dimming option
- Embedded HDMI HDCP keys
- Extended colour gamut and colour booster
- Integrated USB2.0 host controller
- Improved MPEG artefact reduction compared with PNX8543
- Security for customers own code/settings (secure flash).

The TV550 combines front-end video processing functions, such as DVB-T channel decoding, MPEG-2/H.264 decode, analog video decode and HDMI reception, with advanced back-end video picture improvements. It also includes next generation Motion Accurate Picture Processing (MAPP2). The MAPP2 technology provides state-of-the-art motion artifact reduction with movie judder cancellation, motion sharpness and vivid colour management. High flat panel screen resolutions and refresh rates are supported with formats including 1366 × 768 @ 100Hz/120Hz and 1920 × 1080 @ 100Hz/120Hz. The combination of Ethernet, CI+ and H.264 supports new TV experiences with IPTV and VOD. On top of that, optional support is available for 2D dimming in combination with LED backlights for optimum contrast and power savings up to 50%.

For a functional diagram of the PNX855xx, refer to Figure 7-7.

Circuit Descriptions (continued)

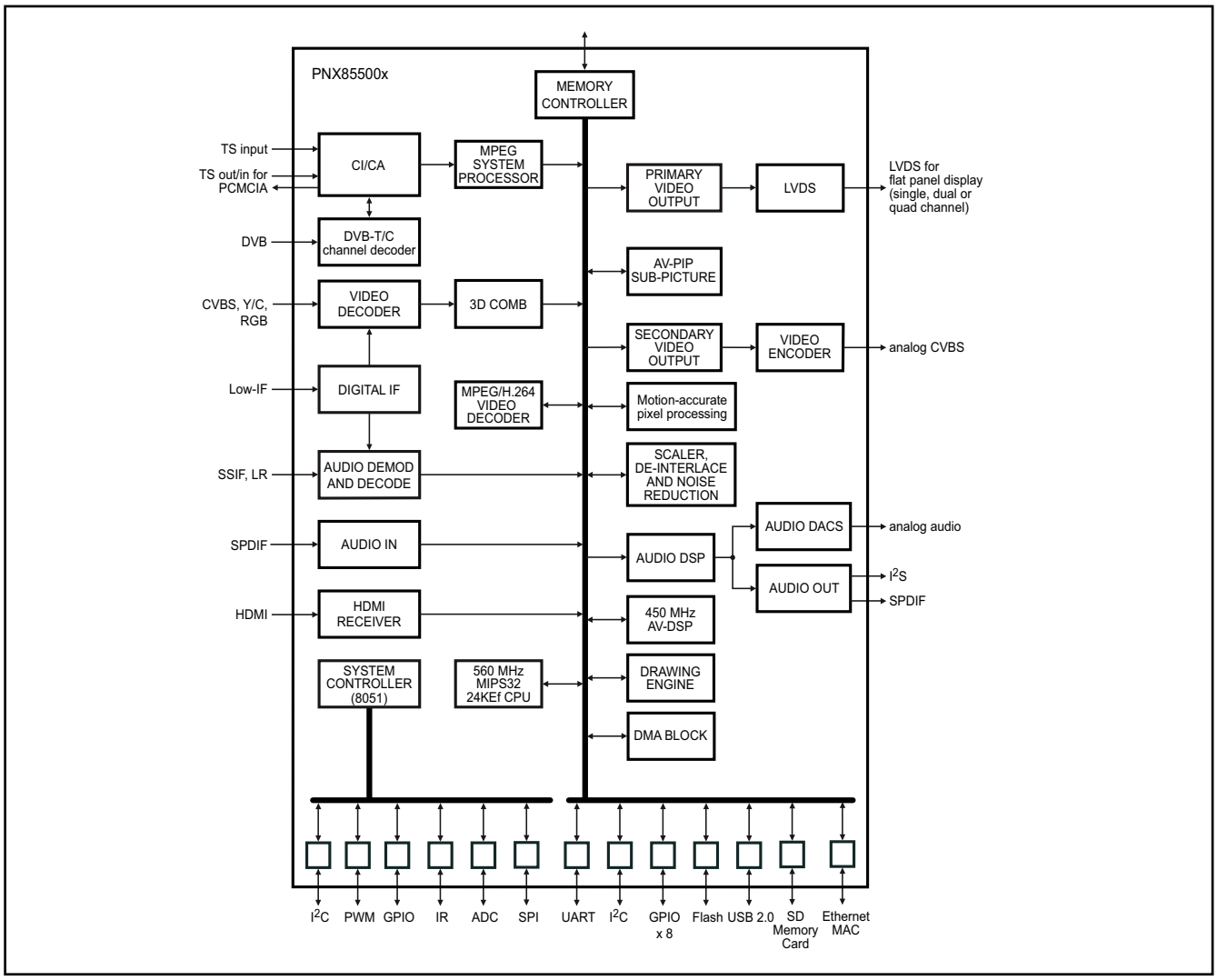

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Figure 7-7 PNX855xx functional diagram

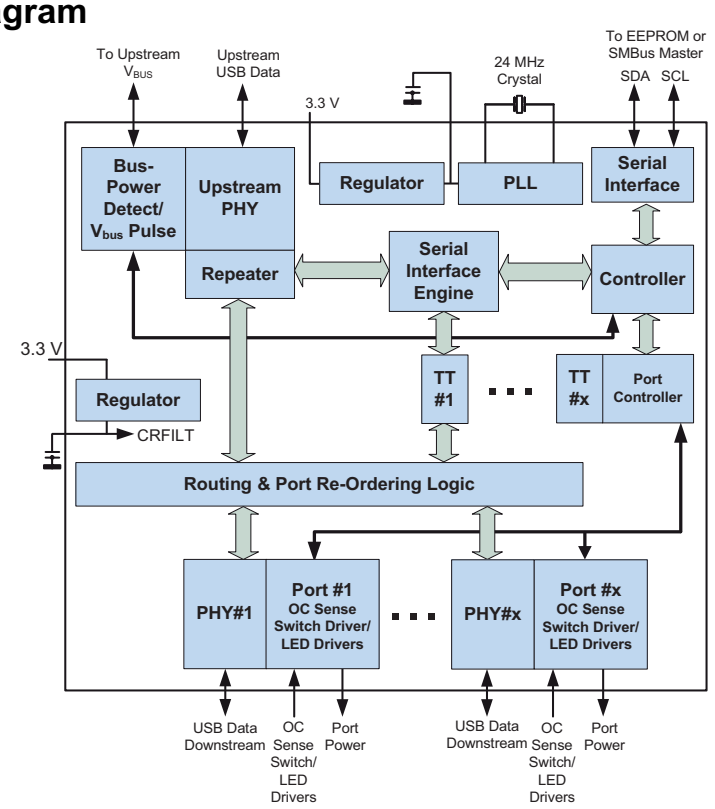
IC DATA SHEETS

8. IC Data Sheets

This chapter shows the internal block diagrams and pin configurations of ICs that are drawn as “black boxes” in the electrical diagrams (with the exception of “memory” and “logic” ICs).

8.1 Diagram USB Hub B01C, USB2513B (IC 7F25)

Block diagram



The ‘x’ indicates the number of available downstream ports: 2, 3, 4, or 7.

Note : The LED port indicators only apply to USB2513i.

Pinning information

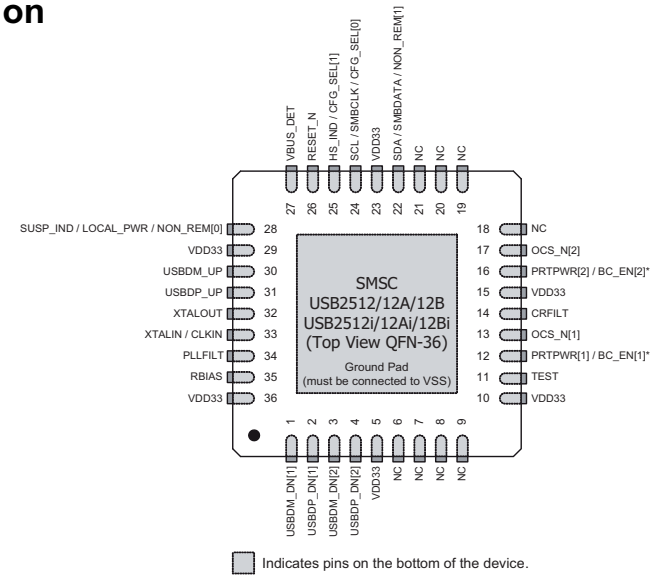


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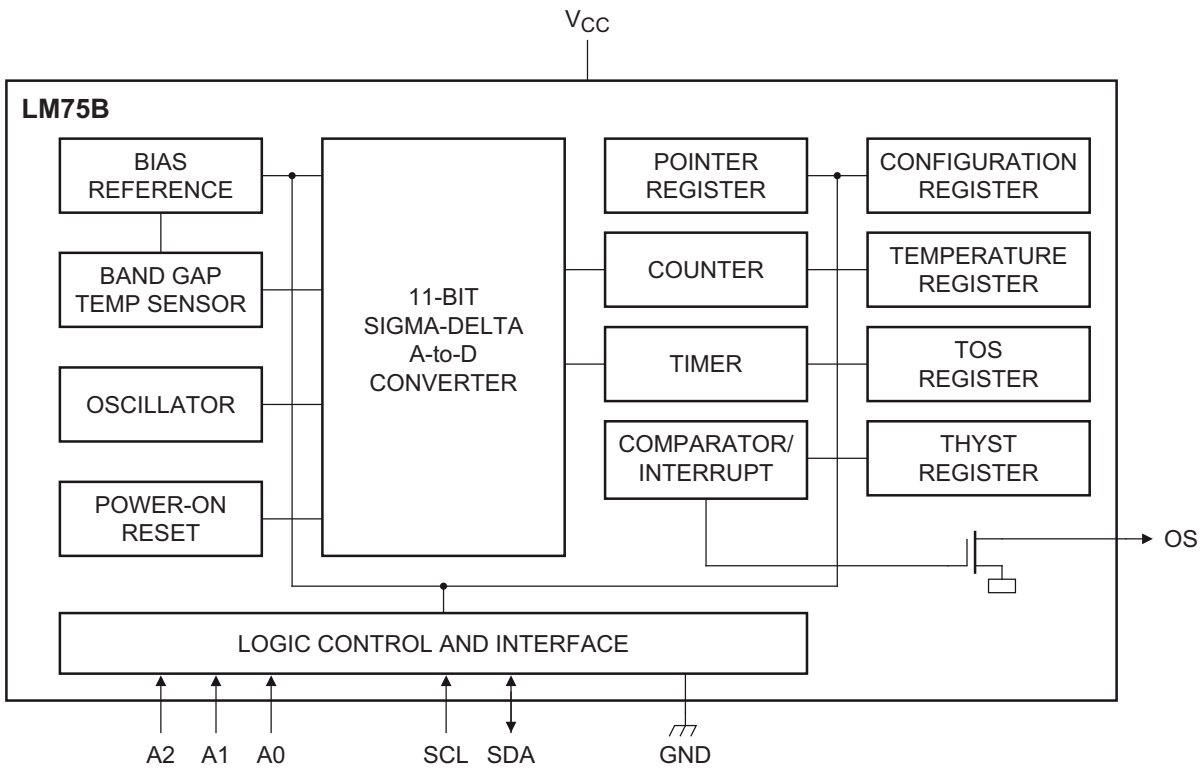
Figure 8-1 Internal block diagram and pin configuration

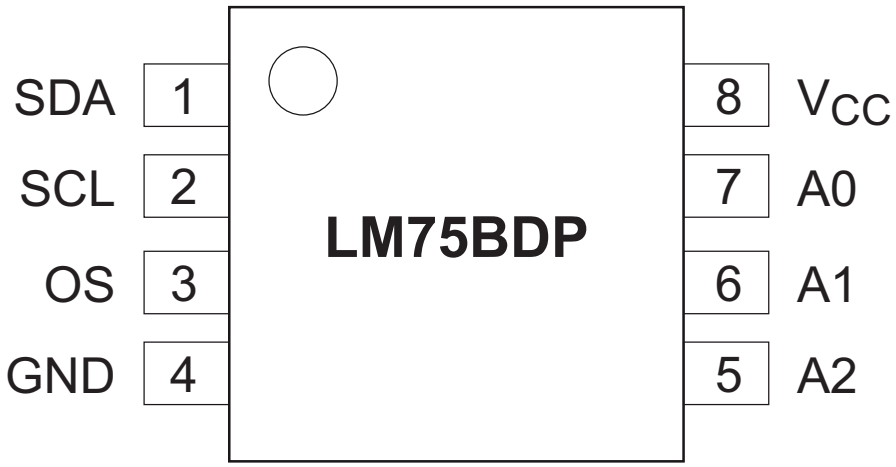
IC Data Sheets (continued)

8.2 Diagram Temp sensor & headphone B01J, LM75BDP (IC 7FD1)

Block diagram



Pinning information



18770_300_100217.eps
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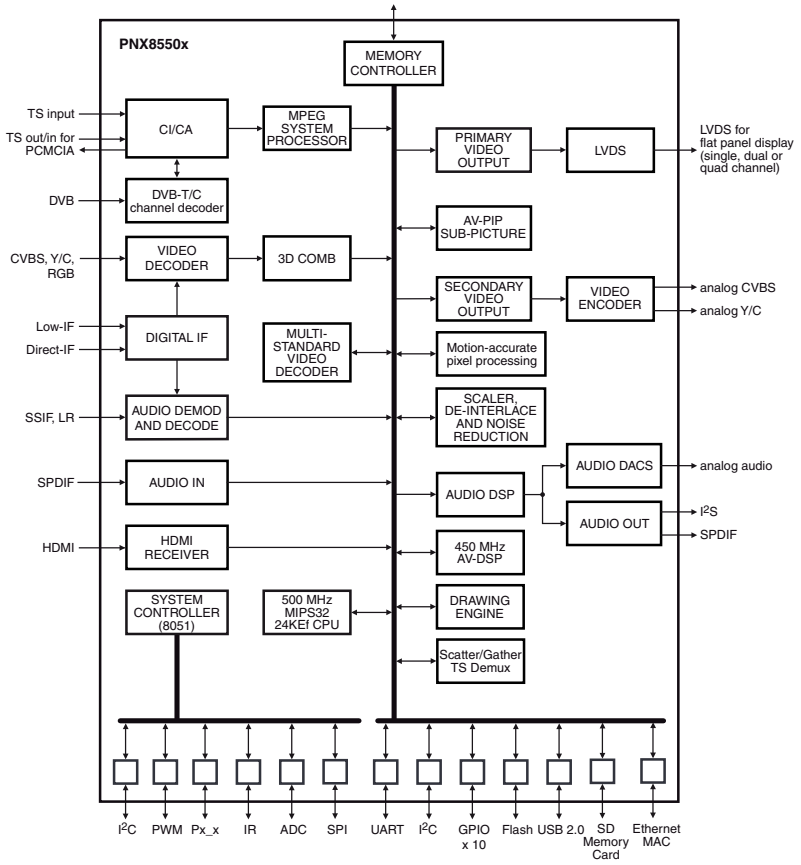
Figure 8-2 Pin configuration

IC Data Sheets (continued)

8.3 Diagram NANDflash - conditional access B02A, PNX855xx (IC7S00)

Block diagram



Pinning information

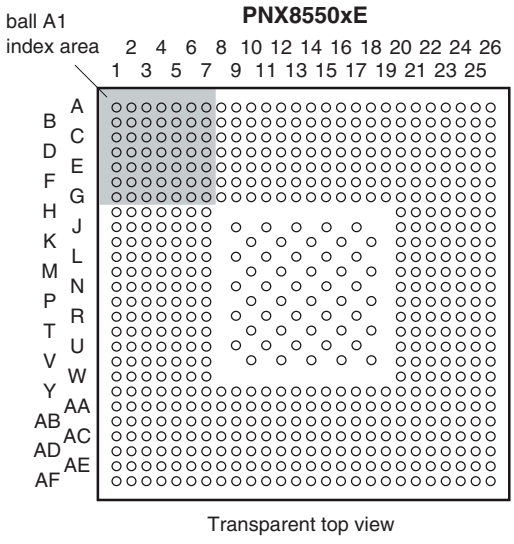


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Figure 8-3 Internal block diagram and pin configuration

IC Data Sheets (continued)

8.4 Diagram Audio B03A, TPA312xD2PWP (IC7D10)

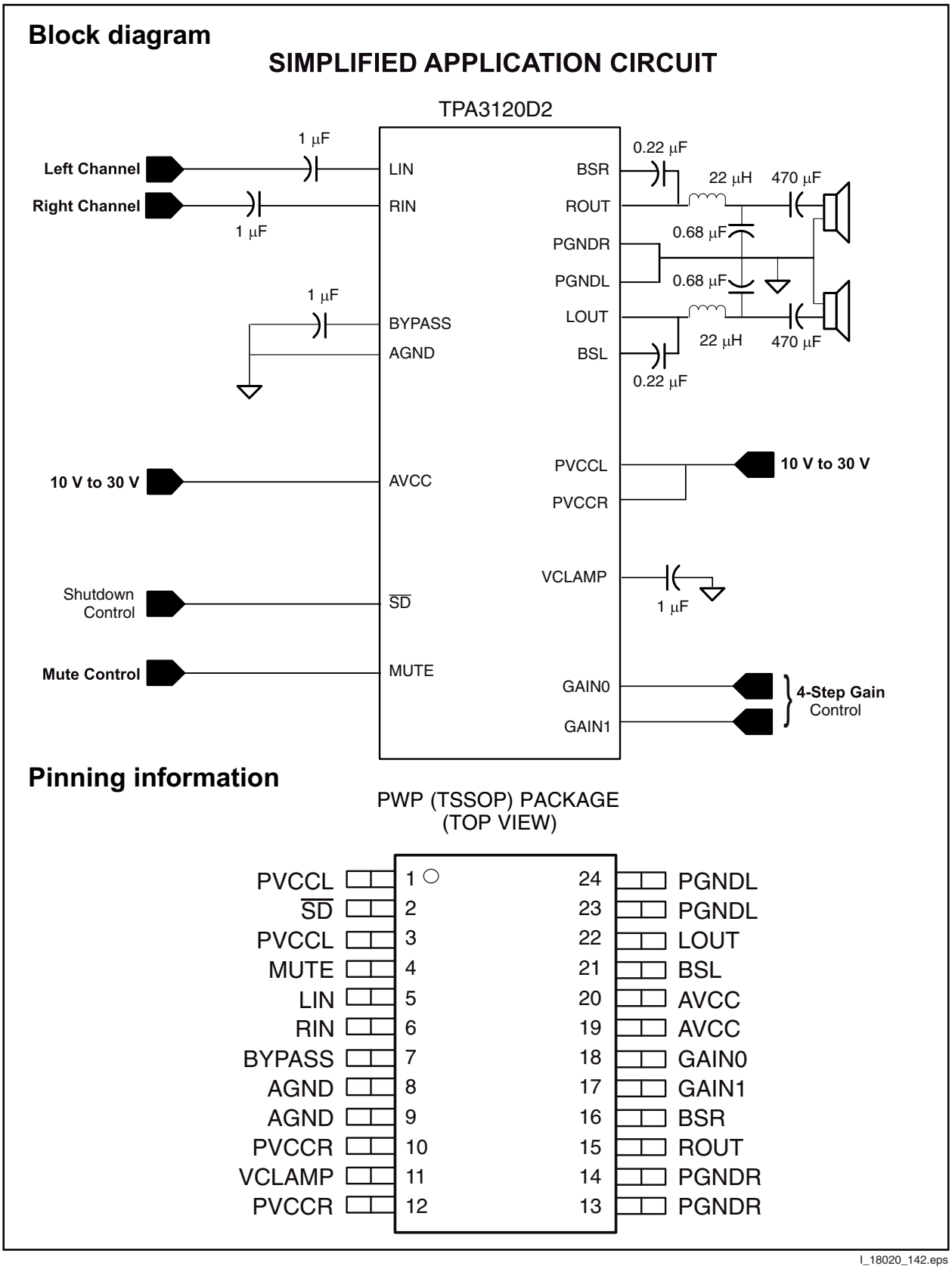
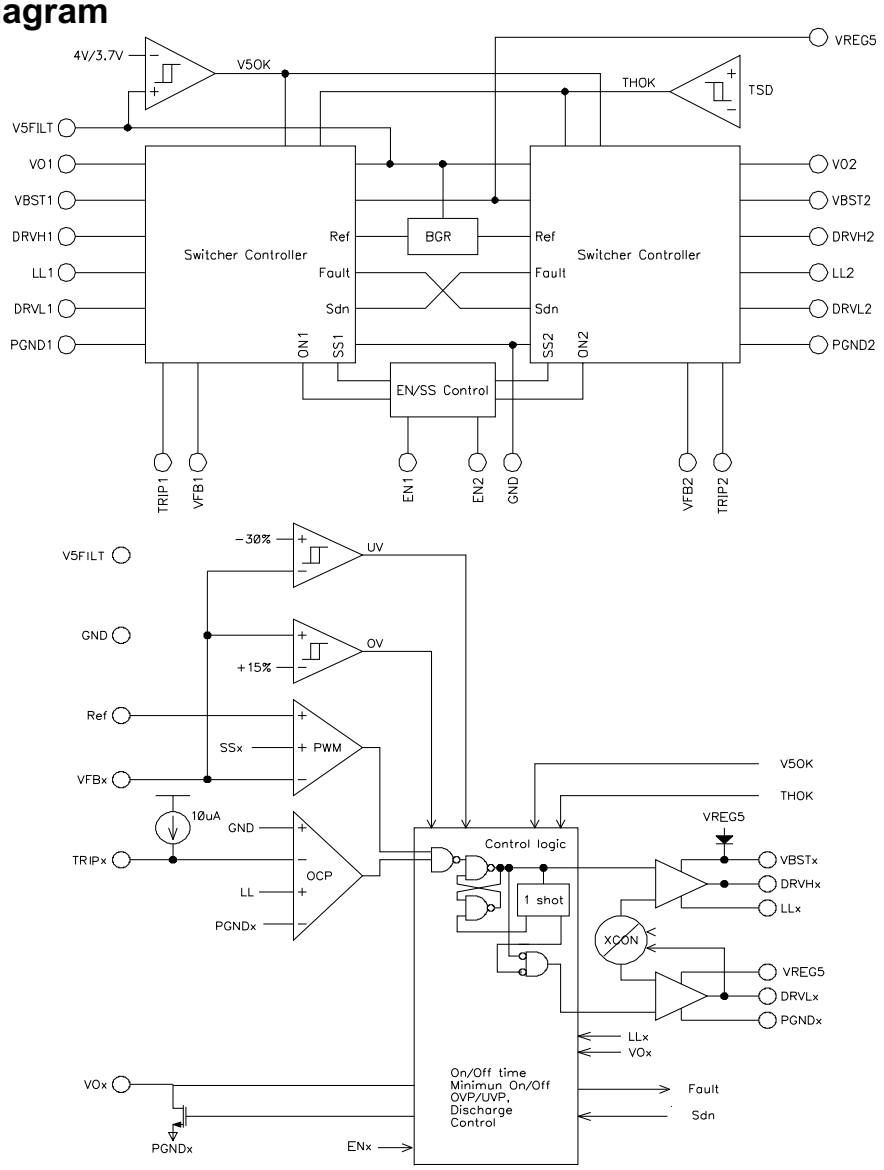


Figure 8-4 Internal block diagram and pin configuration

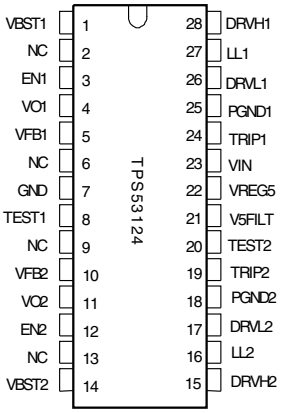
IC Data Sheets (continued)

8.5 Diagram DC/DC B03B, TPS53126PW (IC7U03)

Block diagram



Pinning information



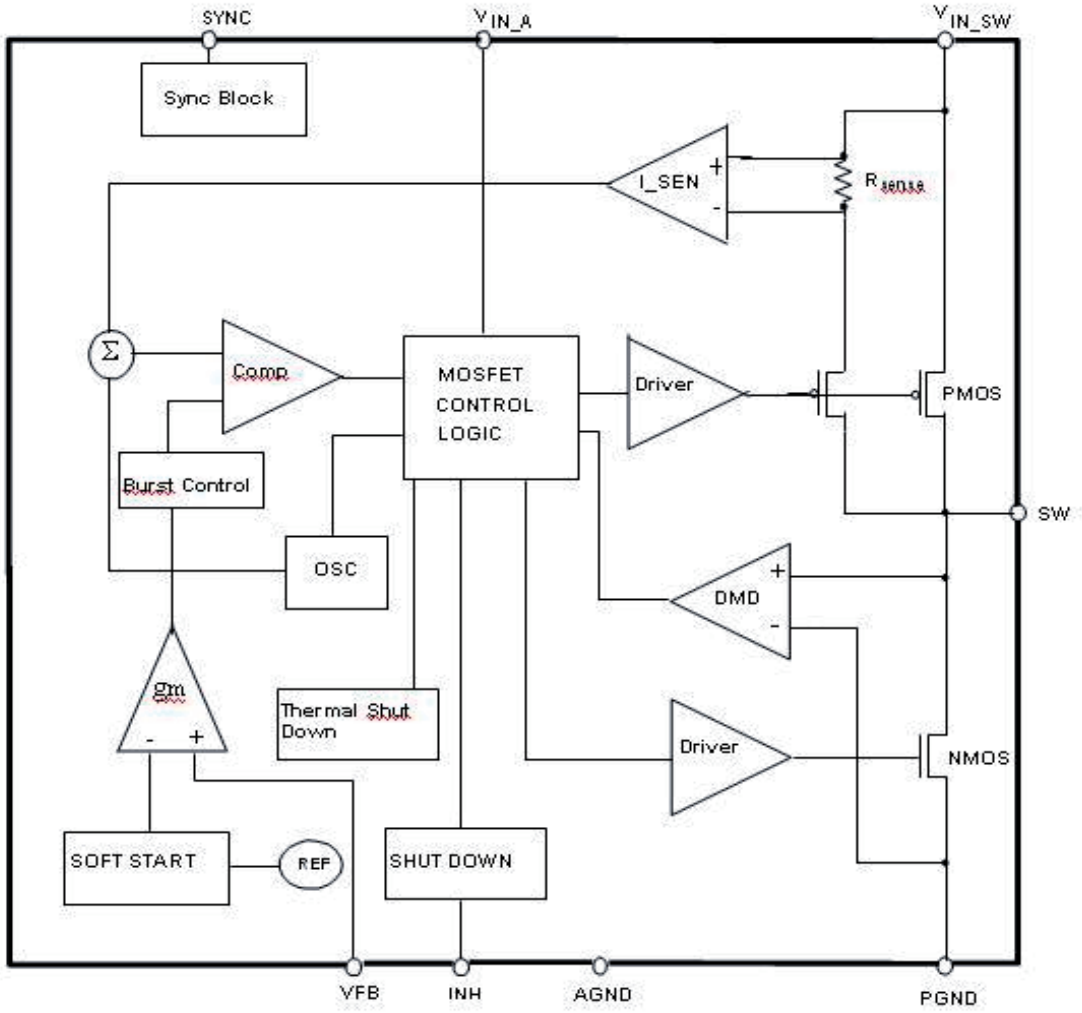
18310_300_090319.eps
100416

Figure 8-5 Internal block diagram and pin configuration

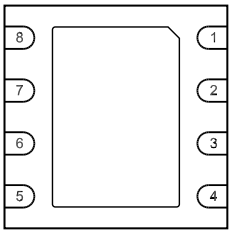
IC Data Sheets (continued)

8.6 Diagram DC/DC B03E, ST1S10PH (IC 7UD0)

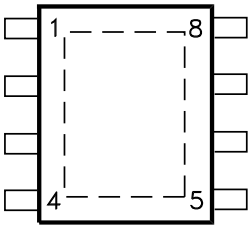
Block diagram



Pinning information



DFN8 (4 × 4)



PowerSO-8

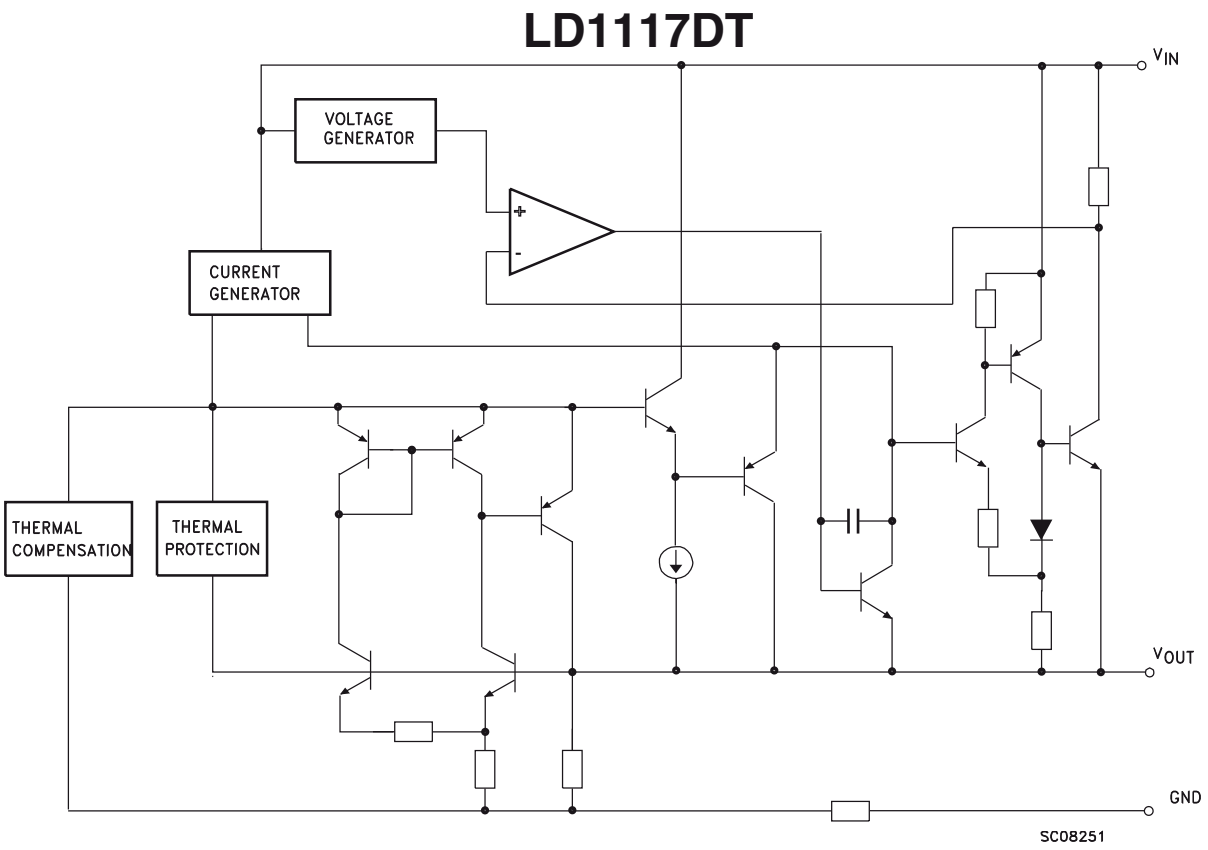
I_18010_083.eps
100402

Figure 8-6 Internal block diagram and pin configuration

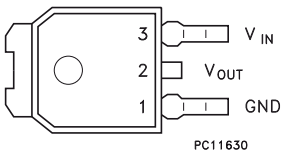
IC Data Sheets (continued)

8.7 Diagram DC/DC B03E, LD1117DT25 (IC 7UD2)

Block diagram



Pinning information



DPAK

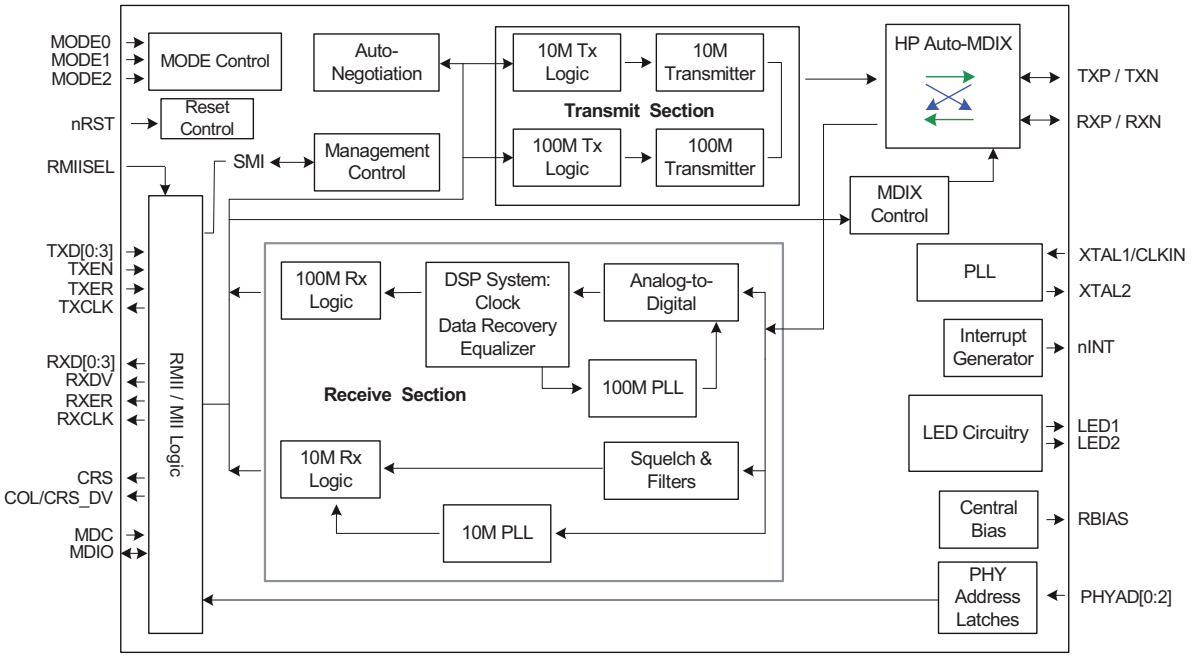
F_15710_166.eps
100402

Figure 8-7 Internal block diagram and pin configuration

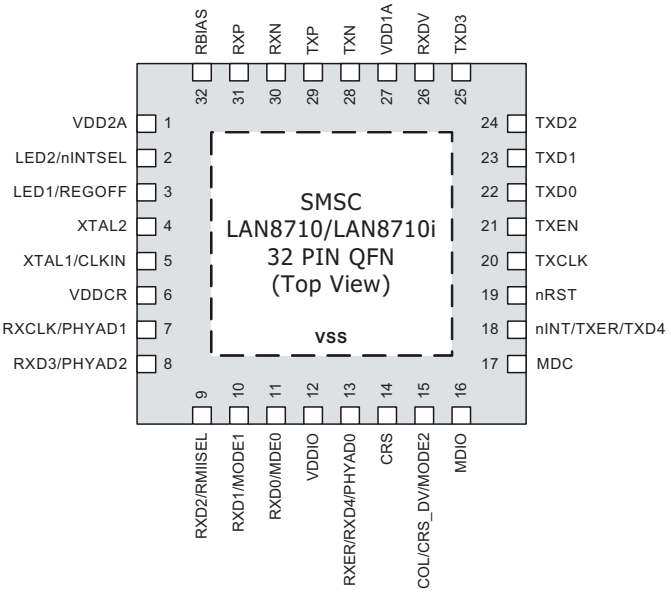
IC Data Sheets (continued)

8.8 Diagram Ethernet & Service B04C, LAN8710A-EZKH (IC 7E10)

Block diagram



Pinning information



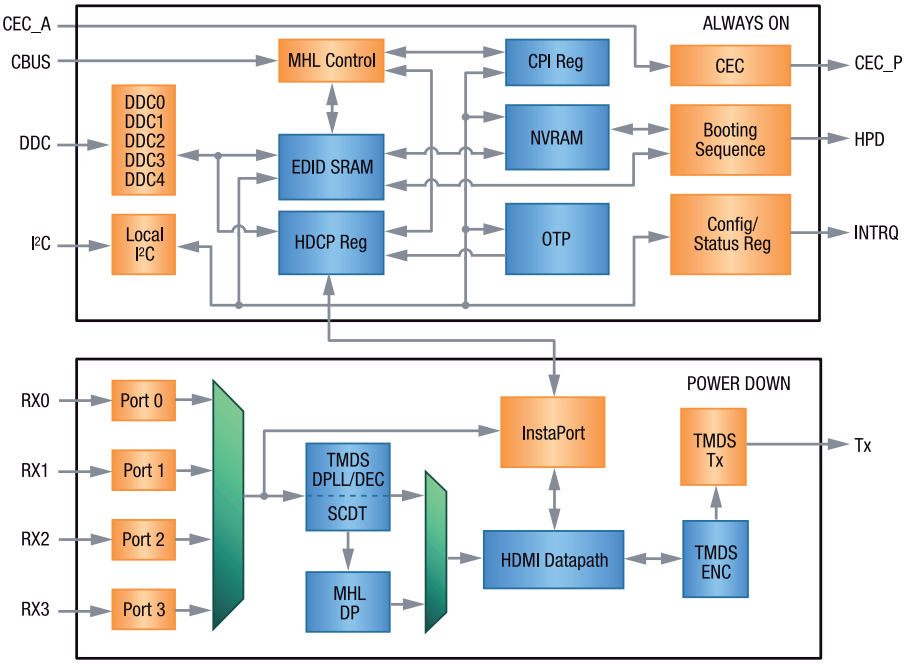
18770_302_100217.eps
100217

Figure 8-8 Internal block diagram and pin configuration

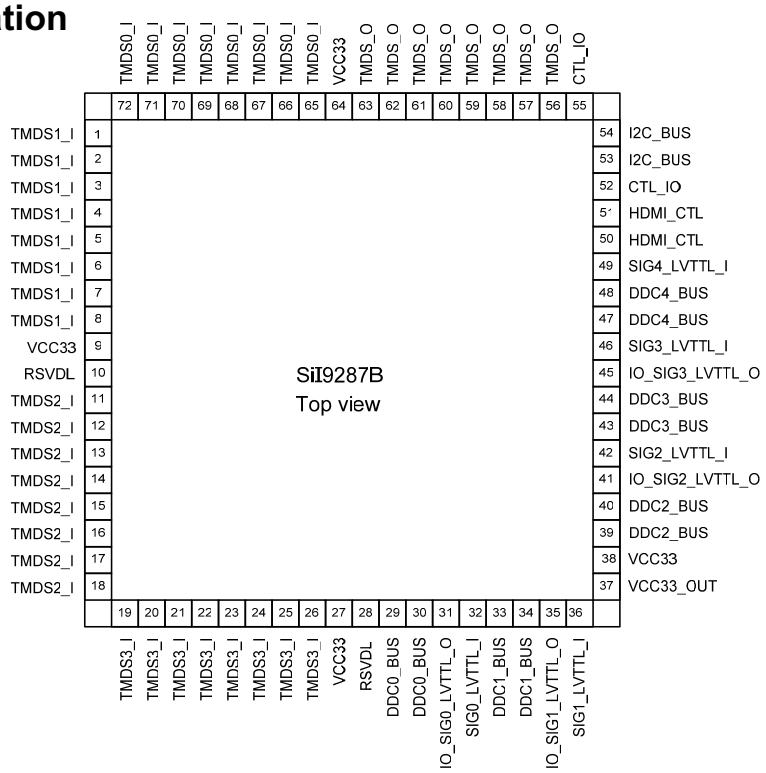
IC Data Sheets (continued)

8.9 Diagram HDMI B04D, SII9x87B (IC 7EC1)

Block diagram



Pinning information



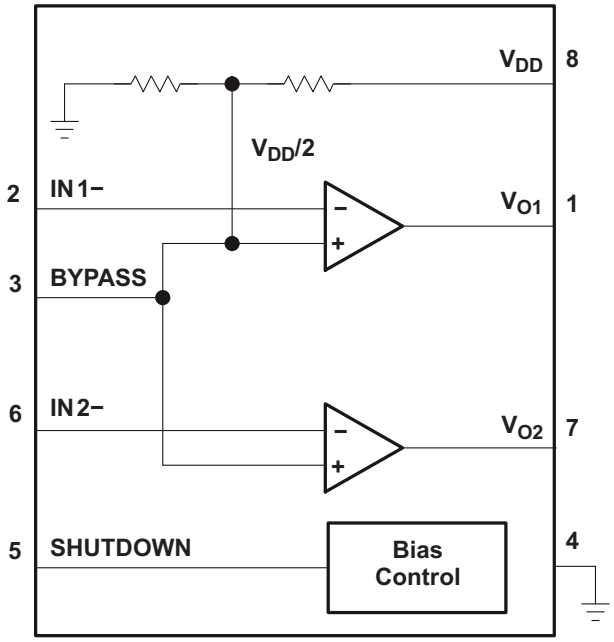
18770_303_100217.eps
100217

Figure 8-9 Internal block diagram and pin configuration

IC Data Sheets (continued)

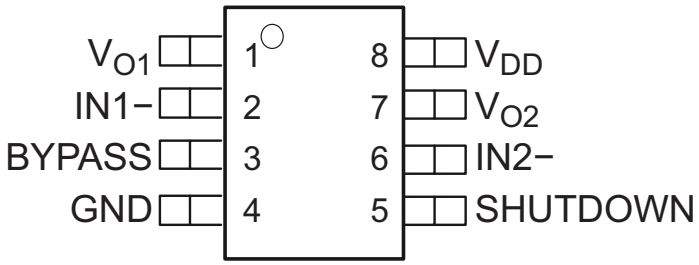
8.10 Diagram Headphone B04E, TPA6111A2DGN (IC 7EE1)

Block diagram



Pinning information

D OR DGN PACKAGE
(TOP VIEW)



18770_309_100217.eps
100217

Figure 8-10 Internal block diagram and pin configuration

IC Data Sheets (continued)

8.11 Diagram DVBS-FE B07A, STV6110AT (IC 7R02)

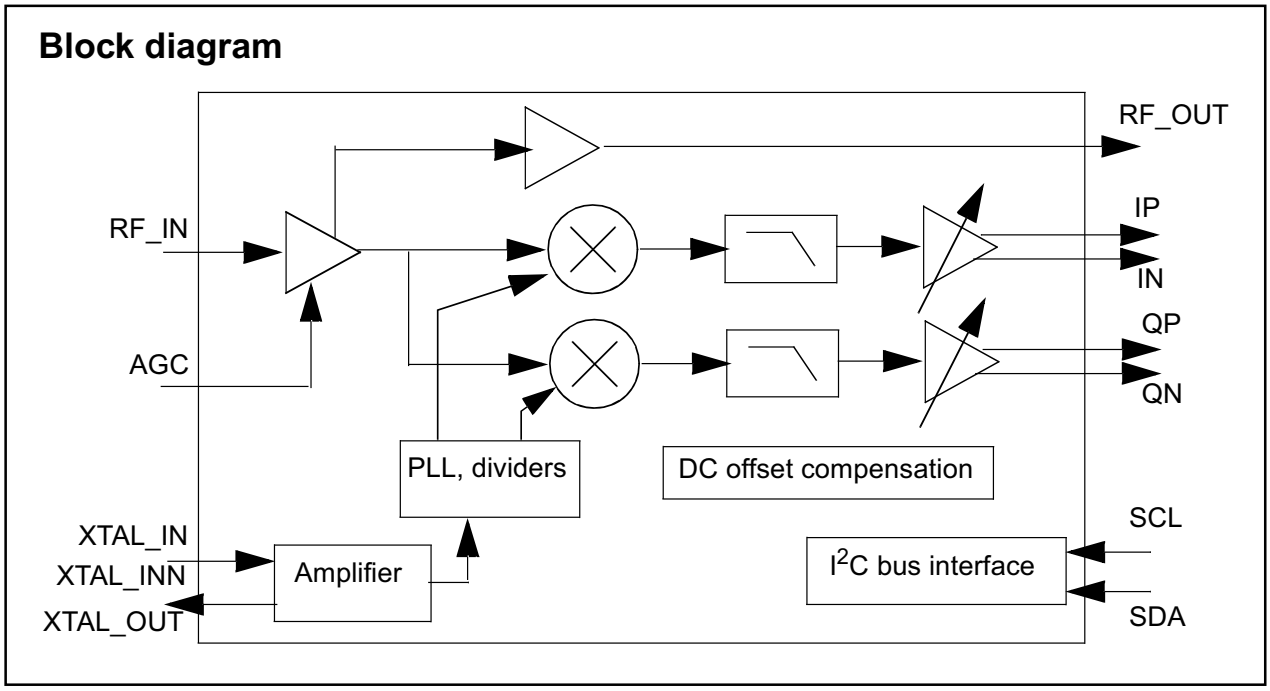
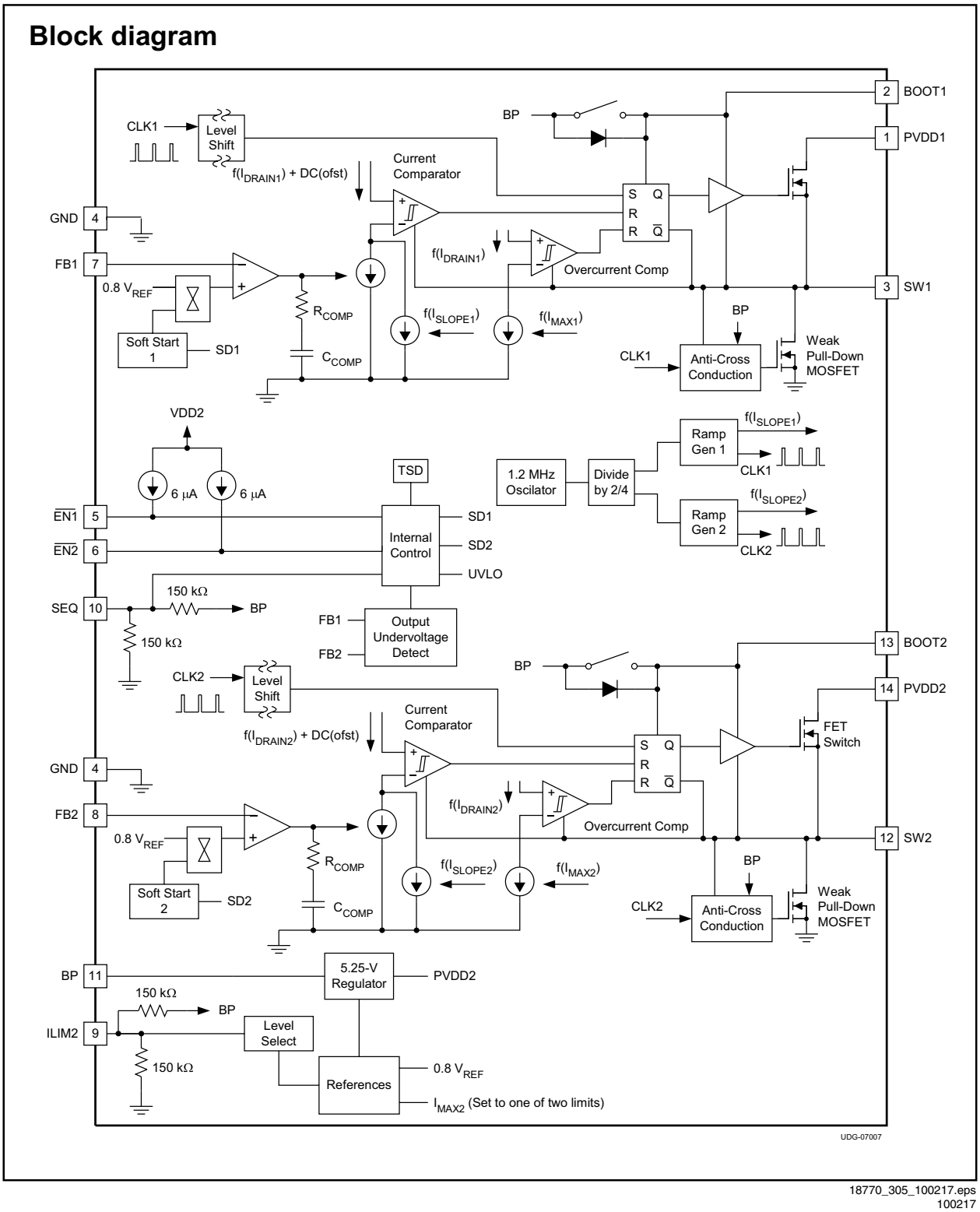


Figure 8-11 Internal block diagram and pin configuration

IC Data Sheets (continued)

8.12 Diagram DVBS supply B08A, TPS54283PWP (IC 7T03)



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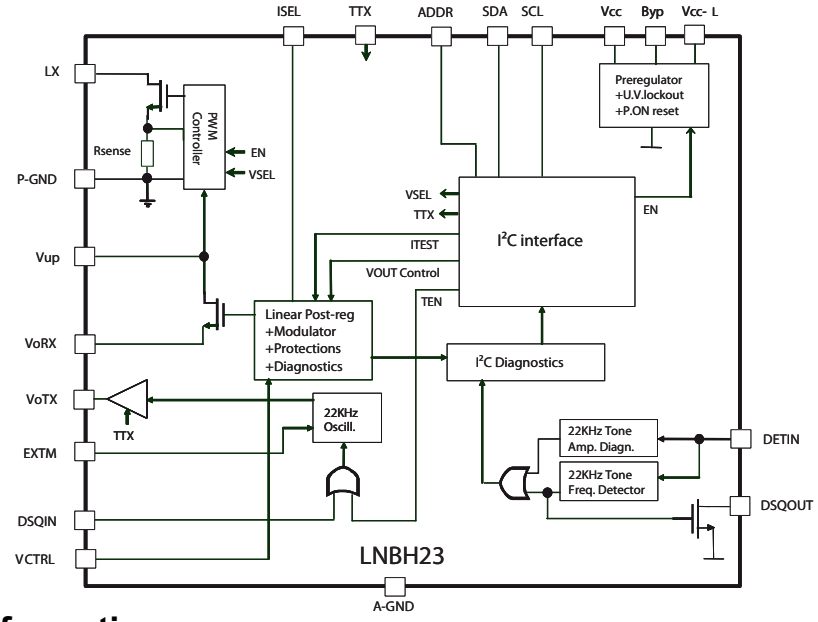
100217

Figure 8-12 Internal block diagram and pin configuration

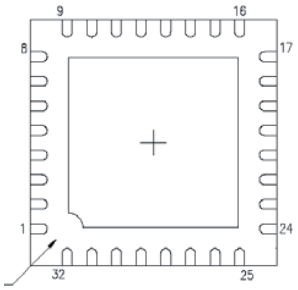
IC Data Sheets (continued)

8.13 Diagram DVBS supply B08B, LNBH23Q (IC 7T50)

Block diagram



Pinning information



1	n.c.
2	n.c.
3	n.c.
4	LX
5	P-GND
6	SDA
7	n.c.
8	n.c.
9	SCL
10	ADDR
11	DSQout
12	DSQIN
13	EXTM
14	TTX
15	BYP
16	n.c.
17	n.c.
18	Vcc-L
19	Vcc
20	A-GND
21	VoRX
22	VoTX
23	n.c.
24	n.c.
25	n.c.
26	n.c.
27	Vup
28	ISEL
29	DETIN
30	VCTRL
31	n.c.
32	n.c.

Epad — Connected with power grounds and to the ground layer through vias to dissipate the heat.

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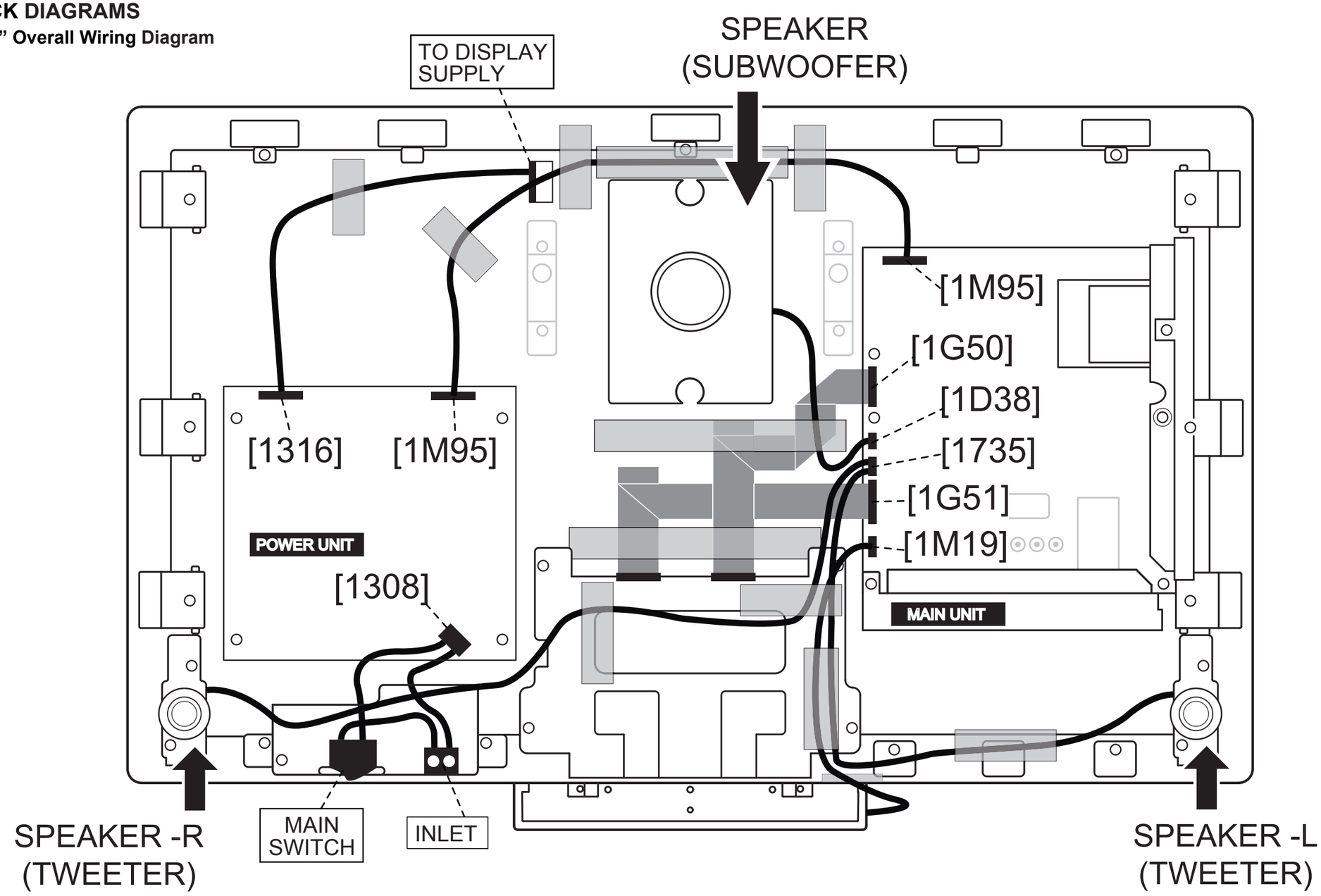
Figure 8-13 Internal block diagram and pin configuration

BLOCK DIAGRAMS

9.1. 32" Overall Wiring Diagram



1316 (PSU)
1. ANODE 1
2. NC
3. CATHODE 1
4. GND
5. ANODE 2
6. NC
7. CATHODE 2
8. NC
9. ANODE 3
10. NC
11. CATHODE 3
12. NC
13. ANODE 4
14. NC
15. CATHODE 4

1M95 (PSU)
1. +3V3STDBY
2. STANDBY
3. GND
4. GND
5. +12V
6. +12V
7. +VSND
8. GND_SND
9. BL-ON-OFF
10. BL-DIM1
11. BL-I-CTRL
12. POK
13. +24V
14. GND1

1308 (PSU)
1. N
2. L

1M19 (B09A)
1. LIGHT-SENSOR
2. GND
3. RC
4. LED-2
5. +3V3-STANDBY
6. LED-1
7. KEYBOARD
8. +5V

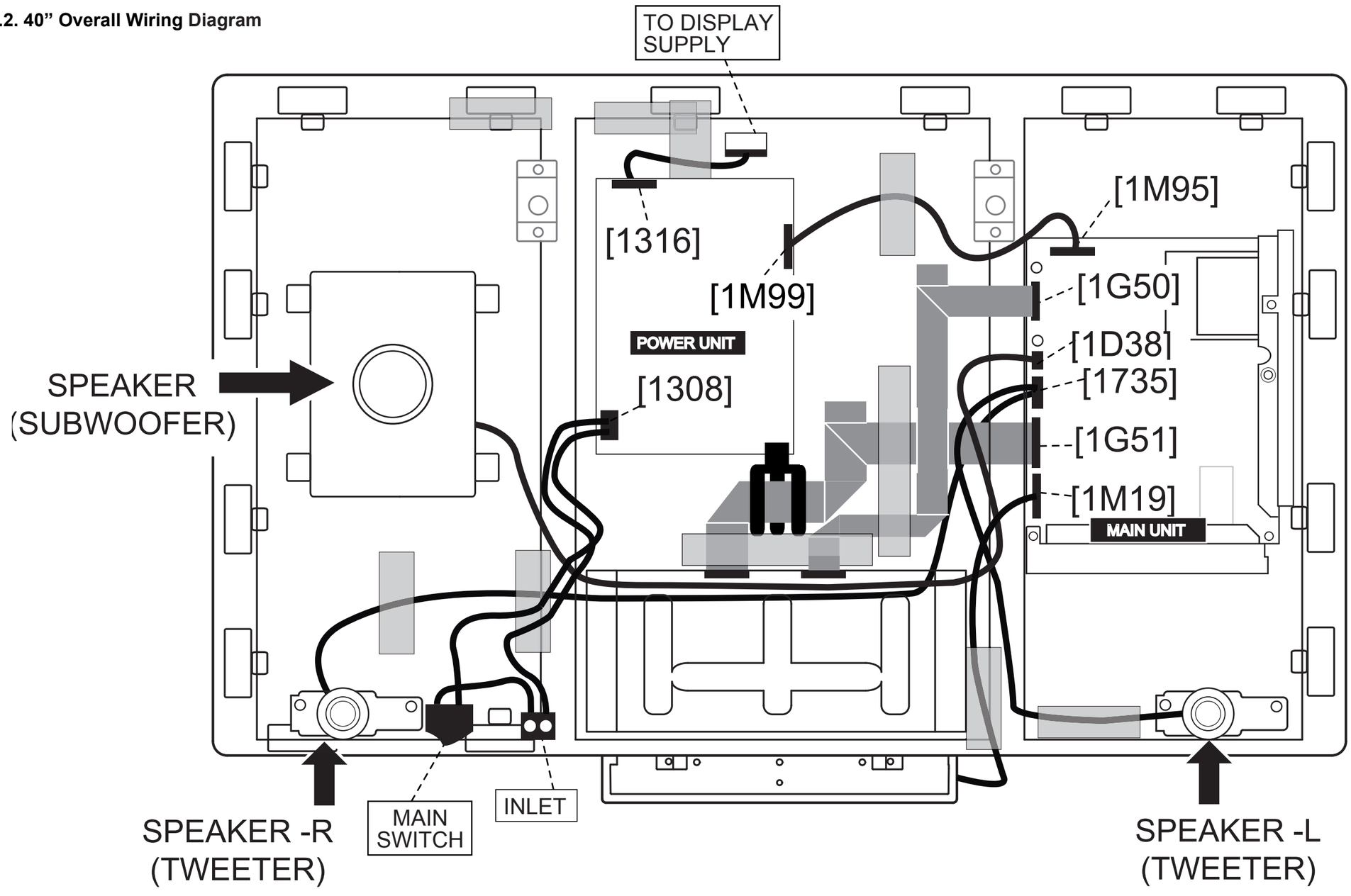
1G51 (B06B)
1. +VDISP
2. +VDISP
3. +VDISP
4. +VDISP
|
|
51. CTRL-DISP

1M95 (B03C)
1. +3V3-STANDBY
2. STANDBY
3. GND
4. GND
5. +12VIN
6. +12VIN
7. +24V-AUDIO-POWER
8. GND
9. LAMP-ON
10. BACKLIGHT-PWM_BL-VS
11. BACKLIGHT-BOOST
12. POWER-OK
13. +24V
GND

1D38 (B03A)
1. LEFT-SPEAKER
2. GND-AUDIO
3. RIGHT-SPEAKER

1735 (B03A)
1. LEFT-SPEAKER
2. GND-AUDIO
3. GND-AUDIO
4. RIGHT-SPEAKER

9.2. 40” Overall Wiring Diagram



1316 (PSU)
1. ANODE 1
2. NC
3. CATHODE 1
4. GND
5. ANODE 2
6. NC
7. CATHODE 2
8. NC
9. ANODE 3
10. NC
11. CATHODE 3
12. NC
13. ANODE 4
14. NC
15. CATHODE 4

1M95 (PSU)
1. +3V3STDBY
2. STANDBY
3. GND
4. GND
5. +12V
6. +12V
7. +VSND
8. GND_SND
9. BL-ON-OFF
10. BL-DIM1
11. BL-I-CTRL
12. POK
13. +24V
14. GND1

1308 (PSU)
1. N
2. L

1M95 (B03C)
1. +3V3-STANDBY
2. STANDBY
3. GND
4. GND
5. +12VIN
6. +12VIN
7. +24V-AUDIO-POWER
8. GND
9. LAMP-ON
10. BACKLIGHT-PWM_BL-VS
11. BACKLIGHT-BOOST
12. POWER-OK
13. +24V
GND

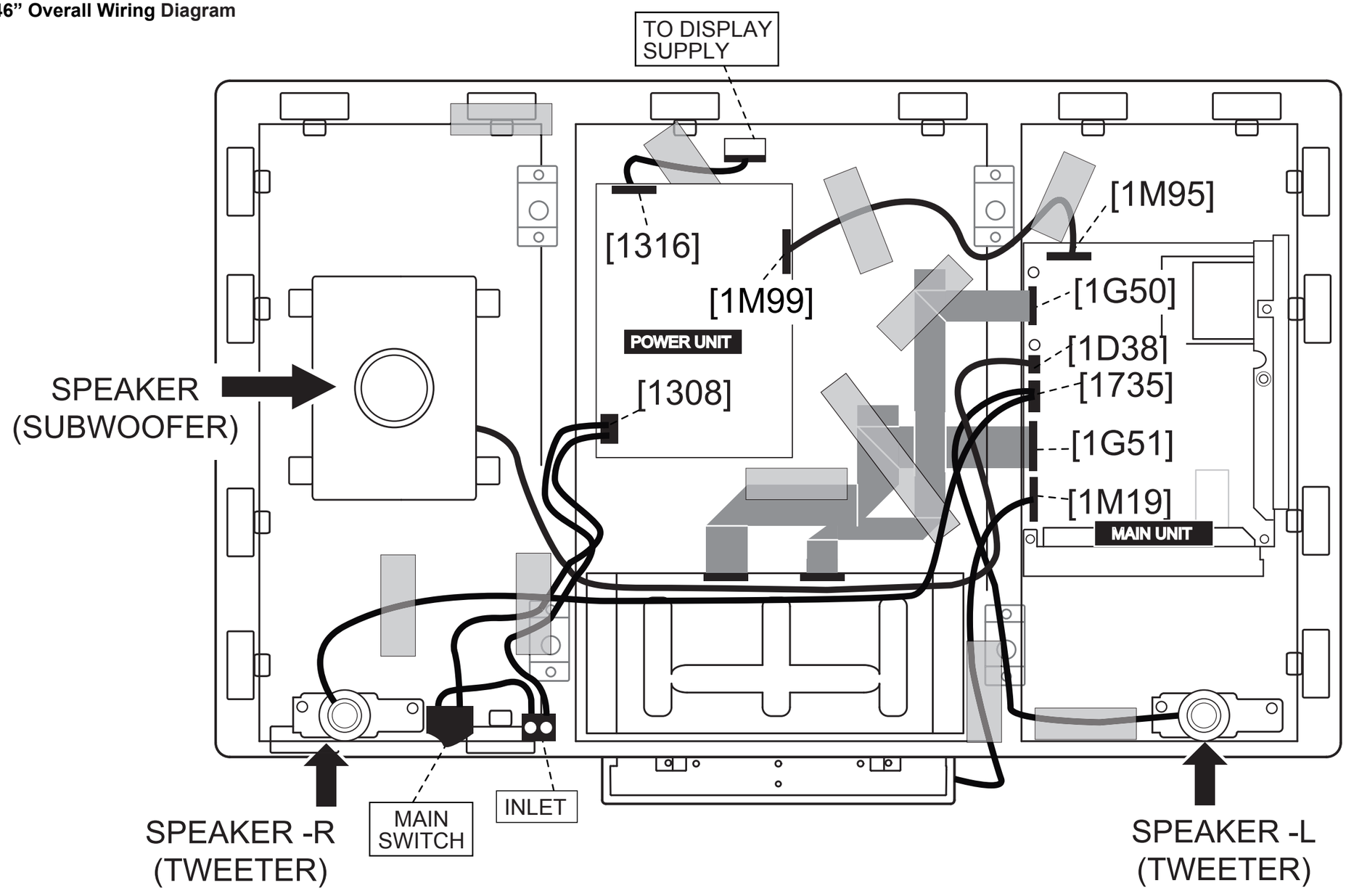
1735 (B03A)
1. LEFT-SPEAKER
2. GND-AUDIO
3. GND-AUDIO
4. RIGHT-SPEAKER

1D38 (B03A)
1. LEFT-SPEAKER
2. GND-AUDIO
3. RIGHT-SPEAKER

1M19 (B09A)
1. LIGHT-SENSOR
2. GND
3. RC
4. LED-2
5. +3V3-STANDBY
6. LED-1
7. KEYBOARD
8. +5V

1G51 (B06B)
1. +VDISP
2. +VDISP
3. +VDISP
4. +VDISP
|
|
51. CTRL-DISP

9.3. 46” Overall Wiring Diagram



1316 (PSU)
1. ANODE 1
2. NC
3. CATHODE 1
4. GND
5. ANODE 2
6. NC
7. CATHODE 2
8. NC
9. ANODE 3
10. NC
11. CATHODE 3
12. NC
13. ANODE 4
14. NC
15. CATHODE 4

1M95 (PSU)
1. +3V3STDBY
2. STANDBY
3. GND
4. GND
5. +12V
6. +12V
7. +VSND
8. GND_SND
9. BL-ON-OFF
10. BL-DIM1
11. BL-I-CTRL
12. POK
13. +24V
14. GND1

1308 (PSU)
1. N
2. L

1M95 (B03C)
1. +3V3-STANDBY
2. STANDBY
3. GND
4. GND
5. +12VIN
6. +12VIN
7. +24V-AUDIO-POWER
8. GND
9. LAMP-ON
10. BACKLIGHT-PWM_BL-VS
11. BACKLIGHT-BOOST
12. POWER-OK
13. +24V
GND

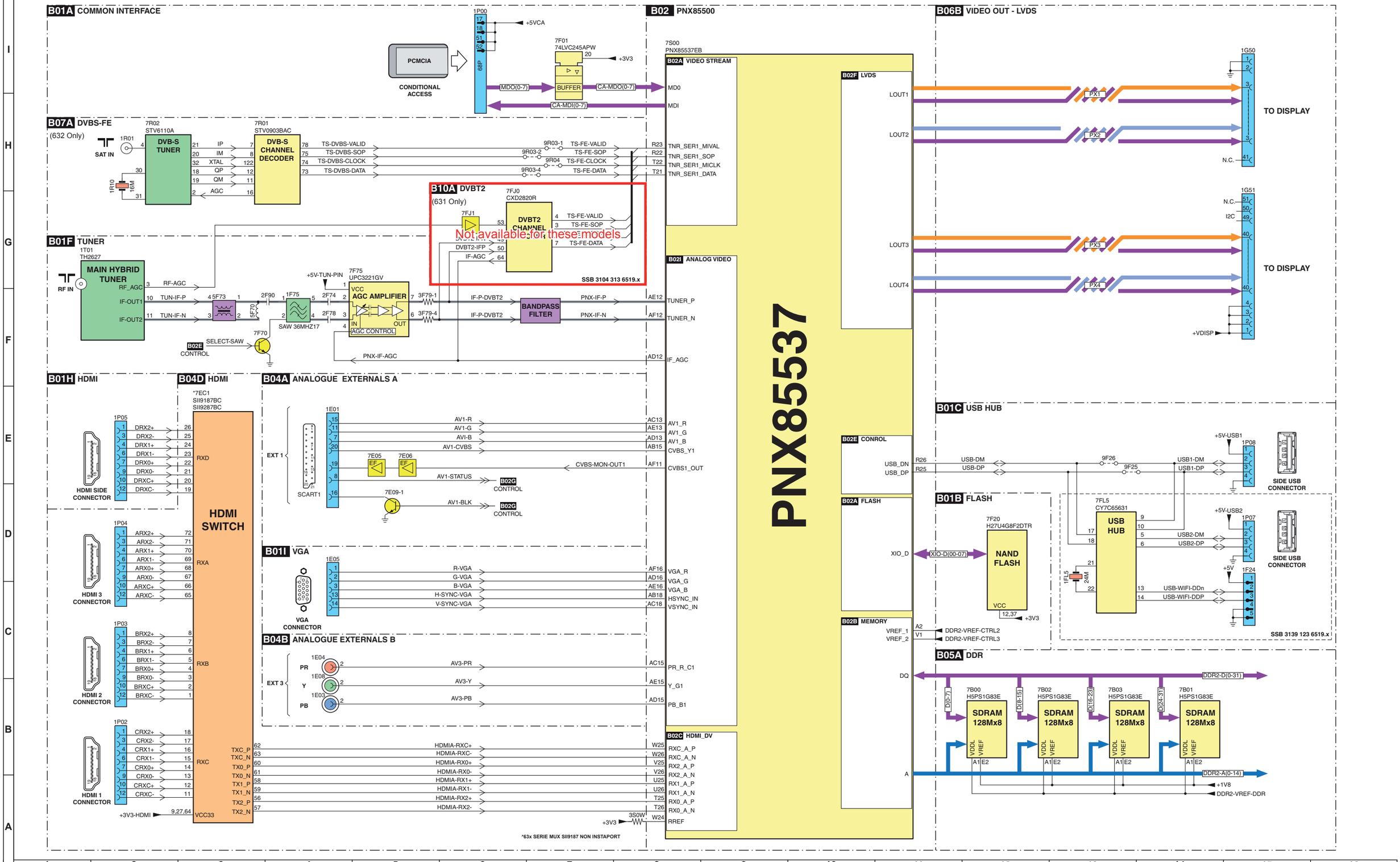
1735 (B03A)
1. LEFT-SPEAKER
2. GND-AUDIO
3. GND-AUDIO
4. RIGHT-SPEAKER

1D38 (B03A)
1. LEFT-SPEAKER
2. GND-AUDIO
3. RIGHT-SPEAKER

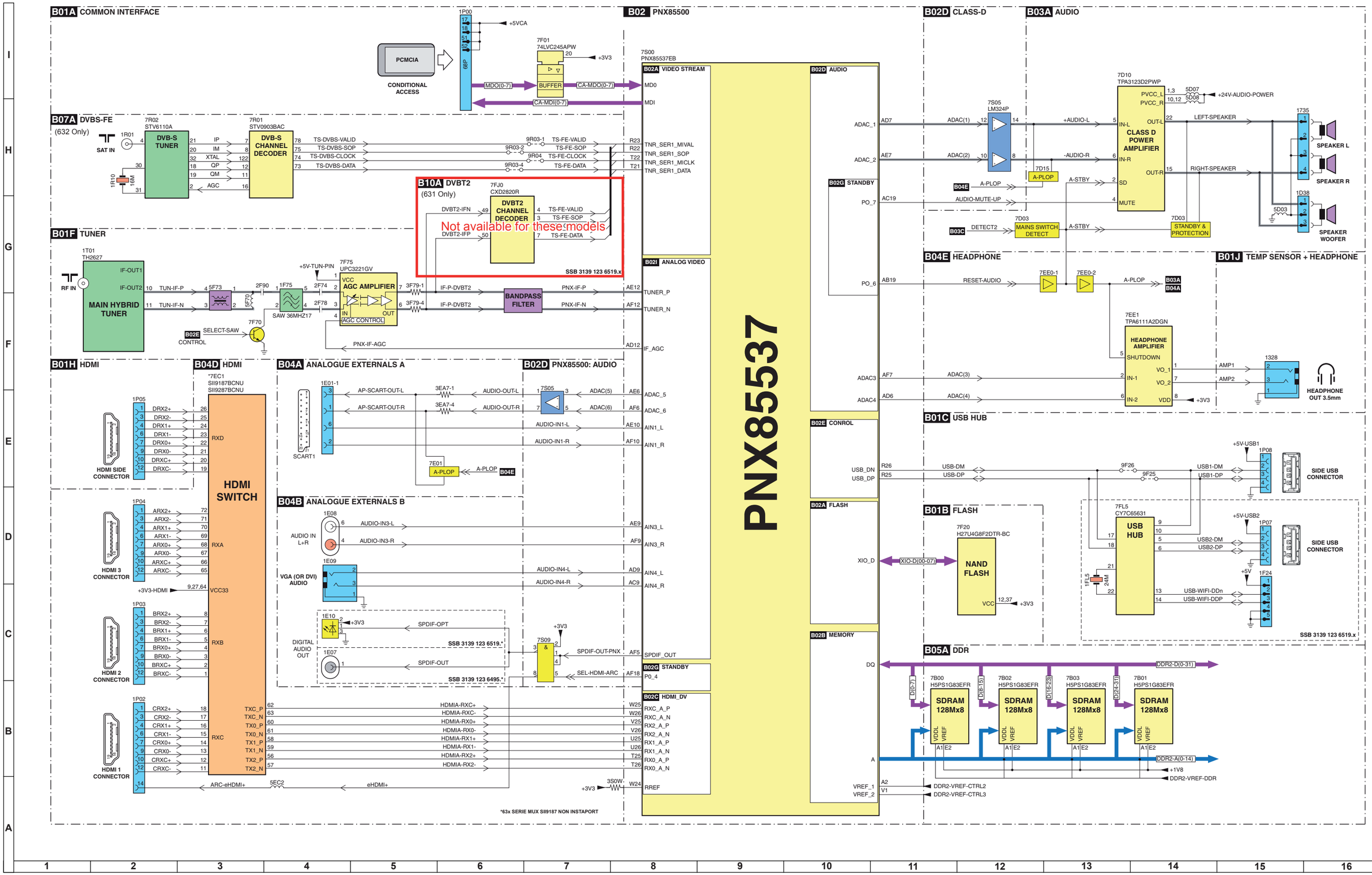
1M19 (B09A)
1. LIGHT-SENSOR
2. GND
3. RC
4. LED-2
5. +3V3-STANDBY
6. LED-1
7. KEYBOARD
8. +5V

1G51 (B06B)
1. +VDISP
2. +VDISP
3. +VDISP
4. +VDISP
I
I
51. CTRL-DISP

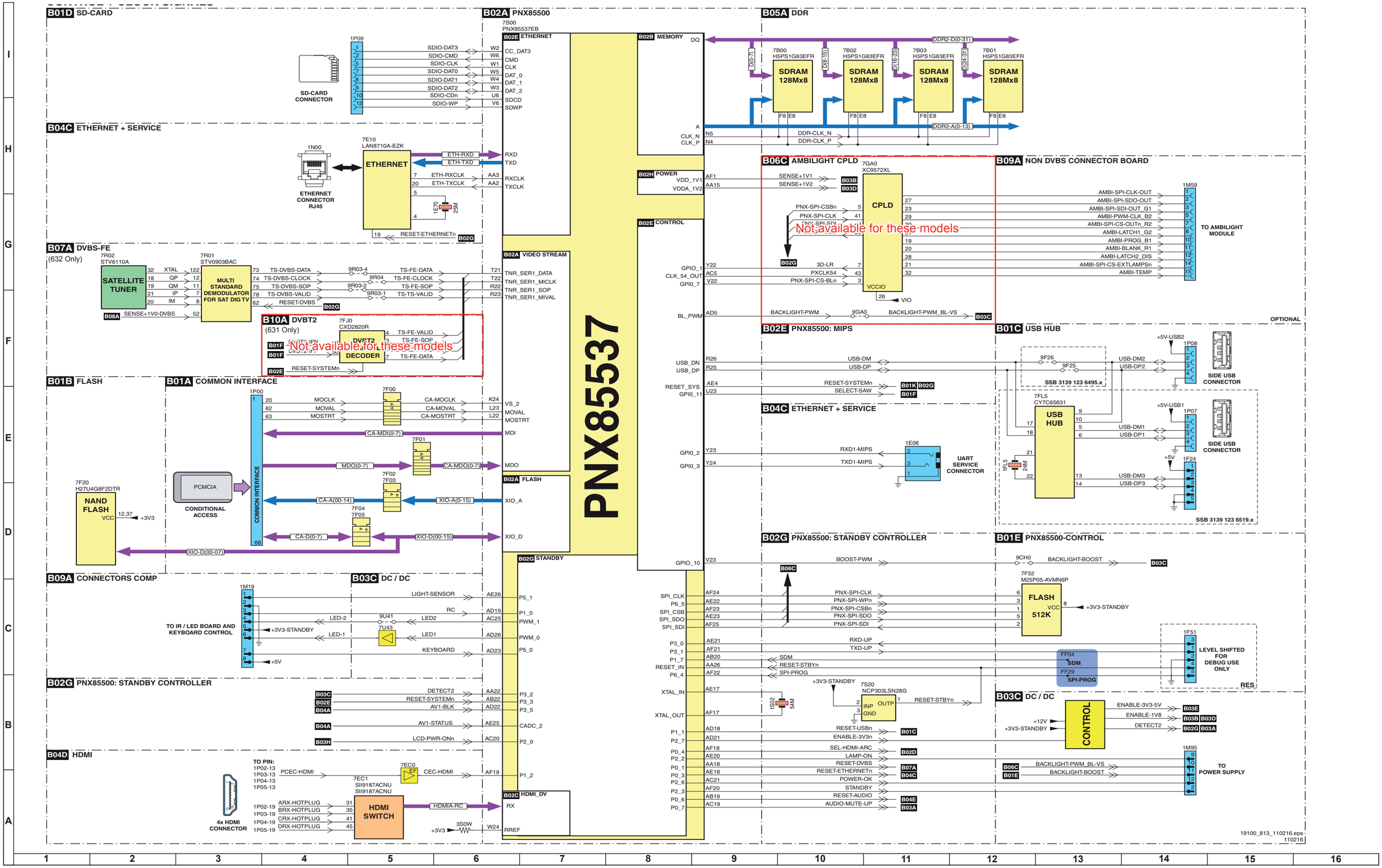
9.4. Block Diagram Video



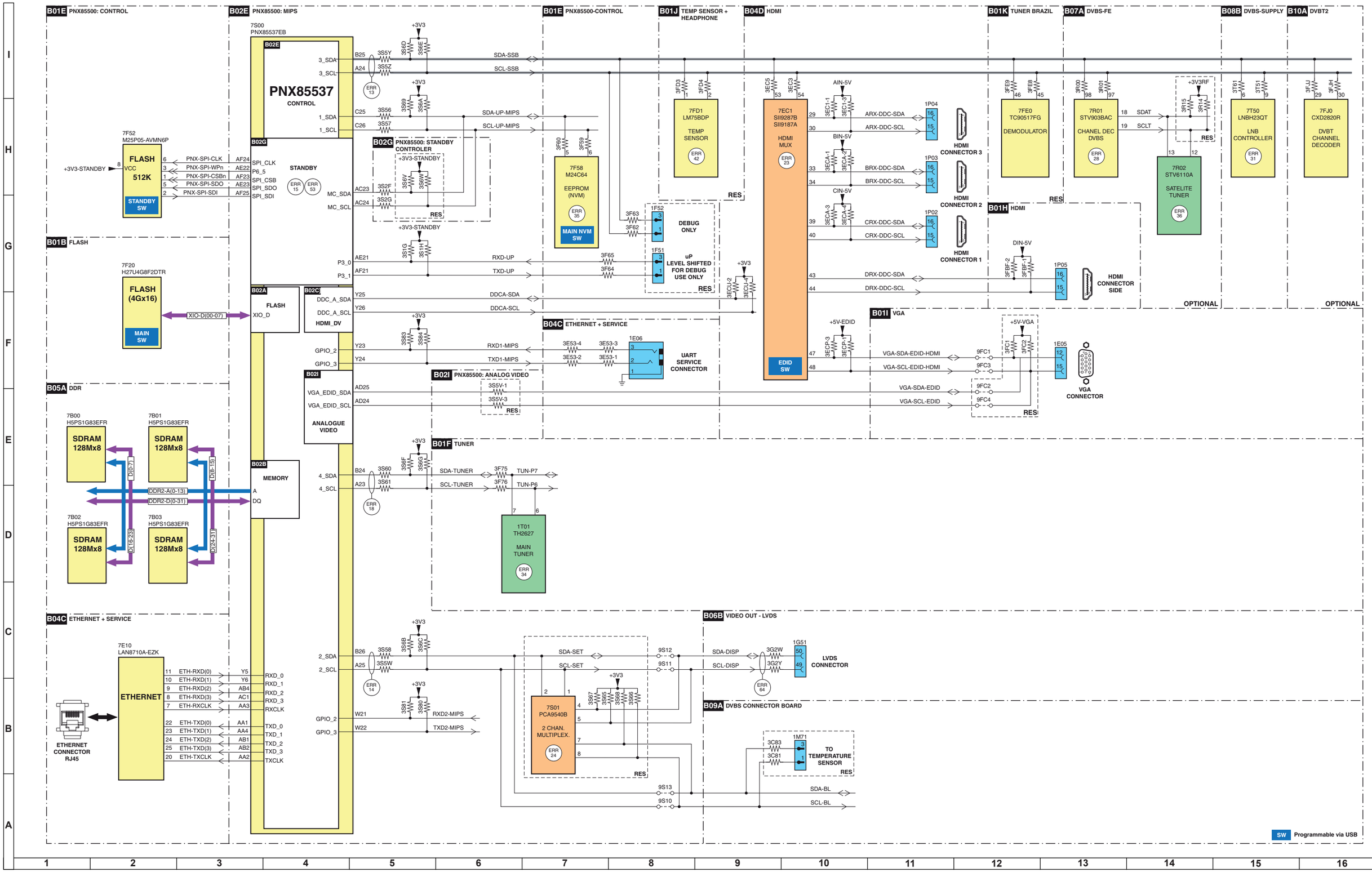
9.5. Block Diagram Audio



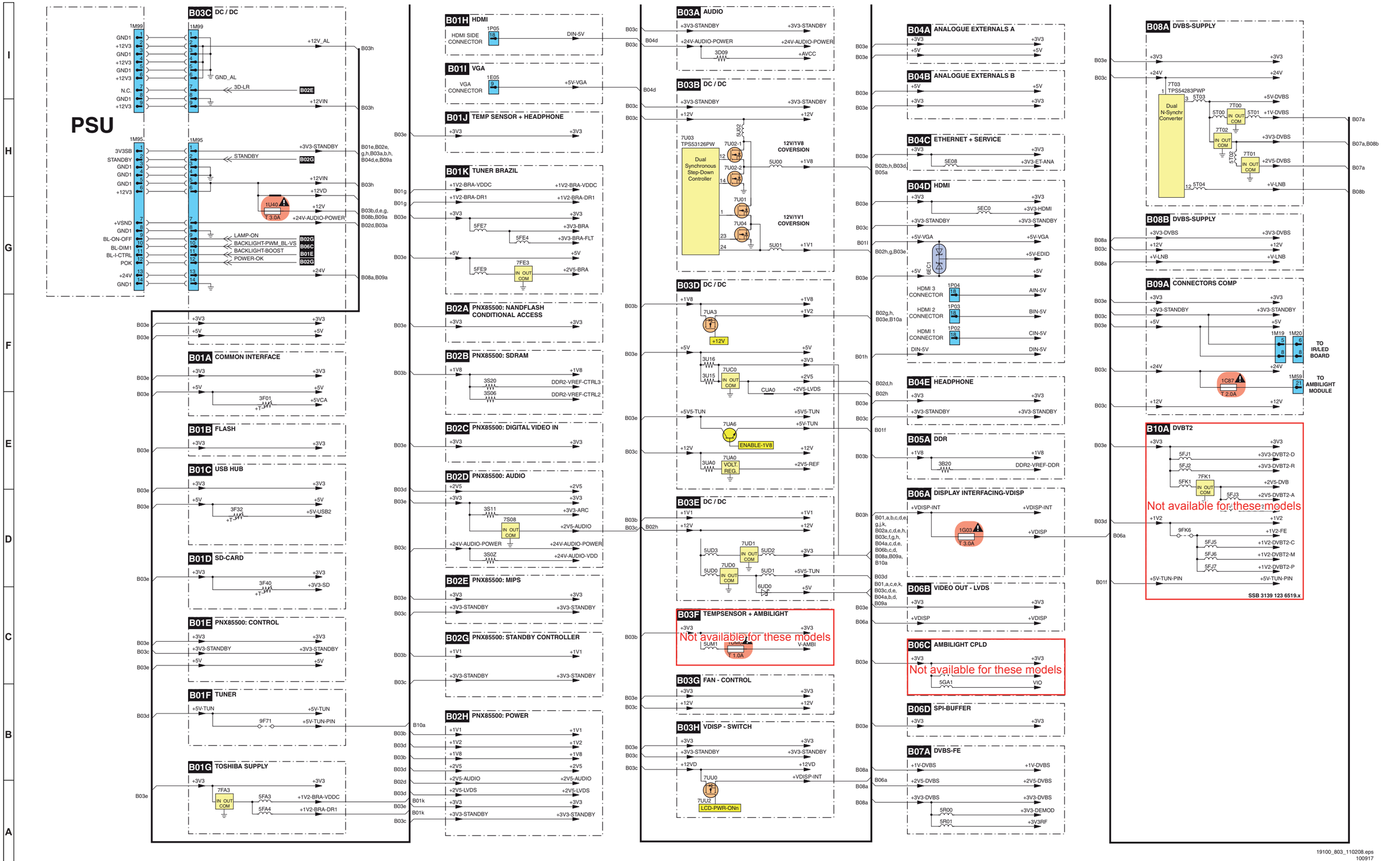
9.6. Block Diagram Control & Clock Signals



9.7. Block Diagram I²C



9.8. Supply Lines Overview



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100917

SCHEMATIC DIAGRAMS

10. Schematic Diagrams

Description:

VOLTAGE MEASUREMENT CONDITION:

1. The voltages at test points are measured on the stable supply voltage of AC 230V. Signals are fed by a color bar signal generator for servicing purpose and the above voltages are measured with a 20k ohm/V tester.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance "Ω " is omitted. (K=kΩ=1000 Ω, M=MΩ).
2. All resistors are ± 5%, unless otherwise noted. (J= ± 5%, F= ± 1%, D= ± 0.5%)
3. All resistors are 1/16W, unless otherwise noted.
4. All resistors are Carbon type, unless otherwise noted.

C : Solid
S : Oxide Film
N : Metal Coating
Ⓦ: Cement
Ⓣ: Special

CAPACITOR

1. All capacitors are μF, unless otherwise noted. (P=pF=μμ F).
2. All capacitors are 50V, unless otherwise noted.
3. All capacitors are Ceramic type, unless otherwise noted.

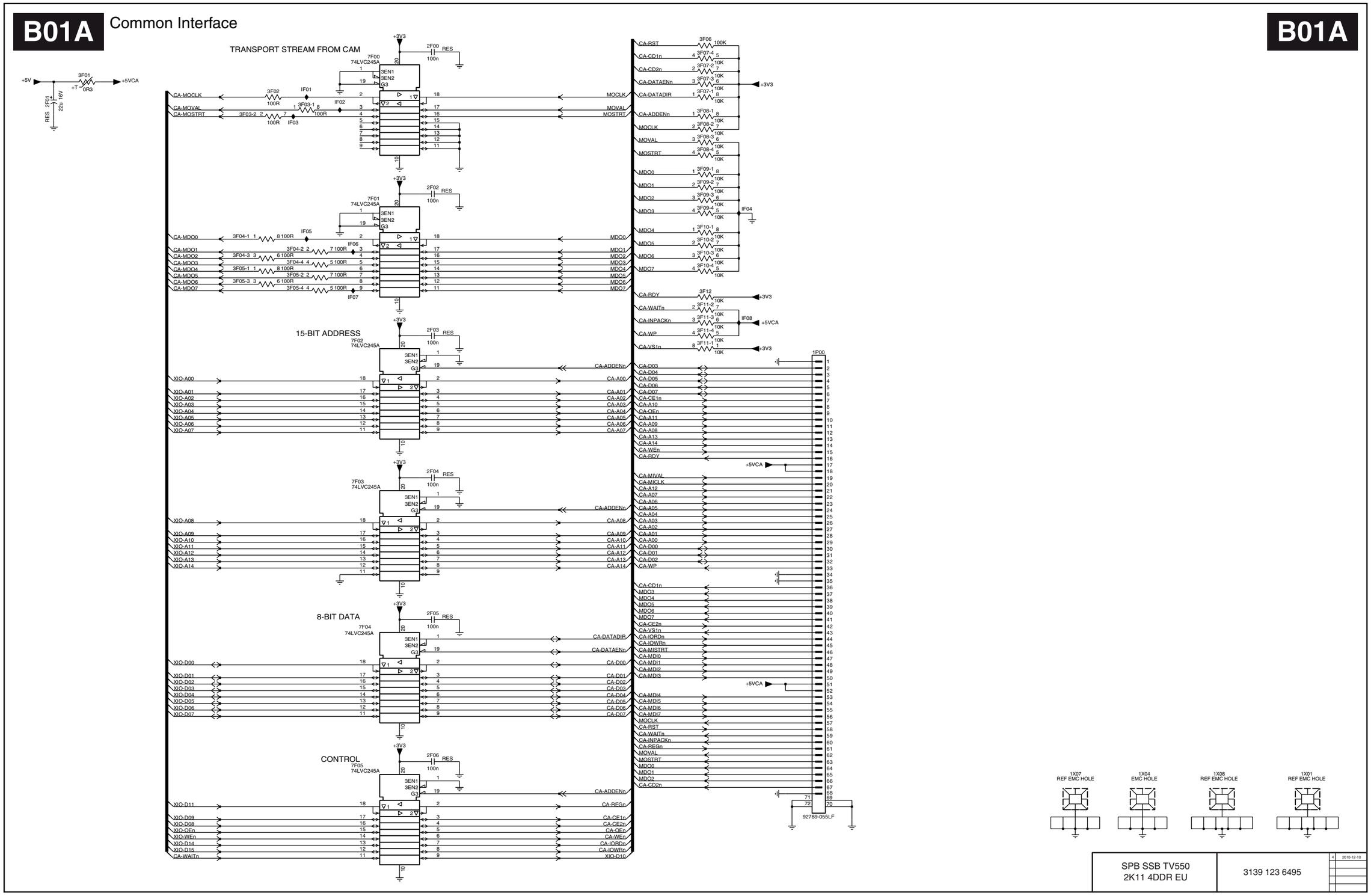
(ML): Mylar
(PF): Polypro Film
(TA): Tantalum
(ST): Styrol

CAUTION:
This circuit diagram is original one, therefore there may be a slight difference from yours.

IMPORTANT SAFETY NOTICE:
PARTS MARKED WITH " ⚠ ( ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

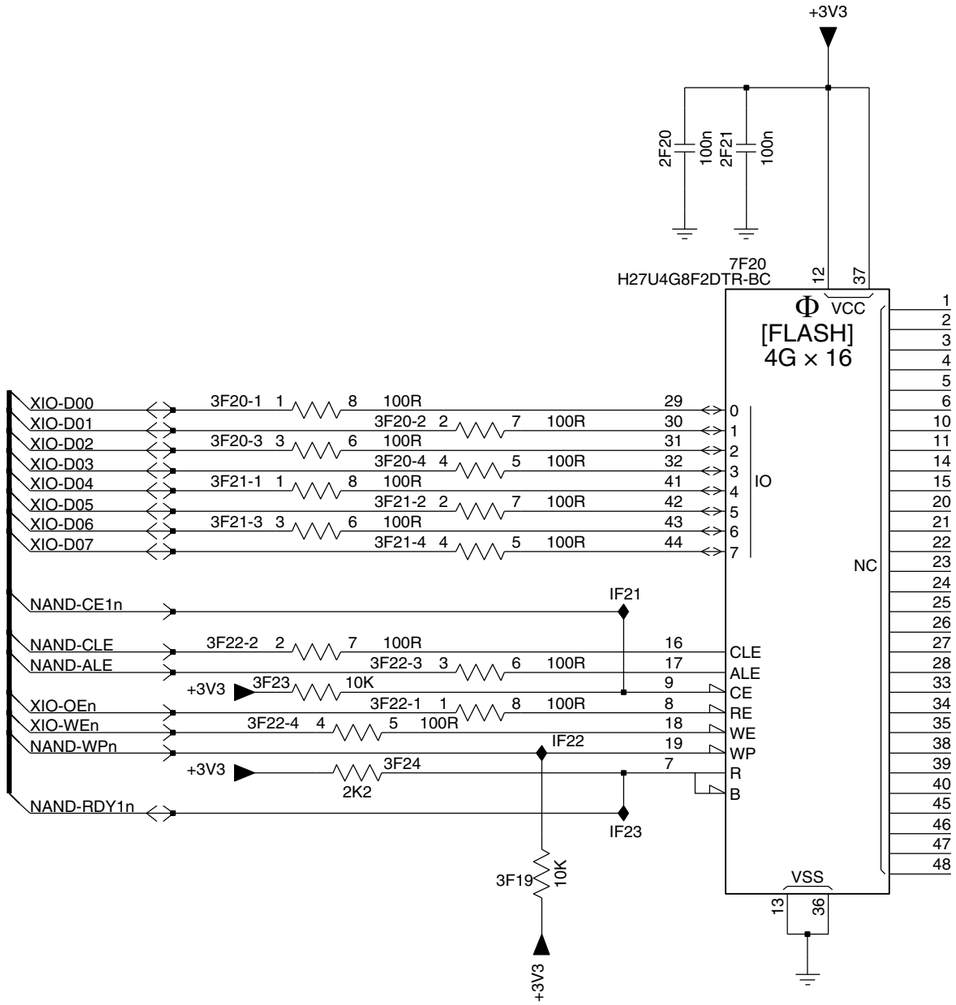
10-1 Main Unit B01A Common Interface Schematic Diagram

B01A Common Interface



10-1 Main Unit (Continued) B01B Flash Schematic Diagram

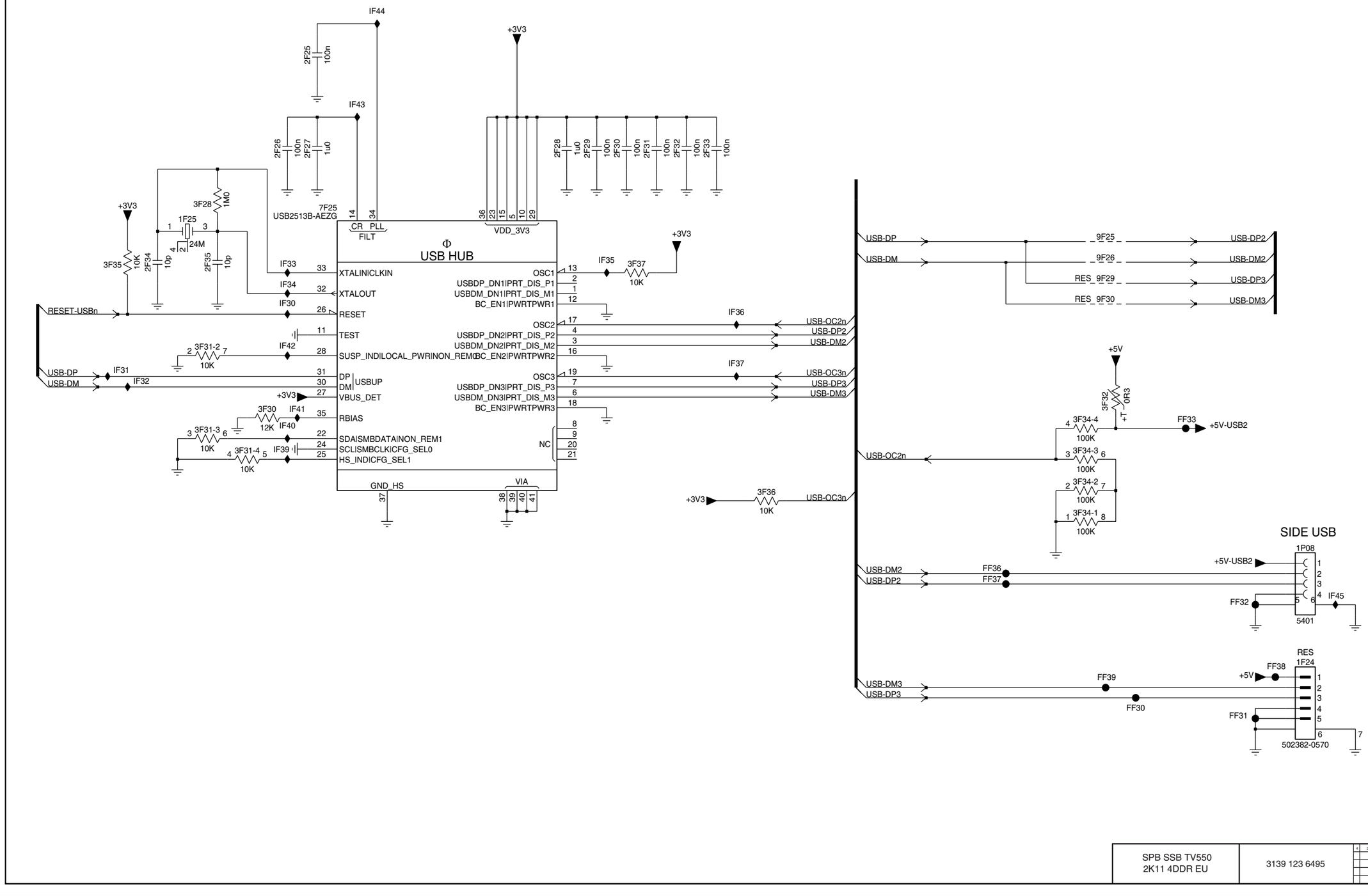
B01B Flash



SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-1 Main Unit (Continued) B01C USB Hub Schematic Diagram

B01C USB Hub **B01C**



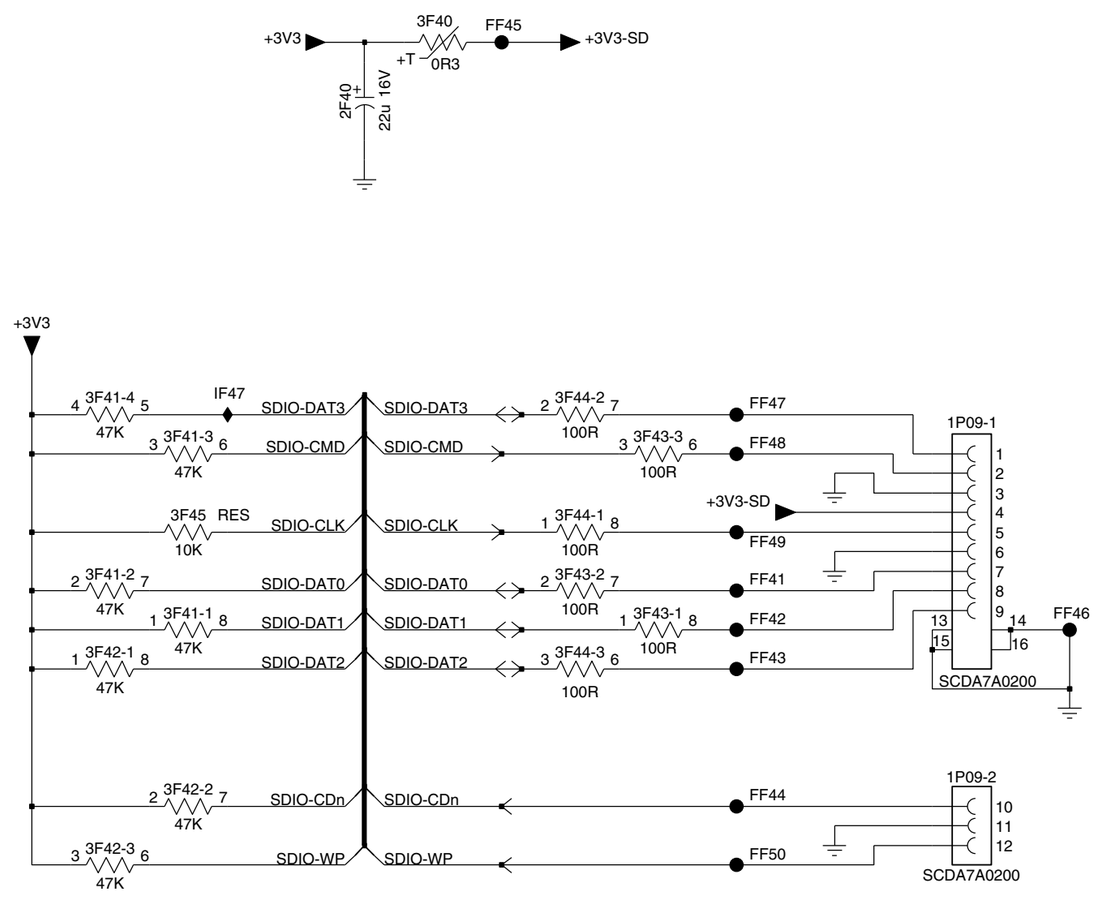
SPB SSB TV550 2K11 4DDR EU	3139 123 6495

4 2010-12-10

10-1 Main Unit (Continued) B01D SD-Card Schematic Diagram

B01D SD-Card

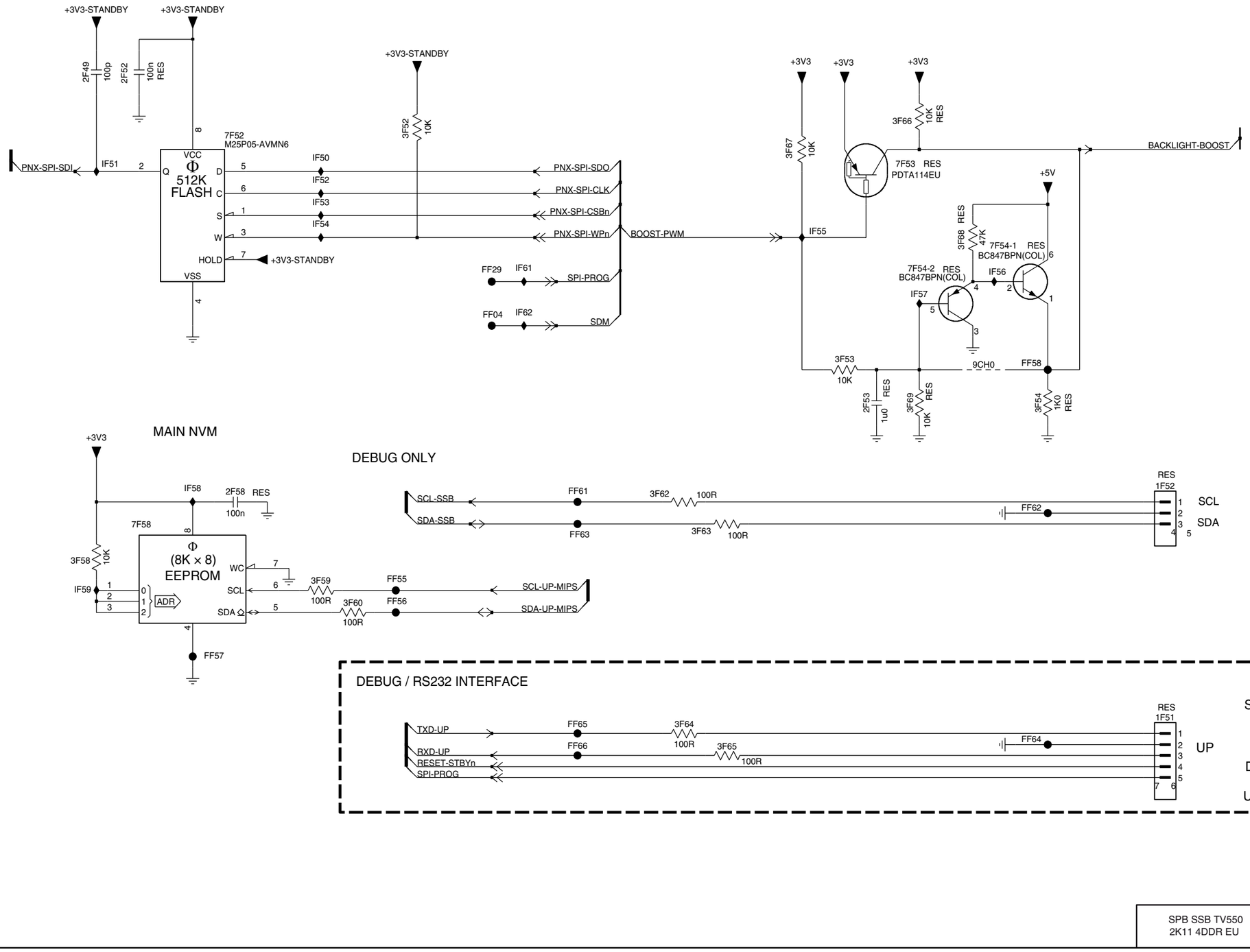
B01D



SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-1 Main Unit (Continued) B01E PNX85500 Control Schematic Diagram

B01E PNX85500 Control **B01E**

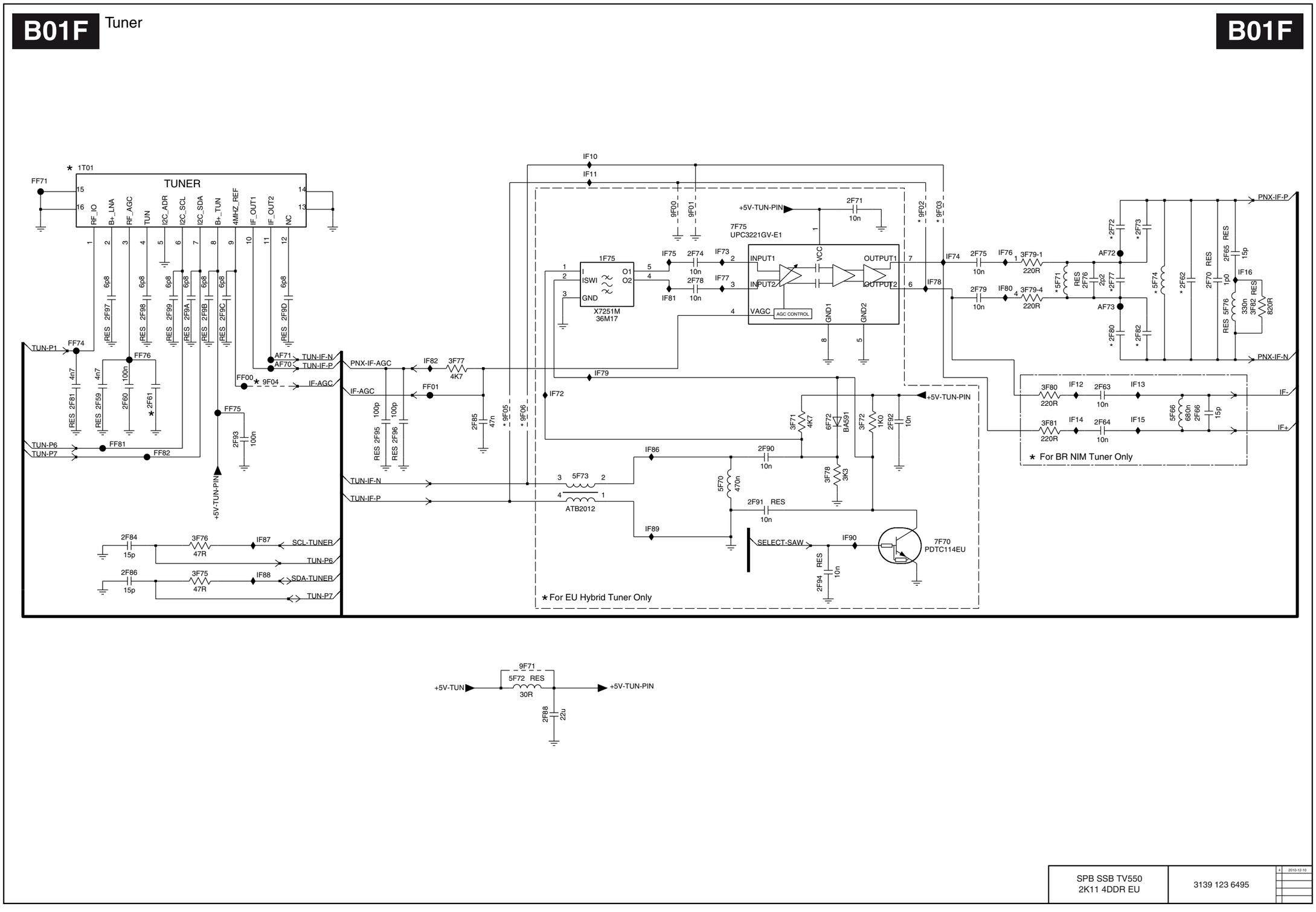


SPB SSB TV550 2K11 4DDR EU	3139 123 6495

4 2010-12-10

10-1 Main Unit (Continued) B01F Tuner Schematic Diagram

B01F Tuner

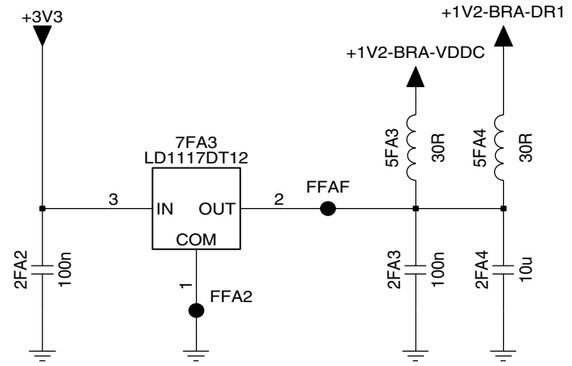


SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-1 Main Unit (Continued) B01G Toshiba Supply Schematic Diagram

B01G Toshiba supply

B01G

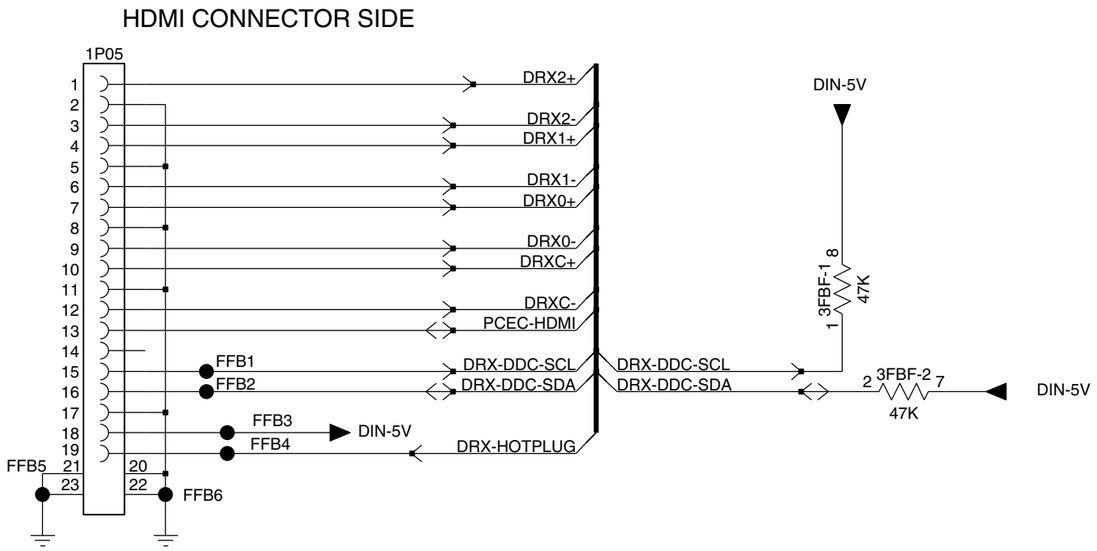


SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-1 Main Unit (Continued) B01H HDMI Schematic Diagram

B01H HDMI

B01H

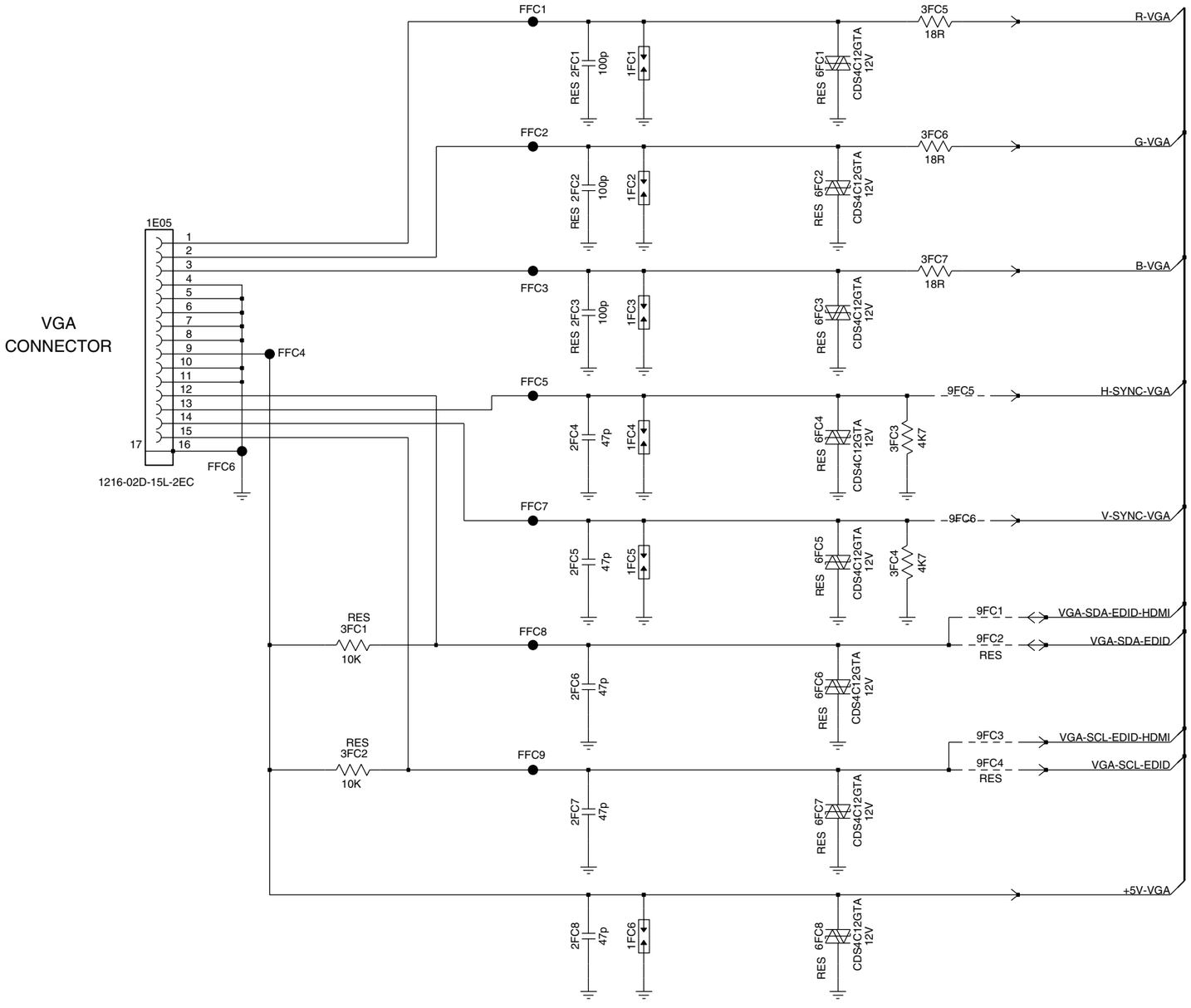


SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-1 Main Unit (Continued) B01I VGA Schematic Diagram

B01I VGA

B01I

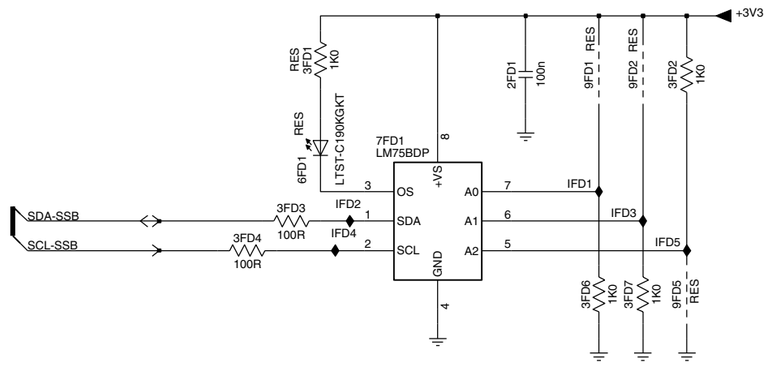


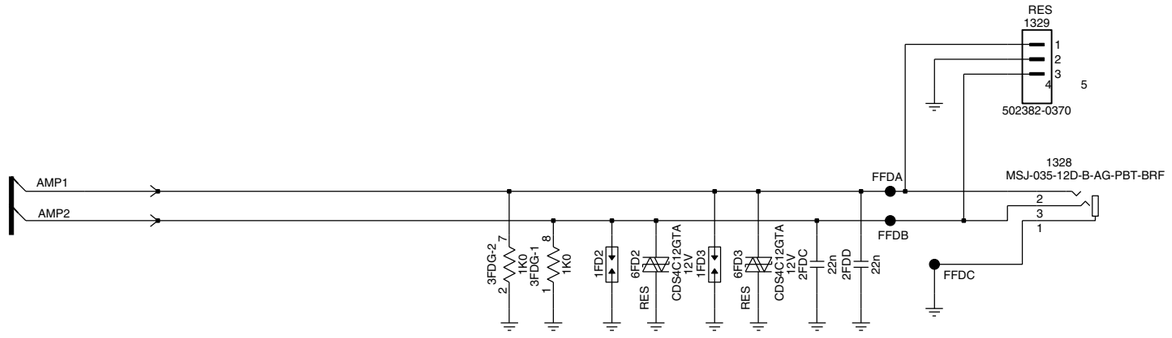
SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-1 Main Unit (Continued) B01J Temp sensor & headphone Schematic Diagram

B01J Temp sensor & headphone

B01J

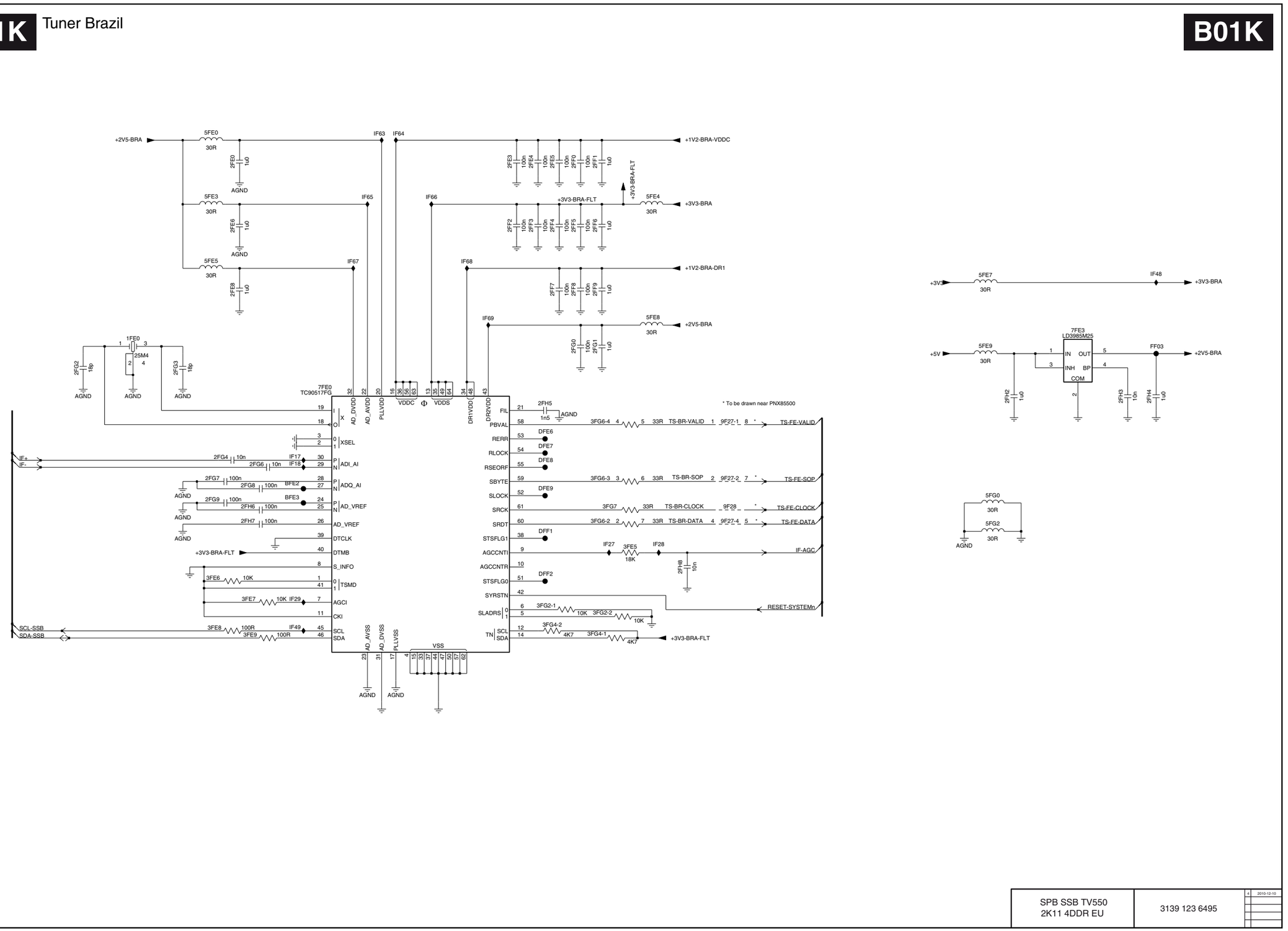




SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-1 Main Unit (Continued) B01K Tuner Brazil Schematic Diagram

B01K Tuner Brazil



SPB SSB TV550 2K11 4DDR EU	3139 123 6495

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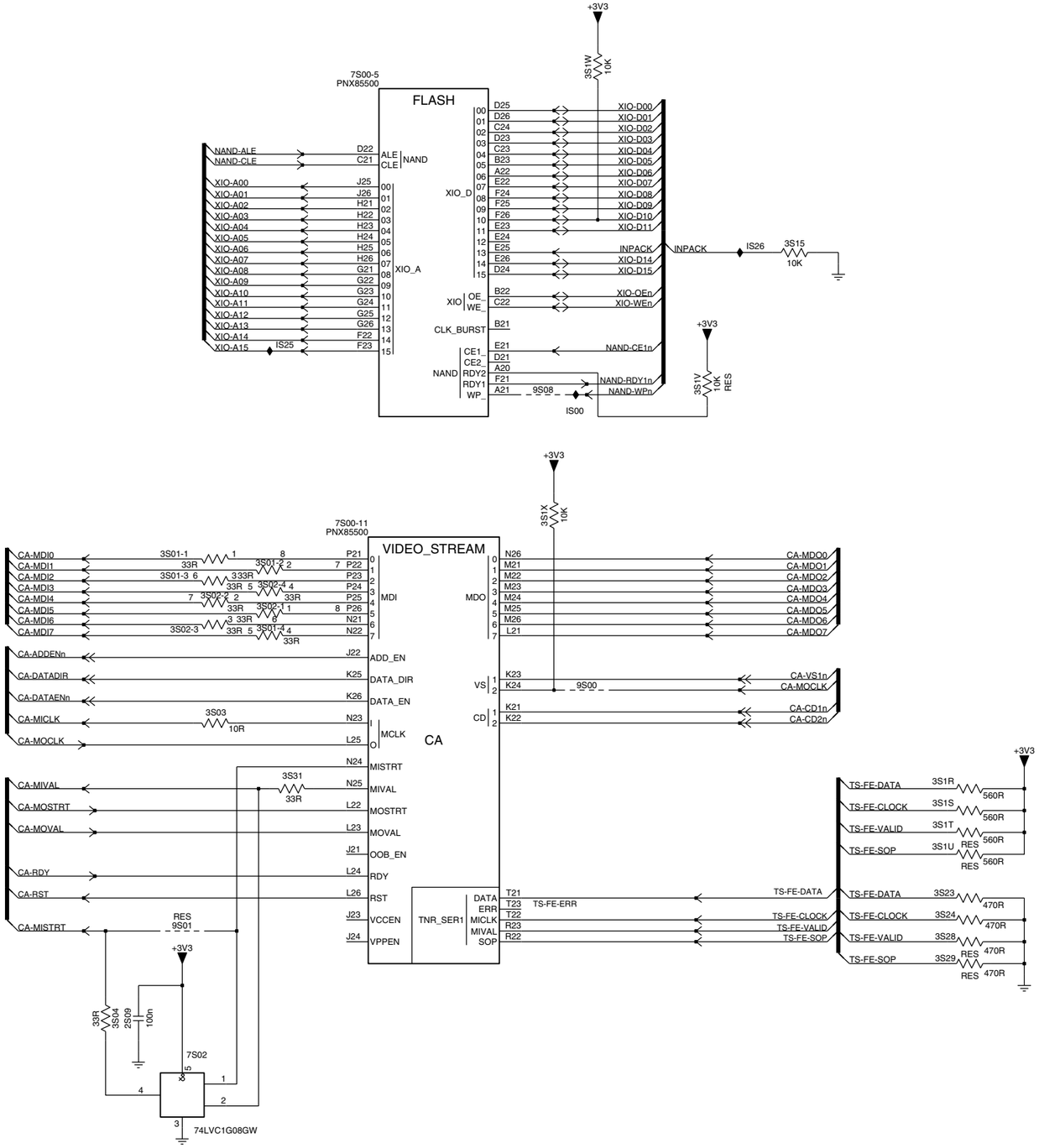
10-2 Main Unit B02A PNX85500: NANDflash - conditional access Schematic Diagram

B02A PNX85500: NANDflash - conditional access

B02A



B02A

SPB SSB TV550
2K11 4DDR EU

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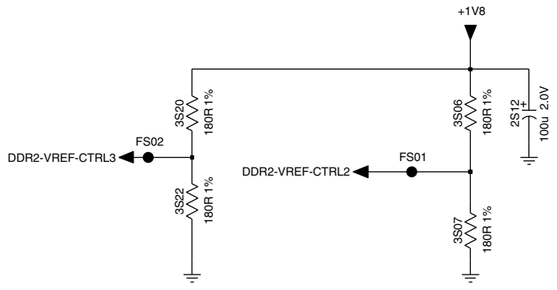
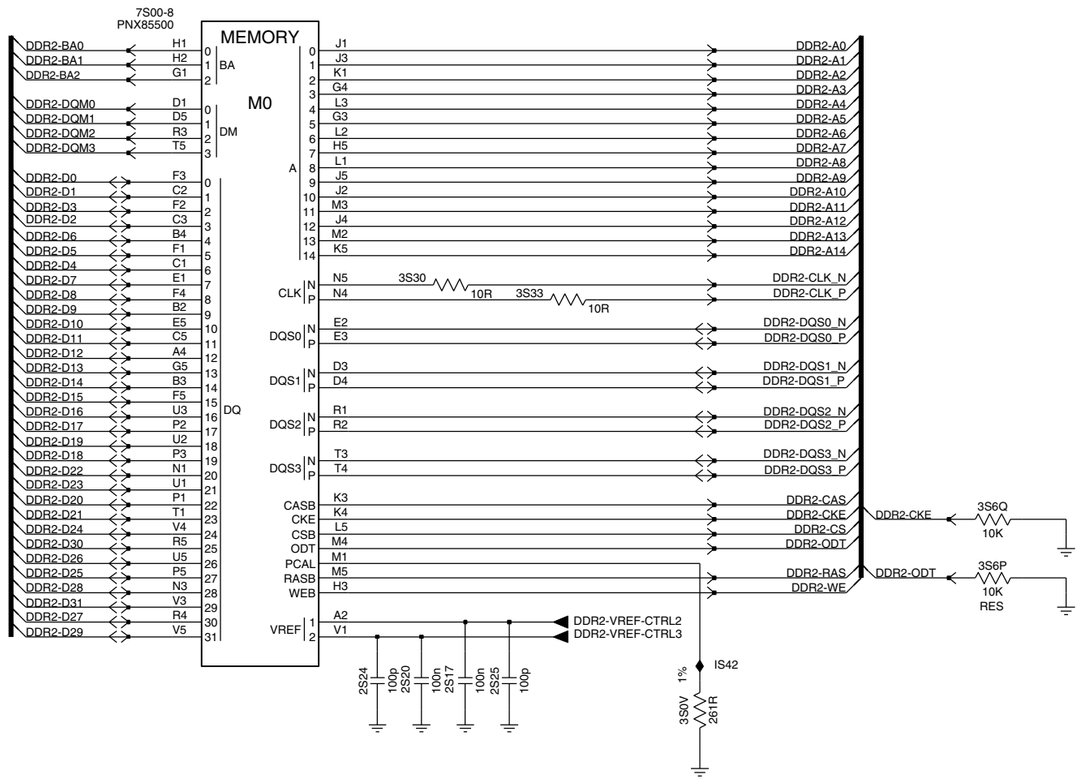
19100 012 110209.eps

10-2 Main Unit (Continued) B02B PNX85500: SDRAM Schematic Diagram

B02B PNX85500: SDRAM

B02B

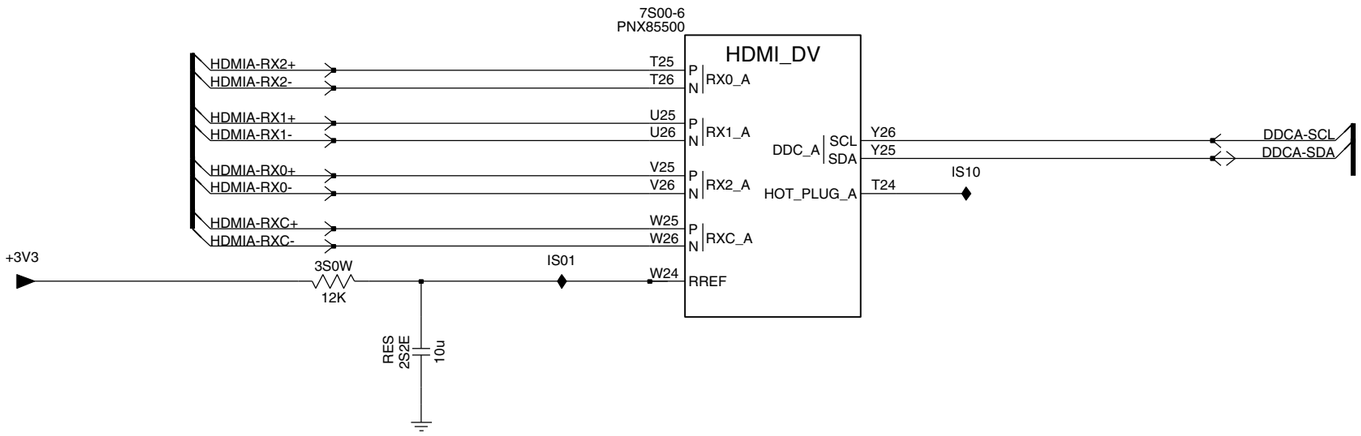




SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-2 Main Unit (Continued) B02C PNX85500: Digital video in Schematic Diagram

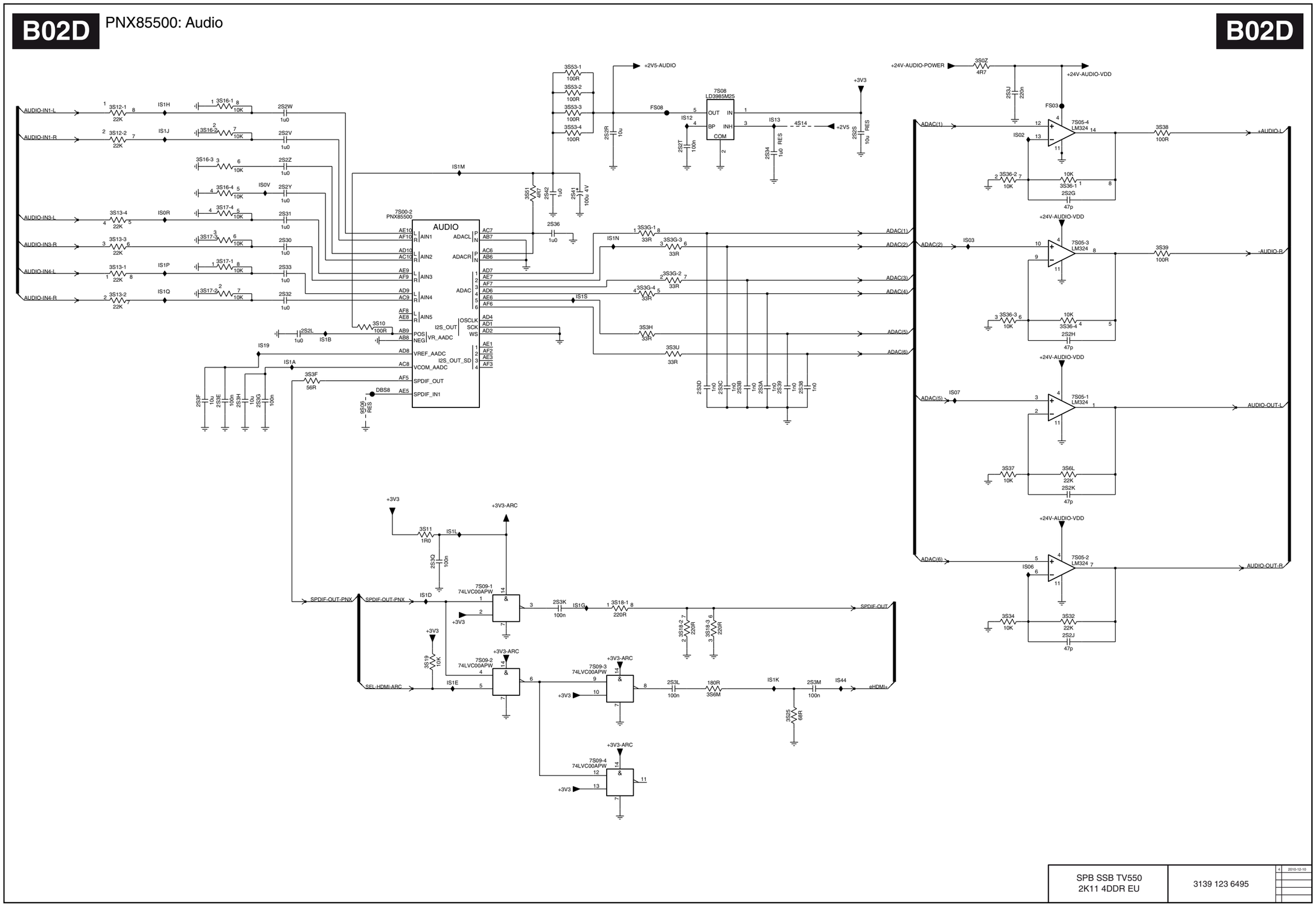
B02C PNX85500: Digital video in **B02C**



SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-2 Main Unit (Continued) B02D PNX85500: Audio Schematic Diagram

B02D PNX85500: Audio



SPB SSB TV550 2K11 4DDR EU	3139 123 6495

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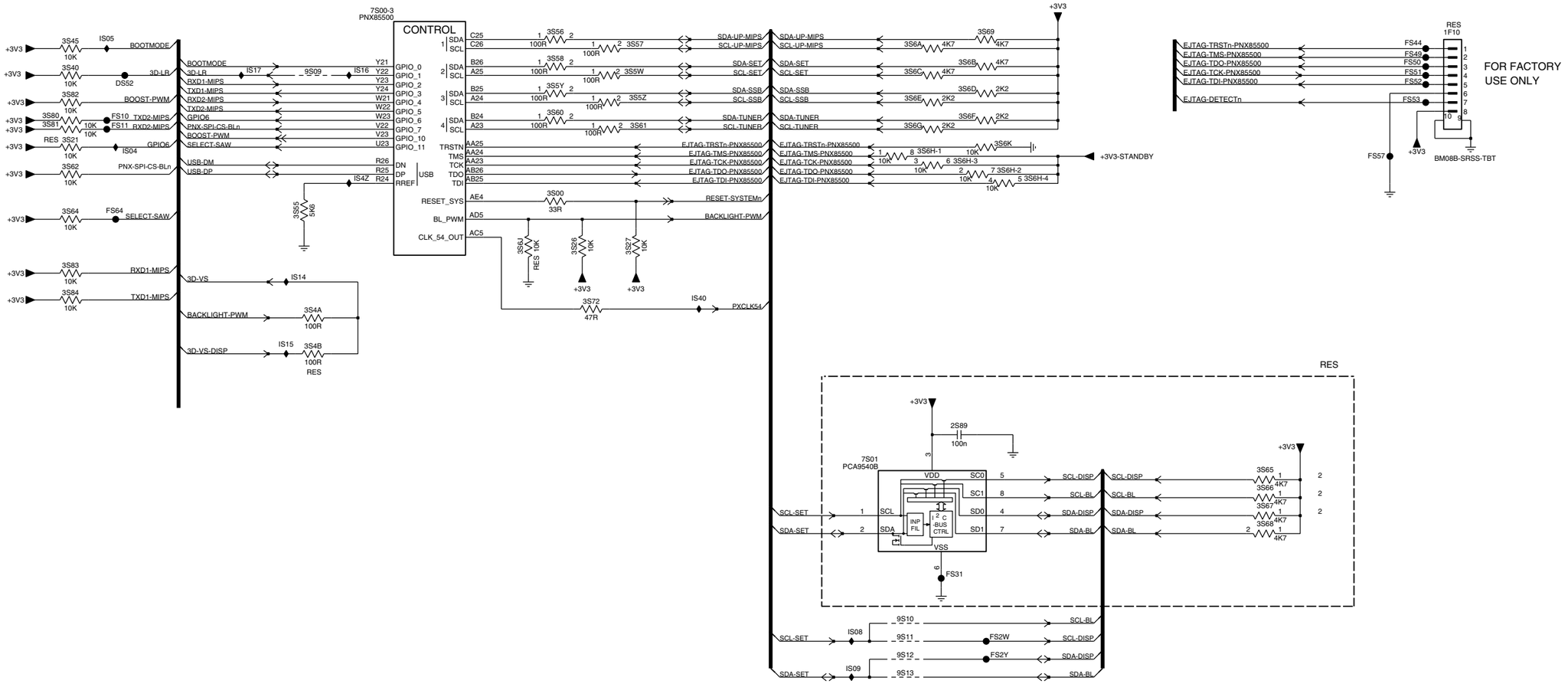
10-2 Main Unit (Continued) B02E PNX85500: MIPS Schematic Diagram

B02E PNX85500: MIPS



SPB SSB TV550 2K11 4DDR EU	3139 123 6495

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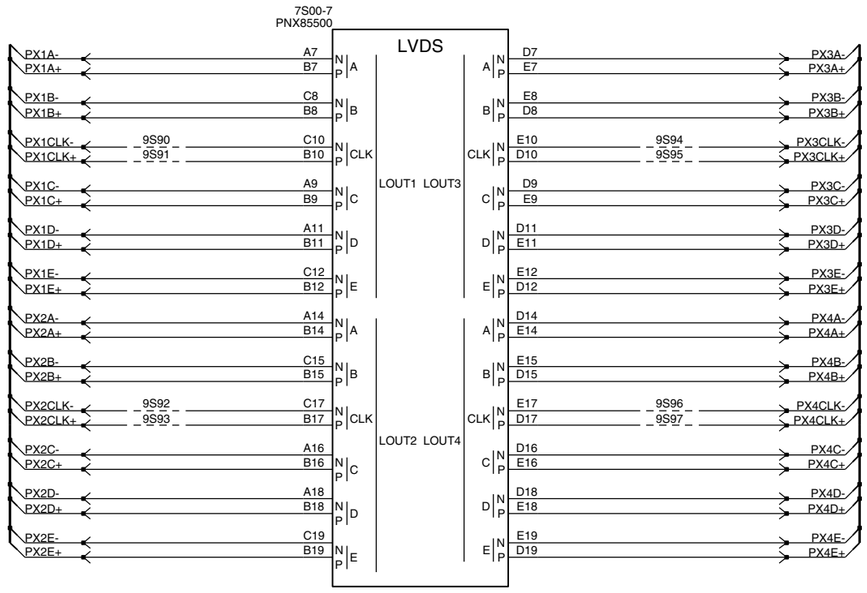
10-2 Main Unit (Continued) B02F PNX85500: Video out - LVDS Schematic Diagram

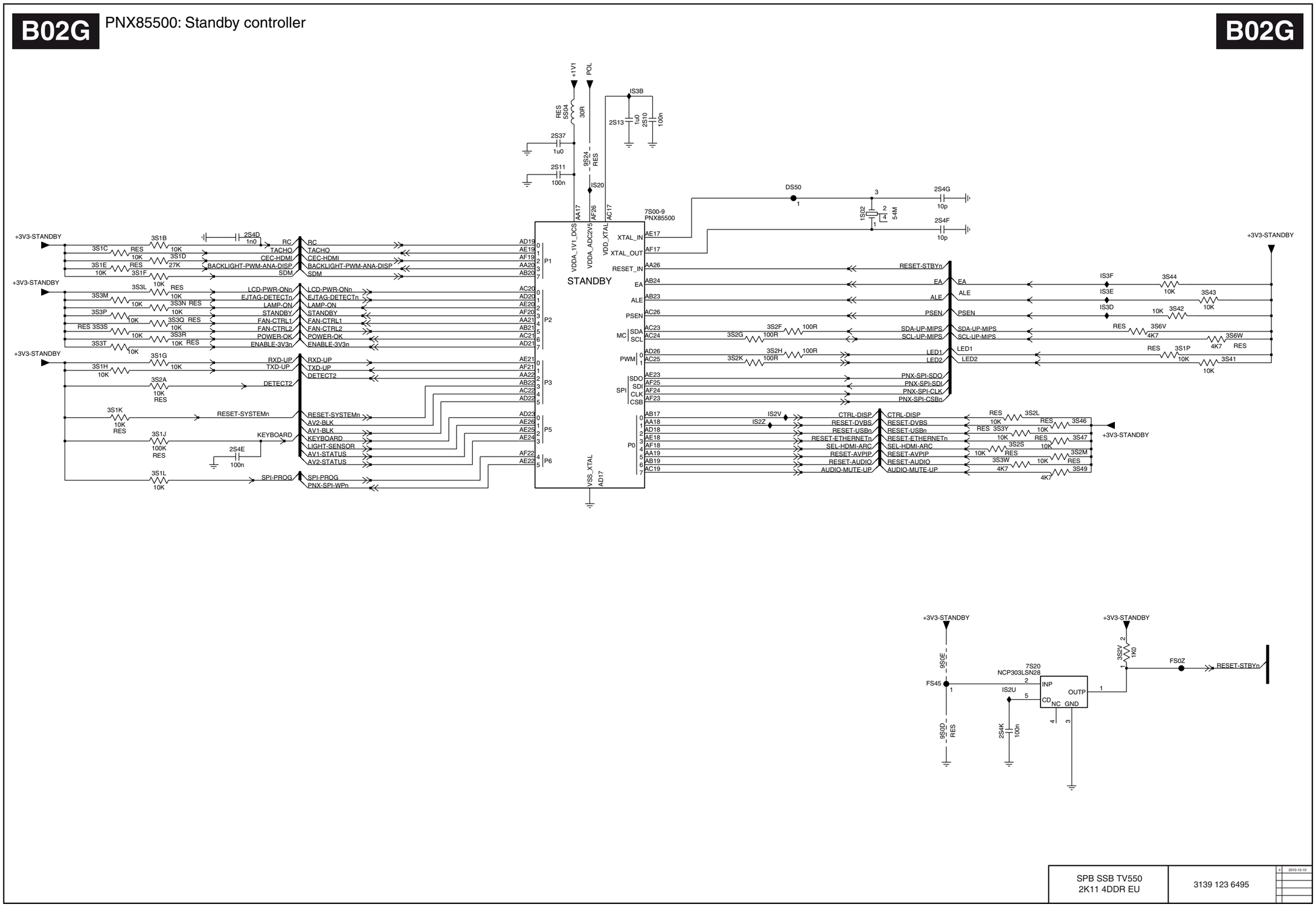
B02F PNX85500: Video out - LVDS **B02F**



SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-2 Main Unit (Continued) B02G PNX85500: Standby controller Schematic Diagram

B02G PNX85500: Standby controller



SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-2 Main Unit (Continued) B02H PNX85500: Power Schematic Diagram

B02H PNX85500: Power

B02H

+1V8
SENSE+1V1
c001
+1V1
7S00-10
PNX85500
VDD_1V8
VDD
VDD_1V1
7S00-12
PNX85500
VSSA
VSS
VDD_1V1_DDR
HDMI_VDDA_1V1
HDMI_VDDA_2V5
HDMI_VDDA_3V3_TERM
VDD_2V5
VDD_2V5_LVDS
VDD_3V3
VDD_3V3_SBY
VDDA_1V1_LVDS_PLL
VDDA_1V2
VDDA_2V5
VDDA_2V5_AADC
VDDA_2V5_ADAC
VDDA_2V5_DCS
VDDA_2V5_LVDS_BG
VDDA_2V5_USB
VDDA_2V5_VADC
VDDA_2V5_VDAC
VDDA_3V3_USB
VSSA_1V1_LVDS_PLL
VSSA_2V5_LVDS_BG
VSSA_USB
HDMI_AGND
IS3Q
IS3S
IS3K
IS3L
IS58
5S80 30R +1V1
5S81 30R +2V5
5S82 30R +3V3
5S93 30R +2V5
+2V5-LVDS
5S85 30R +3V3
+3V3-STANDBY
5S83 30R +1V1
5S84 30R +1V2
5S95 30R +2V5
POL
+2V5-AUDIO
+2V5-AUDIO
5S87 30R +2V5
5S88 30R +2V5-LVDS
5S89 30R +2V5
5S90 30R +2V5
5S92 30R +3V3
5S94 30R
c000
SENSE+1V2

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2K11 4DDR EU

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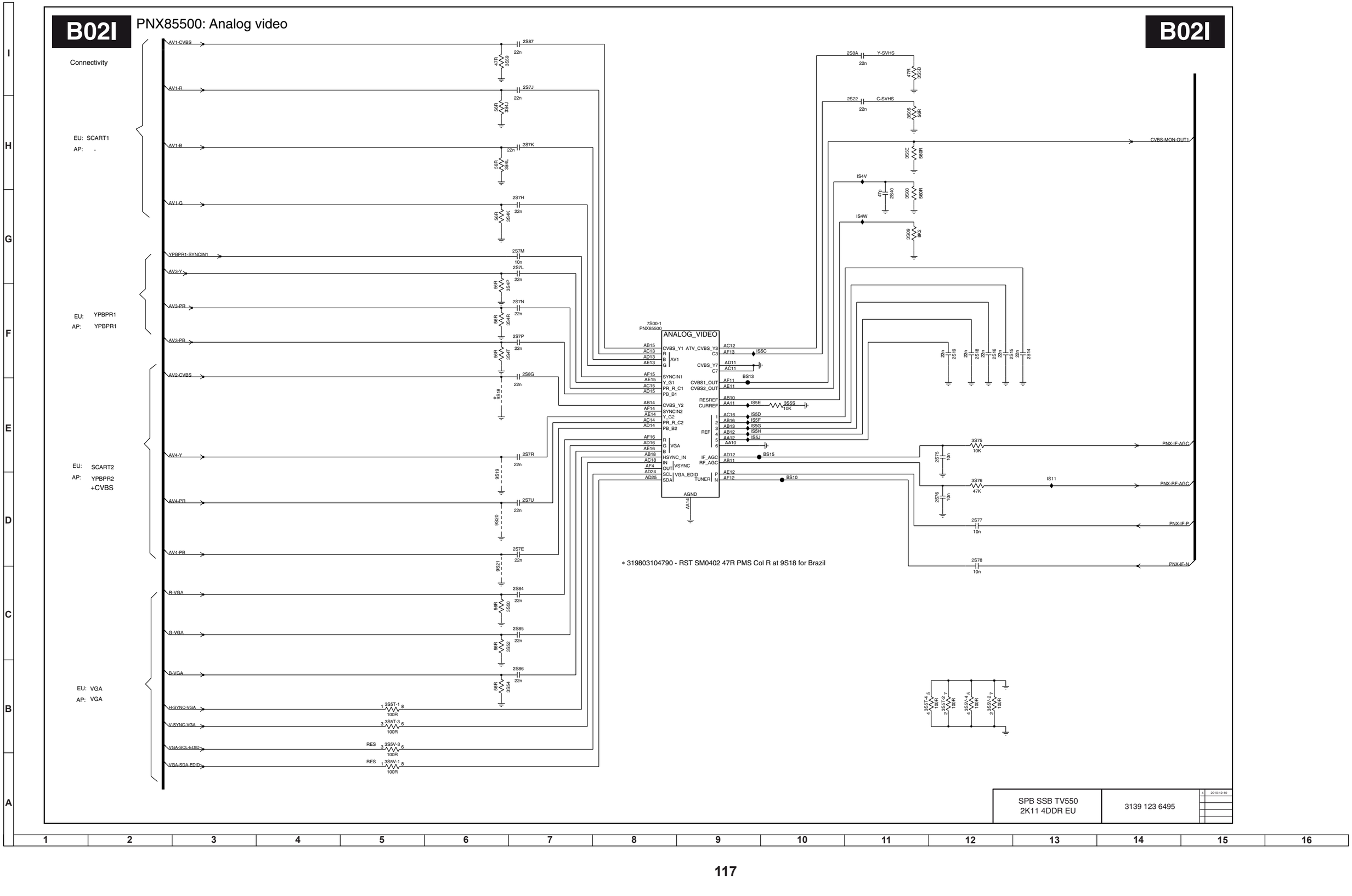
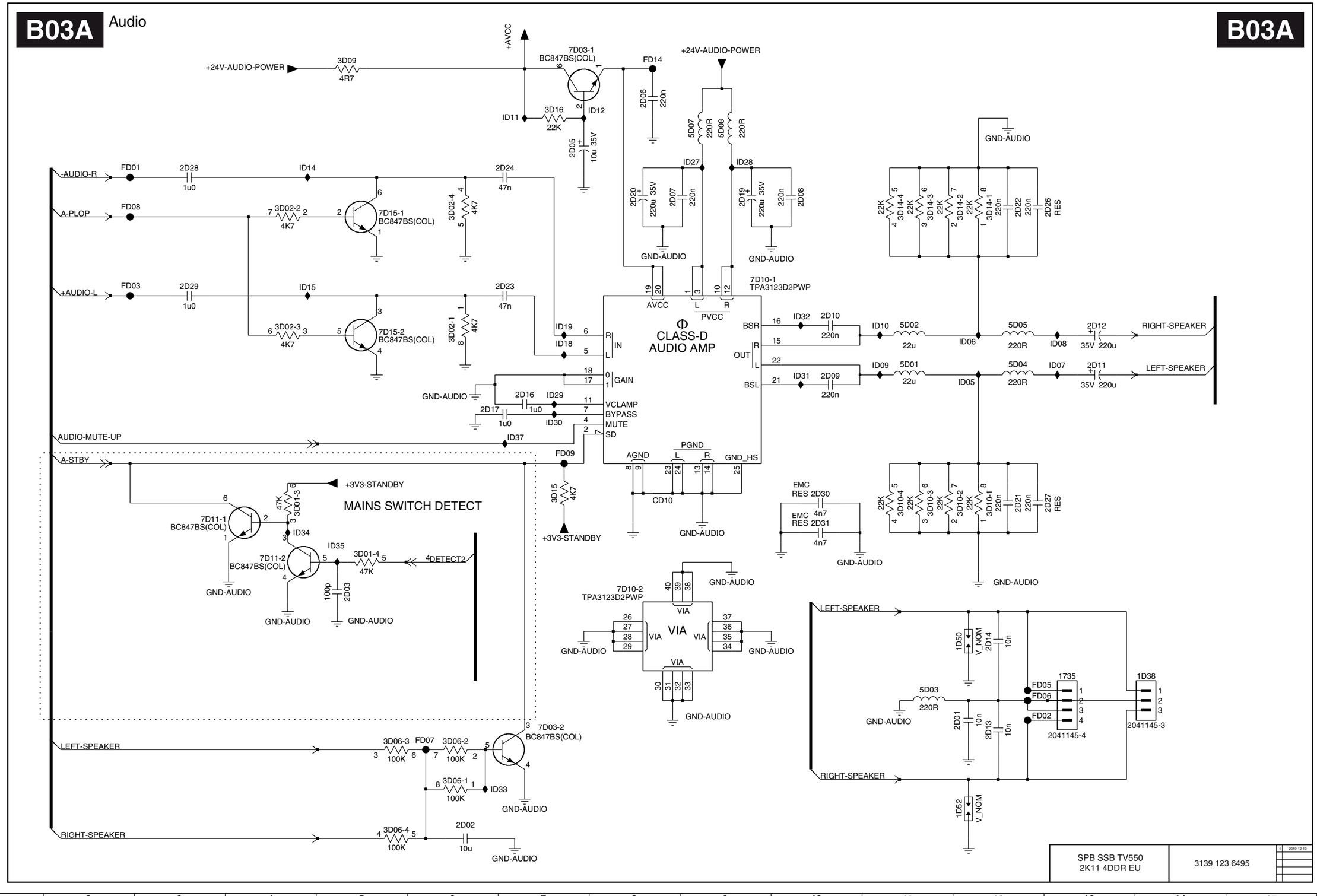
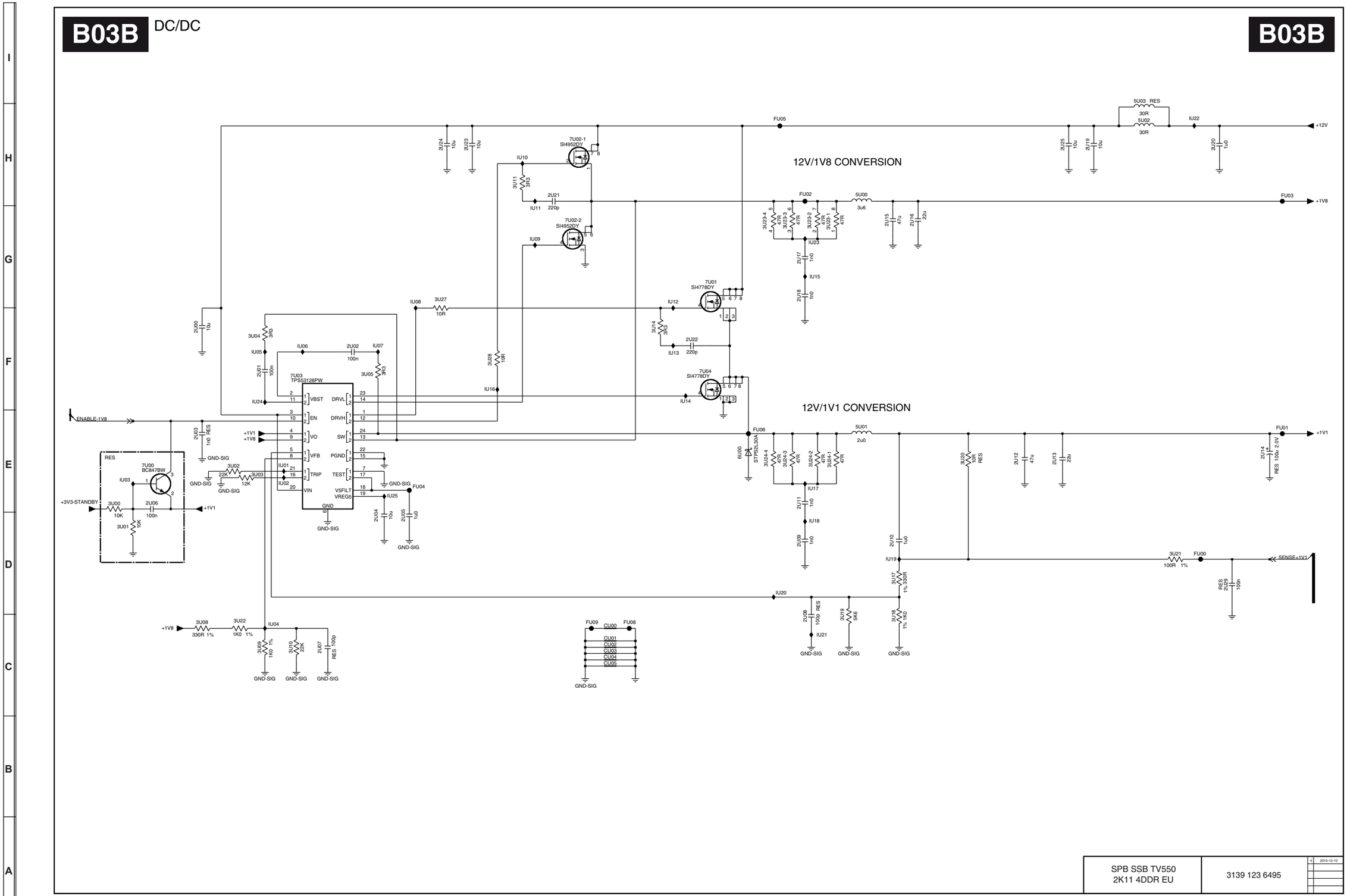
10-3 Main Unit B03I Audio Schematic Diagram



10-3 Main Unit B03A Audio Schematic Diagram



10-3 Main Unit (Continued) B03B DC/DC Schematic Diagram



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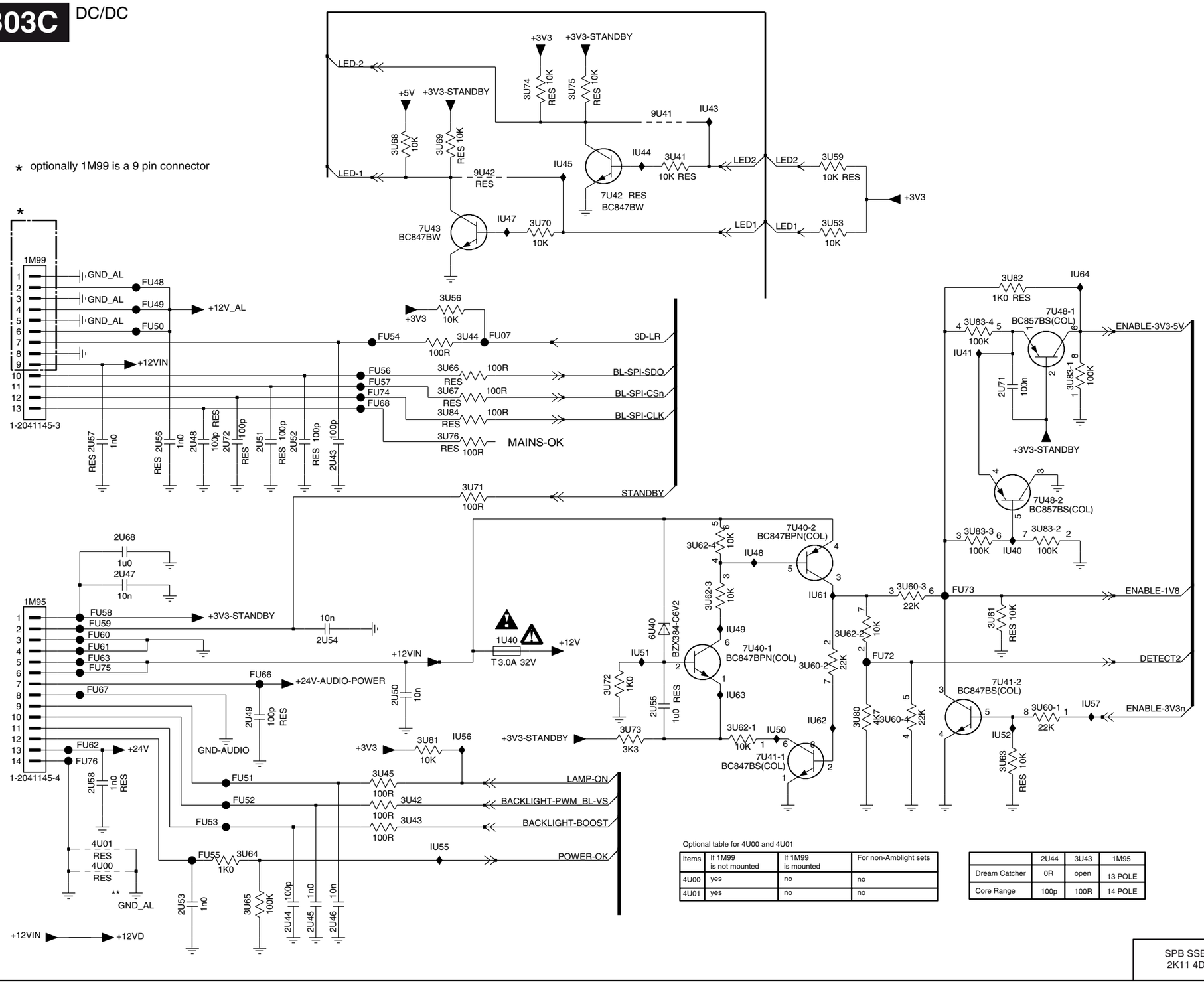
10-3 Main Unit (Continued) B03C DC/DC Schematic Diagram

B03C DC/DC

B03C

* optionally 1M99 is a 9 pin connector



Optional table for 4U00 and 4U01

Items	If 1M99 is not mounted	If 1M99 is mounted	For non-Amblight sets
4U00	yes	no	no
4U01	yes	no	no

	2U44	3U43	1M95
Dream Catcher	0R	open	13 POLE
Core Range	100p	100R	14 POLE

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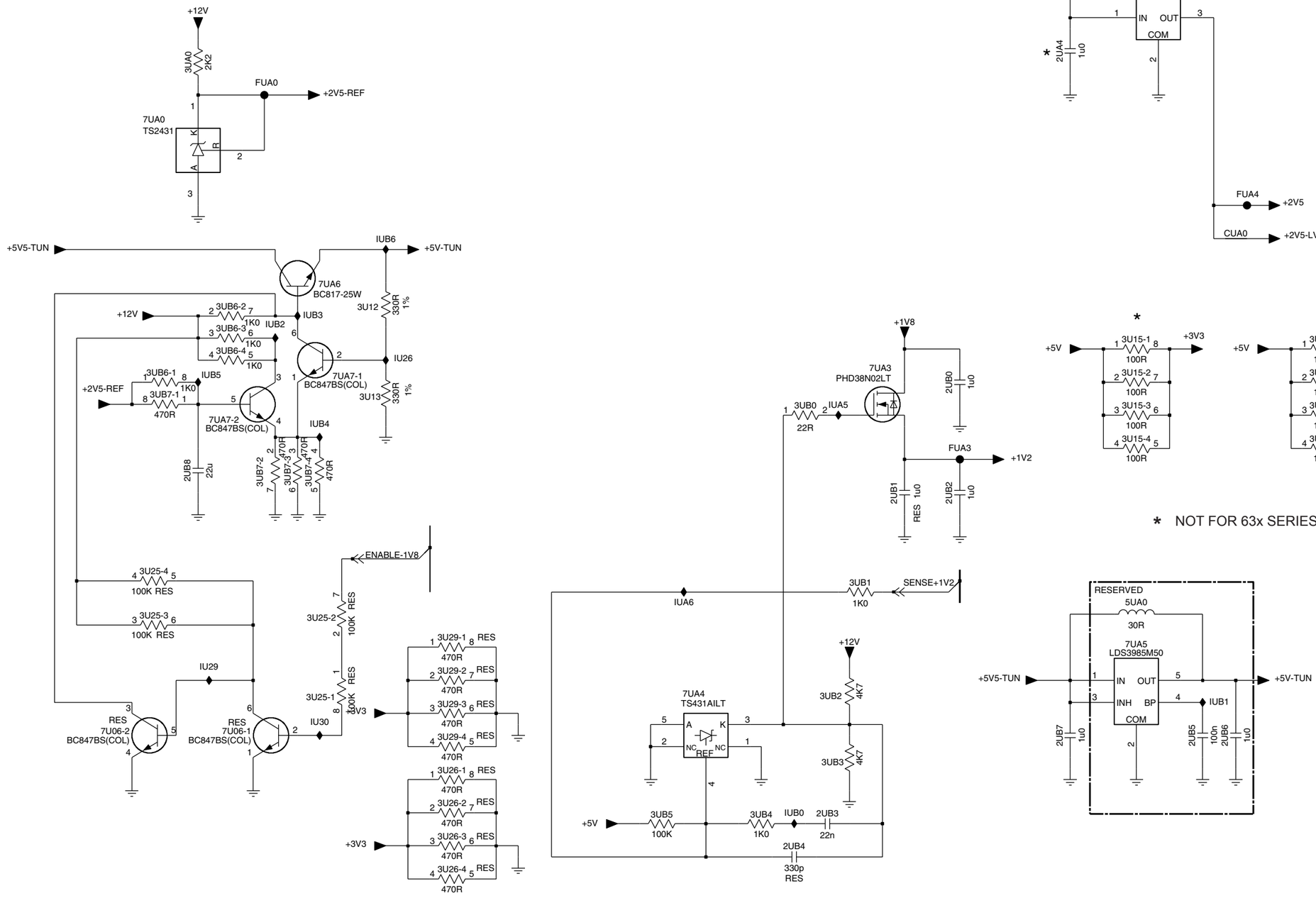
10-3 Main Unit (Continued) B03D DC/DC Schematic Diagram

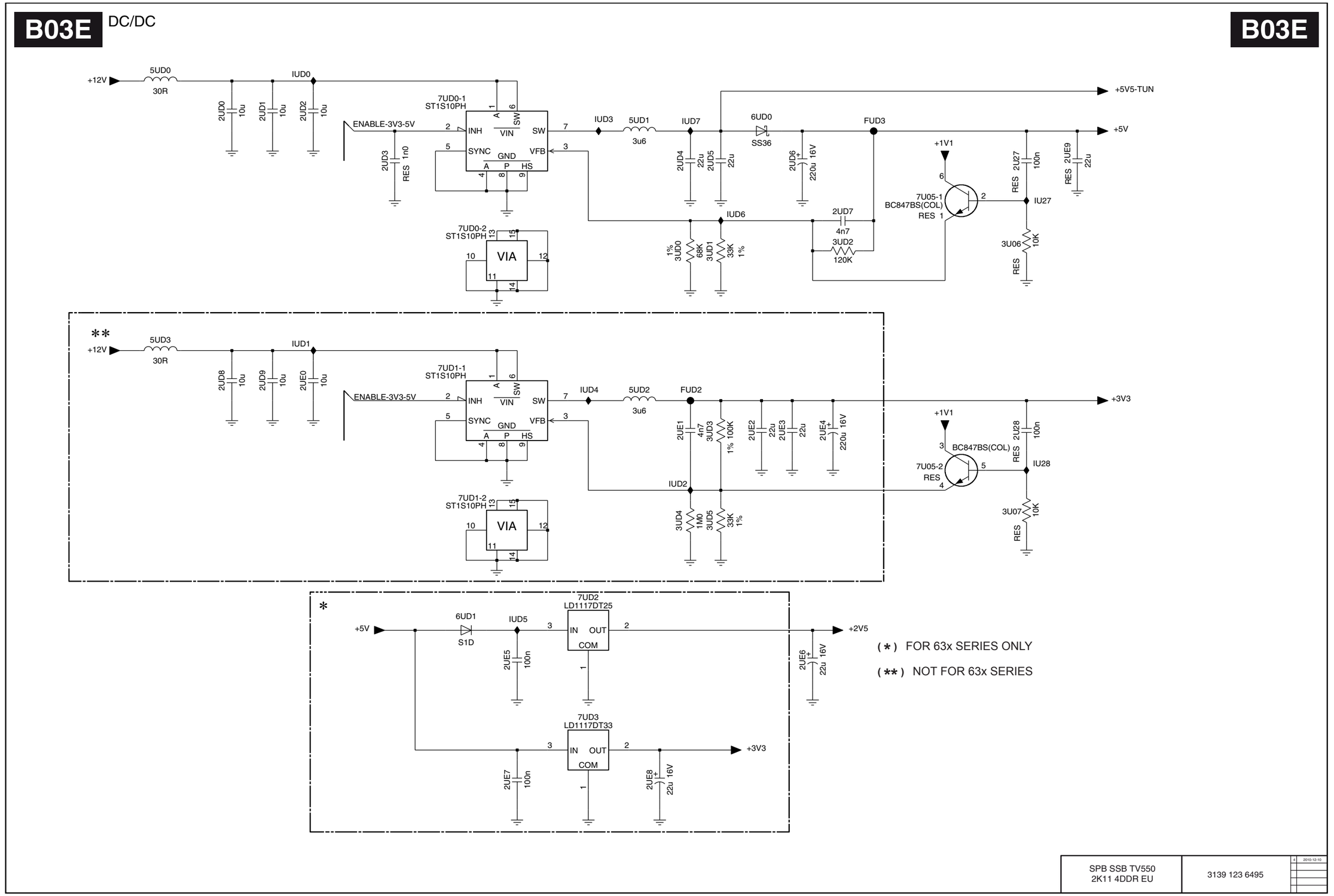
B03D DC/DC



SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-3 Main Unit (Continued) B03E DC/DC Schematic Diagram

B03E DC/DC



(*) FOR 63x SERIES ONLY

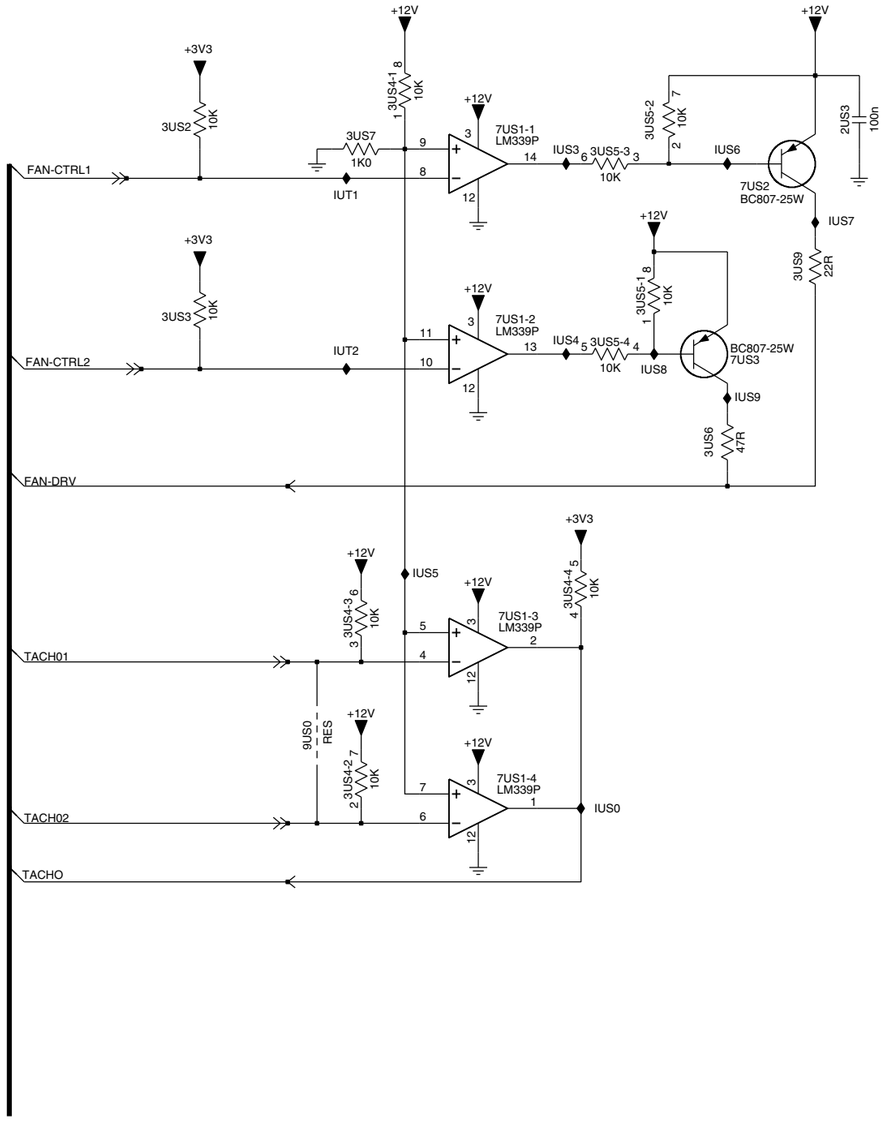
(**) NOT FOR 63x SERIES

SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-3 Main Unit (Continued) B03G Fan control Schematic Diagram

B03G Fan control

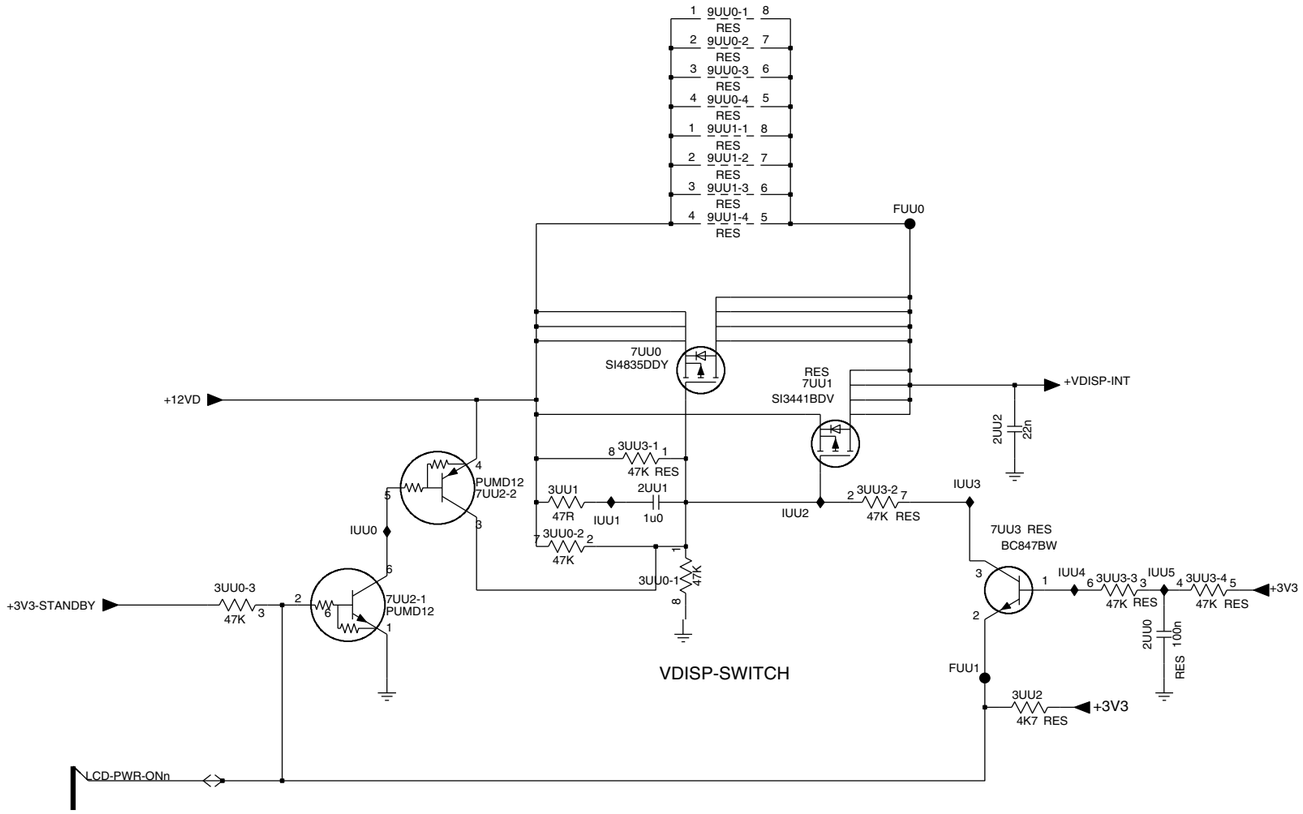
B03G



SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-3 Main Unit (Continued) B03H Vdisp switch Schematic Diagram

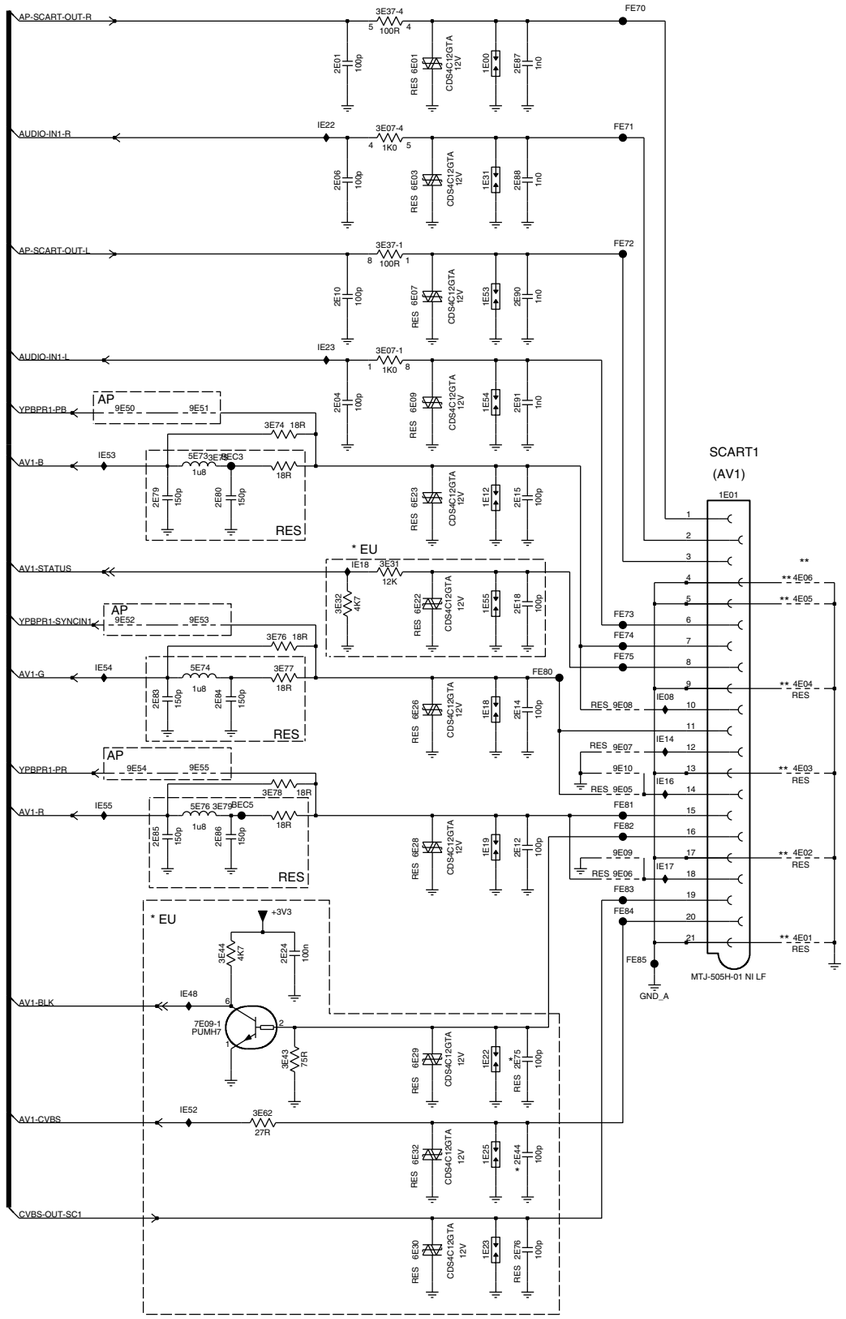
B03H Vdisp switch

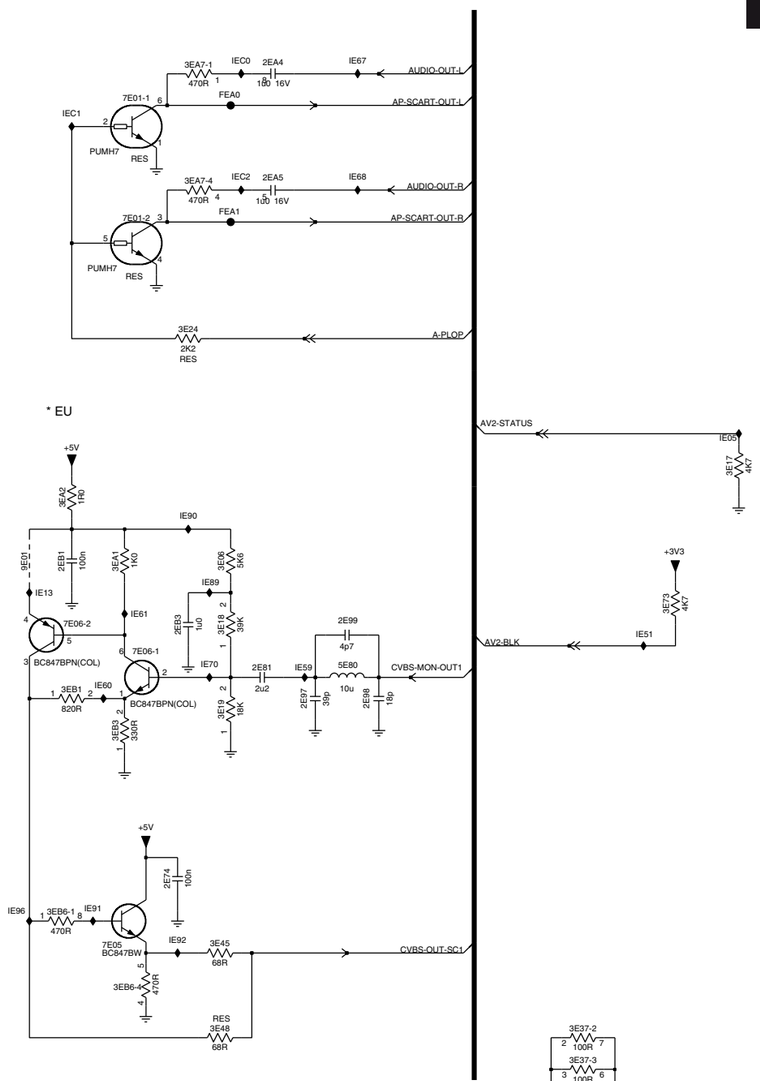


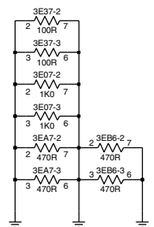
SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

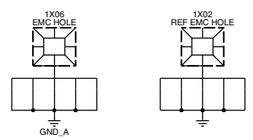
10-4 Main Unit B04A Analogue externals A Schematic Diagram

B04A Analogue externals A









* 3139803190010 - RSI SM 0402 JUMP 0R05 Col at 2E44 & 2E75 for Brazil

** Provision for ESD

SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

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10-4 Main Unit (Continued) B04B Analogue externals B Schematic Diagram

B04B Analogue externals B

B04B

YPBPR

MSP-305H-BBB-732-03 NI
* 1E08-3
GREEN
**4E20
GND_A
FE54
EU
9E29
AP
9E04
IE71
3E87 18R
IE72
3E88 27R
IE73
100p 2E27
1E43
RES 6E40
CDS4C12GTA 12V
AV3-Y
YPBPR1-SYNCIN1
AV2-CVBS

MTJ-032-21B-45 NI FE (PBT)
1E03
**4E21
GND_A
FE51
EU
9E57
IE74
3E89 18R
IE75
100p 2E67
1E28
RES 6E51
CDS4C12GTA 12V
AV3-PB
YPBPR1-PB

MTJ-032-21B-42 NI FE
1E04
**4E22
RES
FE42
GND_A
FE48
EU
9E58
IE76
3E90 18R
IE77
100p 2E68
1E39
RES 6E52
CDS4C12GTA 12V
AV3-PR
YPBPR1-PR

SPDIF out

SPDIF-OUT
IE15
5E06 30R
FE59
2E22 10p
1E44
RES 6E46
CDS4C12GTA 12V
1E07
MTJ-032-68B-46-NI-FE
FE41

YPBPR AUDIO

MSP-305H-BBB-732-03 NI
* 1E08-1
RED
**4E23
RES
FE43
GND_A
FE50
3E97 1K0
IE31
1n0 2E39
1E29
RES 6E06
CDS4C12GTA 12V
100p 2E72
AUDIO-IN3-R

MSP-305H-BBB-732-03 NI
* 1E08-2
WHITE
**4E24
RES
GND_A
FE49
3E96 1K0
IE29
1n0 2E40
1E42
RES 6E38
CDS4C12GTA 12V
100p 2E71
AUDIO-IN3-L

VGA (OR DVI) AUDIO

1E09
MSJ-035-29D PPO
FE01
FE02
3E21 1K0
IE09
2E36 1n0
1E37 V_NOM
RES 6E19
CDS4C12GTA 12V
2E35 100p
AUDIO-IN4-L
FE03
3E20 1K0
IE10
2E37 1n0
1E38 V_NOM
RES 6E20
CDS4C12GTA 12V
2E38 100p
AUDIO-IN4-R

+3V3
RES 1E32
DF50-30DP

AV3-Y 9E15 RES
AV1-CVBS 9E16 RES
AV3-PR 9E19 RES
RXD1-MIPS 9E12 RES
AV3-PB 9E17 RES
TXD1-MIPS 9E14 RES
AUDIO-IN3-R 9E11 RES
AV1-R 9E18 RES
AUDIO-IN3-L 9E13 RES
AV1-G 9E20 RES
CVBS-OUT-SC1 9E21 RES
AV1-R 9E22 RES
AP-SCART-OUT-R 9E23 RES
AV1-STATUS 9E24 RES
AUDIO-IN1-R 9E25 RES
AV1-BLK 9E26 RES
AP-SCART-OUT-L 9E27 RES
AUDIO-IN1-L 9E28 RES

RES 1ECB
1481-702-06S-51
FE44
FE45
FE46
FE47
FE52
FE53
RES 3E54 100R
RES 3E55 100R
RES 3E56 100R
RES 3E57 100R
RES 3E58 +5V
+T 0R3
RES 3E36 100R
RES 3E41 100R
RES 3E38 100R
IE34
IE35
IE36
RXD2-MIPS
3D-VS
TXD2-MIPS
3D-LR
1E75 100p
RES 2E20
1E76 100p
RES 2E21
1E77 100n
RES 2E23
1E78 100p
RES 2E25
1E79 100p
RES 2E26
RES 6E15 BZX384-C5V1
RES 6E16 BZX384-C5V1
RES 6E17 BZX384-C5V1
RES 6E18 BZX384-C5V1
FOR 3D

* 242202606017 - SOC CINCH V 3P 1L3 YEWHRDY at 1E08 for BRZ
** Provision for ESD

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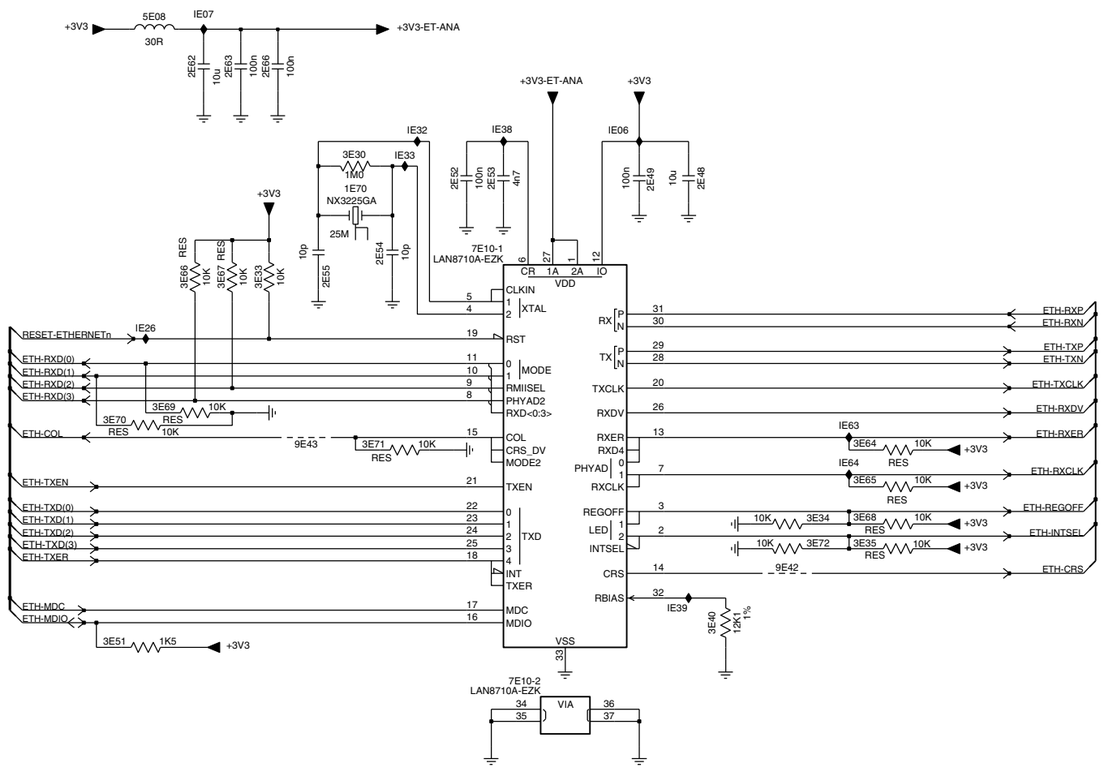
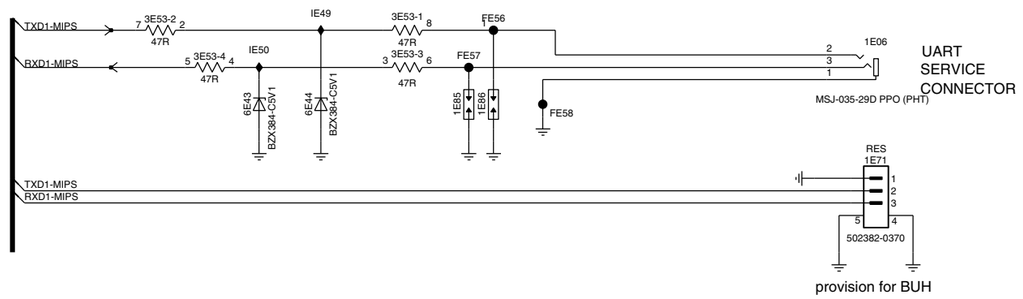
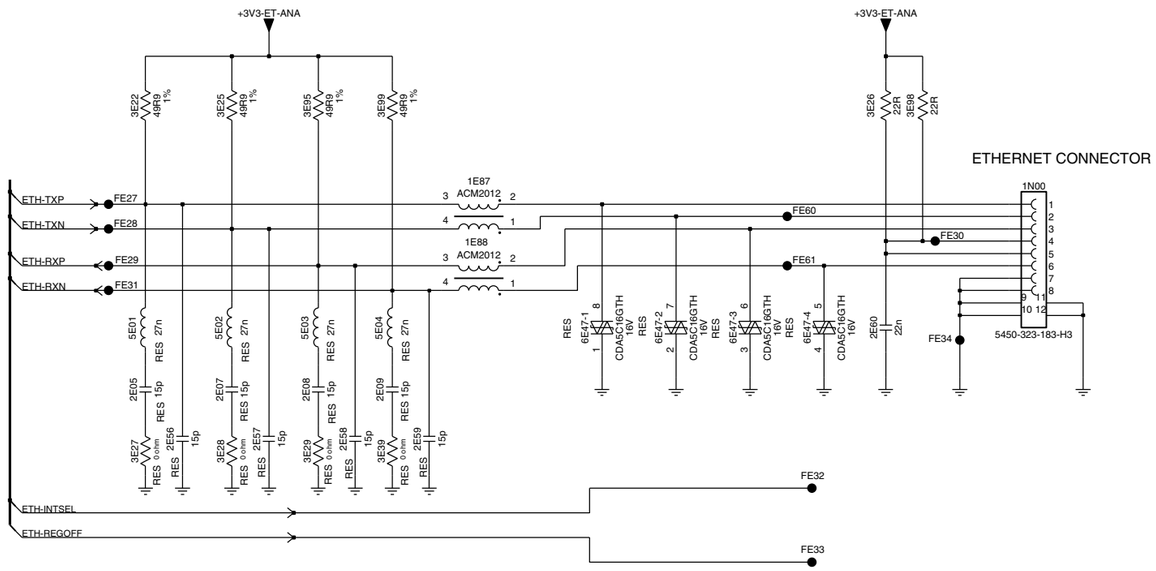
10-4 Main Unit (Continued) B04C Ethernet & Service Schematic Diagram

B04C Ethernet & Service







CONFIGURATION RESISTOR SETTINGS

Resistor	POP	EMPTY
3E64	PHYADD(0) = 1	PHYADD(0) = 0
3E65	PHYADD(1) = 1	PHYADD(1) = 0
3E66	PHYADD(2) = 1	PHYADD(2) = 0
3E67	RMII mode selected	MII mode selected
3E68	Internal 1.2V reg. disabled	Internal 1.2V reg. enabled
3E69	MODE(0) = 0	MODE(0) = 1
3E70	MODE(1) = 0	MODE(1) = 1
3E71	MODE(2) = 0	MODE(2) = 1
3E72	INTERRUPT FUNCTION DISABLED ON nINT/TXER/TXD4 SIGNAL	INTERRUPT FUNCTION ENABLED ON nINT/TXER/TXD4 SIGNAL

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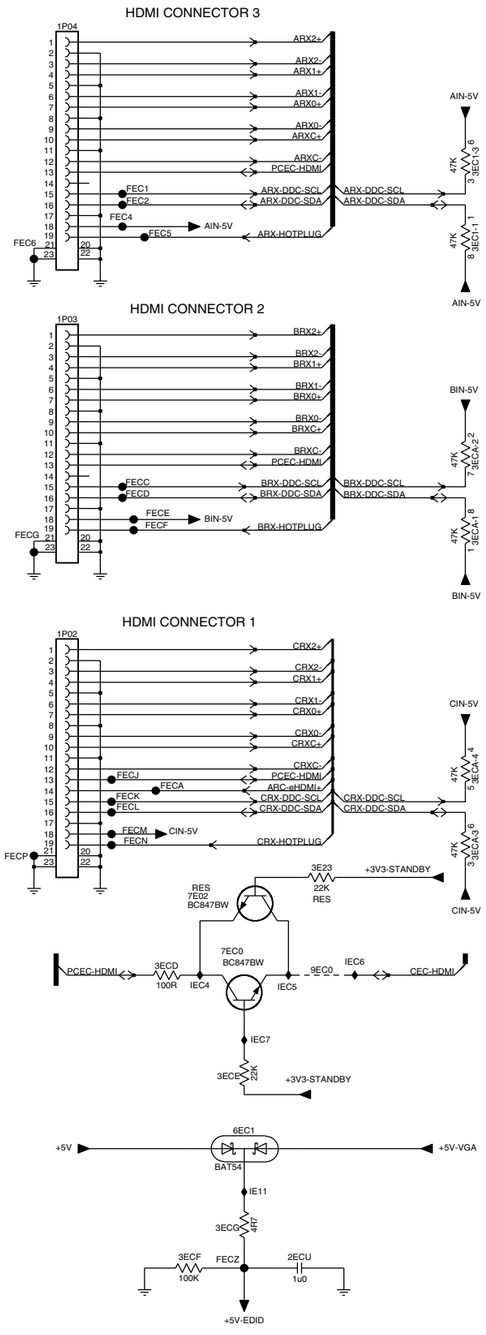
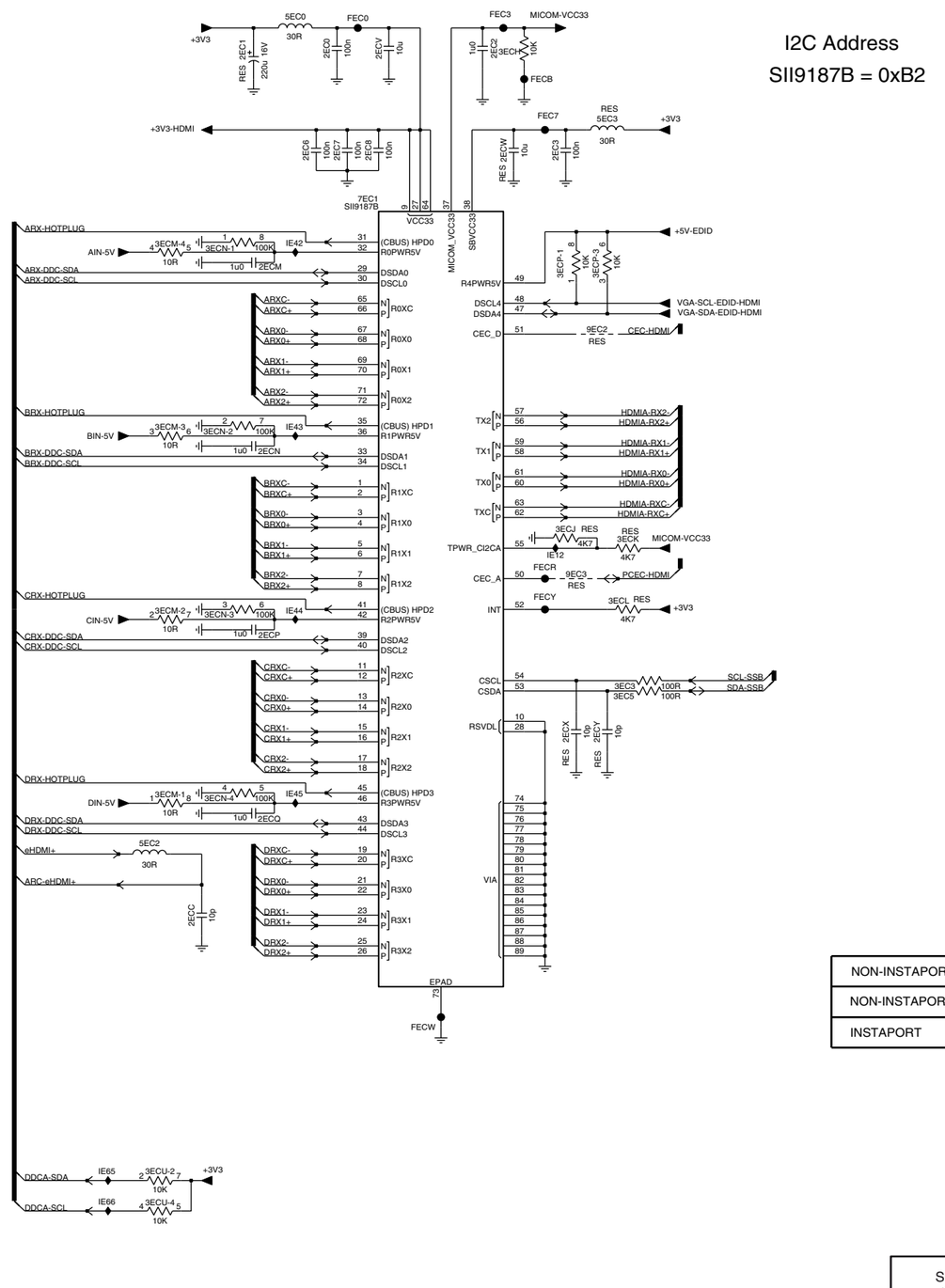
10-4 Main Unit (Continued) B04D HDMI Schematic Diagram

B04D HDMI

B04D





I2C Address
SII9187B = 0xB2

	7EC1	3ECN	3ECF
NON-INSTAPORT	9187A	4 × 3K3	3K3
NON-INSTAPORT	9187B	4 × 100K	100K
INSTAPORT	9287B	4 × 100K	100K

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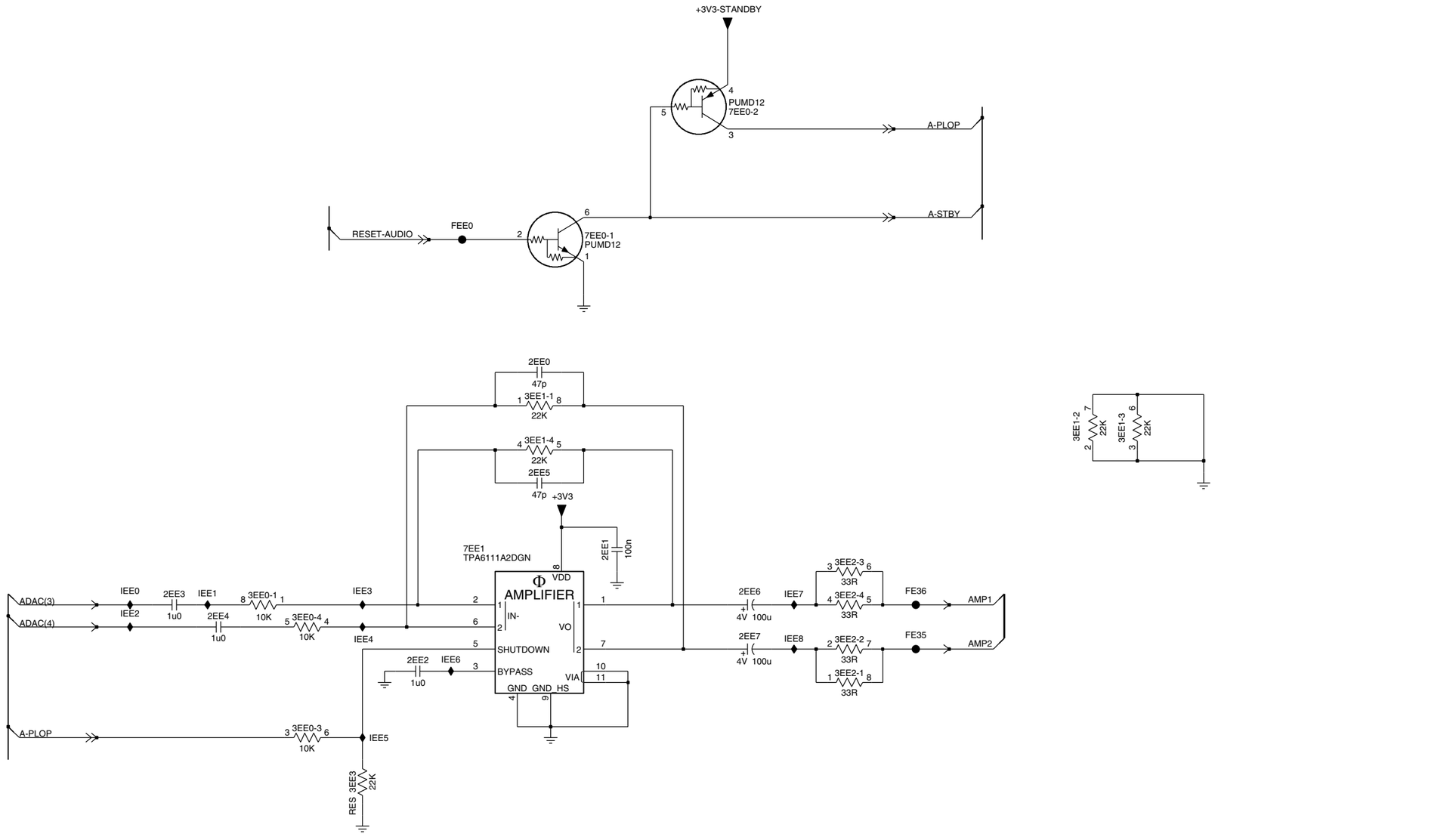
10-4 Main Unit (Continued) B04E Headphone Schematic Diagram

B04E Headphone

B04E



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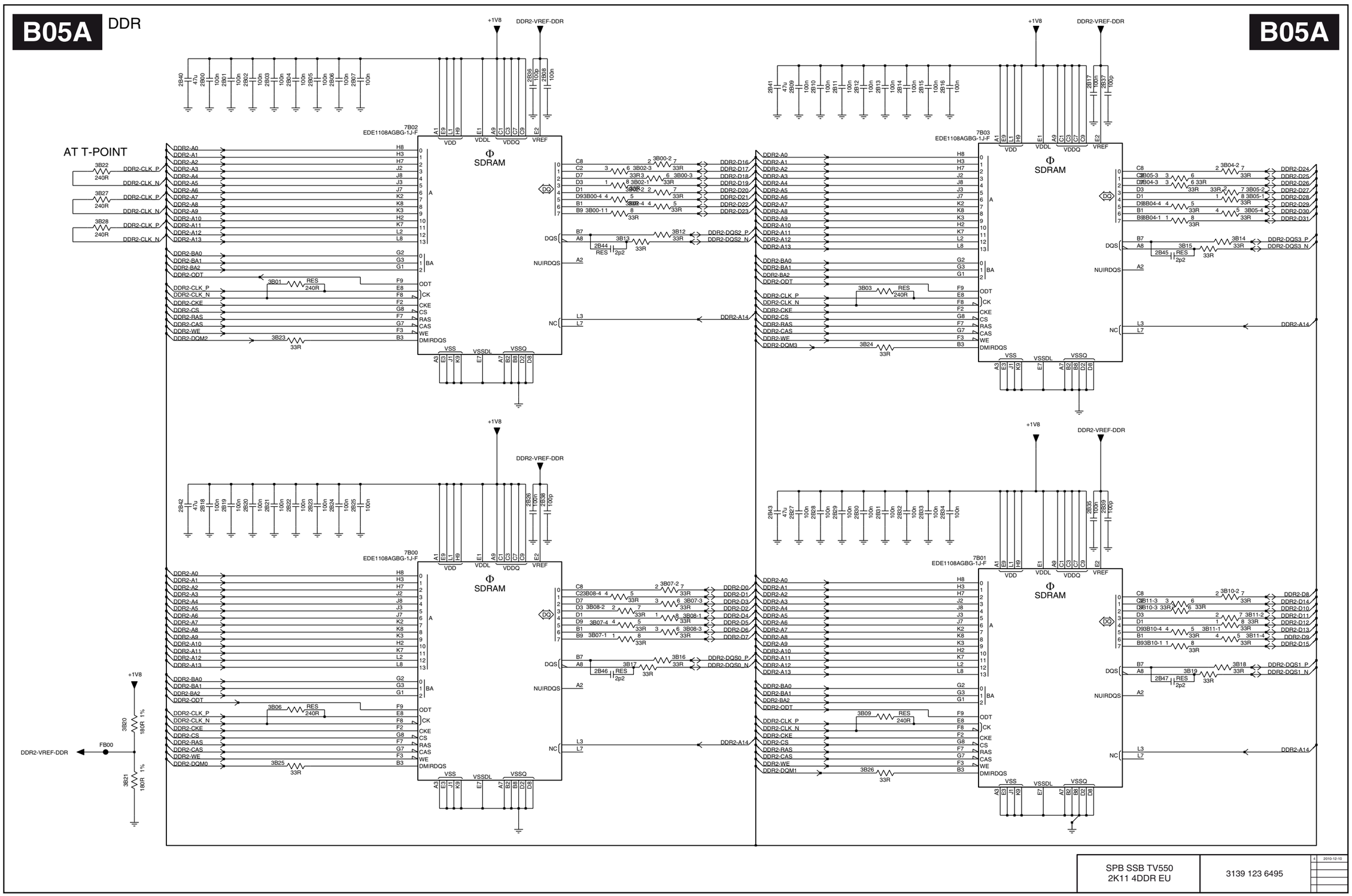
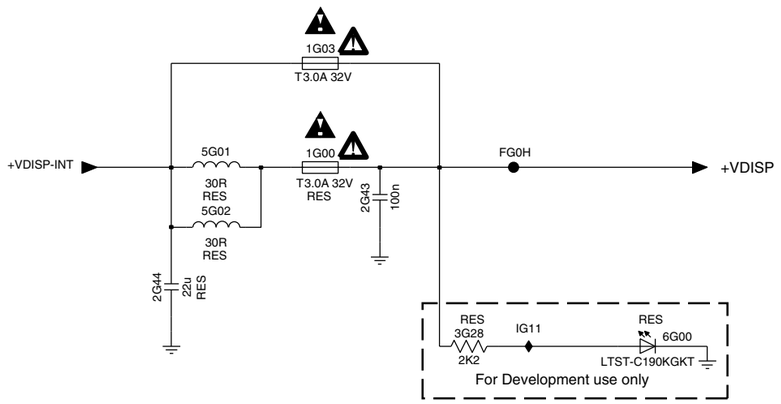
10-5 Main Unit B05A DDR Schematic Diagram



10-6 Main Unit B06A Display interfacing-Vdisp Schematic Diagram

B06A Display interfacing-Vdisp

B06A



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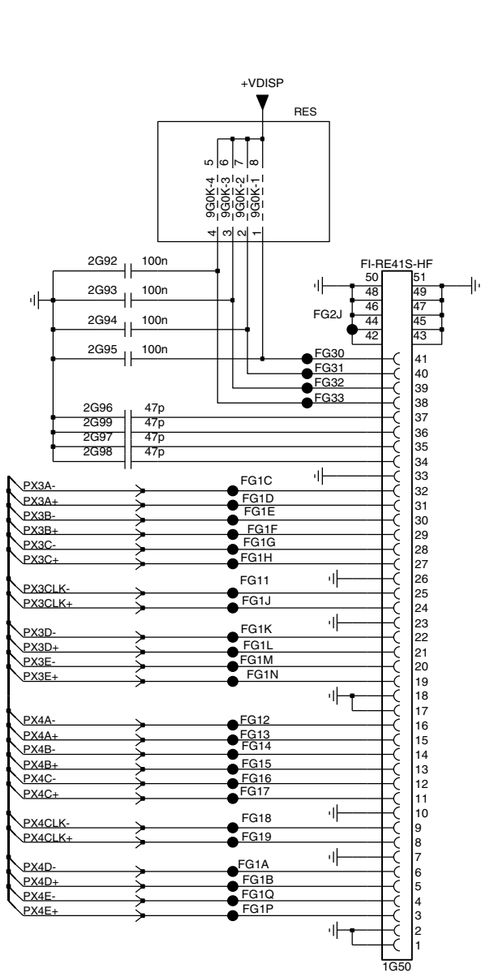
19100_035_110210.eps

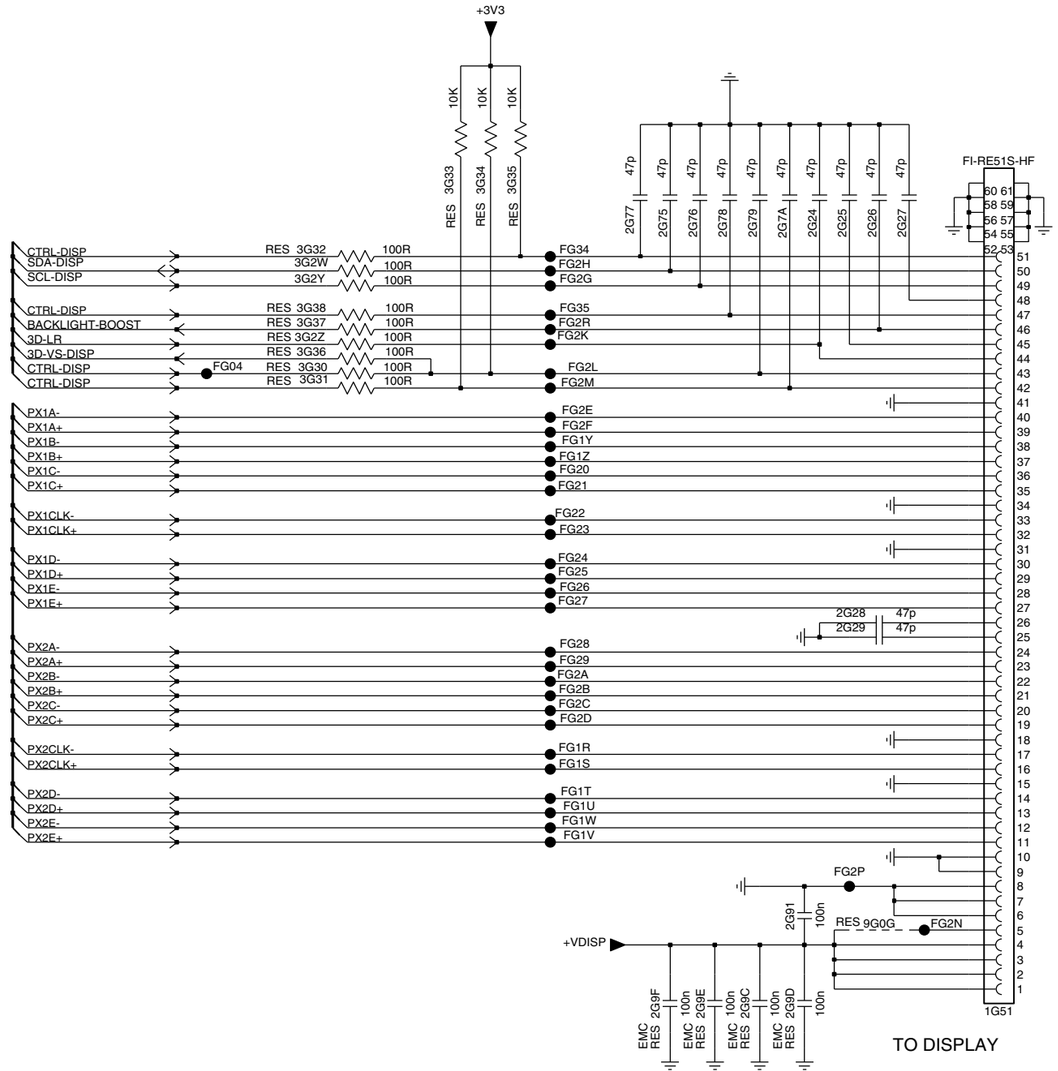
10-6 Main Unit (Continued) B06B Video out - LVDS Schematic Diagram

B06B Video out - LVDS

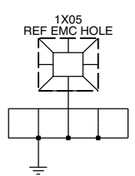
B06B



TO DISPLAY



TO DISPLAY

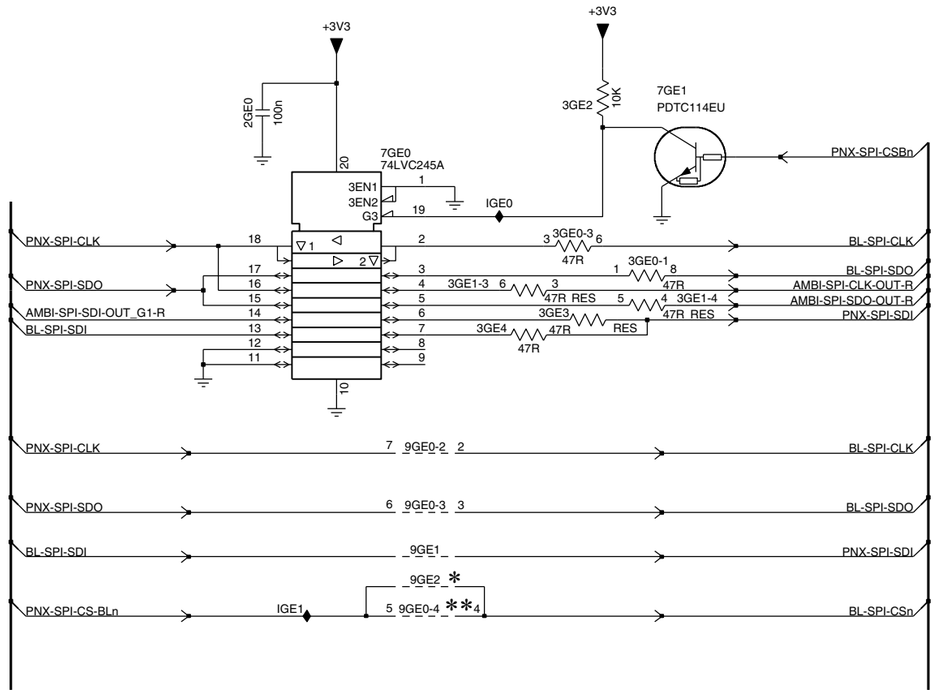


SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-6 Main Unit (Continued) B06D SPI buffer Schematic Diagram

B06D SPI buffer

B06D



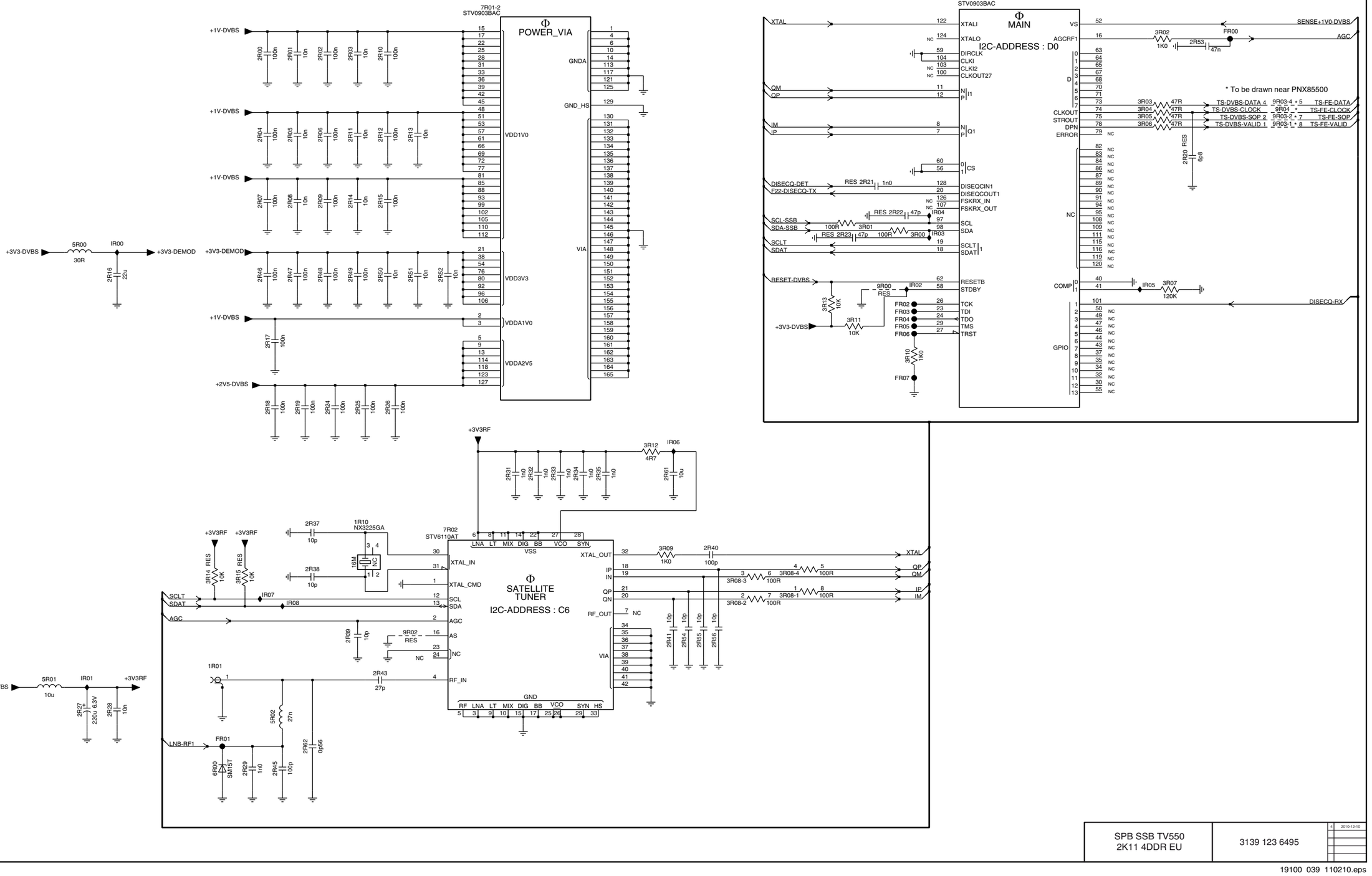
* Buffer

** Direct

SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

10-7 Main Unit B07A DVBS-FE Schematic Diagram (Only 632 Series)

B07A DVBS-FE

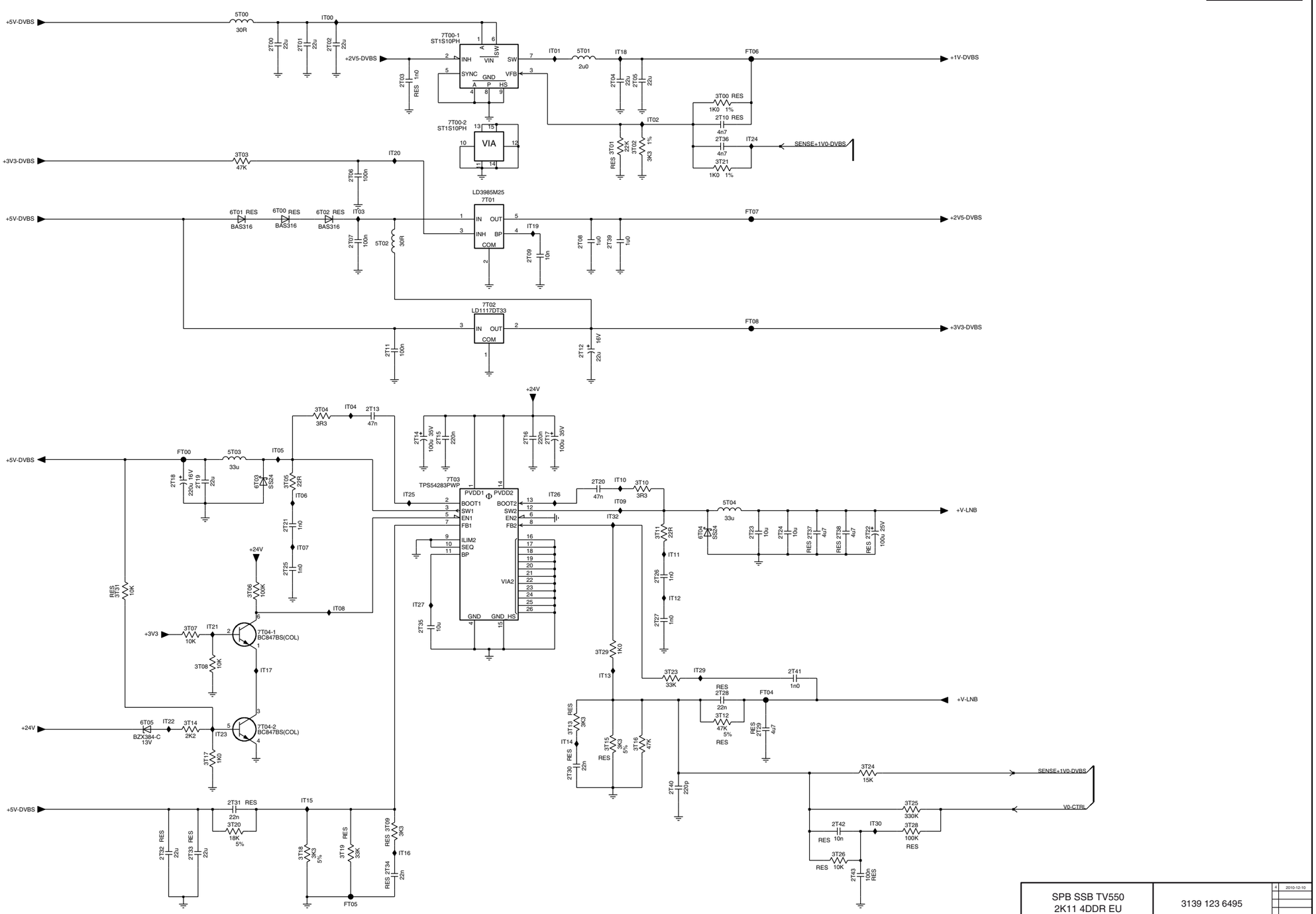


SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

19100_039_110210.eps

10-8 Main Unit B08A DVBS supply Schematic Diagram

B08A DVBS supply

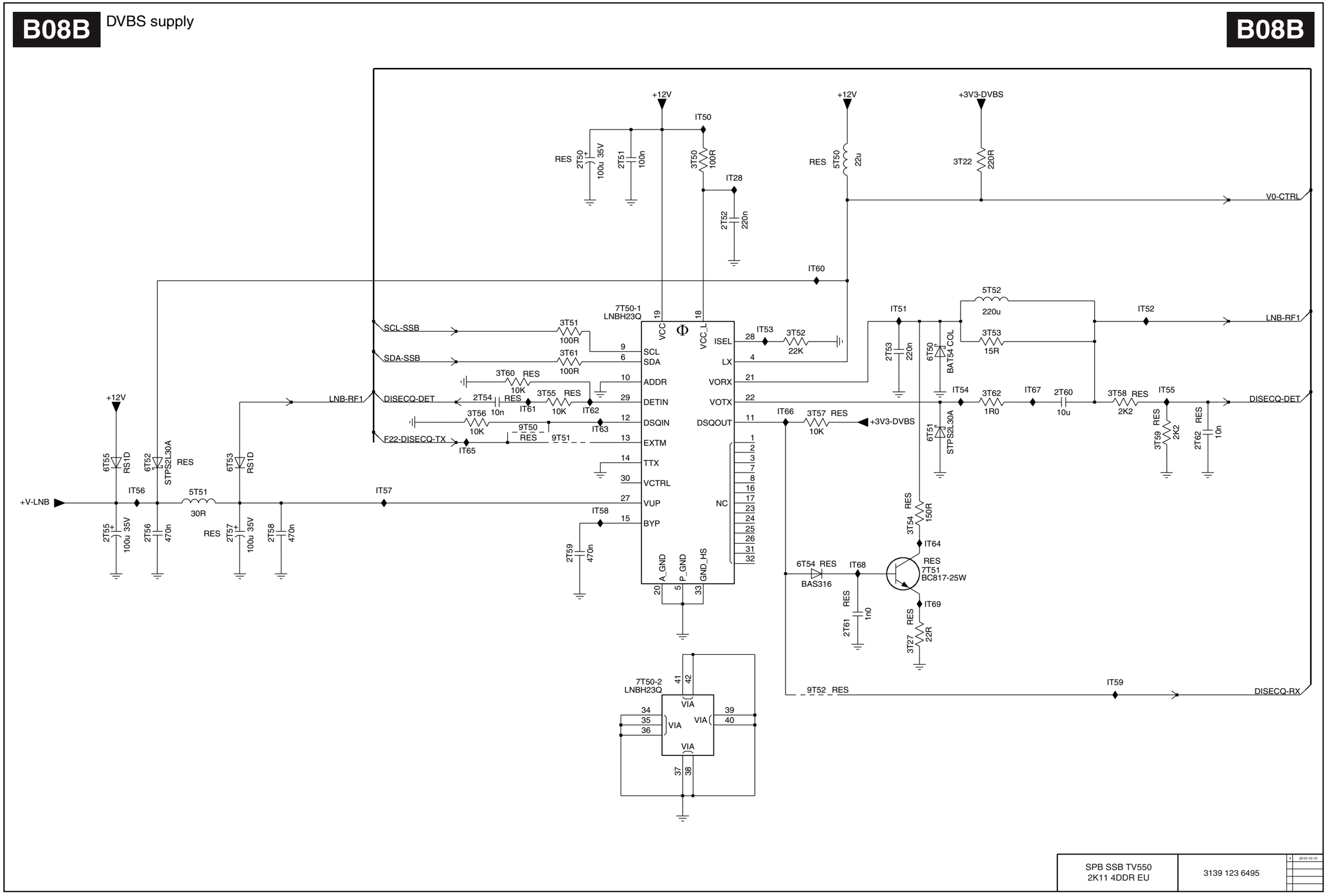


SPB SSB TV550 2K11 4DDR EU	3139 123 6495	4 2010-12-10

19100_040_110210.eps

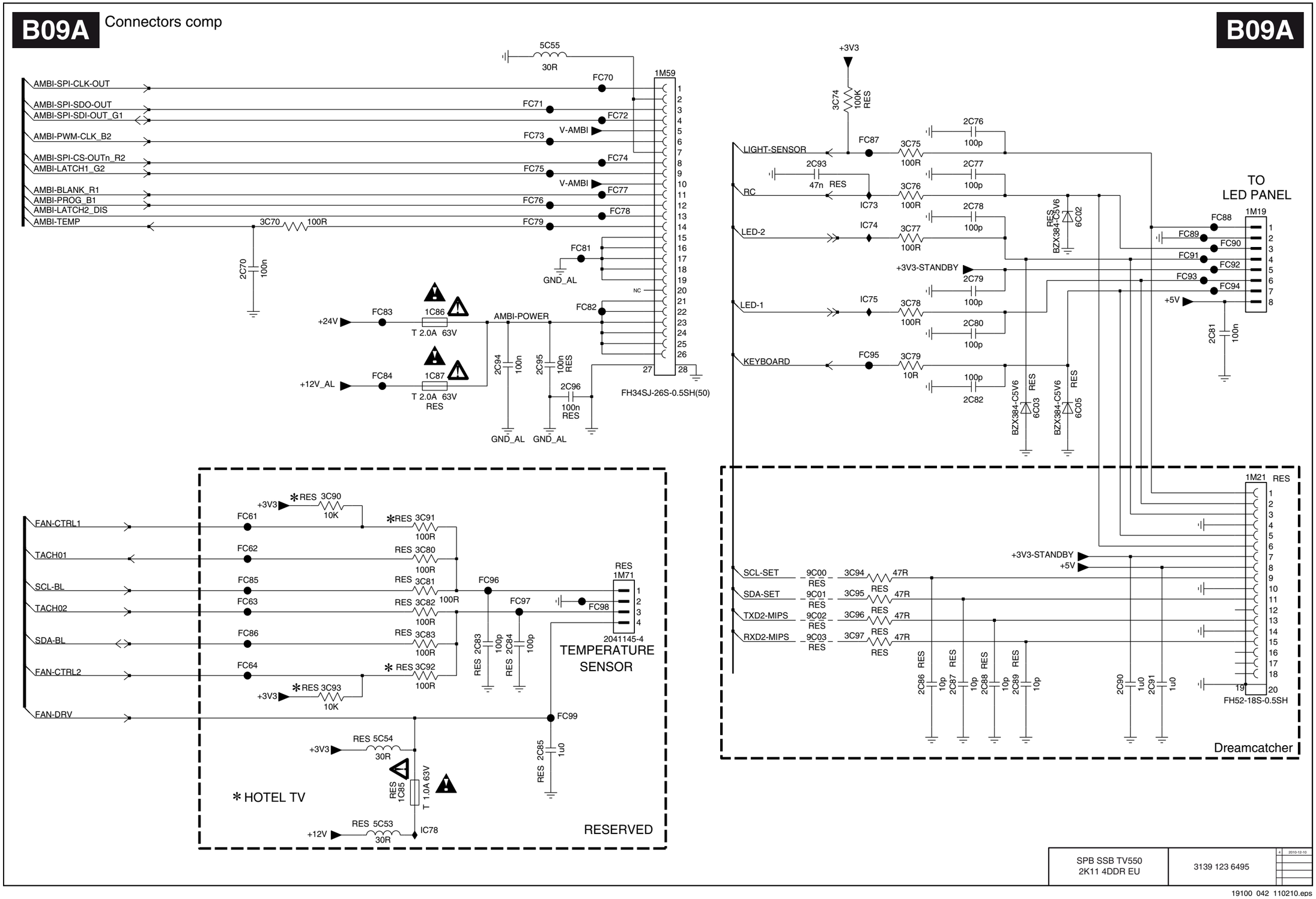
10-8 Main Unit (Continue) B08B DVBS supply Schematic Diagram

B08B DVBS supply



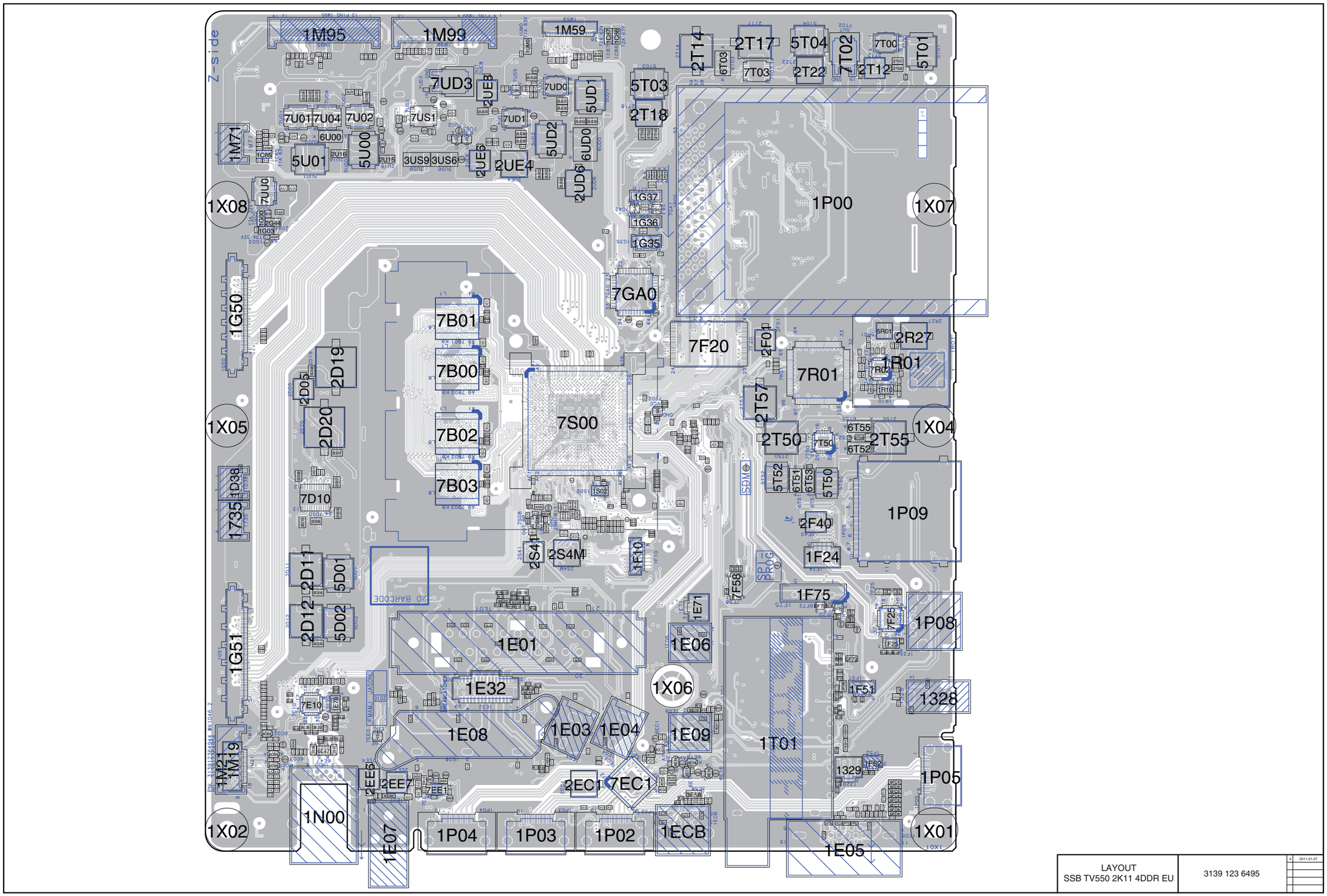
SPB SSB TV550 2K11 4DDR EU	3139 123 6495

10-9 Main Unit B09A Connectors Comp Schematic Diagram

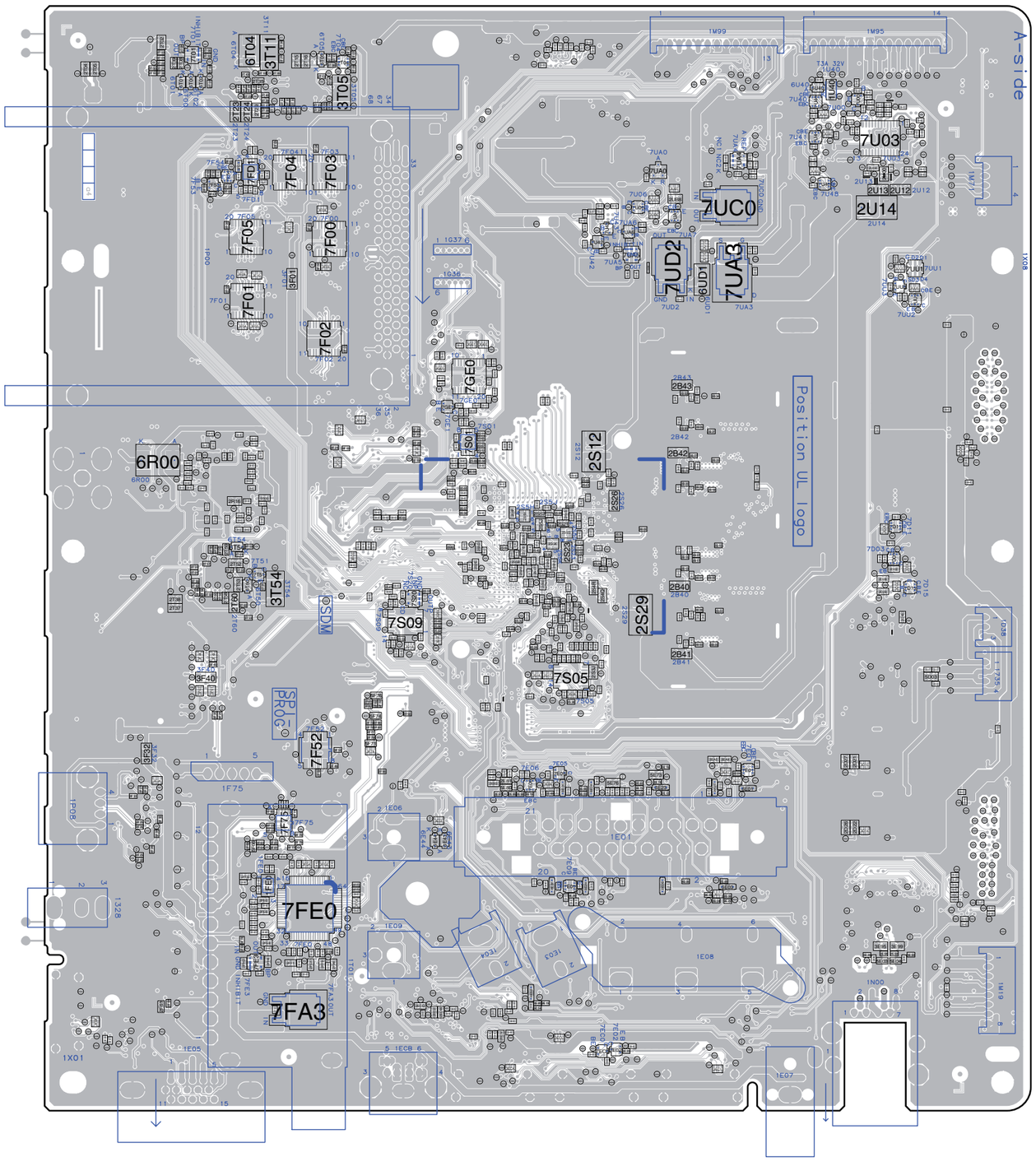


PRINTED WIRING BOARD

10-10 393912364954 Main Unit (SSB) PWB Top side



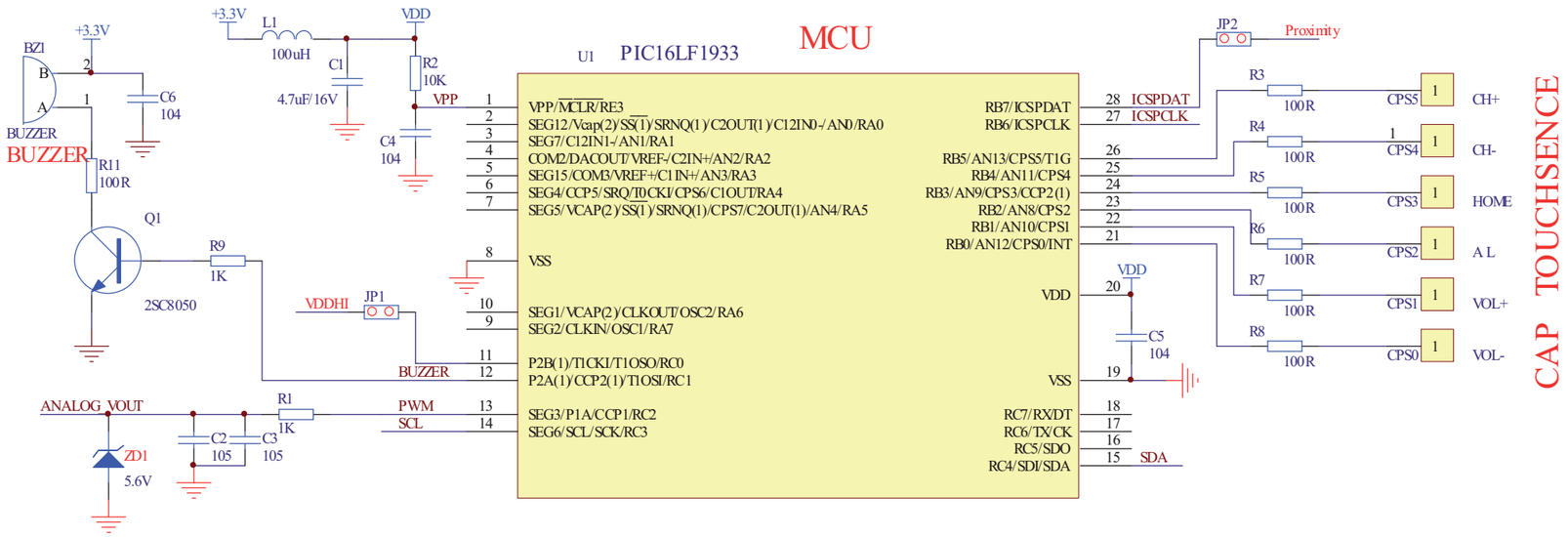
10-10 393912364954 (continued) Main Unit (SSB) PWB bottom side

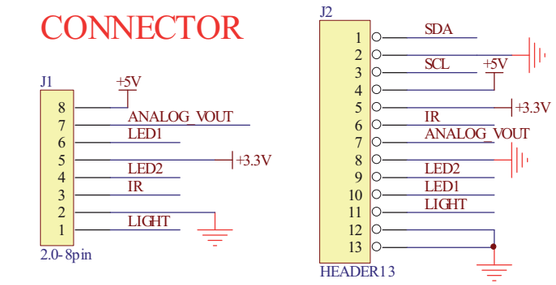


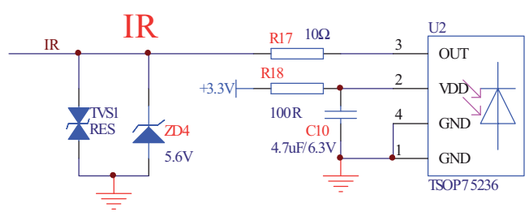
LAYOUT SSB TV550 2K11 4DDR EU	3139 123 6495	2011-01-27

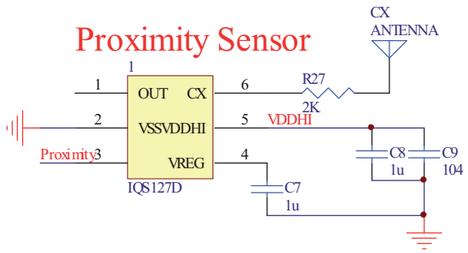
10-11 E 27221719026x IR/LED/Key Board

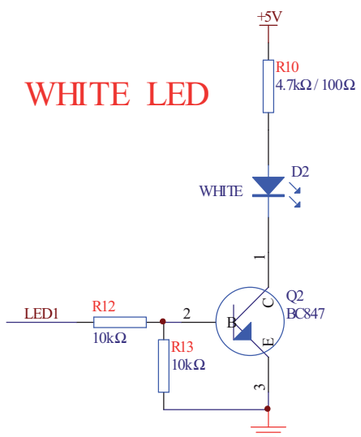
E — Leading Edge Module

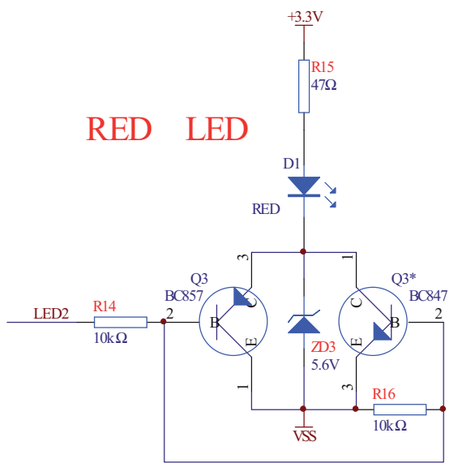


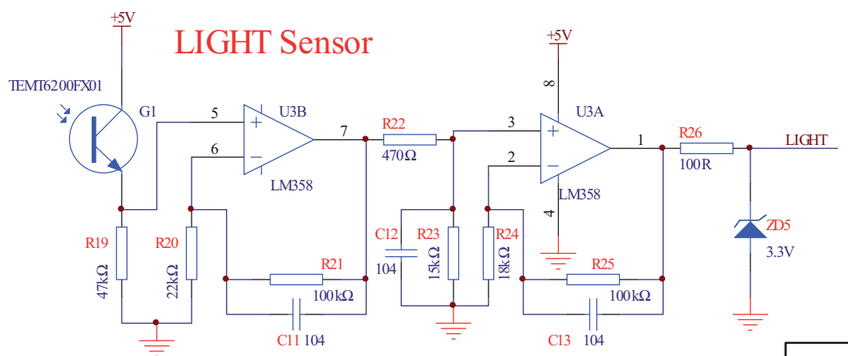












Leading Edge Module	2722 171 9026	A 2010-07-15 B 2010-07-15

PARTS LISTING

12. Parts Listing. 12.1 LC-32LE630E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		122210298639	TAPE S-ADHESIVE 0.28x25 100m	P	--
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201520149	PIN PUSH NY6/6FR GN 14.5MM B	P	--
		242226440079	SPEAKER ASSY 24R 10W BOX1115M-AB	P	--
		242226440104	SPEAKER 12R 5W OPN TWEE R29 EU 32" B	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
⚠		272217190337	POWER SUPP MOD PSL 32 DPS-93BP AB	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431119961	CABLE HL 14P	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139001	PANEL BRACKET HOLDER (BOTTOM)	P	--
		313912139011	TWEETER BRACKET	P	--
		313912139021	VESA BRACKET TOP	P	--
		313912139031	PANEL BRACKET HOLDER (TOP)	P	--
		313912139052	PANEL BRACKET HOLDER (SIDE)	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912326591	BARRIER SHEET	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
		313913401061	CABLE TIE	P	--
		313913401841	VESA BRACKET BOTTOM	P	--

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		313917105561	CABLE (VT) 2P/120+120+140/INLET+SDDJF	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712631	AS CBLE LVDS 32" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC768WJ01	KS-CAB-A LC32LE63*E	P	--
		CDAI-A794WJ01	KS-STAND 32"	P	--
		CINS-F125WE01	ASSY ACCESORIES LC40LE630EE	P	--
		DLAB-D933WE01	PANEL LABELS SET	P	--
		DLAB-E041WE01	MODEL LABEL SET	P	--
		GCABBB973WJ1A	REAR CABINET	P	--
		LANGKD336WJFW	STAND BRACKET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		QEARZA186WJZZ	EARTH E05-20x100H	P	--
		R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RUNTKA865WJPZ2	CONTROL BUTTON UNIT 32"	P	--
		SPAKCG377WJZZ	PACKING CASE 32"	P	--
		SPAKPB437WJZZ	PACKING BAG 32"	P	--
		SPAKXD411WJZZ	TOP PACK AD 32"	P	--
		SPAKXD412WJZZ	BOTTOM PACK AD 32"	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		TLABZC881WJZZ	CE ENERGY LABEL	P	--
		313917105791	CBLE FFC FI-R 41P/300/41P LVDS	P	--
		313917105861	CBLE FFC FI-R 51P/250/51P LVDS FER	P	--
		GCABAC768WJ1A	FRONT CABINET	P	--
		PSPAHC452WJZZ	SPACER 250x15x0,5mm	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.2 LC-40LE630E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440083	SPEAKER 5W TWEETER	P	--
		242226440089	SPEAKER 15W	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431120061	CABLE (HL) 14 PINS	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912138992	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139801	STAND BRACKET	P	--
		313912311661	FELT 85x12x0,5MM	P	--
		313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105701	CABLE VH	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712641	AS CBLE LVDS 40" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC762WJ01	KS-CAB-A LC40LE63*E	P	--
		CDAI-A789WJ01	KS-STAND	P	--
		CINS-F125WE01	ASSY ACCESORIES LC40LE630EE	P	--
		DLAB-D899WE01	PANEL LABELS SET	P	--
		DLAB-E050WE01	MODEL LABEL SET A3IKJ630EP	P	--
		GCABBB969WJ1A	REAR CABINET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		PZETKA640WJZZ	INSULATION SHEET FOR CONTROLLER PWB	P	--
		PZETKA641WJZZ	INSULATION SHEET FOR PANEL	P	--
		R1LK400D3LB43Y	PANEL 40"	P	--
		RCORF0103CEZZ	FERRITA E04SR170780	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
⚠		RDENCA445WJQZ	POWER SUPPLY LG WITH LED DRIVER 40"	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RUNTKA864WJPZ2	CONTROL BUTTON UNIT 40"	P	--
		SPAKCG321WJZZ	PACKING CASE 40"	P	--
		SPAKPB475WJZZ	PE BAG 40"	P	--
		SPAKXD396WJZZ	PACKING FOAM TOP 40"	P	--
		SPAKXD405WJZZ	PACKING FOAM BOTTOM 40"	P	--
		TLABZC837WJZZ	CE ENERGY LABEL	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		313917105811	CBLE FFC FI-R 41P/400/41P LVDS	P	--
		313917105891	CBLE FFC FI-R 51P/400/51P LVDS FER	P	--
		GCABAC762WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.3 LC-46LE630E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
	242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
	242201501159	SPACER 15MM	P	--
	242226440085	LSP 12R 5W OPN TWEE R29 EU 46"	P	--
	242226440088	LSP ASSY 17R 15W 46" EU BOX1625K-J B	P	--
	252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
	252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
	252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
	252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
	252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
	252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
	252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
	252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
	252270098355	HOLE RIVET TAPPED 5.5X14.5 SG10 B	P	--
⚠	272217190441	POWER SUPPLY MOD PSL 46 PLDG-P009A B	P	--
	280307500107	EURO PALLET 800X1200 B	P	--
	292250100004	LOCK PLASTIC YELLOW	P	--
	310430040561	M4X6TORX20 + SERRATED WASHER	P	--
	310430644281	STRAPPING STRIP	P	--
	310431120071	CABLE (HL) 14P/340/14P HL UL	P	--
	313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
	313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
	313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
	313912138942	TERMINAL COVER BOTTOM	P	--
	313912139121	METAL BRACKET TOP	P	--
	313912139461	TERMINAL COVER SIDE	P	--
	313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
	313912139541	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
	313912139811	STAND BRACKET	P	--
	313912301921	BEAM PALLET 46" MATISSE	P	--
	313912326761	EMC FOAM 6,5x20 L100MM	P	--
	313912326771	EMC FOAM 4x10 L10MM	P	--
	313913401061	CABLE TIE	P	--
	313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
	313913401211	BARRIER SHEET	P	--
	313913622182	CARDBOARD MIDDLE BBR 46 EU	P	--
	313913622191	BOTTOM CASE	P	--
	313917105701	CABLE VH 2P3/320+200+370/INLET+SDDJF FER	P	--
	313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
	313929712621	AS CBLE LVDS 46" BB_EMMY JAE BANDO-SHARP	P	--
	CCABAC769WJ01	KS-CAB-A LC46LE63*E	P	--
	CDAI-A795WJ01	KS-STAND 46"	P	--

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
	CINS-F125WE01	ASSY ACCESORIES LC40LE630EE	P	--
	DLAB-D934WE01	PANEL LABELS SET	P	--
	DLAB-E059WE01	MODEL LABEL SET A3IKL630EP	P	--
	GCABBB974WJ1A	REAR CABINET	P	--
	R1LK460D3LB33Y	46" LCD MODULE 1LK460D3LB33	P	--
	RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
	RUNTKA868WJPZ2	CONTROL BUTTON UNIT 46"	P	--
	SPAKCG387WJZZ	PACKING CASE 46"	P	--
	SPAKPB477WJZZ	P_BAG / HOSSO-PP FOR 46	P	--
	SPAKXD415WJZZ	PACKING FOAM TOP 46"	P	--
	SPAKXD416WJZZ	PACKING FOAM BOTTOM 46"	P	--
	TLABZC838WJZZ	POP LABEL	P	--
	TLABZC929WJZZ	CE ENERGY LABEL	P	--
	313917105591	CBLE FFC FI-R 51P/400/51P LVDS	P	--
	313917105821	CBLE FFC FI-R 41P/450/41P LVDS	P	--
	GCABAC769WJ1A	FRONT CABINET	P	--
	313912568771	TRACEABILITY LABEL	P	--
	313913872431	SCREW BAG STAND	P	--
	314302620392	O/M PE BAG	P	--
	908210090001	BATTERY R03-B500/01S	P	--
	QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
	TINS-F125WJZZ	QUICK START GUIDE	P	--
	TINS-F203WJZZ	SAFETY SHEET	P	--
	TLABZC453WJZZ	PANEL LABEL	P	--
	TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
	TLABNE414WJZZ	MODEL LABEL	P	--

12.4 LC-32LE630RU Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201520149	PIN PUSH NY6/6FR GN 14.5MM B	P	--
		242226440079	SPEAKER ASSY 24R 10W BOX1115M-AB	P	--
		242226440104	SPEAKER 12R 5W OPN TWEE R29 EU 32" B	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
⚠		272217190337	POWER SUPP MOD PSL 32 DPS-93BP AB	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431119961	CABLE HL 14P	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139001	PANEL BRACKET HOLDER (BOTTOM)	P	--
		313912139011	TWEETER BRACKET	P	--
		313912139021	VESA BRACKET TOP	P	--
		313912139031	PANEL BRACKET HOLDER (TOP)	P	--
		313912139052	PANEL BRACKET HOLDER (SIDE)	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912326591	BARRIER SHEET	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
		313913401061	CABLE TIE	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105561	CABLE (VT) 2P/120+120+140/INLET+SDDJF	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712631	AS CBLE LVDS 32" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC768WJ01	KS-CAB-A LC32LE63*E	P	--
		CDAI-A794WJ01	KS-STAND 32"	P	--
		CINS-F125WE07	ASSY ACCESORIES LC40LE630RU	P	--
		DLAB-E042WE01	MODEL LABEL SET A3IKG630ER	P	--
		GCABBB973WJ1A	REAR CABINET	P	--
		LANGKD336WJFW	STAND BRACKET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		QEARZA186WJZZ	EARTH E05-20x100H	P	--
		R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RUNTKA865WJPZ2	CONTROL BUTTON UNIT 32"	P	--
		SPAKCG377WJZZ	PACKING CASE 32"	P	--
		SPAKPB437WJZZ	PACKING BAG 32"	P	--
		SPAKXD411WJZZ	TOP PACK AD 32"	P	--
		SPAKXD412WJZZ	BOTTOM PACK AD 32"	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		313917105791	CBLE FFC FI-R 41P/300/41P LVDS	P	--
		313917105861	CBLE FFC FI-R 51P/250/51P LVDS FER	P	--
		GCABAC768WJ1A	FRONT CABINET	P	--
		PSPAHC452WJZZ	SPACER 250x15x0,5mm	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TGAN-B651WJZZ	GARANTIA RUSA	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.5 LC-40LE630RU Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440083	SPEAKER 5W TWEETER	P	--
		242226440089	SPEAKER 15W	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431120061	CABLE (HL) 14 PINS	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912138992	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139801	STAND BRACKET	P	--
		313912311661	FELT 85x12x0,5MM	P	--
		313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105701	CABLE VH	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712641	AS CBLE LVDS 40" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC762WJ01	KS-CAB-A LC40LE63*E	P	--
		CDAI-A789WJ01	KS-STAND	P	--
		CINS-F125WE07	ASSY ACCESORIES LC40LE630RU	P	--
		DLAB-E051WE01	MODEL LABEL SET A3IKJ630ER	P	--
		GCABBB969WJ1A	REAR CABINET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		PZETKA640WJZZ	INSULATION SHEET FOR CONTROLLER PWB	P	--
		PZETKA641WJZZ	INSULATION SHEET FOR PANEL	P	--
		R1LK400D3LB43Y	PANEL 40"	P	--
		RCORF0103CEZZ	FERRITA E04SR170780	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
⚠		RDENCA445WJQZ	POWER SUPPLY LG WITH LED DRIVER 40"	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RUNTKA864WJPZ2	CONTROL BUTTON UNIT 40"	P	--
		SPAKCG321WJZZ	PACKING CASE 40"	P	--
		SPAKPB475WJZZ	PE BAG 40"	P	--
		SPAKXD396WJZZ	PACKING FOAM TOP 40"	P	--
		SPAKXD405WJZZ	PACKING FOAM BOTTOM 40"	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		313917105811	CBLE FFC FI-R 41P/400/41P LVDS	P	--
		313917105891	CBLE FFC FI-R 51P/400/51P LVDS FER	P	--
		GCABAC762WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TGAN-B651WJZZ	GARANTIA RUSA	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.6 LC-46LE630RU Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		122210298639	TAPE S-ADHESIVE 0.28x25 100m	P	--
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440085	LSP 12R 5W OPN TWEE R29 EU 46"	P	--
		242226440088	LSP ASSY 17R 15W 46" EU BOX1625K-J B	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098355	HOLE RIVET TAPPED 5.5X14.5 SG10 B	P	--
⚠		272217190441	POWER SUPPLY MOD PSL 46 PLDG-P009A B	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		292250100004	LOCK PLASTIC YELLOW	P	--
		310430040561	M4X6TORX20 + SERRATED WASHER	P	--
		310430644281	STRAPPING STRIP	P	--
		310431120071	CABLE (HL) 14P/340/14P HL UL	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139541	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139811	STAND BRACKET	P	--
		313912301921	BEAM PALLET 46" MATISSE	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913622182	CARDBOARD MIDDLE BBR 46 EU	P	--
		313913622191	BOTTOM CASE	P	--
		313917105701	CABLE VH 2P3/320+200+370/INLET+SDDJF FER	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712621	AS CBLE LVDS 46" BB_EMMY JAE BANDO-SHARP	P	--
		CCABAC769WJ01	KS-CAB-A LC46LE63*E	P	--

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		CDAI-A795WJ01	KS-STAND 46"	P	--
		CINS-F125WE07	ASSY ACCESORIES LC40LE630RU	P	--
		DLAB-E060WE01	MODEL LABEL SET A3IKL630ER	P	--
		GCABBB974WJ1A	REAR CABINET	P	--
		R1LK460D3LB33Y	46" LCD MODULE 1LK460D3LB33	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RUNTKA868WJPZ2	CONTROL BUTTON UNIT 46"	P	--
		SPAKCG387WJZZ	PACKING CASE 46"	P	--
		SPAKPB477WJZZ	P_BAG / HOSSO-PP FOR 46	P	--
		SPAKXD415WJZZ	PACKING FOAM TOP 46"	P	--
		SPAKXD416WJZZ	PACKING FOAM BOTTOM 46"	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		313917105591	CBLE FFC FI-R 51P/400/51P LVDS	P	--
		313917105821	CBLE FFC FI-R 41P/450/41P LVDS	P	--
		GCABAC769WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TGAN-B651WJZZ	GARANTIA RUSA	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.7 LC-32LE632E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201520149	PIN PUSH NY6/6FR GN 14.5MM B	P	--
		242226440079	SPEAKER ASSY 24R 10W BOX1115M-AB	P	--
		242226440104	SPEAKER 12R 5W OPN TWEE R29 EU 32" B	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
⚠		272217190337	POWER SUPP MOD PSL 32 DPS-93BP AB	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431119961	CABLE HL 14P	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139001	PANEL BRACKET HOLDER (BOTTOM)	P	--
		313912139011	TWEETER BRACKET	P	--
		313912139021	VESA BRACKET TOP	P	--
		313912139031	PANEL BRACKET HOLDER (TOP)	P	--
		313912139052	PANEL BRACKET HOLDER (SIDE)	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912326591	BARRIER SHEET	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
		313913401061	CABLE TIE	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105561	CABLE (VT) 2P/120+120+140/INLET+SDDJF	P	--
		313929711961	MAIN SSB TV550 2k11AMG DVB-T/C/S UNIT	P	--
		313929712631	AS CBLE LVDS 32" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC768WJ01	KS-CAB-A LC32LE63*E	P	--
		CDAI-A794WJ01	KS-STAND 32"	P	--
		CINS-F125WE01	ASSY ACCESORIES LC40LE630EE	P	--
		DLAB-D933WE01	PANEL LABELS SET	P	--
		DLAB-E045WE01	MODEL LABEL SET A3IKG632EP	P	--
		GCABBB982WJ1A	REAR CABINET	P	--
		LANGKD336WJFW	STAND BRACKET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		QEARZA186WJZZ	EARTH E05-20x100H	P	--
		R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RUNTKA865WJPZ2	CONTROL BUTTON UNIT 32"	P	--
		SPAKCG377WJZZ	PACKING CASE 32"	P	--
		SPAKPB437WJZZ	PACKING BAG 32"	P	--
		SPAKXD411WJZZ	TOP PACK AD 32"	P	--
		SPAKXD412WJZZ	BOTTOM PACK AD 32"	P	--
		TLABZC881WJZZ	CE ENERGY LABEL	P	--
		TLABZC993WJZZ	POP LABEL LE632E	P	--
		313917105791	CBLE FFC FI-R 41P/300/41P LVDS	P	--
		313917105861	CBLE FFC FI-R 51P/250/51P LVDS FER	P	--
		GCABAC768WJ1A	FRONT CABINET	P	--
		PSPAHC452WJZZ	SPACER 250x15x0,5mm	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.8 LC-40LE632E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440083	SPEAKER 5W TWEETER	P	--
		242226440089	SPEAKER 15W	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431120061	CABLE (HL) 14 PINS	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912138992	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139801	STAND BRACKET	P	--
		313912311661	FELT 85x12x0,5MM	P	--
		313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105701	CABLE VH	P	--
		313929711961	MAIN SSB TV550 2k11AMG DVB-T/C/S UNIT	P	--
		313929712641	AS CBLE LVDS 40" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC762WJ01	KS-CAB-A LC40LE63*E	P	--
		CDAI-A789WJ01	KS-STAND	P	--
		CINS-F125WE01	ASSY ACCESORIES LC40LE630EE	P	--
		DLAB-D899WE01	PANEL LABELS SET	P	--
		DLAB-E054WE01	MODEL LABEL SET A3IKJ632EP	P	--
		GCABBB981WJ1A	REAR CABINET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		PZETKA640WJZZ	INSULATION SHEET FOR CONTROLLER PWB	P	--
		PZETKA641WJZZ	INSULATION SHEET FOR PANEL	P	--
		R1LK400D3LB43Y	PANEL 40"	P	--
		RCORF0103CEZZ	FERRITA E04SR170780	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
⚠		RDENCA445WJQZ	POWER SUPPLY LG WITH LED DRIVER 40"	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RUNTKA864WJPZ2	CONTROL BUTTON UNIT 40"	P	--
		SPAKCG321WJZZ	PACKING CASE 40"	P	--
		SPAKPB475WJZZ	PE BAG 40"	P	--
		SPAKXD396WJZZ	PACKING FOAM TOP 40"	P	--
		SPAKXD405WJZZ	PACKING FOAM BOTTOM 40"	P	--
		TLABZC837WJZZ	CE ENERGY LABEL	P	--
		TLABZC993WJZZ	POP LABEL LE632E	P	--
		313917105811	CBLE FFC FI-R 41P/400/41P LVDS	P	--
		313917105891	CBLE FFC FI-R 51P/400/51P LVDS FER	P	--
		GCABAC762WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.9 LC-46LE632E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440085	LSP 12R 5W OPN TWEE R29 EU 46"	P	--
		242226440088	LSP ASSY 17R 15W 46" EU BOX1625K-J B	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098355	HOLE RIVET TAPPED 5.5X14.5 SG10 B	P	--
⚠		272217190441	POWER SUPPLY MOD PSL 46 PLDG-P009A B	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		292250100004	LOCK PLASTIC YELLOW	P	--
		310430040561	M4X6TORX20 + SERRATED WASHER	P	--
		310430644281	STRAPPING STRIP	P	--
		310431120071	CABLE (HL) 14P/340/14P HL UL	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139541	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139811	STAND BRACKET	P	--
		313912301921	BEAM PALLET 46" MATISSE	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913622182	CARDBOARD MIDDLE BBR 46 EU	P	--
		313913622191	BOTTOM CASE	P	--
		313917105701	CABLE VH 2P3/320+200+370/INLET+SDDJF FER	P	--
		313929711961	MAIN SSB TV550 2k11AMG DVB-T/C/S UNIT	P	--
		313929712621	AS CBLE LVDS 46" BB_EMMY JAE BANDO-SHARP	P	--
		CCABAC769WJ01	KS-CAB-A LC46LE63*E	P	--
		CDAI-A795WJ01	KS-STAND 46"	P	--

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		CINS-F125WE01	ASSY ACCESORIES LC40LE630EE	P	--
		DLAB-D934WE01	PANEL LABELS SET	P	--
		DLAB-E065WE01	MODEL LABEL SET A3IKL632EP	P	--
		GCABBB983WJ1A	REAR CABINET	P	--
		R1LK460D3LB33Y	46" LCD MODULE 1LK460D3LB33	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RUNTKA868WJPZ2	CONTROL BUTTON UNIT 46"	P	--
		SPAKCG387WJZZ	PACKING CASE 46"	P	--
		SPAKPB477WJZZ	P_BAG / HOSSO-PP FOR 46	P	--
		SPAKXD415WJZZ	PACKING FOAM TOP 46"	P	--
		SPAKXD416WJZZ	PACKING FOAM BOTTOM 46"	P	--
		TLABZC929WJZZ	CE ENERGY LABEL	P	--
		TLABZC993WJZZ	POP LABEL LE632E	P	--
		313917105591	CBLE FFC FI-R 51P/400/51P LVDS	P	--
		313917105821	CBLE FFC FI-R 41P/450/41P LVDS	P	--
		GCABAC769WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.10 LC-32LU630E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201520149	PIN PUSH NY6/6FR GN 14.5MM B	P	--
		242226440079	SPEAKER ASSY 24R 10W BOX1115M-AB	P	--
		242226440104	SPEAKER 12R 5W OPN TWEE R29 EU 32" B	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
⚠		272217190337	POWER SUPP MOD PSL 32 DPS-93BP AB	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431119961	CABLE HL 14P	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139001	PANEL BRACKET HOLDER (BOTTOM)	P	--
		313912139011	TWEETER BRACKET	P	--
		313912139021	VESA BRACKET TOP	P	--
		313912139031	PANEL BRACKET HOLDER (TOP)	P	--
		313912139052	PANEL BRACKET HOLDER (SIDE)	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912326591	BARRIER SHEET	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
		313913401061	CABLE TIE	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105561	CABLE (VT) 2P/120+120+140/INLET+SDDJF	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712631	AS CBLE LVDS 32" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC768WJ01	KS-CAB-A LC32LE63*E	P	--
		CDAI-A794WJ01	KS-STAND 32"	P	--
		CINS-F125WE10	ASSY ACCESORIES LC32LX630E	P	--
		DLAB-D933WE01	PANEL LABELS SET	P	--
		DLAB-E046WE01	MODEL LABEL SET A3IKGU630E	P	--
		GCABBB973WJ1A	REAR CABINET	P	--
		LANGKD336WJFW	STAND BRACKET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		QEARZA186WJZZ	EARTH E05-20x100H	P	--
		R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RRMCGA968WJSA	REMOTE CONTROL LU-LX63*E	P	--
		RUNTKA865WJPA2	CONTROL BUTTON UNIT 32" EURONICS	P	--
		SPAKCG377WJZZ	PACKING CASE 32"	P	--
		SPAKPB437WJZZ	PACKING BAG 32"	P	--
		SPAKXD411WJZZ	TOP PACK AD 32"	P	--
		SPAKXD412WJZZ	BOTTOM PACK AD 32"	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		TLABZC881WJZZ	CE ENERGY LABEL	P	--
		313917105791	CBLE FFC FI-R 41P/300/41P LVDS	P	--
		313917105861	CBLE FFC FI-R 51P/250/51P LVDS FER	P	--
		GCABAC768WJ1A	FRONT CABINET	P	--
		PSPAHC452WJZZ	SPACER 250x15x0,5mm	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TCAUZA460WJZZ	CAUTION SHEET	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.11 LC-40LU630E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440083	SPEAKER 5W TWEETER	P	--
		242226440089	SPEAKER 15W	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431120061	CABLE (HL) 14 PINS	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912138992	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139801	STAND BRACKET	P	--
		313912311661	FELT 85x12x0,5MM	P	--
		313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105701	CABLE VH	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712641	AS CBLE LVDS 40" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC762WJ01	KS-CAB-A LC40LE63*E	P	--
		CDAI-A789WJ01	KS-STAND	P	--
		CINS-F125WE10	ASSY ACCESORIES LC32LX630E	P	--
		DLAB-D899WE01	PANEL LABELS SET	P	--
		DLAB-E055WE01	MODEL LABEL SET A3IKJU630E	P	--
		GCABBB969WJ1A	REAR CABINET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		PZETKA640WJZZ	INSULATION SHEET FOR CONTROLLER PWB	P	--
		PZETKA641WJZZ	INSULATION SHEET FOR PANEL	P	--
		R1LK400D3LB43Y	PANEL 40"	P	--
		RCORF0103CEZZ	FERRITA E04SR170780	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
⚠		RDENCA445WJQZ	POWER SUPPLY LG WITH LED DRIVER 40"	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RRMCGA968WJSA	REMOTE CONTROL LU-LX63*E	P	--
		RUNTKA864WJPA2	CONTROL BUTTON UNIT 40" EURONICS	P	--
		SPAKCG321WJZZ	PACKING CASE 40"	P	--
		SPAKPB475WJZZ	PE BAG 40"	P	--
		SPAKXD396WJZZ	PACKING FOAM TOP 40"	P	--
		SPAKXD405WJZZ	PACKING FOAM BOTTOM 40"	P	--
		TLABZC837WJZZ	CE ENERGY LABEL	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		313917105811	CBLE FFC FI-R 41P/400/41P LVDS	P	--
		313917105891	CBLE FFC FI-R 51P/400/51P LVDS FER	P	--
		GCABAC762WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TCAUZA460WJZZ	CAUTION SHEET	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.12 LC-46LU630E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		122210298639	TAPE S-ADHESIVE 0.28x25 100m	P	--
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440085	LSP 12R 5W OPN TWEE R29 EU 46"	P	--
		242226440088	LSP ASSY 17R 15W 46" EU BOX1625K-J B	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098355	HOLE RIVET TAPPED 5.5X14.5 SG10 B	P	--
⚠		272217190441	POWER SUPPLY MOD PSL 46 PLDG-P009A B	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		292250100004	LOCK PLASTIC YELLOW	P	--
		310430040561	M4X6TORX20 + SERRATED WASHER	P	--
		310430644281	STRAPPING STRIP	P	--
		310431120071	CABLE (HL) 14P/340/14P HL UL	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139541	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139811	STAND BRACKET	P	--
		313912301921	BEAM PALLET 46" MATISSE	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913622182	CARDBOARD MIDDLE BBR 46 EU	P	--
		313913622191	BOTTOM CASE	P	--
		313917105701	CABLE VH 2P3/320+200+370/INLET+SDDJF FER	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712621	AS CBLE LVDS 46" BB_EMMY JAE BANDO-SHARP	P	--
		CCABAC769WJ01	KS-CAB-A LC46LE63*E	P	--

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		CDAI-A795WJ01	KS-STAND 46"	P	--
		CINS-F125WE10	ASSY ACCESORIES LC32LX630E	P	--
		DLAB-D934WE01	PANEL LABELS SET	P	--
		DLAB-E066WE01	MODEL LABEL SET A3IKLU630E	P	--
		GCABBB974WJ1A	REAR CABINET	P	--
		R1LK460D3LB33Y	46" LCD MODULE 1LK460D3LB33	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RRMCGA968WJSA	REMOTE CONTROL LU-LX63*E	P	--
		RUNTKA868WJPA2	CONTROL BUTTON UNIT 46" EURONICS	P	--
		SPAKCG387WJZZ	PACKING CASE 46"	P	--
		SPAKPB477WJZZ	P_BAG / HOSSO-PP FOR 46	P	--
		SPAKXD415WJZZ	PACKING FOAM TOP 46"	P	--
		SPAKXD416WJZZ	PACKING FOAM BOTTOM 46"	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		TLABZC929WJZZ	CE ENERGY LABEL	P	--
		313917105591	CBLE FFC FI-R 51P/400/51P LVDS	P	--
		313917105821	CBLE FFC FI-R 41P/450/41P LVDS	P	--
		GCABAC769WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TCAUZA460WJZZ	CAUTION SHEET	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.13 LC-32LX630E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201520149	PIN PUSH NY6/6FR GN 14.5MM B	P	--
		242226440079	SPEAKER ASSY 24R 10W BOX1115M-AB	P	--
		242226440104	SPEAKER 12R 5W OPN TWEE R29 EU 32" B	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
⚠		272217190337	POWER SUPP MOD PSL 32 DPS-93BP AB	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431119961	CABLE HL 14P	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139001	PANEL BRACKET HOLDER (BOTTOM)	P	--
		313912139011	TWEETER BRACKET	P	--
		313912139021	VESA BRACKET TOP	P	--
		313912139031	PANEL BRACKET HOLDER (TOP)	P	--
		313912139052	PANEL BRACKET HOLDER (SIDE)	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912326591	BARRIER SHEET	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
		313913401061	CABLE TIE	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105561	CABLE (VT) 2P/120+120+140/INLET+SDDJF	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712631	AS CBLE LVDS 32" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC768WJ01	KS-CAB-A LC32LE63*E	P	--
		CDAI-A794WJ01	KS-STAND 32"	P	--
		CINS-F125WE10	ASSY ACCESORIES LC32LX630E	P	--
		DLAB-D933WE01	PANEL LABELS SET	P	--

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		DLAB-E048WE01	MODEL LABEL SET A3IKGX630E	P	--
		GCABBB973WJ1A	REAR CABINET	P	--
		LANGKD336WJFW	STAND BRACKET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		QEARZA186WJZZ	EARTH E05-20x100H	P	--
		R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RRMCGA968WJSA	REMOTE CONTROL LU-LX63*E	P	--
		RUNTKA865WJPZ2	CONTROL BUTTON UNIT 32"	P	--
		SPAKCG377WJZZ	PACKING CASE 32"	P	--
		SPAKPB437WJZZ	PACKING BAG 32"	P	--
		SPAKXD411WJZZ	TOP PACK AD 32"	P	--
		SPAKXD412WJZZ	BOTTOM PACK AD 32"	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		TLABZC881WJZZ	CE ENERGY LABEL	P	--
		313917105791	CBLE FFC FI-R 41P/300/41P LVDS	P	--
		313917105861	CBLE FFC FI-R 51P/250/51P LVDS FER	P	--
		GCABAC768WJ1A	FRONT CABINET	P	--
		PSPAHC452WJZZ	SPACER 250x15x0,5mm	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TCAUZA460WJZZ	CAUTION SHEET	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.14 LC-40LX630E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440083	SPEAKER 5W TWEETER	P	--
		242226440089	SPEAKER 15W	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431120061	CABLE (HL) 14 PINS	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912138992	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139801	STAND BRACKET	P	--
		313912311661	FELT 85x12x0,5MM	P	--
		313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105701	CABLE VH	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712641	AS CBLE LVDS 40" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC762WJ01	KS-CAB-A LC40LE63*E	P	--
		CDAI-A789WJ01	KS-STAND	P	--
		CINS-F125WE10	ASSY ACCESORIES LC32LX630E	P	--
		DLAB-D899WE01	PANEL LABELS SET	P	--
		DLAB-E057WE01	MODEL LABEL SET A3IKJX630E	P	--
		GCABBB969WJ1A	REAR CABINET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		PZETKA640WJZZ	INSULATION SHEET FOR CONTROLLER PWB	P	--
		PZETKA641WJZZ	INSULATION SHEET FOR PANEL	P	--
		R1LK400D3LB43Y	PANEL 40"	P	--
		RCORF0103CEZZ	FERRITA E04SR170780	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
⚠		RDENCA445WJQZ	POWER SUPPLY LG WITH LED DRIVER 40"	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RRMCGA968WJSA	REMOTE CONTROL LU-LX63*E	P	--
		RUNTKA864WJPZ2	CONTROL BUTTON UNIT 40"	P	--
		SPAKCG321WJZZ	PACKING CASE 40"	P	--
		SPAKPB475WJZZ	PE BAG 40"	P	--
		SPAKXD396WJZZ	PACKING FOAM TOP 40"	P	--
		SPAKXD405WJZZ	PACKING FOAM BOTTOM 40"	P	--
		TLABZC837WJZZ	CE ENERGY LABEL	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		313917105811	CBLE FFC FI-R 41P/400/41P LVDS	P	--
		313917105891	CBLE FFC FI-R 51P/400/51P LVDS FER	P	--
		GCABAC762WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TCAUZA460WJZZ	CAUTION SHEET	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.15 LC-46LX630E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440085	LSP 12R 5W OPN TWEE R29 EU 46"	P	--
		242226440088	LSP ASSY 17R 15W 46" EU BOX1625K-J B	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098355	HOLE RIVET TAPPED 5.5X14.5 SG10 B	P	--
⚠		272217190441	POWER SUPPLY MOD PSL 46 PLDG-P009A B	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		292250100004	LOCK PLASTIC YELLOW	P	--
		310430040561	M4X6TORX20 + SERRATED WASHER	P	--
		310430644281	STRAPPING STRIP	P	--
		310431120071	CABLE (HL) 14P/340/14P HL UL	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139541	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139811	STAND BRACKET	P	--
		313912301921	BEAM PALLET 46" MATISSE	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913622182	CARDBOARD MIDDLE BBR 46 EU	P	--
		313913622191	BOTTOM CASE	P	--
		313917105701	CABLE VH 2P3/320+200+370/INLET+SDDJF FER	P	--
		313929711951	MAIN SSB TV550 2k11AMG DVB-T/C UNIT	P	--
		313929712621	AS CBLE LVDS 46" BB_EMMY JAE BANDO-SHARP	P	--
		CCABAC769WJ01	KS-CAB-A LC46LE63*E	P	--
		CDAI-A795WJ01	KS-STAND 46"	P	--

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		CINS-F125WE10	ASSY ACCESORIES LC32LX630E	P	--
		DLAB-D934WE01	PANEL LABELS SET	P	--
		DLAB-E067WE01	MODEL LABEL SET A3IKLX630E	P	--
		GCABBB974WJ1A	REAR CABINET	P	--
		R1LK460D3LB33Y	46" LCD MODULE 1LK460D3LB33	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RRMCGA968WJSA	REMOTE CONTROL LU-LX63*E	P	--
		RUNTKA868WJPZ2	CONTROL BUTTON UNIT 46"	P	--
		SPAKCG387WJZZ	PACKING CASE 46"	P	--
		SPAKPB477WJZZ	P_BAG / HOSSO-PP FOR 46	P	--
		SPAKXD415WJZZ	PACKING FOAM TOP 46"	P	--
		SPAKXD416WJZZ	PACKING FOAM BOTTOM 46"	P	--
		TLABZC838WJZZ	POP LABEL	P	--
		TLABZC929WJZZ	CE ENERGY LABEL	P	--
		313917105591	CBLE FFC FI-R 51P/400/51P LVDS	P	--
		313917105821	CBLE FFC FI-R 41P/450/41P LVDS	P	--
		GCABAC769WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TCAUZA460WJZZ	CAUTION SHEET	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.16 LC-32LU632E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201520149	PIN PUSH NY6/6FR GN 14.5MM B	P	--
		242226440079	SPEAKER ASSY 24R 10W BOX1115M-AB	P	--
		242226440104	SPEAKER 12R 5W OPN TWEE R29 EU 32" B	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
⚠		272217190337	POWER SUPP MOD PSL 32 DPS-93BP AB	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431119961	CABLE HL 14P	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139001	PANEL BRACKET HOLDER (BOTTOM)	P	--
		313912139011	TWEETER BRACKET	P	--
		313912139021	VESA BRACKET TOP	P	--
		313912139031	PANEL BRACKET HOLDER (TOP)	P	--
		313912139052	PANEL BRACKET HOLDER (SIDE)	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912326591	BARRIER SHEET	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
		313913401061	CABLE TIE	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105561	CABLE (VT) 2P/120+120+140/INLET+SDDJF	P	--
		313929711961	MAIN SSB TV550 2k11AMG DVB-T/C/S UNIT	P	--
		313929712631	AS CBLE LVDS 32" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC768WJ01	KS-CAB-A LC32LE63*E	P	--
		CDAI-A794WJ01	KS-STAND 32"	P	--
		CINS-F125WE16	ASSY ACCESORIES LC32LU632E	P	--
		DLAB-D933WE01	PANEL LABELS SET	P	--
		DLAB-E047WE01	MODEL LABEL SET A3IKGU632E	P	--
		GCABBB982WJ1A	REAR CABINET	P	--
		LANGKD336WJFW	STAND BRACKET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		QEARZA186WJZZ	EARTH E05-20x100H	P	--
		R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RRMCGA968WJSA	REMOTE CONTROL LU-LX63*E	P	--
		RUNTKA865WJPA2	CONTROL BUTTON UNIT 32" EURONICS	P	--
		SPAKCG377WJZZ	PACKING CASE 32"	P	--
		SPAKPB437WJZZ	PACKING BAG 32"	P	--
		SPAKXD411WJZZ	TOP PACK AD 32"	P	--
		SPAKXD412WJZZ	BOTTOM PACK AD 32"	P	--
		TLABZC881WJZZ	CE ENERGY LABEL	P	--
		TLABZC993WJZZ	POP LABEL LE632E	P	--
		313917105791	CBLE FFC FI-R 41P/300/41P LVDS	P	--
		313917105861	CBLE FFC FI-R 51P/250/51P LVDS FER	P	--
		GCABAC768WJ1A	FRONT CABINET	P	--
		PSPAHC452WJZZ	SPACER 250x15x0,5mm	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TCAUZA460WJZZ	CAUTION SHEET	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.17 LC-40LU632E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440083	SPEAKER 5W TWEETER	P	--
		242226440089	SPEAKER 15W	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431120061	CABLE (HL) 14 PINS	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912138992	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139801	STAND BRACKET	P	--
		313912311661	FELT 85x12x0,5MM	P	--
		313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105701	CABLE VH	P	--
		313929711961	MAIN SSB TV550 2K11AMG DVB-T/C/S UNIT	P	--
		313929712641	AS CBLE LVDS 40" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC762WJ01	KS-CAB-A LC40LE63*E	P	--
		CDAI-A789WJ01	KS-STAND	P	--
		CINS-F125WE16	ASSY ACCESORIES LC32LU632E	P	--
		DLAB-D899WE01	PANEL LABELS SET	P	--
		DLAB-E056WE01	MODEL LABEL SET A3IKJU632E	P	--
		GCABBB981WJ1A	REAR CABINET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		PZETKA640WJZZ	INSULATION SHEET FOR CONTROLLER PWB	P	--
		PZETKA641WJZZ	INSULATION SHEET FOR PANEL	P	--
		R1LK400D3LB43Y	PANEL 40"	P	--
		RCORF0103CEZZ	FERRITA E04SR170780	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
⚠		RDENCA445WJQZ	POWER SUPPLY LG WITH LED DRIVER 40"	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RRMCGA968WJSA	REMOTE CONTROL LU-LX63*E	P	--
		RUNTKA864WJPA2	CONTROL BUTTON UNIT 40" EURONICS	P	--
		SPAKCG321WJZZ	PACKING CASE 40"	P	--
		SPAKPB475WJZZ	PE BAG 40"	P	--
		SPAKXD396WJZZ	PACKING FOAM TOP 40"	P	--
		SPAKXD405WJZZ	PACKING FOAM BOTTOM 40"	P	--
		TLABZC837WJZZ	CE ENERGY LABEL	P	--
		TLABZC993WJZZ	POP LABEL LE632E	P	--
		313917105811	CBLE FFC FI-R 41P/400/41P LVDS	P	--
		313917105891	CBLE FFC FI-R 51P/400/51P LVDS FER	P	--
		GCABAC762WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TCAUZA460WJZZ	CAUTION SHEET	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.18 LC-32LX632E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201520149	PIN PUSH NY6/6FR GN 14.5MM B	P	--
		242226440079	SPEAKER ASSY 24R 10W BOX1115M-AB	P	--
		242226440104	SPEAKER 12R 5W OPN TWEE R29 EU 32" B	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
⚠		272217190337	POWER SUPP MOD PSL 32 DPS-93BP AB	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431119961	CABLE HL 14P	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912139001	PANEL BRACKET HOLDER (BOTTOM)	P	--
		313912139011	TWEETER BRACKET	P	--
		313912139021	VESA BRACKET TOP	P	--
		313912139031	PANEL BRACKET HOLDER (TOP)	P	--
		313912139052	PANEL BRACKET HOLDER (SIDE)	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912326591	BARRIER SHEET	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
		313913401061	CABLE TIE	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105561	CABLE (VT) 2P/120+120+140/INLET+SDDJF	P	--
		313929711961	MAIN SSB TV550 2k11AMG DVB-T/C/S UNIT	P	--
		313929712631	AS CBLE LVDS 32" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC768WJ01	KS-CAB-A LC32LE63*E	P	--
		CDAI-A794WJ01	KS-STAND 32"	P	--
		CINS-F125WE16	ASSY ACCESORIES LC32LU632E	P	--
		DLAB-D933WE01	PANEL LABELS SET	P	--
		DLAB-E049WE01	MODEL LABEL SET A3IKGX632E	P	--
		GCABBB982WJ1A	REAR CABINET	P	--
		LANGKD336WJFW	STAND BRACKET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		QEARZA186WJZZ	EARTH E05-20x100H	P	--
		R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RRMCGA968WJSA	REMOTE CONTROL LU-LX63*E	P	--
		RUNTKA865WJPZ2	CONTROL BUTTON UNIT 32"	P	--
		SPAKCG377WJZZ	PACKING CASE 32"	P	--
		SPAKPB437WJZZ	PACKING BAG 32"	P	--
		SPAKXD411WJZZ	TOP PACK AD 32"	P	--
		SPAKXD412WJZZ	BOTTOM PACK AD 32"	P	--
		TLABZC881WJZZ	CE ENERGY LABEL	P	--
		TLABZC993WJZZ	POP LABEL LE632E	P	--
		313917105791	CBLE FFC FI-R 41P/300/41P LVDS	P	--
		313917105861	CBLE FFC FI-R 51P/250/51P LVDS FER	P	--
		GCABAC768WJ1A	FRONT CABINET	P	--
		PSPAHC452WJZZ	SPACER 250x15x0,5mm	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TCAUZA460WJZZ	CAUTION SHEET	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.19 LC-40LX632E Parts Listing

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual.
Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

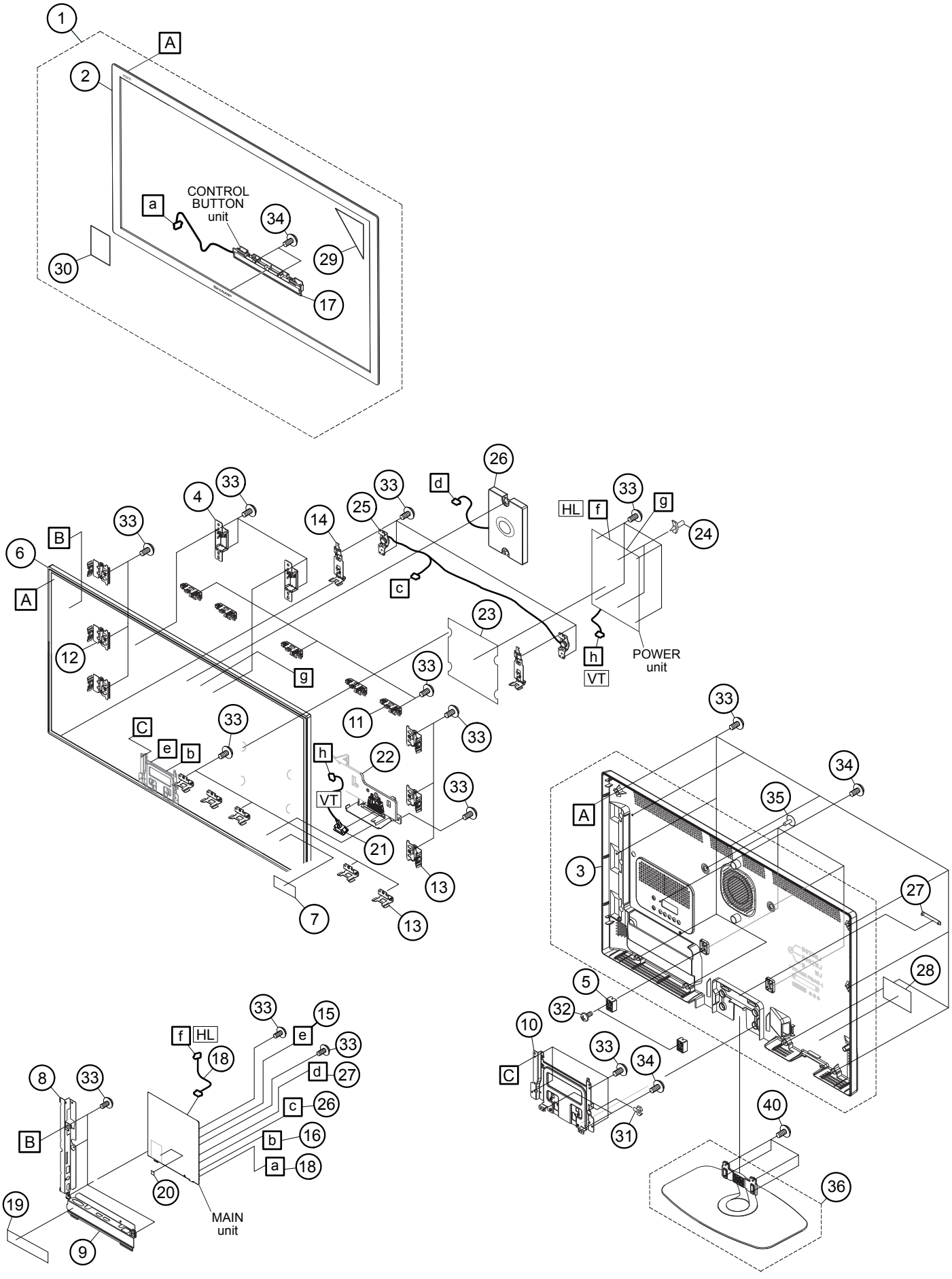
To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO.
4. DESCRIPTION 5. CODE 6. QUANTITY

MARK *: SPARE PARTS DELIVERY SECTION

	REF No.	PARTS	DESCRIPTION	*	PRICE CODE
		242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
		242201500764	SADDLE WIRE NY66 NT 11. WIRE HOLDER	P	--
		242201501159	SPACER 15MM	P	--
		242226440083	SPEAKER 5W TWEETER	P	--
		242226440089	SPEAKER 15W	P	--
		251107655012	SCREW WASH PAN TORX STZN BK 3x8	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252220000092	SCREW PAN TORX ST ZN BK M3x6	P	--
		252270098344	SCREW HOLE PLUG TAPPED NY6.6 BK-M6	P	--
		280307500107	EURO PALLET 800X1200 B	P	--
		310431120061	CABLE (HL) 14 PINS	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912041192	SCREW FLANGE TORX(1.8) PLASTITE	P	--
		313912138942	TERMINAL COVER BOTTOM	P	--
		313912138992	PANEL BRACKET HOLDER (TOP AND SIDE)	P	--
		313912139121	METAL BRACKET TOP	P	--
		313912139461	TERMINAL COVER SIDE	P	--
		313912139471	PANEL BRACKET HOLDER BOTTOM	P	--
		313912139801	STAND BRACKET	P	--
		313912311661	FELT 85x12x0,5MM	P	--
		313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
		313912326761	EMC FOAM 6,5x20 L100MM	P	--
		313912326771	EMC FOAM 4x10 L10MM	P	--
		313913401061	CABLE TIE	P	--
		313913401201	POWER SWITCH & INLET HOLDER BKT	P	--
		313913401211	BARRIER SHEET	P	--
		313913401841	VESA BRACKET BOTTOM	P	--
		313917105701	CABLE VH	P	--
		313929711961	MAIN SSB TV550 2k11AMG DVB-T/C/S UNIT	P	--
		313929712641	AS CBLE LVDS 40" BB_EMMY JAE BANDO FER-S	P	--
		CCABAC762WJ01	KS-CAB-A LC40LE63*E	P	--
		CDAI-A789WJ01	KS-STAND	P	--
		CINS-F125WE16	ASSY ACCESORIES LC32LU632E	P	--
		DLAB-D899WE01	PANEL LABELS SET	P	--
		DLAB-E058WE01	MODEL LABEL SET A3IKJX632E	P	--
		GCABBB981WJ1A	REAR CABINET	P	--
		PSLDM0005TPZZ	CONDUCTIVITY CLOTH E05R-30x40H	P	--
		PZETKA640WJZZ	INSULATION SHEET FOR CONTROLLER PWB	P	--
		PZETKA641WJZZ	INSULATION SHEET FOR PANEL	P	--
		R1LK400D3LB43Y	PANEL 40"	P	--
		RCORF0103CEZZ	FERRITA E04SR170780	P	--
		RCORFA061WJZZ	FERRITE CORE/CS-FPC E04FG460812-T	P	--
⚠		RDENCA445WJQZ	POWER SUPPLY LG WITH LED DRIVER 40"	P	--
		RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
		RRMCGA968WJSA	REMOTE CONTROL LU-LX63*E	P	--
		RUNTKA864WJPZ2	CONTROL BUTTON UNIT 40"	P	--
		SPAKCG321WJZZ	PACKING CASE 40"	P	--
		SPAKPB475WJZZ	PE BAG 40"	P	--
		SPAKXD396WJZZ	PACKING FOAM TOP 40"	P	--
		SPAKXD405WJZZ	PACKING FOAM BOTTOM 40"	P	--
		TLABZC837WJZZ	CE ENERGY LABEL	P	--
		TLABZC993WJZZ	POP LABEL LE632E	P	--
		313917105811	CBLE FFC FI-R 41P/400/41P LVDS	P	--
		313917105891	CBLE FFC FI-R 51P/400/51P LVDS FER	P	--
		GCABAC762WJ1A	FRONT CABINET	P	--
		313912568771	TRACEABILITY LABEL	P	--
		313913872431	SCREW BAG STAND	P	--
		314302620392	O/M PE BAG	P	--
		908210090001	BATTERY R03-B500/01S	P	--
		QACCKA047WJPZ	CABLE DE RED PE8C5Z1B90A-05B 2,5A 1,8M	P	--
		TCAUZA460WJZZ	CAUTION SHEET	P	--
		TINS-F125WJZZ	QUICK START GUIDE	P	--
		TINS-F203WJZZ	SAFETY SHEET	P	--
		TLABZC453WJZZ	PANEL LABEL	P	--
		TLABM5584BMZZ	ETIQUETA EMBALAJE	P	--
		TLABNE414WJZZ	MODEL LABEL	P	--

12.23.1 LC-32LX63x Mechanical Parts



12.20.2 LC-32LE630, LC-32LX630 Mechanical Parts Listing

LC-32LE630, LC-32LX630 CABINET AND MECHANICAL PART LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
1	CCABAC768WJ01	KS-CAB-A LC32.	P	--
2	GCABAC768WJ1A	FRONT CABINET	P	--
3	GCABBB973WJ1A	REAR CABINET	P	--
4	313912139021	VESA BRACKET TOP	P	--
5	313913401841	VESA BRACKET BOTTOM	P	--
6	R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
7	TLABZC453WJZZ	PANEL LABEL (Except Russian models) (DLAB-D933WE01)	P	--
8	313912139461	TERMINAL COVER SIDE	P	--
9	313912138942	TERMINAL COVER BOTTOM	P	--
10	LANGKD336WJFW	STAND BRACKET	P	--
11	313912139031	PANEL BRACKET TOP	P	--
12	313912139051	PANEL BRACKET SIDE	P	--
13	313912139001	PANEL BRACKET BOTTOM	P	--
14	313912139011	TWEETER BRACKETS	P	--
15	313917105791	FFC FI-R 41P LVDS (313929712631)	P	--
16	313917105861	FFC FI-R 51P LVDS (313929712631)	P	--
17	RUNTKA865WJPZ2	CONTROL BUTTON UNIT	P	--
18	310431119961	WIRE (HL)	P	--
19	313912326761	EMC FOAM 6,5x20 L100MM	P	--
20	313912326771	EMC FOAM 4x10 L10MM	P	--
21	313917105561	WIRE (VT) 2P/120+120+140/INLET+SDDJF	P	--
22	313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
23	313912326591	BARRIER SHEET	P	--
24	242201520149	PIN PUSH NY6/6FR GN 14.5MM B (x2)	P	--
25	242226440104	SPEAKER TWEETERS (12R 5W OPN TWEE R29 EU 32" B)	P	--
26	242226440079	SPEAKER SUBWOOFER (24R 10W BOX1115M-AB)	P	--
27	313913401061	CABLE TIE	P	--
28	TLABNE414WJZZ	MODEL LABEL (DLAB-E041WE01)	P	--
29	TLABZC838WJZZ	POP LABEL	P	--
30	TLABZC881WJZZ	CE ENERGY LABEL	P	--
31	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
32	251107655012	SCREW WASH PAN TORX STZN BK M3x8 (x2)	P	--
33	252220000092	SCREW PAN TORX ST ZN BK M3x6 (x47)	P	--
34	313912041192	SCREW FLANGE TORX 1.8 PLASTITE (x5)	P	--
35	252270098344	SCREW HOLE PLUG TAPPED NY 6.6 BK M6 (x4)	P	--
36	CDAI-A794WJ01	KS-STAND	P	--
ACCESSORIES PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
37	QACCKA047WJPZ	AC cord PE8C5Z1B90A-05B 2,5A 1,8M	P	--
38	TINS-F125WJZZ	QUICK START GUIDE	P	--
39	908210090001	BATTERY R03-B500/01S	P	--
40	313913872431	SCREW for STAND	P	--
41	TINS-F203WJZZ	SAFETY SHEET	P	--
42	313912568771	TRACEABILITY LABEL	P	--
43	314302620392	O/M PE BAG	P	--
44	RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
45	RRMCGA968WJSA	Optional 2nd. REMOTE CONTROL (Only for LX63*E series).	P	--
PACKING PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
46	SPAKCG377WJZZ	Packing Case.	P	--
47	SPAKPB437WJZZ	Packing bag.	P	--
48	SPAKXD411WJZZ	Pack-AD (EPS) TOP	P	--
49	SPAKXD412WJZZ	Pack-AD (EPS) BOTTOM	P	--

12.20.3 LC-32LU630 Mechanical Parts Listing

LC-32LU630 CABINET AND MECHANICAL PART LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
1	CCABAC768WJ01	KS-CAB-A LC32.	P	--
2	GCABAC768WJ1A	FRONT CABINET	P	--
3	GCABBB973WJ1A	REAR CABINET	P	--
4	313912139021	VESA BRACKET TOP	P	--
5	313913401841	VESA BRACKET BOTTOM	P	--
6	R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
7	TLABZC453WJZZ	PANEL LABEL (Except Russian models) (DLAB-D933WE01)	P	--
8	313912139461	TERMINAL COVER SIDE	P	--
9	313912138942	TERMINAL COVER BOTTOM	P	--
10	LANGKD336WJFW	STAND BRACKET	P	--
11	313912139031	PANEL BRACKET TOP	P	--
12	313912139051	PANEL BRACKET SIDE	P	--
13	313912139001	PANEL BRACKET BOTTOM	P	--
14	313912139011	TWEETER BRACKETS	P	--
15	313917105791	FFC FI-R 41P LVDS (313929712631)	P	--
16	313917105861	FFC FI-R 51P LVDS (313929712631)	P	--
17	RUNTKA865WJPA2	CONTROL BUTTON UNIT	P	--
18	310431119961	WIRE (HL)	P	--
19	313912326761	EMC FOAM 6,5x20 L100MM	P	--
20	313912326771	EMC FOAM 4x10 L10MM	P	--
21	313917105561	WIRE (VT) 2P/120+120+140/INLET+SDDJF	P	--
22	313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
23	313912326591	BARRIER SHEET	P	--
24	242201520149	PIN PUSH NY6/6FR GN 14.5MM B (x2)	P	--
25	242226440104	SPEAKER TWEETERS (12R 5W OPN TWEE R29 EU 32" B)	P	--
26	242226440079	SPEAKER SUBWOOFER (24R 10W BOX1115M-AB)	P	--
27	313913401061	CABLE TIE	P	--
28	TLABNE414WJZZ	MODEL LABEL (DLAB-E041WE01)	P	--
29	TLABZC838WJZZ	POP LABEL	P	--
30	TLABZC881WJZZ	CE ENERGY LABEL	P	--
31	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
32	251107655012	SCREW WASH PAN TORX STZN BK M3x8 (x2)	P	--
33	252220000092	SCREW PAN TORX ST ZN BK M3x6 (x47)	P	--
34	313912041192	SCREW FLANGE TORX 1.8 PLASTITE (x5)	P	--
35	252270098344	SCREW HOLE PLUG TAPPED NY 6.6 BK M6 (x4)	P	--
36	CDAI-A794WJ01	KS-STAND	P	--

ACCESSORIES PARTS LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
37	QACCKA047WJPZ	AC cord PE8C5Z1B90A-05B 2,5A 1,8M	P	--
38	TINS-F125WJZZ	QUICK START GUIDE	P	--
39	908210090001	BATTERY R03-B500/01S	P	--
40	313913872431	SCREW for STAND	P	--
41	TINS-F203WJZZ	SAFETY SHEET	P	--
42	313912568771	TRACEABILITY LABEL	P	--
43	314302620392	O/M PE BAG	P	--
44	RRMCGA965WJSA	REMOTE CONTROL LU63*E	P	--
45	RRMCGA968WJSA	Optional 2nd. REMOTE CONTROL LU63*E	P	--

PACKING PARTS LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
46	SPAKCG377WJZZ	Packing Case.	P	--
47	SPAKPB437WJZZ	Packing bag.	P	--
48	SPAKXD411WJZZ	Pack-AD (EPS) TOP	P	--
49	SPAKXD412WJZZ	Pack-AD (EPS) BOTTOM	P	--

12.20.4 LC-32LE632, LC-32LX632 Mechanical Parts Listing

LC-32LE632, LC-32LX632 CABINET AND MECHANICAL PART LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
1	CCABAC768WJ01	KS-CAB-A LC32.	P	--
2	GCABAC768WJ1A	FRONT CABINET	P	--
3	GCABBB982WJ1A	REAR CABINET	P	--
4	313912139021	VESA BRACKET TOP	P	--
5	313913401841	VESA BRACKET BOTTOM	P	--
6	R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
7	TLABZC453WJZZ	PANEL LABEL (Except Russian models) (DLAB-D933WE01)	P	--
8	313912139461	TERMINAL COVER SIDE	P	--
9	313912138942	TERMINAL COVER BOTTOM	P	--
10	LANGKD336WJFW	STAND BRACKET	P	--
11	313912139031	PANEL BRACKET TOP	P	--
12	313912139051	PANEL BRACKET SIDE	P	--
13	313912139001	PANEL BRACKET BOTTOM	P	--
14	313912139011	TWEETER BRACKETS	P	--
15	313917105791	FFC FI-R 41P LVDS (313929712631)	P	--
16	313917105861	FFC FI-R 51P LVDS (313929712631)	P	--
17	RUNTKA865WJPZ2	CONTROL BUTTON UNIT	P	--
18	310431119961	WIRE (HL)	P	--
19	313912326761	EMC FOAM 6,5x20 L100MM	P	--
20	313912326771	EMC FOAM 4x10 L10MM	P	--
21	313917105561	WIRE (VT) 2P/120+120+140/INLET+SDDJF	P	--
22	313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
23	313912326591	BARRIER SHEET	P	--
24	242201520149	PIN PUSH NY6/6FR GN 14.5MM B (x2)	P	--
25	242226440104	SPEAKER TWEETERS (12R 5W OPN TWEE R29 EU 32" B)	P	--
26	242226440079	SPEAKER SUBWOOFER (24R 10W BOX1115M-AB)	P	--
27	313913401061	CABLE TIE	P	--
28	TLABNE414WJZZ	MODEL LABEL (DLAB-E045WE01)	P	--
29	TLABZC993WJZZ	POP LABEL	P	--
30	TLABZC881WJZZ	CE ENERGY LABEL	P	--
31	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
32	251107655012	SCREW WASH PAN TORX STZN BK M3x8 (x2)	P	--
33	252220000092	SCREW PAN TORX ST ZN BK M3x6 (x47)	P	--
34	313912041192	SCREW FLANGE TORX 1.8 PLASTITE (x5)	P	--
35	252270098344	SCREW HOLE PLUG TAPPED NY 6.6 BK M6 (x4)	P	--
36	CDAI-A794WJ01	KS-STAND	P	--
ACCESSORIES PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
37	QACCKA047WJPZ	AC cord PE8C5Z1B90A-05B 2,5A 1,8M	P	--
38	TINS-F125WJZZ	QUICK START GUIDE	P	--
39	908210090001	BATTERY R03-B500/01S	P	--
40	313913872431	SCREW for STAND	P	--
41	TINS-F203WJZZ	SAFETY SHEET	P	--
42	313912568771	TRACEABILITY LABEL	P	--
43	314302620392	O/M PE BAG	P	--
44	RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
45	RRMCGA968WJSA	Optional 2nd. REMOTE CONTROL (Only for LX63*E series).	P	--
PACKING PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
46	SPAKCG377WJZZ	Packing Case.	P	--
47	SPAKPB437WJZZ	Packing bag.	P	--
48	SPAKXD411WJZZ	Pack-AD (EPS) TOP	P	--
49	SPAKXD412WJZZ	Pack-AD (EPS) BOTTOM	P	--

12.20.5 LC-32LU632 Mechanical Parts Listing

LC-32LU632 CABINET AND MECHANICAL PART LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
1	CCABAC768WJ01	KS-CAB-A LC32.	P	--
2	GCABAC768WJ1A	FRONT CABINET	P	--
3	GCABBB982WJ1A	REAR CABINET	P	--
4	313912139021	VESA BRACKET TOP	P	--
5	313913401841	VESA BRACKET BOTTOM	P	--
6	R1LK315D3LA63Y	32" LCD MODULE LK315D3LA63	P	--
7	TLABZC453WJZZ	PANEL LABEL (Except Russian models) (DLAB-D933WE01)	P	--
8	313912139461	TERMINAL COVER SIDE	P	--
9	313912138942	TERMINAL COVER BOTTOM	P	--
10	LANGKD336WJFW	STAND BRACKET	P	--
11	313912139031	PANEL BRACKET TOP	P	--
12	313912139051	PANEL BRACKET SIDE	P	--
13	313912139001	PANEL BRACKET BOTTOM	P	--
14	313912139011	TWEETER BRACKETS	P	--
15	313917105791	FFC FI-R 41P LVDS (313929712631)	P	--
16	313917105861	FFC FI-R 51P LVDS (313929712631)	P	--
17	RUNTKA865WJPA2	CONTROL BUTTON UNIT	P	--
18	310431119961	WIRE (HL)	P	--
19	313912326761	EMC FOAM 6,5x20 L100MM	P	--
20	313912326771	EMC FOAM 4x10 L10MM	P	--
21	313917105561	WIRE (VT) 2P/120+120+140/INLET+SDDJF	P	--
22	313913401041	POWER SWITCH AND INLET HOLDER BRACKET	P	--
23	313912326591	BARRIER SHEET	P	--
24	242201520149	PIN PUSH NY6/6FR GN 14.5MM B (x2)	P	--
25	242226440104	SPEAKER TWEETERS (12R 5W OPN TWEE R29 EU 32" B)	P	--
26	242226440079	SPEAKER SUBWOOFER (24R 10W BOX1115M-AB)	P	--
27	313913401061	CABLE TIE	P	--
28	TLABNE414WJZZ	MODEL LABEL (DLAB-E045WE01)	P	--
29	TLABZC993WJZZ	POP LABEL	P	--
30	TLABZC881WJZZ	CE ENERGY LABEL	P	--
31	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
32	251107655012	SCREW WASH PAN TORX STZN BK M3x8 (x2)	P	--
33	252220000092	SCREW PAN TORX ST ZN BK M3x6 (x47)	P	--
34	313912041192	SCREW FLANGE TORX 1.8 PLASTITE (x5)	P	--
35	252270098344	SCREW HOLE PLUG TAPPED NY 6.6 BK M6 (x4)	P	--
36	CDAI-A794WJ01	KS-STAND	P	--

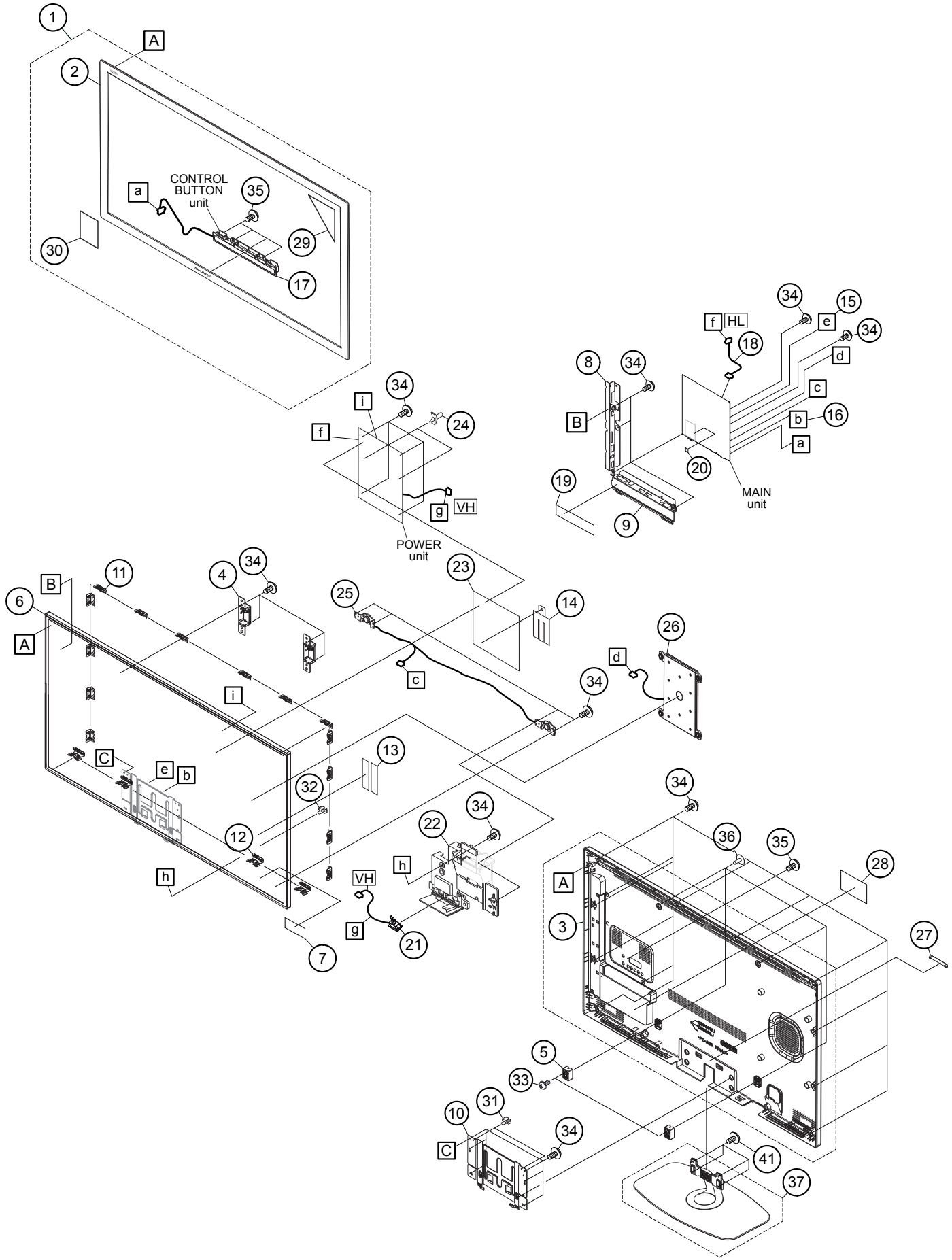
ACCESSORIES PARTS LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
37	QACCKA047WJPZ	AC cord PE8C5Z1B90A-05B 2,5A 1,8M	P	--
38	TINS-F125WJZZ	QUICK START GUIDE	P	--
39	908210090001	BATTERY R03-B500/01S	P	--
40	313913872431	SCREW for STAND	P	--
41	TINS-F203WJZZ	SAFETY SHEET	P	--
42	313912568771	TRACEABILITY LABEL	P	--
43	314302620392	O/M PE BAG	P	--
44	RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
45	RRMCGA968WJSA	Optional 2nd. REMOTE CONTROL LU63*E	P	--

PACKING PARTS LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
46	SPAKCG377WJZZ	Packing Case.	P	--
47	SPAKPB437WJZZ	Packing bag.	P	--
48	SPAKXD411WJZZ	Pack-AD (EPS) TOP	P	--
49	SPAKXD412WJZZ	Pack-AD (EPS) BOTTOM	P	--

12.21.1 LC-40LX63x Mechanical Parts



12.21.2 LC-40LE630, LC-40LX630 Mechanical Parts Listing

LC-40LE630, LC-40LX630 CABINET AND MECHANICAL PART LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
1	CCABAC762WJ01	KS-CAB-A LC40.	P	--
2	GCABAC762WJ1A	FRONT CABINET	P	--
3	GCABBB969WJ1A	REAR CABINET	P	--
4	313912139121	METAL BRACKET TOP	P	--
5	313913401841	VESA BRACKET BOTTOM	P	--
6	R1LK400D3LB43Y	40" LCD MODULE	P	--
7	TLABZC453WJZZ	PANEL LABEL (Except Russian models) (DLAB-D899WE01)	P	--
8	313912139461	TERMINAL COVER SIDE	P	--
9	313912138942	TERMINAL COVER BOTTOM	P	--
10	313912139801	STAND BRACKET	P	--
11	313912138992	PANEL BRACKET TOP and SIDE	P	--
12	313912139471	PANEL BRACKET BOTTOM	P	--
13	313912311661	FELT 85x12x0,5MM	P	--
14	313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
15	313917105811	FFC FI-R 41P LVDS (313929712641)	P	--
16	313917105891	FFC FI-R 51P LVDS (313929712641)	P	--
17	RUNTKA864WJPZ2	CONTROL BUTTON UNIT	P	--
18	310431120061	WIRE (HL)	P	--
19	313912326761	EMC FOAM 6,5x20 L100MM	P	--
20	313912326771	EMC FOAM 4x10 L10MM	P	--
21	313917105701	WIRE (VH)	P	--
22	313913401201	POWER SWITCH AND INLET HOLDER BRACKET	P	--
23	313913401211	BARRIER SHEET	P	--
24	242201501159	PIN PUSH (x2)	P	--
25	242226440083	SPEAKER TWEETERS 5W	P	--
26	242226440089	SPEAKER SUBWOOFER 15W	P	--
27	313913401061	CABLE TIE	P	--
28	TLABNE414WJZZ	MODEL LABEL (DLAB-E050WE01)	P	--
29	TLABZC838WJZZ	POP LABEL	P	--
30	TLABZC837WJZZ	CE ENERGY LABEL	P	--
31	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
32	242201500764	SADDLE WIRE NY66 NT 11 WIRE HOLDER	P	--
33	251107655012	SCREW WASH PAN TORX STZN BK 3x8 (x2)	P	--
34	252220000092	SCREW PAN TORX ST ZN BK M3x6 (x39)	P	--
35	313912041192	SCREW FLANGE TORX 1.8 PLASTITE (x5)	P	--
36	252270098344	SCREW HOLE PLUG TAPPED NY 6.6 BK M6 (x4)	P	--
37	CDAI-A789WJ01	KS-STAND	P	--
ACCESSORIES PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
38	QACCKA047WJPZ	AC CORD PE8C5Z1B90A-05B 2,5A 1,8M	P	--
39	TINS-F125WJZZ	QUICK START GUIDE	P	--
40	908210090001	BATTERY R03-B500/01S	P	--
41	313913872431	SCREW for STAND	P	--
42	TINS-F203WJZZ	SAFETY SHEET	P	--
43	313912568771	TRACEABILITY LABEL	P	--
44	314302620392	O/M PE BAG	P	--
45	RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
46	RRMCGA968WJSA	Optional 2nd. REMOTE CONTROL (Only for LX63*E series).	P	--
PACKING PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
47	SPAKCG321WJZZ	Packing Case.	P	--
48	SPAKPB475WJZZ	Packing bag.	P	--
49	SPAKXD396WJZZ	Pack-AD (EPS) TOP	P	--
50	SPAKXD405WJZZ	Pack-AD (EPS) BOTTOM	P	--

12.21.3 LC-40LU630 Mechanical Parts Listing

LC-40LU630 CABINET AND MECHANICAL PART LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
1	CCABAC762WJ01	KS-CAB-A LC40.	P	--
2	GCABAC762WJ1A	FRONT CABINET	P	--
3	GCABBB969WJ1A	REAR CABINET	P	--
4	313912139121	METAL BRACKET TOP	P	--
5	313913401841	VESA BRACKET BOTTOM	P	--
6	R1LK400D3LB43Y	40" LCD MODULE	P	--
7	TLABZC453WJZZ	PANEL LABEL (Except Russian models) (DLAB-D899WE01)	P	--
8	313912139461	TERMINAL COVER SIDE	P	--
9	313912138942	TERMINAL COVER BOTTOM	P	--
10	313912139801	STAND BRACKET	P	--
11	313912138992	PANEL BRACKET TOP and SIDE	P	--
12	313912139471	PANEL BRACKET BOTTOM	P	--
13	313912311661	FELT 85x12x0,5MM	P	--
14	313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
15	313917105811	FFC FI-R 41P LVDS (313929712641)	P	--
16	313917105891	FFC FI-R 51P LVDS (313929712641)	P	--
17	RUNTKA864WJPA2	CONTROL BUTTON UNIT	P	--
18	310431120061	WIRE (HL)	P	--
19	313912326761	EMC FOAM 6,5x20 L100MM	P	--
20	313912326771	EMC FOAM 4x10 L10MM	P	--
21	313917105701	WIRE (VH)	P	--
22	313913401201	POWER SWITCH AND INLET HOLDER BRACKET	P	--
23	313913401211	BARRIER SHEET	P	--
24	242201501159	PIN PUSH (x2)	P	--
25	242226440083	SPEAKER TWEETERS 5W	P	--
26	242226440089	SPEAKER SUBWOOFER 15W	P	--
27	313913401061	CABLE TIE	P	--
28	TLABNE414WJZZ	MODEL LABEL (DLAB-E055WE01)	P	--
29	TLABZC993WJZZ	POP LABEL	P	--
30	TLABZC837WJZZ	CE ENERGY LABEL	P	--
31	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
32	242201500764	SADDLE WIRE NY66 NT 11 WIRE HOLDER	P	--
33	251107655012	SCREW WASH PAN TORX STZN BK 3x8 (x2)	P	--
34	252220000092	SCREW PAN TORX ST ZN BK M3x6 (x39)	P	--
35	313912041192	SCREW FLANGE TORX 1.8 PLASTITE (x5)	P	--
36	252270098344	SCREW HOLE PLUG TAPPED NY 6.6 BK M6 (x4)	P	--
37	CDAI-A789WJ01	KS-STAND	P	--
ACCESSORIES PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
38	QACCKA047WJPZ	AC CORD PE8C5Z1B90A-05B 2,5A 1,8M	P	--
39	TINS-F125WJZZ	QUICK START GUIDE	P	--
40	908210090001	BATTERY R03-B500/01S	P	--
41	313913872431	SCREW for STAND	P	--
42	TINS-F203WJZZ	SAFETY SHEET	P	--
43	313912568771	TRACEABILITY LABEL	P	--
44	314302620392	O/M PE BAG	P	--
45	RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
46	RRMCGA968WJSA	Optional 2nd. REMOTE CONTROL LU63*E	P	--
PACKING PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
47	SPAKCG321WJZZ	Packing Case.	P	--
48	SPAKPB475WJZZ	Packing bag.	P	--
49	SPAKXD396WJZZ	Pack-AD (EPS) TOP	P	--
50	SPAKXD405WJZZ	Pack-AD (EPS) BOTTOM	P	--

12.21.4 LC-40LE632, LC-40LX632 Mechanical Parts Listing

LC-40LE632, LC-40LX632 CABINET AND MECHANICAL PART LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
1	CCABAC762WJ01	KS-CAB-A LC40.	P	--
2	GCABAC762WJ1A	FRONT CABINET	P	--
3	GCABBB981WJ1A	REAR CABINET	P	--
4	313912139121	METAL BRACKET TOP	P	--
5	313913401841	VESA BRACKET BOTTOM	P	--
6	R1LK400D3LB43Y	40" LCD MODULE	P	--
7	TLABZC453WJZZ	PANEL LABEL (Except Russian models) (DLAB-D899WE01)	P	--
8	313912139461	TERMINAL COVER SIDE	P	--
9	313912138942	TERMINAL COVER BOTTOM	P	--
10	313912139801	STAND BRACKET	P	--
11	313912138992	PANEL BRACKET TOP and SIDE	P	--
12	313912139471	PANEL BRACKET BOTTOM	P	--
13	313912311661	FELT 85x12x0,5MM	P	--
14	313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
15	313917105811	FFC FI-R 41P LVDS (313929712641)	P	--
16	313917105891	FFC FI-R 51P LVDS (313929712641)	P	--
17	RUNTKA864WJPZ2	CONTROL BUTTON UNIT	P	--
18	310431120061	WIRE (HL)	P	--
19	313912326761	EMC FOAM 6,5x20 L100MM	P	--
20	313912326771	EMC FOAM 4x10 L10MM	P	--
21	313917105701	WIRE (VH)	P	--
22	313913401201	POWER SWITCH AND INLET HOLDER BRACKET	P	--
23	313913401211	BARRIER SHEET	P	--
24	242201501159	PIN PUSH (x2)	P	--
25	242226440083	SPEAKER TWEETERS 5W	P	--
26	242226440089	SPEAKER SUBWOOFER 15W	P	--
27	313913401061	CABLE TIE	P	--
28	TLABNE414WJZZ	MODEL LABEL (DLAB-E054WE01)	P	--
29	TLABZC993WJZZ	POP LABEL	P	--
30	TLABZC837WJZZ	CE ENERGY LABEL	P	--
31	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
32	242201500764	SADDLE WIRE NY66 NT 11 WIRE HOLDER	P	--
33	251107655012	SCREW WASH PAN TORX STZN BK 3x8 (x2)	P	--
34	252220000092	SCREW PAN TORX ST ZN BK M3x6 (x39)	P	--
35	313912041192	SCREW FLANGE TORX 1.8 PLASTITE (x5)	P	--
36	252270098344	SCREW HOLE PLUG TAPPED NY 6.6 BK M6 (x4)	P	--
37	CDAI-A789WJ01	KS-STAND	P	--

ACCESSORIES PARTS LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
38	QACCKA047WJPZ	AC CORD PE8C5Z1B90A-05B 2,5A 1,8M	P	--
39	TINS-F125WJZZ	QUICK START GUIDE	P	--
40	908210090001	BATTERY R03-B500/01S	P	--
41	313913872431	SCREW for STAND	P	--
42	TINS-F203WJZZ	SAFETY SHEET	P	--
43	313912568771	TRACEABILITY LABEL	P	--
44	314302620392	O/M PE BAG	P	--
45	RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
46	RRMCGA968WJSA	Optional 2nd. REMOTE CONTROL (Only for LX63*E series).	P	--

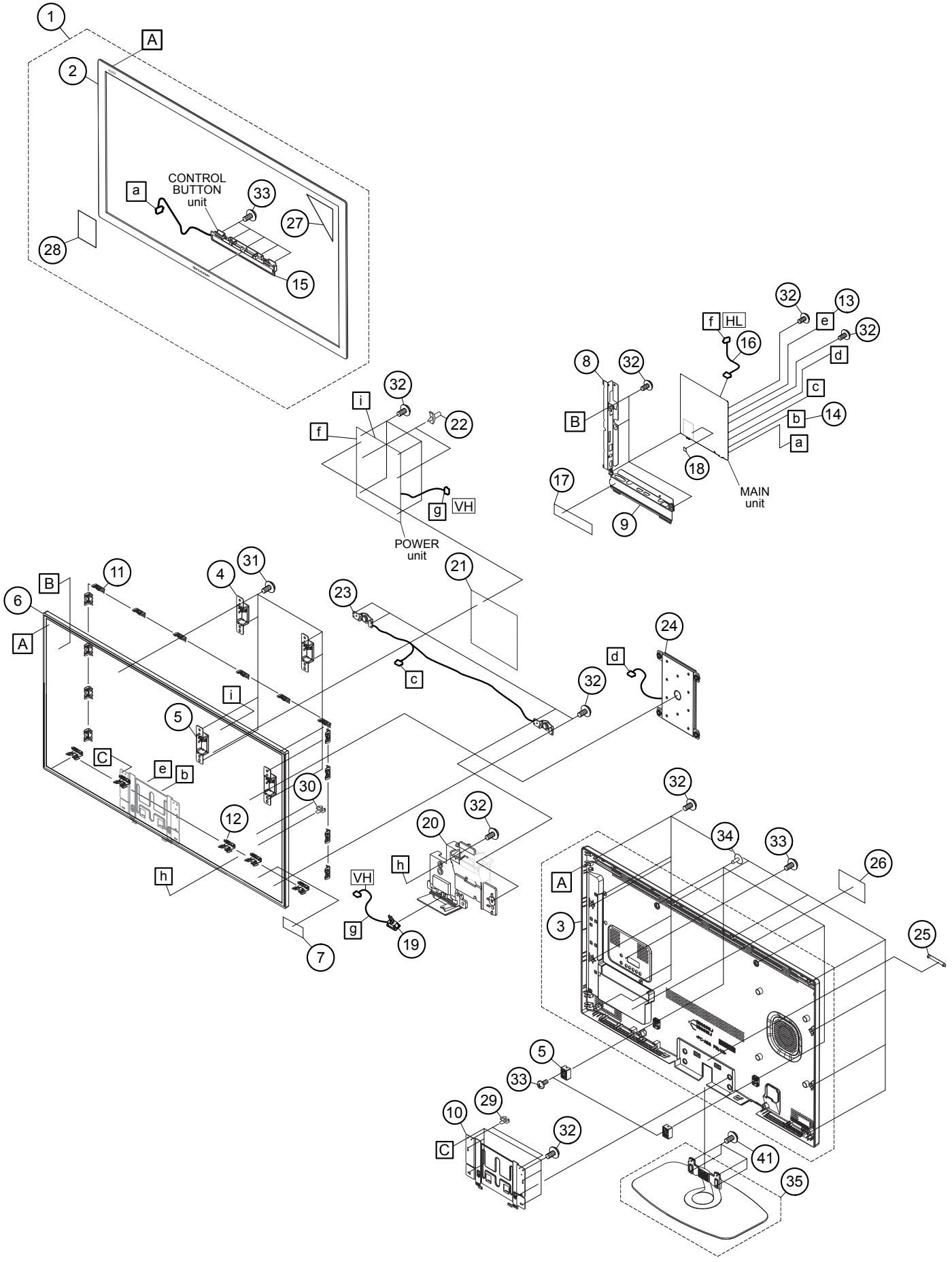
PACKING PARTS LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
47	SPAKCG321WJZZ	Packing Case.	P	--
48	SPAKPB475WJZZ	Packing bag.	P	--
49	SPAKXD396WJZZ	Pack-AD (EPS) TOP	P	--
50	SPAKXD405WJZZ	Pack-AD (EPS) BOTTOM	P	--

12.21.5 LC-40LU632 Mechanical Parts Listing

LC-40LU632 CABINET AND MECHANICAL PART LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
1	CCABAC762WJ01	KS-CAB-A LC40.	P	--
2	GCABAC762WJ1A	FRONT CABINET	P	--
3	GCABBB981WJ1A	REAR CABINET	P	--
4	313912139121	METAL BRACKET TOP	P	--
5	313913401841	VESA BRACKET BOTTOM	P	--
6	R1LK400D3LB43Y	40" LCD MODULE	P	--
7	TLABZC453WJZZ	PANEL LABEL (Except Russian models) (DLAB-D899WE01)	P	--
8	313912139461	TERMINAL COVER SIDE	P	--
9	313912138942	TERMINAL COVER BOTTOM	P	--
10	313912139801	STAND BRACKET	P	--
11	313912138992	PANEL BRACKET TOP and SIDE	P	--
12	313912139471	PANEL BRACKET BOTTOM	P	--
13	313912311661	FELT 85x12x0,5MM	P	--
14	313912326611	CABLE MANAGEMENT SHT BBR WIRE HOLDER	P	--
15	313917105811	FFC FI-R 41P LVDS (313929712641)	P	--
16	313917105891	FFC FI-R 51P LVDS (313929712641)	P	--
17	RUNTKA864WJPA2	CONTROL BUTTON UNIT	P	--
18	310431120061	WIRE (HL)	P	--
19	313912326761	EMC FOAM 6,5x20 L100MM	P	--
20	313912326771	EMC FOAM 4x10 L10MM	P	--
21	313917105701	WIRE (VH)	P	--
22	313913401201	POWER SWITCH AND INLET HOLDER BRACKET	P	--
23	313913401211	BARRIER SHEET	P	--
24	242201501159	PIN PUSH (x2)	P	--
25	242226440083	SPEAKER TWEETERS 5W	P	--
26	242226440089	SPEAKER SUBWOOFER 15W	P	--
27	313913401061	CABLE TIE	P	--
28	TLABNE414WJZZ	MODEL LABEL (DLAB-E056WE01)	P	--
29	TLABZC993WJZZ	POP LABEL	P	--
30	TLABZC837WJZZ	CE ENERGY LABEL	P	--
31	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
32	242201500764	SADDLE WIRE NY66 NT 11 WIRE HOLDER	P	--
33	251107655012	SCREW WASH PAN TORX STZN BK 3x8 (x2)	P	--
34	252220000092	SCREW PAN TORX ST ZN BK M3x6 (x39)	P	--
35	313912041192	SCREW FLANGE TORX 1.8 PLASTITE (x5)	P	--
36	252270098344	SCREW HOLE PLUG TAPPED NY 6.6 BK M6 (x4)	P	--
37	CDAI-A789WJ01	KS-STAND	P	--
ACCESSORIES PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
38	QACCKA047WJPZ	AC CORD PE8C5Z1B90A-05B 2,5A 1,8M	P	--
39	TINS-F125WJZZ	QUICK START GUIDE	P	--
40	908210090001	BATTERY R03-B500/01S	P	--
41	313913872431	SCREW for STAND	P	--
42	TINS-F203WJZZ	SAFETY SHEET	P	--
43	313912568771	TRACEABILITY LABEL	P	--
44	314302620392	O/M PE BAG	P	--
45	RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
46	RRMCGA968WJSA	Optional 2nd. REMOTE CONTROL LU63*E	P	--
PACKING PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
47	SPAKCG321WJZZ	Packing Case.	P	--
48	SPAKPB475WJZZ	Packing bag.	P	--
49	SPAKXD396WJZZ	Pack-AD (EPS) TOP	P	--
50	SPAKXD405WJZZ	Pack-AD (EPS) BOTTOM	P	--

12.22.1 LC-46LX63x Mechanical Parts



12.22.2 LC-46LE630, LC-46LX630 Mechanical Parts Listing

LC-46LE630, LC-46LX630 CABINET AND MECHANICAL PART LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
1	CCABAC769WJ01	KS-CAB-A LC46.	P	--
2	GCABAC769WJ1A	FRONT CABINET	P	--
3	GCABBB974WJ1A	REAR CABINET	P	--
4	313912139121	VESA BRACKET TOP	P	--
5	313912139121	VESA BRACKET BOTTOM	P	--
6	R1LK460D3LB33Y	46" LCD MODULE	P	--
7	TLABZC453WJZZ	PANEL LABEL (Except Russian models) (DLAB-D934WE01)	P	--
8	313912139461	TERMINAL COVER SIDE	P	--
9	313912138942	TERMINAL COVER BOTTOM	P	--
10	313912139811	STAND BRACKET	P	--
11	313912139541	PANEL BRACKET TOP and SIDE	P	--
12	313912139471	PANEL BRACKET BOTTOM	P	--
13	313917105821	FFC FI-R 41P LVDS (313929712621)	P	--
14	313917105591	FFC FI-R 51P LVDS (313929712621)	P	--
15	RUNTKA868WJPZ2	CONTROL BUTTON UNIT	P	--
16	310431120071	WIRE (HL)	P	--
17	313912326761	EMC FOAM 6,5x20 L100MM	P	--
18	313912326771	EMC FOAM 4x10 L10MM	P	--
19	313917105701	WIRE (VH)	P	--
20	313913401201	POWER SWITCH AND INLET HOLDER BRACKET	P	--
21	313913401211	BARRIER SHEET	P	--
22	242201501159	PIN PUSH (x2)	P	--
23	242226440085	SPEAKER TWEETERS 5W	P	--
24	242226440088	SPEAKER SUBWOOFER 15W	P	--
25	313913401061	CABLE TIE	P	--
26	TLABNE414WJZZ	MODEL LABEL (DLAB-E059WE01)	P	--
27	TLABZC838WJZZ	POP LABEL	P	--
28	TLABZC929WJZZ	CE ENERGY LABEL	P	--
29	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
30	242201500764	SADDLE WIRE NY66 NT 11 WIRE HOLDER	P	--
31	310430040561	M4X6TORX20 + SERRATED WASHER (x8)	P	--
32	252220000092	SCREW PAN TORX ST ZN BK M3x6 (x37)	P	--
33	313912041192	SCREW FLANGE TORX 1.8 PLASTITE (x6)	P	--
34	252270098355	SCREW HOLE PLUG TAPPED (x4) (HOLE RIVET TAPPED 5.5X14.5)	P	--
35	CDAI-A795WJ01	KS-STAND	P	--
ACCESSORIES PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
36	QACCKA047WJPZ	AC Cord PE8C5Z1B90A-05B 2,5A 1,8M	P	--
37	TINS-F125WJZZ	QUICK START GUIDE	P	--
38	908210090001	BATTERY R03-B500/01S	P	--
39	313913872431	SCREW for STAND	P	--
40	TINS-F203WJZZ	SAFETY SHEET	P	--
41	313912568771	TRACEABILITY LABEL	P	--
42	314302620392	O/M PE BAG	P	--
43	RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
44	RRMCGA968WJSA	Optional 2nd. REMOTE CONTROL (Only for LX63*E series).	P	--
PACKING PARTS LISTING				
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
45	SPAKCG387WJZZ	Packing Case	P	--
46	313913622191	Packing Case Bottom	P	--
47	SPAKPB477WJZZ	Packing bag.	P	--
48	SPAKXD415WJZZ	Pack-AD (EPS) TOP	P	--
49	SPAKXD416WJZZ	Pack-AD (EPS) BOTTOM	P	--

12.22.3 LC-46LE632, LC-46LX632 Mechanical Parts Listing

LC-46LE632, LC-46LX632 CABINET AND MECHANICAL PART LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
1	CCABAC769WJ01	KS-CAB-A LC46.	P	--
2	GCABAC769WJ1A	FRONT CABINET	P	--
3	GCABBB983WJ1A	REAR CABINET	P	--
4	313912139121	VESA BRACKET TOP	P	--
5	313912139121	VESA BRACKET BOTTOM	P	--
6	R1LK460D3LB33Y	46" LCD MODULE	P	--
7	TLABZC453WJZZ	PANEL LABEL (Except Russian models) (DLAB-D934WE01)	P	--
8	313912139461	TERMINAL COVER SIDE	P	--
9	313912138942	TERMINAL COVER BOTTOM	P	--
10	313912139811	STAND BRACKET	P	--
11	313912139541	PANEL BRACKET TOP and SIDE	P	--
12	313912139471	PANEL BRACKET BOTTOM	P	--
13	313917105821	FFC FI-R 41P LVDS (313929712621)	P	--
14	313917105591	FFC FI-R 51P LVDS (313929712621)	P	--
15	RUNTKA868WJPZ2	CONTROL BUTTON UNIT	P	--
16	310431120071	WIRE (HL)	P	--
17	313912326761	EMC FOAM 6,5x20 L100MM	P	--
18	313912326771	EMC FOAM 4x10 L10MM	P	--
19	313917105701	WIRE (VH)	P	--
20	313913401201	POWER SWITCH AND INLET HOLDER BRACKET	P	--
21	313913401211	BARRIER SHEET	P	--
22	242201501159	PIN PUSH (x2)	P	--
23	242226440085	SPEAKER TWEETERS 5W	P	--
24	242226440088	SPEAKER SUBWOOFER 15W	P	--
25	313913401061	CABLE TIE	P	--
26	TLABNE414WJZZ	MODEL LABEL (DLAB-E065WE01)	P	--
27	TLABZC993WJZZ	POP LABEL	P	--
28	TLABZC929WJZZ	CE ENERGY LABEL	P	--
29	242201500193	SADDLE WIRE NY66 NT 11.5 WIRE HOLDER	P	--
30	242201500764	SADDLE WIRE NY66 NT 11 WIRE HOLDER	P	--
31	310430040561	M4X6TORX20 + SERRATED WASHER (x8)	P	--
32	252220000092	SCREW PAN TORX ST ZN BK M3x6 (x37)	P	--
33	313912041192	SCREW FLANGE TORX 1.8 PLASTITE (x6)	P	--
34	252270098355	SCREW HOLE PLUG TAPPED (x4) (HOLE RIVET TAPPED 5.5X14.5)	P	--
35	CDAI-A795WJ01	KS-STAND	P	--

ACCESSORIES PARTS LISTING

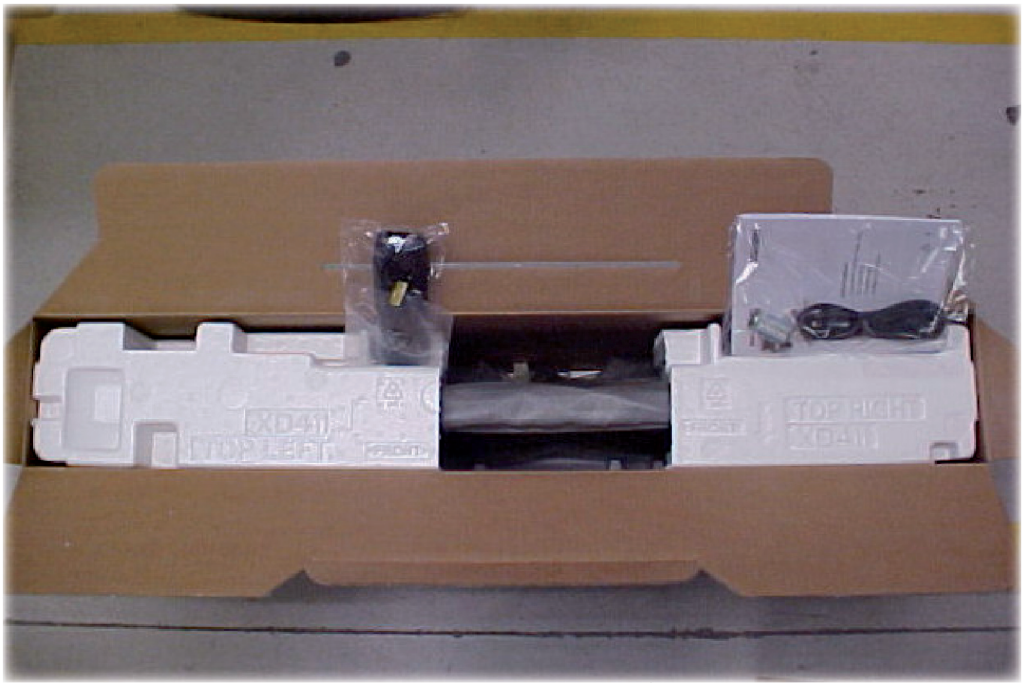
REF No.	PARTS	DESCRIPTION	*	PRICE CODE
36	QACCKA047WJPZ	AC CORD PE8C5Z1B90A-05B 2,5A 1,8M	P	--
37	TINS-F125WJZZ	QUICK START GUIDE	P	--
38	908210090001	BATTERY R03-B500/01S	P	--
39	313913872431	SCREW for STAND	P	--
40	TINS-F203WJZZ	SAFETY SHEET	P	--
41	313912568771	TRACEABILITY LABEL	P	--
42	314302620392	O/M PE BAG	P	--
43	RRMCGA965WJSA	REMOTE CONTROL LE63*E	P	--
44	RRMCGA968WJSA	Optional 2nd. REMOTE CONTROL (Only for LX63*E series).	P	--

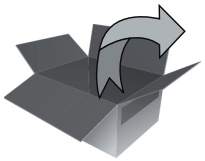
PACKING PARTS LISTING

REF No.	PARTS	DESCRIPTION	*	PRICE CODE
45	SPAKCG387WJZZ	Packing Case	P	--
46	313913622191	Packing Case Bottom	P	--
47	SPAKPB477WJZZ	Packing bag.	P	--
48	SPAKXD415WJZZ	Pack-AD (EPS) TOP	P	--
49	SPAKXD416WJZZ	Pack-AD (EPS) BOTTOM	P	--

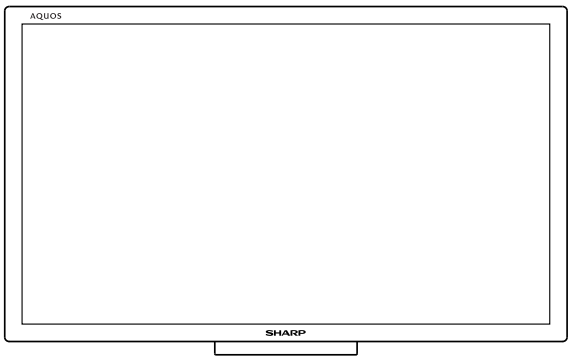
NOTES:

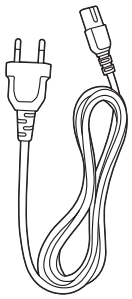
13. Packing of the set

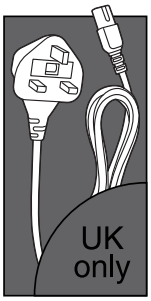


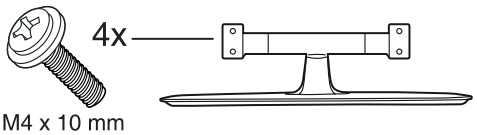


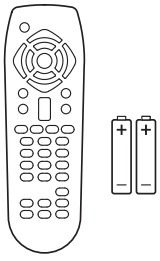
EN What's in the box
DE Lieferumfang
FR Contenu de l'emballage
NL Wat zit er in de doos?
IT Contenuto della confezione
ES Contenido de la caja
PT Conteúdo da embalagem
DK Hvad er der i kassen
SV Förpackningens innehåll
NO Innholdet i esken
SU Toimituksen sisältö
GR Περιεχόμενα συσκευασίας
RU Комплект поставки
PL Zawartość opakowania
HU A doboz tartalma
SK Čo je v balení?
CZ Obsah dodávky
TR Kutuda neler var
SI Kaj je v škatli
RO Ce se află în cuti
ET Kasti sisu
LV Komplektācija
LT Kas yra rinkinyje
UK Комплектація упаковки
HR Što se nalazi u kutiji

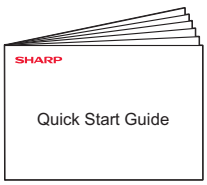


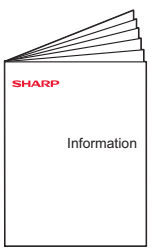












Notes:

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