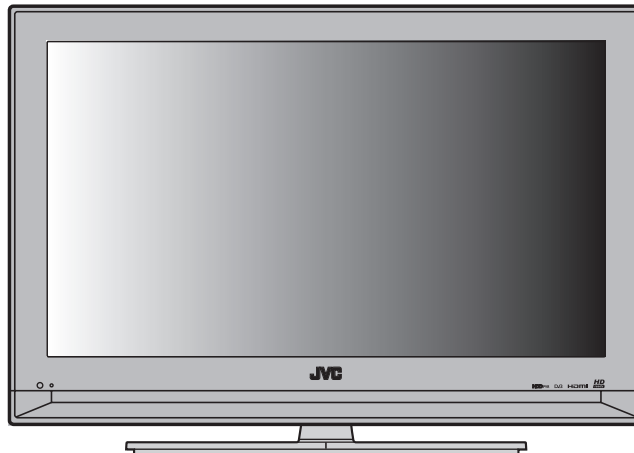


JVC

SERVICE MANUAL

INTEGRATED DIGITAL TERRESTRIAL LCD TELEVISION

LT-32DH8ZG



DVB
Digital Video
Broadcasting
HD
ready
HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE
HDD PVR

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SPECIFICATION

Items		Contents
Dimensions (W × H × D)		80.7 cm × 57.3 cm × 24.5 cm 80.7 cm × 53.3 cm × 9.6 cm (Without stand)
Mass		14.5 kg 12.4 kg (Without stand)
Power Input		AC220V - AC240 V, 50 Hz
Power Consumption		140 W (Standby: 2.3 W)
TV RF System	Analog	CCIR (B/G, I, D/K, L)
	Digital	DVB-T
Colour System		PAL, SECAM, NTSC 3.58/4.43 [EXT only]
Stereo System		NICAM (B/G, I, D/K, L), A2 (B/G, D/K)
Receiving Frequency	Analog	VHF: 46.25 MHz - 470MHz UHF: 470 MHz - 862.25 MHz CATV: 116MHz - 172MHz / 220MHz - 469MHz
	Digital	UHF:474 MHz - 858 MHz
Intermediate Frequency	VIF	38.9MHz (B/G, I, D/K, L)
	SIF	33.4MHz (5.5MHz:B/G) 32.9MHz (6.0MHz:I) 32.4MHz (6.5MHz:D/K)
Colour Sub Carrier Frequency	PAL	4.43MHz
	SECAM	4.40625MHz / 4.25MHz
	NTSC	3.58MHz / 4.43MHz
Teletext System	Analog	FLOF (Fastext level 2.5) / TOP / WST(World Standard system)
	Digital	EBU TEXT
LCD panel		32-inch wide aspect (16 : 9)
Screen Size		Diagonal : 80.0 cm (H: 69.8 cm × V: 39.2 cm)
Display Pixels		Horizontal : 1366 dots × Vertical : 768 dots (W-XGA)
Audio Power Output		7 W + 7 W
Speaker		4.5 cm × 13.2 cm, oval type × 2
Aerial terminal (VHF/UHF)		75 Ω unbalanced, coaxial
EXT-1/2 (Input/Output)		21-pin Euro connector (SCART socket) × 2
EXT-3 (Input)	Component Video	RCA pin jack × 3 750p / 1125i 625p / 525p / 625i / 525i Y: 1 V (p-p) (Sync signal: ±0.35V(p-p), 3-value sync.), 75 Ω / Pb/Pr: ±0.35V(p-p), 75 Ω Y: 1 V (p-p), Positive (Negative sync.), 75 Ω / Cb/Cr: 0.7V(p-p), 75 Ω
	Audio	500 mV(rms) (-4dBs), high impedance, RCA pin jack × 2
EXT-4 (Input)	S-Video	Mini-DIN 4 pin × 1 Y: 1 V (p-p), Positive (Negative sync provided), 75 Ω C: 0.286 V (p-p) (Burst signal), 75 Ω
	Video	1V (p-p), Positive (Negative sync provided), 75 Ω, RCA pin jack × 3
	Audio	500 mV (rms), High impedance, RCA pin jack × 2
EXT-5/6 (Digital Input)	Video / Audio	HDMI 2-row 19pin connector × 2 (Digital-input terminal is not compatible with picture signals of personal computer)
EXT-7 (PC Input)	Video	D-sub 3-row 15pin × 1 R/G/B : 0.7V (p-p), 75Ω HD / VD : 1V (p-p) to 5V (p-p), high impedance < Available signal > VGA : 640 pixels × 480 pixels (Horizontal : 31.5kHz / Vertical : 60Hz) XGA : 1024 pixels × 768 pixels (Horizontal : 48.4kHz / Vertical : 60Hz)
	Audio	3.5 mm stereo mini jack × 1
Digital Audio Optical Output		Digital SPDIF × 1
Headphone		3.5 mm stereo mini jack × 1
HDD		160GB
Remote Control Unit		RM-C2110B (AA/R6 dry cell battery × 2)

Design & specifications are subject to change without notice.

SECTION 1

PRECAUTION

1.1 SAFETY PRECAUTIONS

- (1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
- (4) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ($\perp$) side GND, the ISOLATED (NEUTRAL) : ($\equiv$) side GND and EARTH : ($\oplus$) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.
- (5) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(6) Isolation Check (Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) Dielectric Strength Test

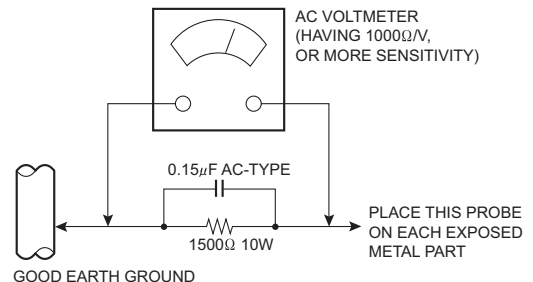
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second. (. . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.) This method of test requires a test equipment not generally found in the service trade.

b) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.). However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method

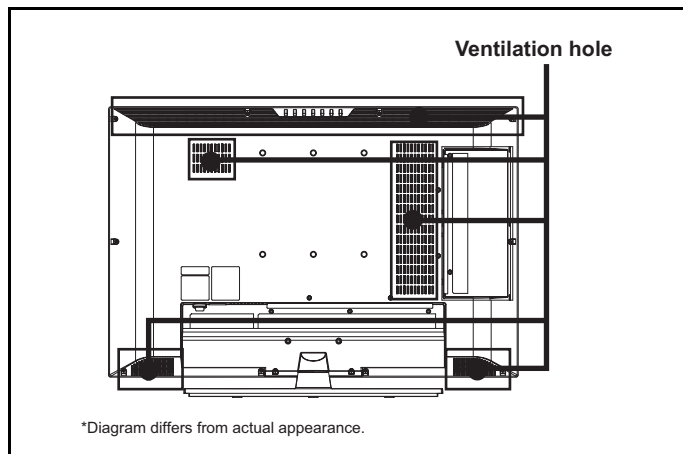
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 Ω per volt or more sensitivity in the following manner. Connect a 1500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.). However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



1.2 INSTALLATION

1.2.1 HEAT DISSIPATION

If the heat dissipation vent behind this unit is blocked, cooling efficiency may deteriorate and temperature inside the unit will rise. The temperature sensor that protects the unit will be activated when internal temperature exceeds the pre-determined level and power will be turned off automatically. Therefore, please make sure pay attention not to block the heat dissipation vent as well as the ventilation outlet behind the unit and ensure that there is room for ventilation around it.

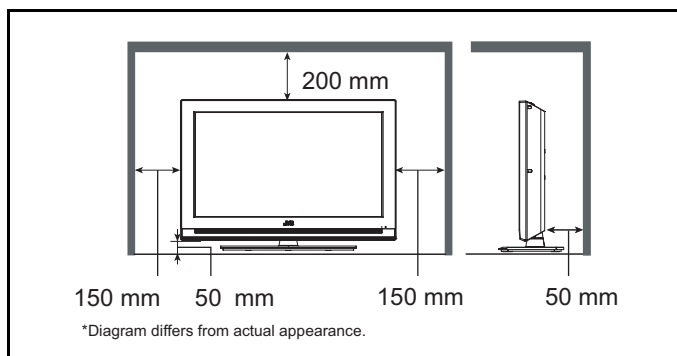


1.2.2 NOTES ON HANDLING

When taking the unit out of a packing case, do not grasp the upper part of the unit. If you take the unit out while grasping the upper part, the LCD PANEL may be damaged because of a pressure. Instead of grasping the upper part, put your hands on the lower backside or sides of the unit.

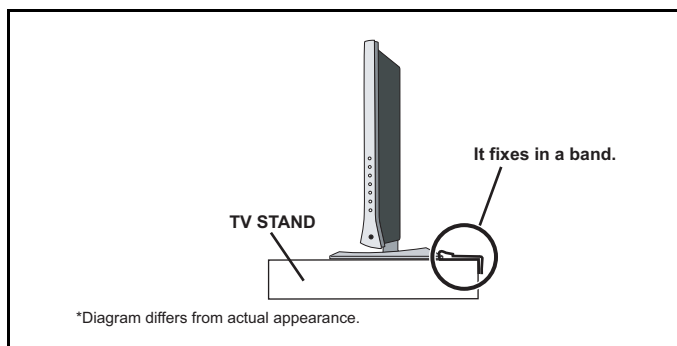
1.2.3 INSTALLATION REQUIREMENTS

Ensure that the minimal distance is maintained, as specified below, between the unit with and the surrounding walls, as well as the floor etc. Install the unit on stable flooring or stands. Take precautionary measures to prevent the unit from tipping in order to protect against accidents and earthquakes.



1.2.4 INSTALLATION REQUIREMENTS

To ensure safety in an emergency such as an earthquake, and to prevent accidents, ensure that measures are taken to prevent the TV dropping or falling over.



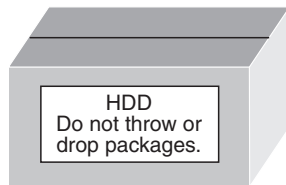
1.3 HANDLING HARD DISK DRIVE (HDD)

The HDD is a precision device for use in reading and writing a large amount of data on or from a disk rotating at a high speed. If it is not handled carefully, either abnormal operation may result or it may not be possible to read data. The HDD is sensitive to the following items and special care is required in safeguarding against them when handling an HDD. Also take care in handling a set incorporating an HDD.

- (1) Vibrations and impacts
- (2) Static electricity
- (3) Rough handling

1.3.1 HANDLING IN TRANSPORT, ETC.

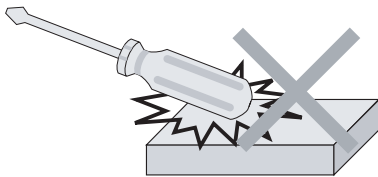
- Be sure to place the HDD in the manufacturer's specified package carton before transport.
- When receiving a package containing an HDD, check that the package carton is not damaged (such as having holes in the carton, crushed corners, etc.).
- Do not impact the packaging carton when loading or unloading it.
- It is not permitted to use the inner package carton only for transporting an HDD.
- Do not stack package cartons one upon another.



Be sure to package and transport the HDDs correctly.

1.3.2 HANDLING AN HDD IN THE STAND-ALONE STATUS

- When handling an HDD on a hard workbench, place an antistatic mat (rubber sheet) or similar object on the hard surface (to prevent any impacts occurring between the HDD and bench).
- Do not stack the HDDs one upon another.
- Do not knock an HDD with a hard object (such as a screwdriver).
- Do not place an HDD on its side panel without using a support (do not place an HDD in an unstable position).



1.3.3 HANDLING THE INSTALLATION OF AN HDD

- Place antistatic mats or similar sheets on all of the surfaces on which work is conducted or when the HDD is transported.
- Do not permit the HDD to knock against the set's brackets.
- When screwing the brackets, be careful not to knock the HDD. When using a power screwdriver, use a low-shock model and arrange the tightening torque properly.
- When mounting an HDD in a main body, take care not to apply excessive force to the brackets.

1.4 HANDLING LCD PANEL

1.4.1 PRECAUTIONS FOR TRANSPORTATION

When transporting the unit, pressure exerted on the internal LCD panel due to improper handling (such as tossing and dropping) may cause damages even when the unit is carefully packed. To prevent accidents from occurring during transportation, pay careful attention before delivery, such as through explaining the handling instructions to transporters.

Ensure that the following requirements are met during transportation, as the LCD panel of this unit is made of glass and therefore fragile:

- (1) **USE A SPECIAL PACKING CASE FOR THE LCD PANEL**
When transporting the LCD panel of the unit, use a special packing case (packing materials). A special packing case is used when a LCD panel is supplied as a service spare part.
- (2) **ATTACH PROTECTION SHEET TO THE FRONT**
Since the front (display part) of the panel is vulnerable, attach the protection sheet to the front of the LCD panel before transportation. Protection sheet is used when a LCD panel is supplied as a service spare part.
- (3) **AVOID VIBRATIONS AND IMPACTS**
The unit may be broken if it is toppled sideways even when properly packed. Continuous vibration may shift the gap of the panel, and the unit may not be able to display images properly. Ensure that the unit is carried by at least 2 persons and pay careful attention not to exert any vibration or impact on it.
- (4) **DO NOT PLACE EQUIPMENT HORIZONTALLY**
Ensure that it is placed upright and not horizontally during transportation and storage as the LCD panel is very vulnerable to lateral impacts and may break. During transportation, ensure that the unit is loaded along the traveling direction of the vehicle, and avoid stacking them on one another. For storage, ensure that they are stacked in 2 layers or less even when placed upright.

1.4.2 OPTICAL FILTER (ON THE FRONT OF THE LCD PANEL)

- (1) Avoid placing the unit under direct sunlight over a prolonged period of time. This may cause the optical filter to deteriorate in quality and COLOUR.
- (2) Clean the filter surface by wiping it softly and lightly with a soft and lightly fuzz cloth (such as outing flannel).
- (3) Do not use solvents such as benzene or thinner to wipe the filter surface. This may cause the filter to deteriorate in quality or the coating on the surface to come off. When cleaning the filter, usually use the neutral detergent diluted with water. When cleaning the dirty filter, use water-diluted ethanol.
- (4) Since the filter surface is fragile, do not scratch or hit it with hard materials. Be careful enough not to touch the front surface, especially when taking the unit out of the packing case or during transportation.

1.4.3 PRECAUTIONS FOR REPLACEMENT OF EXTERIOR PARTS

Take note of the following when replacing exterior parts (REAR COVER, FRONT PANEL, etc.):

- (1) Do not exert pressure on the front of the LCD panel (filter surface). It may cause irregular COLOUR.
- (2) Pay careful attention not to scratch or stain the front of the LCD panel (filter surface) with hands.
- (3) When replacing exterior parts, the front (LCD panel) should be placed facing downward. Place a mat, etc. underneath to avoid causing scratches to the front (filter surface).

SECTION 2

SPECIFIC SERVICE INSTRUCTIONS

2.1 FEATURES

DIGITAL TUNER

This TV can receive both DVB-T (Digital terrestrial broadcasting) and Analogue terrestrial broadcasting.

BUILT-IN HARD DISK DRIVE

This television has PVR (Personal Video Recorder) function that allows you to record a programme in the installed hard disk drive.

HDMI INPUT

By connecting a HDMI compatible device, high definition pictures can be displayed on your TV in their digital form.

PICTURE MODE

This function can adjust the picture settings automatically. There are BRIGHT, STANDARD, SOFT and MANUAL in the PICTURE MODE.

ZOOM

This function can change the screen size according to the picture aspect ratio.

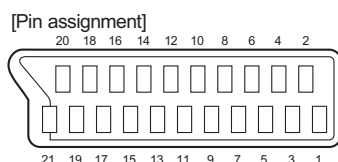
HYPER SOUND

You can enjoy sounds with a wider ambience.

2.2 21-PIN EURO CONNECTOR (SCART) : EXT-1 / EXT-2

Pin No.	Signal designation	Matching value	EXT-1	EXT-2
1	AUDIO R output	500mV(rms) (Nominal), Low impedance	Used (TV OUT)	Used (LINE OUT)
2	AUDIO R input	500mV(rms) (Nominal), High impedance	Used (R1)	Used (R2)
3	AUDIO L output	500mV(rms) (Nominal), Low impedance	Used (TV OUT)	Used (LINE OUT)
4	AUDIO GND		Used	Used
5	GND (B)		Used	Used
6	AUDIO L input	500mV(rms) (Nominal), High impedance	Used (L1)	Used (L2)
7	B input	700mV _(B-W) , 75Ω	Used	Used
8	FUNCTION SW (SLOW SW)	Low : 0V-3V High : 8V-12V, High impedance	Used	Used
9	GND (G)		Used	Used
10	SCL / T-V LINK		Not used	Used (SCL2 / TV-LINK)
11	G input	700mV _(B-W) , 75Ω	Used	Used
12	SDA		Not used	Used (SDA2)
13	GND (R)		Used	Used
14	GND (YS)		Used	Not used
15	R / C input	R : 700mV _(B-W) , 75Ω C : 300mV _(P-P) , 75Ω	Used (R)	Used (C2/R)
16	Ys input (FAST SW)	Low : 0V-0.4V, High : 1V-3V, 75Ω	Used	Used
17	GND (VIDEO output)		Used	Used
18	GND (VIDEO input)		Used	Used
19	VIDEO output	1V _(P-P) (Negative sync), 75Ω	Used (TV OUT)	Used (LINE OUT)
20	VIDEO / Y input	1V _(P-P) (Negative sync), 75Ω	Used	Used
21	COMMON GND		Used	Used

(P-P= Peak to Peak, B-W= Blanking to white peak)



2.3 TECHNICAL INFORMATION

2.3.1 LCD PANEL

This unit uses the flat type panel LCD (Liquid Crystal Display) panel that occupies as little space as possible, instead of the conventional CRT (Cathode Ray Tube), as a display unit.

Since the unit has the two polarizing filter that are at right angles to each other, the unit adopts "normally black" mode, where light does not pass through the polarizing filter and the screen is black when no voltage is applied to the liquid crystals.

2.3.1.1 SPECIFICATIONS

The following table shows the specifications of this unit.

Item	Specifications
Maximum dimensions (W × H × D)	760 mm × 450 mm × 48 mm
Weight	10.5 kg
Effective screen size	Diagonal: 800 mm (H: 697 mm × V: 392 mm)
Aspect ratio	16 : 9
Drive device / system	a-Si-TFT active matrix system
Resolution	Horizontally 1366 × Vertically 768 × RGB < W-XGA > 3147264 dots in total
Pixel pitch (pixel size)	Horizontally: 0.1703 mm, Vertically: 0.5108 mm
Displayed color	16777216 colors 256 colors for R G and B
Brightness	500cd/m2
Contrast ratio	800 : 1
Response time (Tr + Tf)	less than 18 ms
View angle (Horizontally)	178°
View angle (Vertically)	178°
Surface polarizer	Anti-Glare type Low reflective coat
Color filter	Vertical stripe
Backlight	Cold cathode fluorescent lamp × 18
Power supply voltage in LCD	12 V
Power supply voltage in inverter	24 V
Panel interface system	LVDS (Low Voltage Differential Signaling)

2.3.1.2 PIXEL FAULT

There are three pixel faults - bright fault , dark fault and flicker fault - that are respectively defined as follows.

■ BRIGHT FAULT

In this pixel fault, a cell that should not light originally is lighting on and off.

For checking this pixel fault, input ALL BLACK SCREEN and find out the cell that is lighting on and off.

■ DARK FAULT

In this pixel fault, a cell that should light originally is not lighting or lighting with the brightness twice as brighter as originally lighting.

For checking this pixel fault, input 100% of each R/G/B colour and find out the cell that is not lighting.

■ FLICKER FAULT

In the pixel fault, a cell that should light originally or not light originally is flashing on and off.

For checking this pixel fault, input ALL BLACK SCREEN signal or 100% of each RGB colour and find out the cell that is flashing on and off.

SECTION 3

DISASSEMBLY

3.1 CAUTION AT DISASSEMBLY

- Make sure that the power cord is disconnected from the outlet.
- Pay special attention not to break or damage the parts.
- Make sure that there is no bent or stain on the connectors before inserting, and firmly insert the connectors.

REFERENCE:

When removing each board, remove the connector if necessary. The operation is easier if you write down the connection points (connector numbers) of the connector. For connection of each board, refer to the "WIRING DIAGRAM" of the Standard Circuit Diagram.

3.2 DISASSEMBLY PROCEDURE

3.2.1 REMOVING THE REAR COVER (Fig.3-1)

- (1) Remove the 10 screws [A] and 9 screws [B].
- (2) Remove the REAR COVER.

3.2.2 REMOVING THE POWER PWB (Fig.3-1)

- Remove the REAR COVER.
 - (1) Remove the 3 screws [C] and 1 screw [D].
 - (2) Remove the POWER PWB.

3.2.3 REMOVING THE HDD (Fig.3-1)

- Remove the REAR COVER.
 - (1) Remove the 4 screws [E].
 - (2) Remove the HDD with HDD BRACKET.
 - (3) Remove the 4 screws [F].
 - (4) Remove the HDD BRACKET from the HDD.

3.2.4 REMOVING THE MAIN PWB / DIGITAL TUNER UNIT (Fig.3-1)

- Remove the REAR COVER.
 - (1) Remove the 2 screws [G] and 2 screws [H].
 - (2) Remove the MAIN AV BRACKET.
 - (3) Remove the 1 screw [J].
 - (4) Remove the SIDE AV BRACKET.
 - (5) Remove the 4 screws [K] and 4 screws [L].
 - (6) Remove the MAIN PWB and DIGITAL TUNER UNIT together.
 - (7) Remove the connector connecting the MAIN PWB and DIGITAL TUNER UNIT to separate each board.

3.2.5 REMOVING THE IR&LED PWB (Fig.3-1)

- Remove the REAR COVER.
 - (1) Remove the 1 screw [M].
 - (2) Remove the IR&LED PWB.

3.2.6 REMOVING THE SPEAKER (Fig.3-1)

- Remove the REAR COVER.
 - (1) Remove the 2 screws [N].
 - (2) Remove the SPEAKER.
 - (3) Follow the same steps when removing the other SPEAKER.

3.2.7 REMOVING THE KEYPAD PWB (Fig.3-1)

- Remove the REAR COVER.
 - (1) Remove the 2 screws [P].
 - (2) Remove the KEYPAD PWB.

3.2.8 REMOVING THE STAND (Fig.3-1)

- (1) Remove the 4 screws [Q].
- (2) Remove the STAND.

3.2.9 REMOVING THE LCD PANEL UNIT (Fig.3-1)

- Remove the REAR COVER.
- Remove the STAND.
- Remove the HDD.
 - (1) Remove the 2 screws [R].
 - (2) Remove the LEG SUPPORT BRACKET.
 - (3) Remove the 4 screws [S] and 6 screws [T].
 - (4) Remove the MAIN FRAME
 - (5) Remove the 4 screws [M].
 - (6) Remove the MAIN FRAME from the LCD PANEL UNIT.
 - (7) Remove the 4 screws [U].
 - (8) Remove the PANEL GUIDE.
 - (9) Remove the LCD PANEL UNIT from the FRONT PANEL.

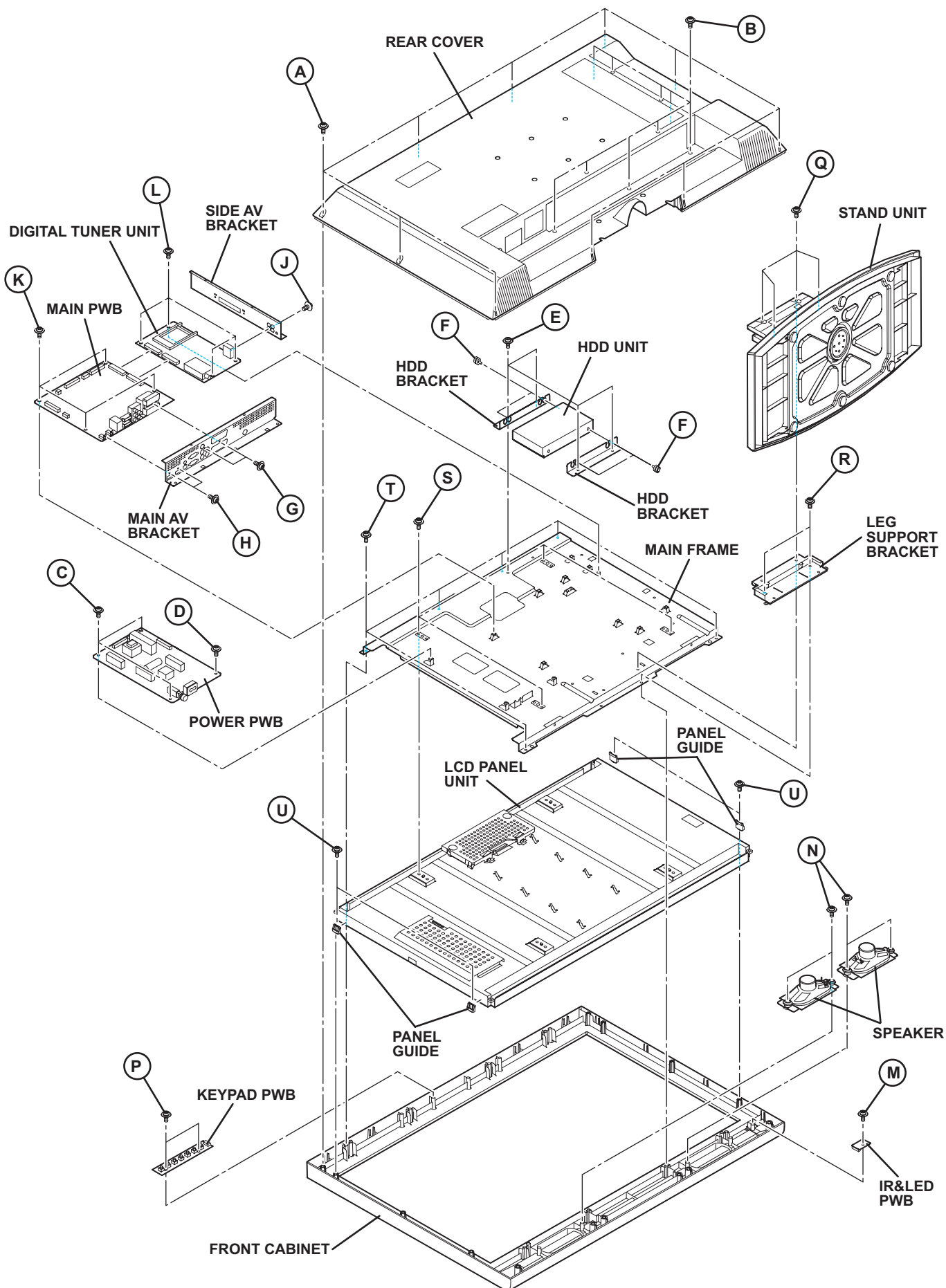


Fig.3-1

3.3 MEMORY IC REPLACEMENT

- This model uses the memory IC.
- This memory IC stores data for proper operation of the video and drive circuits.
- When replacing, be sure to use an IC containing this (initial value) data.

3.3.1 MEMORY IC REPLACEMENT PROCEDURE

1. Power off

Switch off the power and disconnect the power plug from the AC outlet.

2. Replace the memory IC

Be sure to use the memory IC written with the initial setting values.

3. Power on

Connect the power plug to the AC outlet and switch on the power.

4. Receiving channel setting

Refer to the OPERATING INSTRUCTIONS and set the receive channels (Channels Preset) as described.

5. User setting

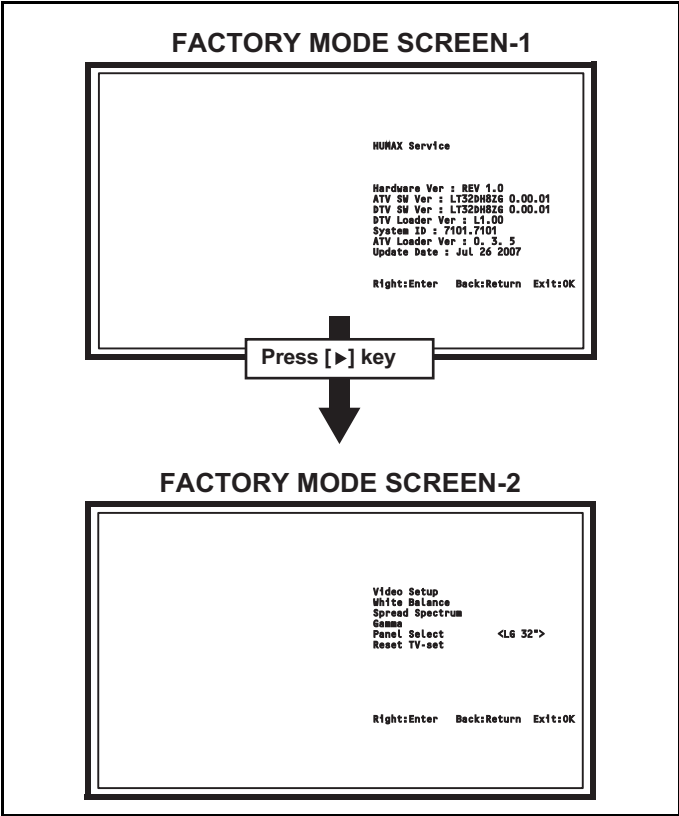
Check the user setting items according to the given in page later. Where these do not agree, refer to the OPERATING INSTRUCTIONS and set the items as described.

6. FACTORY MODE setting

Verify what to set in the FACTORY MODE, and set whatever is necessary.

3.3.2 FACTORY MODE SETTING

■FACTORY MODE SCREEN



■SETTING ITEM

Setting items	Settings
Video Setup	[Do not adjust]
White Balance	Adjust
Spread Spectrum	[Do not adjust]
Gamma	[Do not adjust]
Panel Select	Selects a kind of Panel.
Reset TV-set	Initialize setting data.

3.3.3 SETTINGS OF FACTORY SHIPMENT

3.3.3.1 BUTTON OPERATION

Setting item	Setting position
POWER	Off
CHANNEL	PR1
VOLUME	10
AV	TV

3.3.3.3 REMOTE CONTROL MENU OPERATION

(1) Picture

Setting item	Setting position
Mode	Bright
Fleshtone	Off
Colour Temperature	Cool
Noise Reduction	Off
Backlight	High

(2) Sound

Setting item	Setting position
Bass	0
Treble	0
Balance	0
Hyper Sound	Off
Audio Priority (DTV mode only)	PCM

(3) Install

Setting item	Setting position
Country	France
Antenna Power	---
Auto Search	---
Manual Search	---
Edit Channels	---

(4) Feature

Setting item		Setting position
Language		English
Time Setting	Power On Time	Off
	Power Off Time	Off
	Auto Power Off	Off
Parental Control		---
OSD Transparency		30
Blue Back		Off
PIP		Off
PC (PC mode only)	H. Position	0
	V. Position	0
	Clock	0
	Phase	25

3.3.3.2 REMOTE CONTROL DIRECT OPERATION

Setting item	Setting position
CHANNEL	PR1
VOLUME	10
ZOOM	AUTO
SUB POWER	OFF

(5) DTV Setup

Setting item		Setting position
Language Setting	Primary Audio Language	French
	Secondary Audio Language	English
	Primary Subtitle Language	French
	Secondary Subtitle Language	English
	Subtitle Display	Auto
	Subtitle Font	Variable
Miscellaneous Settings	Display Time	5
	Option in CH List	On
Software Update		---
Signal Detection		---
Status		---

3.4 REPLACEMENT OF CHIP COMPONENT

3.4.1 CAUTIONS

- (1) Avoid heating for more than 3 seconds.
- (2) Do not rub the electrodes and the resist parts of the pattern.
- (3) When removing a chip part, melt the solder adequately.
- (4) Do not reuse a chip part after removing it.

3.4.2 SOLDERING IRON

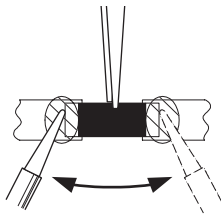
- (1) Use a high insulation soldering iron with a thin pointed end of it.
- (2) A 30w soldering iron is recommended for easily removing parts.

3.4.3 REPLACEMENT STEPS

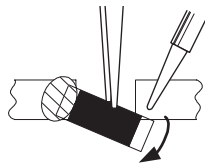
1. How to remove Chip parts

[Resistors, capacitors, etc.]

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



- (2) Shift with the tweezers and remove the chip part.

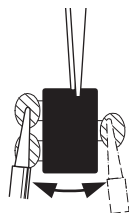


[Transistors, diodes, variable resistors, etc.]

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



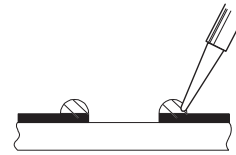
NOTE :

After removing the part, remove remaining solder from the pattern.

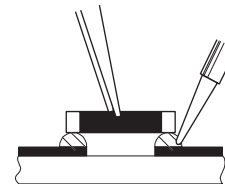
2. How to install Chip parts

[Resistors, capacitors, etc.]

- (1) Apply solder to the pattern as indicated in the figure.

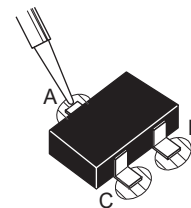


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

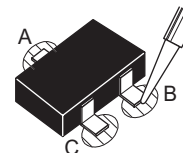


[Transistors, diodes, variable resistors, etc.]

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead **A** as indicated in the figure.



- (4) Then solder leads **B** and **C**.



SECTION 4 ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

- (1) This TV is adjusted by using REMOTE CONTROL UNIT.
- (2) The adjustment using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- (3) Make sure that connection is correctly made AC to AC power source.
- (4) Turn on the power of the TV and measuring instruments for warming up for at least 30 minutes before starting adjustments.
- (5) If the receive or input signal is not specified, use the most appropriate signal for adjustment.
- (6) Never touch the parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.

4.2 PRESET SETTING BEFORE ADJUSTMENTS

Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT.

Setting item	Settings position
Picture Mode	Standard
Colour Temperature	Normal

4.3 MEASURING INSTRUMENT AND FIXTURES

- Signal generator (Pattern generator)[PAL]
- Remote control unit

4.4 ADJUSTMENT ITEMS

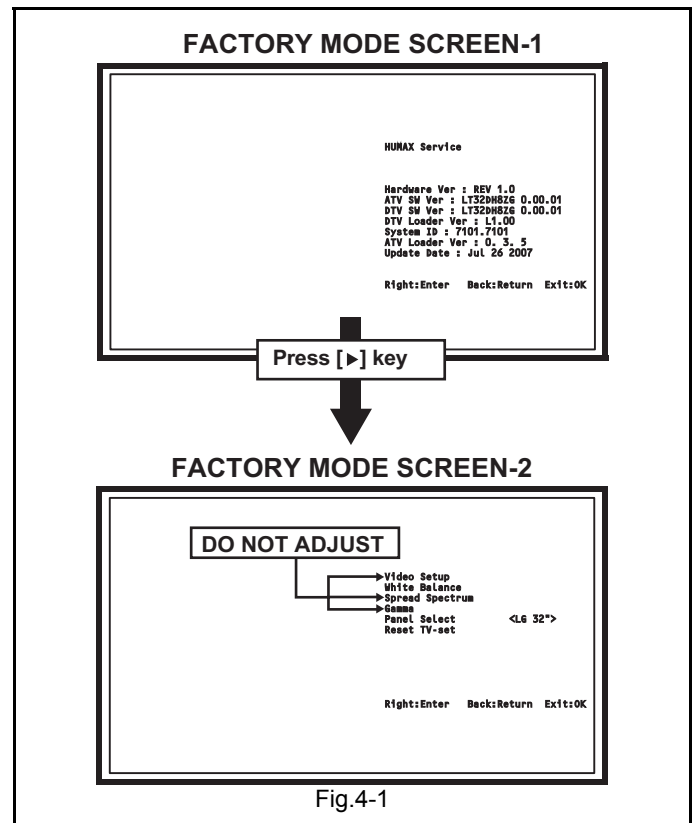
■ VIDEO CIRCUIT

- WHITE BALANCE adjustment

4.5 BASIC OPERATION OF FACTORY MODE

4.5.1 HOW TO ENTER THE FACTORY MODE

- (1) Press **[INFORMATION]** key and **[MUTING]** key on the remote control unit simultaneously to enter the FACTORY MODE SCREEN-1. (Fig.4-1)
- (2) Press **[▶]** key on the remote control unit simultaneously to enter the FACTORY MODE SCREEN-2. (Fig.4-1)



4.5.2 HOW TO EXIT THE FACTORY MODE

Press the **[OK]** key to exit the factory mode.

4.5.3 CHANGE AND MEMORY OF SETTING VALUE

SELECTION OF SETTING ITEM

- [FUNCTION ▲/▼] key.
For scrolling up / down the setting items.
- [FUNCTION ◀/▶] key.
For select the setting items.

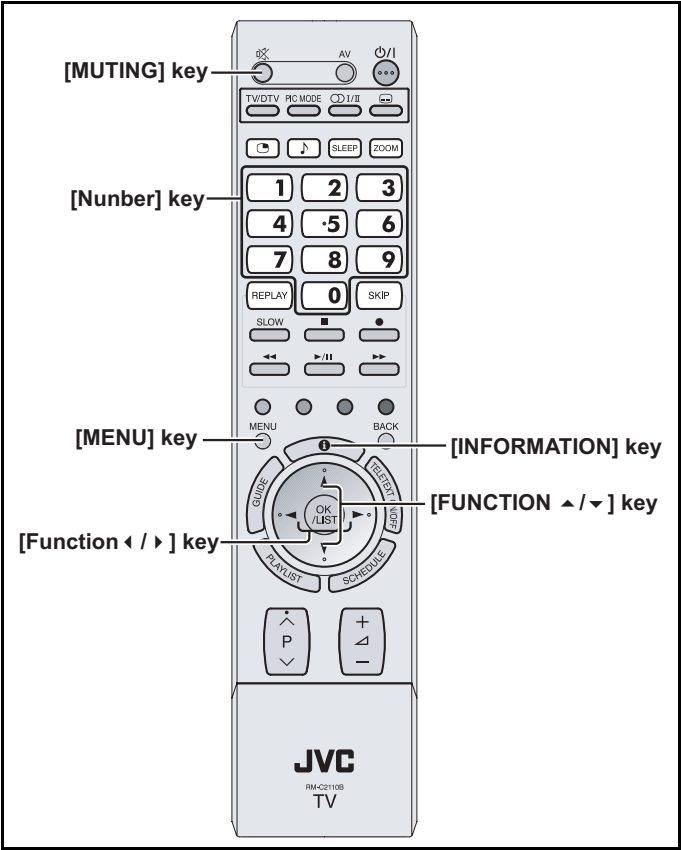
CHANGE OF SETTING VALUE (DATA)

- [FUNCTION ◀/▶] key.
For scrolling up / down the setting values.

MEMORY OF SETTING VALUE (DATA)

The setting value will be stored automatically when release the REMOTE CONTROL UNIT keys.

4.5.4 FACTORY MODE SELECT KEY LOCATION



4.6 SETTING ITEM IN THE FACTORY MODE

4.6.1 VIDEO SETUP [Do not adjust]

The current input changes to selected value. But when RGB input is selected it changes to only Digital input. For example when selects RF current input will changed to RF mode.

Setting item			Variable range	Setting value	Comment
RF(Analog TV)	Standard	Brightness	0 - 100	50	Adjust Brightness value of Standard mode in Analog TV.
		Contrast	0 - 100	65	Adjust Contrast value of Standard mode in Analog TV.
		Sharpness	0 - 100	55	Adjust Sharpness value of Standard mode in Analog TV.
		Colour	0 - 100	60	Adjust Colour value of Standard mode in Analog TV.
		Tint	0 - 100	0	Adjust Tint value of Standard mode in Analog TV.
	Bright	Brightness	0 - 100	45	Adjust Brightness value of Bright mode in Analog TV.
		Contrast	0 - 100	70	Adjust Contrast value of Bright mode in Analog TV.
		Sharpness	0 - 100	65	Adjust Sharpness value of Bright mode in Analog TV.
		Colour	0 - 100	63	Adjust Colour value of Bright mode in Analog TV.
		Tint	0 - 100	0	Adjust Tint value of Bright mode in Analog TV.
	Soft	Brightness	0 - 100	55	Adjust Brightness value of Soft mode in Analog TV.
		Contrast	0 - 100	60	Adjust Contrast value of Soft mode in Analog TV.
		Sharpness	0 - 100	45	Adjust Sharpness value of Soft mode in Analog TV.
		Colour	0 - 100	50	Adjust Colour value of Soft mode in Analog TV.
		Tint	0 - 100	0	Adjust Tint value of Soft mode in Analog TV.

Setting item			Variable range	Setting value	Comment
CVBS(EXT-4)	Standard	Brightness	0 - 100	50	Adjust Brightness value of Standard mode in CVBS(EXT-4).
		Contrast	0 - 100	65	Adjust Contrast value of Standard mode in CVBS(EXT-4).
		Sharpness	0 - 100	55	Adjust Sharpness value of Standard mode in CVBS(EXT-4).
		Colour	0 - 100	60	Adjust Colour value of Standard mode in CVBS(EXT-4).
		Tint	0 - 100	0	Adjust Tint value of Standard mode in CVBS(EXT-4).
	Bright	Brightness	0 - 100	45	Adjust Brightness value of Bright mode in CVBS(EXT-4).
		Contrast	0 - 100	70	Adjust Contrast value of Bright mode in CVBS(EXT-4).
		Sharpness	0 - 100	65	Adjust Sharpness value of Bright mode in CVBS(EXT-4).
		Colour	0 - 100	63	Adjust Colour value of Bright mode in CVBS(EXT-4).
		Tint	0 - 100	0	Adjust Tint value of Bright mode in CVBS(EXT-4).
	Soft	Brightness	0 - 100	55	Adjust Brightness value of Soft mode in CVBS(EXT-4).
		Contrast	0 - 100	60	Adjust Contrast value of Soft mode in CVBS(EXT-4).
		Sharpness	0 - 100	45	Adjust Sharpness value of Soft mode in CVBS(EXT-4).
		Colour	0 - 100	50	Adjust Colour value of Soft mode in CVBS(EXT-4).
		Tint	0 - 100	0	Adjust Tint value of Soft mode in CVBS(EXT-4).
RGB (Digital TV EXT-1/EXT-2)	Standard	Brightness	0 - 100	50	Adjust Brightness value of Standard mode in RGV(Digital TV EXT-1 EXT-2).
		Contrast	0 - 100	70	Adjust Contrast value of Standard mode in RGV(Digital TV EXT-1 EXT-2).
		Sharpness	0 - 100	55	Adjust Sharpness value of Standard mode in RGV(Digital TV EXT-1 EXT-2).
		Colour	0 - 100	60	Adjust Colour value of Standard mode in RGV(Digital TV EXT-1 EXT-2).
		Tint	0 - 100	0	Adjust Tint value of Standard mode in RGV(Digital TV EXT-1 EXT-2).
	Bright	Brightness	0 - 100	45	Adjust Brightness value of Bright mode in RGV(Digital TV EXT-1 EXT-2).
		Contrast	0 - 100	75	Adjust Contrast value of Bright mode in RGV(Digital TV EXT-1 EXT-2).
		Sharpness	0 - 100	65	Adjust Sharpness value of Bright mode in RGV(Digital TV EXT-1 EXT-2).
		Colour	0 ~ 100	63	Adjust Colour value of Bright mode in RGV(Digital TV EXT-1 EXT-2).
		Tint	0 - 100	0	Adjust Tint value of Bright mode in RGV(Digital TV EXT-1 EXT-2).
	Soft	Brightness	0 - 100	54	Adjust Brightness value of Soft mode in RGV(Digital TV EXT-1 EXT-2).
		Contrast	0 - 100	65	Adjust Contrast value of Soft mode in RGV(Digital TV EXT-1 EXT-2).
		Sharpness	0 - 100	45	Adjust Sharpness value of Soft mode in RGV(Digital TV EXT-1 EXT-2).
		Colour	0 - 100	50	Adjust Colour value of Soft mode in RGV(Digital TV EXT-1 EXT-2).
		Tint	0 - 100	0	Adjust Tint value of Soft mode in RGV(Digital TV EXT-1 EXT-2).
YC(EXT-4S)	Standard	Brightness	0 - 100	50	Adjust Brightness value of Standard mode in YC(EXT-4S).
		Contrast	0 - 100	65	Adjust Contrast value of Standard mode in YC(EXT-4S).
		Sharpness	0 - 100	55	Adjust Sharpness value of Standard mode in YC(EXT-4S).
		Colour	0 - 100	60	Adjust Colour value of Standard mode in YC(EXT-4S).
		Tint	0 - 100	0	Adjust Tint value of Standard mode in YC(EXT-4S).
	Bright	Brightness	0 - 100	45	Adjust Brightness value of Bright mode in YC(EXT-4S).
		Contrast	0 - 100	70	Adjust Contrast value of Bright mode in YC(EXT-4S).
		Sharpness	0 - 100	65	Adjust Sharpness value of Bright mode in YC(EXT-4S).
		Colour	0 - 100	63	Adjust Colour value of Bright mode in YC(EXT-4S).
		Tint	0 - 100	0	Adjust Tint value of Bright mode in YC(EXT-4S).
	Soft	Brightness	0 - 100	55	Adjust Brightness value of Soft mode in YC(EXT-4S).
		Contrast	0 - 100	60	Adjust Contrast value of Soft mode in YC(EXT-4S).
		Sharpness	0 - 100	45	Adjust Sharpness value of Soft mode in YC(EXT-4S).
		Colour	0 - 100	50	Adjust Colour value of Soft mode in YC(EXT-4S).
		Tint	0 - 100	0	Adjust Tint value of Soft mode in YC(EXT-4S).

Setting item			Variable range	Setting value	Comment
COMP(EXT-3)	Standard	Brightness	0 - 100	50	Adjust Brightness value of Standard mode in COMP(EXT-3).
		Contrast	0 - 100	75	Adjust Contrast value of Standard mode in COMP(EXT-3).
		Sharpness	0 - 100	80	Adjust Sharpness value of Standard mode in COMP(EXT-3).
		Colour	0 - 100	60	Adjust Colour value of Standard mode in COMP(EXT-3).
		Tint	0 - 100	0	Adjust Tint value of Standard mode in COMP(EXT-3).
	Bright	Brightness	0 - 100	45	Adjust Brightness value of Bright mode in COMP(EXT-3).
		Contrast	0 - 100	80	Adjust Contrast value of Bright mode in COMP(EXT-3).
		Sharpness	0 - 100	85	Adjust Sharpness value of Bright mode in COMP(EXT-3).
		Colour	0 - 100	63	Adjust Colour value of Bright mode in COMP(EXT-3).
		Tint	0 - 100	0	Adjust Tint value of Bright mode in COMP(EXT-3).
	Soft	Brightness	0 - 100	54	Adjust Brightness value of Soft mode in COMP(EXT-3).
		Contrast	0 - 100	65	Adjust Contrast value of Soft mode in COMP(EXT-3).
		Sharpness	0 - 100	75	Adjust Sharpness value of Soft mode in COMP(EXT-3).
		Colour	0 - 100	50	Adjust Colour value of Soft mode in COMP(EXT-3).
		Tint	0 - 100	0	Adjust Tint value of Soft mode in COMP(EXT-3).
HDMI (EXT-5 EXT-6)	Standard	Brightness	0 - 100	50	Adjust Brightness value of Standard mode in HDMI(EXT-5 EXT-6)
		Contrast	0 - 100	75	Adjust Contrast value of Standard mode in HDMI(EXT-5 EXT-6)
		Sharpness	0 - 100	80	Adjust Sharpness value of Standard mode in HDMI(EXT-5 EXT-6)
		Colour	0 - 100	60	Adjust Colour value of Standard mode in HDMI(EXT-5 EXT-6)
		Tint	0 - 100	0	Adjust Tint value of Standard mode in HDMI(EXT-5 EXT-6)
	Bright	Brightness	0 - 100	45	Adjust Brightness value of Bright mode in HDMI(EXT-5 EXT-6)
		Contrast	0 - 100	80	Adjust Contrast value of Bright mode in HDMI(EXT-5 EXT-6)
		Sharpness	0 - 100	85	Adjust Sharpness value of Bright mode in HDMI(EXT-5 EXT-6)
		Colour	0 - 100	63	Adjust Colour value of Bright mode in HDMI(EXT-5 EXT-6)
		Tint	0 - 100	0	Adjust Tint value of Bright mode in HDMI(EXT-5 EXT-6)
	Soft	Brightness	0 - 100	54	Adjust Brightness value of Soft mode in HDMI(EXT-5 EXT-6)
		Contrast	0 - 100	65	Adjust Contrast value of Soft mode in HDMI(EXT-5 EXT-6)
		Sharpness	0 - 100	75	Adjust Sharpness value of Soft mode in HDMI(EXT-5 EXT-6)
		Colour	0 - 100	50	Adjust Colour value of Soft mode in HDMI(EXT-5 EXT-6)
		Tint	0 - 100	0	Adjust Tint value of Soft mode in HDMI(EXT-5 EXT-6)
PC		Brightness	0 - 100	50	Adjust Brightness value in PC.
		Contrast	0 - 100	70	Adjust Contrast value in PC.

4.6.2 WHITE BALANCE

Setting item	Variable range	Setting value	Comment
R Gain	0 - 100	50	Adjust Red value of Normal Colour Temperature. This sets the Red value of Cool and Warm automatically.
G Gain	0 - 100	50	Adjust Green value of Normal Colour Temperature. This sets the Green value of Cool and Warm automatically.
B Gain	0 - 100	50	Adjust Blue value of Normal Colour Temperature. This sets the Blue value of Cool and Warm automatically.

4.6.3 PANEL SELECT

Setting item	Setting value	Comment
SS 32" / LG 32"	LG 32"	Selects a kind of Panel Samsung or LG.

4.6.4 RESET TV-SET

Initialize Nvram data from ROM. (When push green key it will start the initializing. When push back key it will returns to previous.)

4.7 ADJUSTMENT PROCEDURE

4.7.1 VIDEO CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE	Remote control unit Signal generator		R Gain G Gain B Gain	(1) Set COLOUR TEMP. to " Normal ". (2) Select " White Balance " from the FACTORY MODE. (3) Receive a PAL 75% all white signal. (4) Set the setting values of < R Gain >, < G Gain > and < B Gain > to the values in the left table. (5) Adjust the setting values of < R Gain > and < B Gain > so that the screen becomes maximum white. NOTE: When the normal mode is adjusted, other modes (cool/ warm) are automatically adjusted.
[WHITE BALANCE SETTING]				
Setting Item		Initial setting value		
R Gain		50		
G Gain		50		
B Gain		50		

SECTION 5 TROUBLESHOOTING

This service manual does not describe TROUBLESHOOTING.



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(No.YA571<Rev.001>)



Printed in Japan
VPT

PARTS LIST

CAUTION

- The parts identified by the Δ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
CR	Carbon Resistor	C CAP.	Ceramic Capacitor
FR	Fusible Resistor	E CAP.	Electrolytic Capacitor
PR	Plate Resistor	M CAP.	Mylar Capacitor
VR	Variable Resistor	CH CAP.	Chip Capacitor
HV R	High Voltage Resistor	HV CAP.	High Voltage Capacitor
MF R	Metal Film Resistor	MF CAP.	Metalized Film Capacitor
MG R	Metal Glazed Resistor	MM CAP.	Metalized Mylar Capacitor
MP R	Metal Plate Resistor	MP CAP.	Metalized Polystyrol Capacitor
OM R	Metal Oxide Film Resistor	PP CAP.	Polypropylene Capacitor
CMF R	Coating Metal Film Resistor	PS CAP.	Polystyrol Capacitor
UNF R	Non-Flammable Resistor	TF CAP.	Thin Film Capacitor
CH V R	Chip Variable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH MG R	Chip Metal Glazed Resistor	TAN. CAP.	Tantalum Capacitor
COMP. R	Composition Resistor	CH C CAP.	Chip Ceramic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
		CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
$\pm 1\%$	$\pm 2\%$	$\pm 5\%$	$\pm 10\%$	$\pm 20\%$	$\pm 30\%$	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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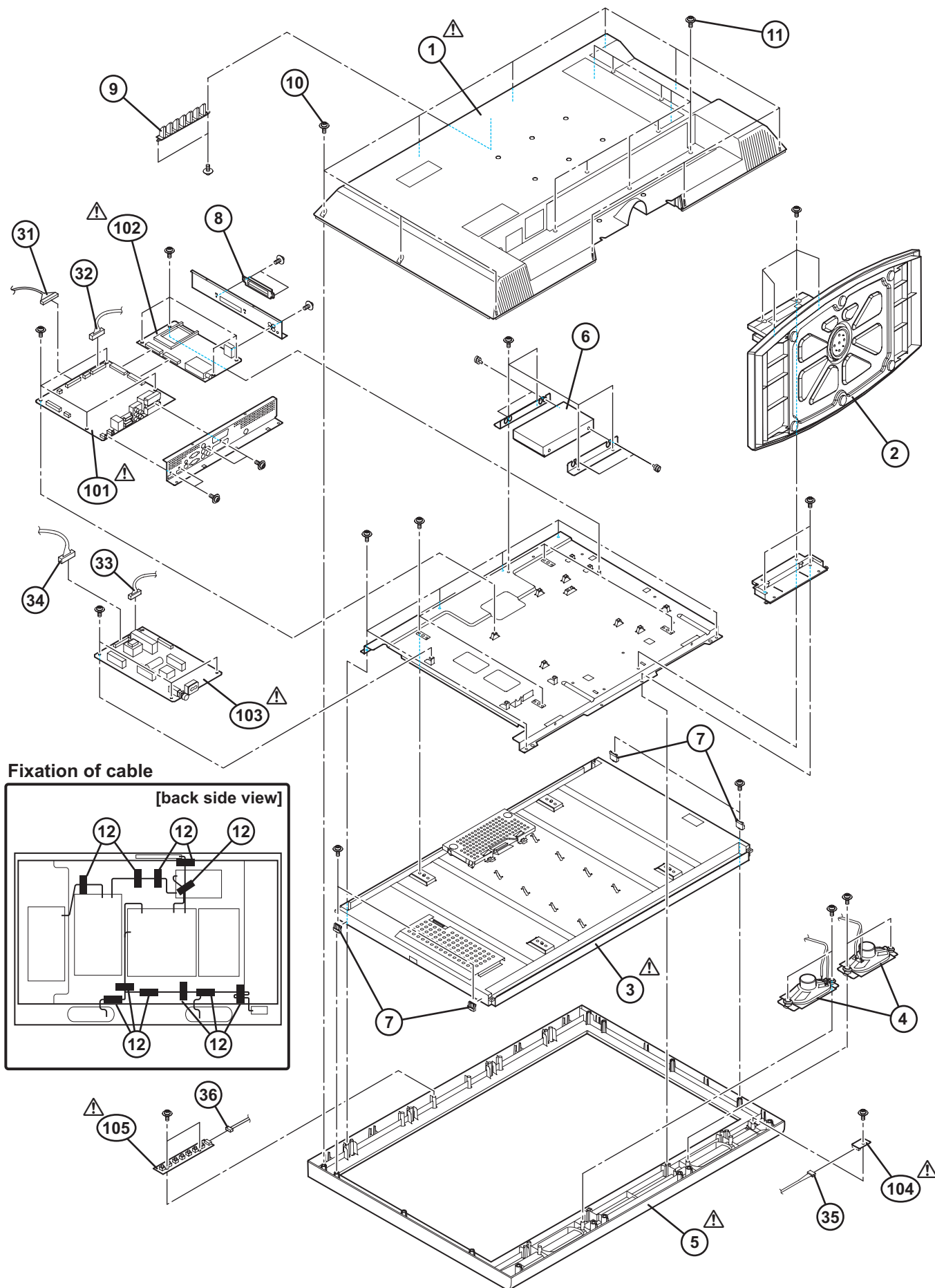
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y name	P.W.B ASS'Y No.
MAIN P.W.B	HU-0101179
TUNER P.W.B	HU-2201320
KEY P.W.B	HU-2201290
IR & LED P.W.B	HU-2201300
REMOTE CONTROL UNIT	HU-014003470

EXPLODED VIEW PARTS LIST

△	Ref.No.	Part No.	Part Name	Description	Local
△	1	HU-014211540CO	REAR COVER		
	2	HU-014211502CO	STAND UNIT		
△	3	HU-014130330	LCD PANEL UNIT		
	4	HU-024000430	SPEAKER SET		
△	5	HU-014211511CO	FRONT CABINET		
	6	HU-014120190	HDD UNIT	160G	
	7	HU-3029702001CO	PANEL GUIDE	(x4)	
	8	HU-3029303006	CI GUIDE		
	9	HU-3025218001CO	CONTROL KNOB		
	10	HU-M1105401417	SCREW	(x10)	
	11	HU-M1115300617	SCREW	(x9)	
	12	HU-3063101005	ADDITIONAL POST	(x11)	
	31	HU-013011910	DIGITAL(LVDS) CABLE	MAIN JP880-LCD PANEL	
	32	HU-013011930	WIRE HARNESS	MAIN JP341-HDD	
	33	HU-013011870	WIRE HARNESS	POWER CN5-HDD	
	34	HU-013011880	WIRE HARNESS	POWER CN3-LCD PANEL	
	35	HU-013011900	WIRE HARNESS	MAIN JP103-IR&LED JP1	
	36	HU-013011890	WIRE HARNESS	MAIN JP1002-KEY JP1	
△	101	HU-0101179	MAIN PWB		
△	102	HU-2201320	TUNER PWB		
△	103	HU-014031160	POWER PWB		
△	104	HU-2201300	IR&LED PWB		
△	105	HU-2201290	KEY PWB		

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST

MAIN P.W. BOARD ASS'Y (HU-0101179)

△Ref No.	Part No.	Part Name	Description	Local
U60	HU-000990052	IC	VOLTAGE DETECTOR	
U61	HU-000070190	IC	EEPROM	
U140	HU-000120400	IC		
U221	HU-000100410	IC	DECODER	
U246	HU-000120079	IC		
U251	HU-000990052	IC	VOLTAGE DETECTOR	
U252	HU-005020006	IC	VCXO	
U287	HU-000070190	IC	EEPROM	
U291	HU-000040710	IC	SD-RAM	
U292	HU-000040930	IC	SDRAM	
U306	HU-000060016	IC	OP AMP	
U326	HU-000140450	IC	AUDIO DAC	
U341	HU-000120063	IC		
U342	HU-000120076	IC		
U410	HU-000060016	IC	OP AMP	
U440	HU-000990180	IC	SCART SWITCH	
U590	HU-000120006	IC		
U591	HU-000070060	IC	EEPROM	
U592	HU-000120400	IC		
U640	HU-000250020	IC		
U684	HU-000070060	IC	EEPROM	
U685	HU-000070060	IC	EEPROM	
U730	HU-000230210	IC	HDMI RECEIVER	
U790	HU-000060500	IC	AUDIO AMP	
U791	HU-000060510	IC	HEADPHONE AMP	
U850	HU-000170030	IC	RS232 DRIVER	
U851	HU-000121018	IC		
U940	HU-000090170	IC	REGULATOR	
U941	HU-000090170	IC	REGULATOR	
U943	HU-000091100	IC	REGULATOR	
U944	HU-000091100	IC	REGULATOR	
U945	HU-000091100	IC	REGULATOR	
U946	HU-000091100	IC	REGULATOR	
Q60	HU-004001001	TRANSISTOR		
Q61	HU-004001001	TRANSISTOR		
Q62	HU-004001001	TRANSISTOR		
Q63	HU-004000260	FET		
Q64	HU-004000260	FET		
Q65	HU-004000260	FET		
Q66	HU-004000260	FET		
Q67	HU-004000260	FET		
Q68	HU-004000260	FET		
Q140	HU-004001001	TRANSISTOR		
Q251	HU-004001001	TRANSISTOR		
Q252	HU-004001001	TRANSISTOR		
Q253	HU-004001001	TRANSISTOR		
Q254	HU-004001001	TRANSISTOR		
Q271	HU-004001001	TRANSISTOR		
Q272	HU-004001001	TRANSISTOR		
Q273	HU-004001001	TRANSISTOR		
Q590	HU-004001001	TRANSISTOR		
Q680	HU-004001001	TRANSISTOR		
Q683	HU-004001001	TRANSISTOR		
Q791	HU-004001001	TRANSISTOR		
Q792	HU-004001001	TRANSISTOR		
Q795	HU-004001001	TRANSISTOR		
Q796	HU-004020030	MOS FET		
Q850	HU-004001001	TRANSISTOR		
Q880	HU-004001001	TRANSISTOR		
Q881	HU-004001001	TRANSISTOR		
Q882	HU-004001001	TRANSISTOR		
Q883	HU-004020030	MOS FET		
Q884	HU-004001001	TRANSISTOR		
Q1000	HU-004001001	TRANSISTOR		
Q1001	HU-004001001	TRANSISTOR		
Q1002	HU-004001001	TRANSISTOR		
Q1003	HU-004001001	TRANSISTOR		
D1	HU-003010046	Z DIODE		
D590	HU-003041002	SI DIODE		
D591	HU-003041002	SI DIODE		
D592	HU-003041002	SI DIODE		
D593	HU-003040008	SI DIODE		
D680	HU-003040008	SI DIODE		
D681	HU-003040008	SI DIODE		
D940	HU-003000004	SI DIODE		
Z640	HU-003010053	Z DIODE		
Z641	HU-003010053	Z DIODE		
C1	HU-001071190	E CAPACITOR	10uF 16V	
C2	HU-001060286	C CAPACITOR	10uF 10V	
C3	HU-001060286	C CAPACITOR	10uF 10V	
C4	HU-001060286	C CAPACITOR	10uF 10V	
C5	HU-001060250	C CAPACITOR	0.1uF 16V K	

△Ref No.	Part No.	Part Name	Description	Local
C6	HU-001060250	C CAPACITOR	0.1uF 16V K	
C7	HU-001060250	C CAPACITOR	0.1uF 16V K	
C8	HU-001060250	C CAPACITOR	0.1uF 16V K	
C9	HU-001060250	C CAPACITOR	0.1uF 16V K	
C10	HU-001071190	E CAPACITOR	10uF 16V	
C11	HU-001060250	C CAPACITOR	0.1uF 16V K	
C12	HU-001060249	C CAPACITOR	100pF 50V J	
C13	HU-001060286	C CAPACITOR	10uF 10V	
C14	HU-001060286	C CAPACITOR	10uF 10V	
C15	HU-001060286	C CAPACITOR	10uF 10V	
C16	HU-001060250	C CAPACITOR	0.1uF 16V K	
C17	HU-001060250	C CAPACITOR	0.1uF 16V K	
C18	HU-001060250	C CAPACITOR	0.1uF 16V K	
C19	HU-001060286	C CAPACITOR	10uF 10V	
C20	HU-001060286	C CAPACITOR	10uF 10V	
C21	HU-001060286	C CAPACITOR	10uF 10V	
C22	HU-001060286	C CAPACITOR	10uF 10V	
C23	HU-001060250	C CAPACITOR	0.1uF 16V K	
C24	HU-001060250	C CAPACITOR	0.1uF 16V K	
C25	HU-001060250	C CAPACITOR	0.1uF 16V K	
C26	HU-001060250	C CAPACITOR	0.1uF 16V K	
C27	HU-001060286	C CAPACITOR	10uF 10V	
C28	HU-001060286	C CAPACITOR	10uF 10V	
C29	HU-001060286	C CAPACITOR	10uF 10V	
C30	HU-001060286	C CAPACITOR	10uF 10V	
C31	HU-001060250	C CAPACITOR	0.1uF 16V K	
C32	HU-001060219	C CAPACITOR	1nF 50V K	
C33	HU-001060219	C CAPACITOR	1nF 50V K	
C34	HU-001060250	C CAPACITOR	0.1uF 16V K	
C35	HU-001060250	C CAPACITOR	0.1uF 16V K	
C36	HU-001060250	C CAPACITOR	0.1uF 16V K	
C37	HU-001060250	C CAPACITOR	0.1uF 16V K	
C38	HU-001060250	C CAPACITOR	0.1uF 16V K	
C39	HU-001060286	C CAPACITOR	10uF 10V	
C40	HU-001060250	C CAPACITOR	0.1uF 16V K	
C41	HU-001060250	C CAPACITOR	0.1uF 16V K	
C42	HU-001071190	E CAPACITOR	10uF 16V	
C43	HU-001060250	C CAPACITOR	0.1uF 16V K	
C60	HU-001060250	C CAPACITOR	0.1uF 16V K	
C61	HU-001060250	C CAPACITOR	0.1uF 16V K	
C62	HU-001060250	C CAPACITOR	0.1uF 16V K	
C63	HU-001060288	C CAPACITOR	1uF 25V	
C65	HU-001060250	C CAPACITOR	0.1uF 16V K	
C66	HU-001060250	C CAPACITOR	0.1uF 16V K	
C69	HU-001063002	C CAPACITOR	14pF 50V	
C70	HU-001063002	C CAPACITOR	14pF 50V	
C140	HU-001060288	C CAPACITOR	1uF 25V	
C141	HU-001060288	C CAPACITOR	1uF 25V	
C142	HU-001060288	C CAPACITOR	1uF 25V	
C143	HU-001060318	C CAPACITOR	0.1uF 50V	
C144	HU-001060318	C CAPACITOR	0.1uF 50V	
C145	HU-001060318	C CAPACITOR	0.1uF 50V	
C146	HU-001060288	C CAPACITOR	1uF 25V	
C147	HU-001060288	C CAPACITOR	1uF 25V	
C148	HU-001060288	C CAPACITOR	1uF 25V	
C149	HU-001060195	C CAPACITOR	0.033uF 50V	
C150	HU-001060288	C CAPACITOR	1uF 25V	
C151	HU-001060195	C CAPACITOR	0.033uF 50V	
C152	HU-001060195	C CAPACITOR	0.033uF 50V	
C153	HU-001060288	C CAPACITOR	1uF 25V	
C154	HU-001060288	C CAPACITOR	1uF 25V	
C155	HU-001060288	C CAPACITOR	1uF 25V	
C156	HU-001060288	C CAPACITOR	1uF 25V	
C157	HU-001060288	C CAPACITOR	1uF 25V	
C158	HU-001060288	C CAPACITOR	1uF 25V	
C159	HU-001060288	C CAPACITOR	1uF 25V	
C160	HU-001060288	C CAPACITOR	1uF 25V	
C165	HU-001060266	C CAPACITOR	56pF 50V J	
C166	HU-001063035	C CAPACITOR	10pF 50V C	
C167	HU-001060250	C CAPACITOR	0.1uF 16V K	
C168	HU-001060266	C CAPACITOR	56pF 50V J	
C169	HU-001071190	E CAPACITOR	10uF 16V	
C170	HU-001060219	C CAPACITOR	1nF 50V K	
C171	HU-001060219	C CAPACITOR	1nF 50V K	
C172	HU-001060219	C CAPACITOR	1nF 50V K	
C173	HU-001060219	C CAPACITOR	1nF 50V K	
C174	HU-001060219	C CAPACITOR	1nF 50V K	
C175	HU-001060219	C CAPACITOR	1nF 50V K	
C176	HU-001060219	C CAPACITOR	1nF 50V K	
C177	HU-001060219	C CAPACITOR	1nF 50V K	
C180	HU-001060288	C CAPACITOR	1uF 25V	
C181	HU-001060288	C CAPACITOR	1uF 25V	
C182	HU-001060288	C CAPACITOR	1uF 25V	
C183	HU-001060288	C CAPACITOR	1uF 25V	
C184	HU-001060318	C CAPACITOR	0.1uF 50V	
C190	HU-001071192	E CAPACITOR	10uF 25V	
C191	HU-001071192	E CAPACITOR	10uF 25V	

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
C196	HU-001060318	C CAPACITOR	0.1uF 50V	C453	HU-001060250	C CAPACITOR	0.1uF 16V K
C200	HU-001060286	C CAPACITOR	10uF 10V	C454	HU-001060250	C CAPACITOR	0.1uF 16V K
C201	HU-001060250	C CAPACITOR	0.1uF 16V K	C455	HU-001060250	C CAPACITOR	0.1uF 16V K
C202	HU-001060250	C CAPACITOR	0.1uF 16V K	C456	HU-001060288	C CAPACITOR	1uF 25V
C203	HU-001060250	C CAPACITOR	0.1uF 16V K	C457	HU-001060288	C CAPACITOR	1uF 25V
C204	HU-001060250	C CAPACITOR	0.1uF 16V K	C458	HU-001060288	C CAPACITOR	1uF 25V
C205	HU-001060250	C CAPACITOR	0.1uF 16V K	C459	HU-001060288	C CAPACITOR	1uF 25V
C206	HU-001060250	C CAPACITOR	0.1uF 16V K	C460	HU-001071210	E CAPACITOR	47uF 25V
C207	HU-001060250	C CAPACITOR	0.1uF 16V K	C461	HU-001060318	C CAPACITOR	0.1uF 50V
C208	HU-001060286	C CAPACITOR	10uF 10V	C499	HU-001060219	C CAPACITOR	1nF 50V K
C209	HU-001060286	C CAPACITOR	10uF 10V	C502	HU-001060219	C CAPACITOR	1nF 50V K
C210	HU-001060286	C CAPACITOR	10uF 10V	C503	HU-001071192	E CAPACITOR	10uF 25V
C211	HU-001060250	C CAPACITOR	0.1uF 16V K	C505	HU-001060219	C CAPACITOR	1nF 50V K
C212	HU-001060250	C CAPACITOR	0.1uF 16V K	C506	HU-001071192	E CAPACITOR	10uF 25V
C213	HU-001060250	C CAPACITOR	0.1uF 16V K	C508	HU-001060219	C CAPACITOR	1nF 50V K
C214	HU-001060250	C CAPACITOR	0.1uF 16V K	C549	HU-001060219	C CAPACITOR	1nF 50V K
C215	HU-001060250	C CAPACITOR	0.1uF 16V K	C552	HU-001060219	C CAPACITOR	1nF 50V K
C216	HU-001060250	C CAPACITOR	0.1uF 16V K	C553	HU-001071192	E CAPACITOR	10uF 25V
C217	HU-001060250	C CAPACITOR	0.1uF 16V K	C555	HU-001060219	C CAPACITOR	1nF 50V K
C221	HU-001060250	C CAPACITOR	0.1uF 16V K	C556	HU-001071192	E CAPACITOR	10uF 25V
C222	HU-001060286	C CAPACITOR	10uF 10V	C558	HU-001060219	C CAPACITOR	1nF 50V K
C223	HU-001060219	C CAPACITOR	1nF 50V K	C591	HU-001060250	C CAPACITOR	0.1uF 16V K
C224	HU-001060250	C CAPACITOR	0.1uF 16V K	C592	HU-001060250	C CAPACITOR	0.1uF 16V K
C225	HU-001060286	C CAPACITOR	10uF 10V	C594	HU-001071192	E CAPACITOR	10uF 25V
C226	HU-001060219	C CAPACITOR	1nF 50V K	C595	HU-001060250	C CAPACITOR	0.1uF 16V K
C227	HU-001060250	C CAPACITOR	0.1uF 16V K	C597	HU-001060250	C CAPACITOR	0.1uF 16V K
C228	HU-001060286	C CAPACITOR	10uF 10V	C600	HU-001060250	C CAPACITOR	0.1uF 16V K
C229	HU-001060219	C CAPACITOR	1nF 50V K	C640	HU-001071190	E CAPACITOR	10uF 16V
C230	HU-001060250	C CAPACITOR	0.1uF 16V K	C641	HU-001060250	C CAPACITOR	0.1uF 16V K
C231	HU-001060286	C CAPACITOR	10uF 10V	C642	HU-001060288	C CAPACITOR	1uF 25V
C246	HU-001060250	C CAPACITOR	0.1uF 16V K	C643	HU-001060288	C CAPACITOR	1uF 25V
C251	HU-001060250	C CAPACITOR	0.1uF 16V K	C644	HU-001060288	C CAPACITOR	1uF 25V
C252	HU-001060150	C CAPACITOR	1uF 25V	C680	HU-001071192	E CAPACITOR	10uF 25V
C253	HU-001071221	E CAPACITOR	4.7uF 35V	C681	HU-001060250	C CAPACITOR	0.1uF 16V K
C254	HU-001060250	C CAPACITOR	0.1uF 16V K	C682	HU-001071192	E CAPACITOR	10uF 25V
C255	HU-001060219	C CAPACITOR	1nF 50V K	C683	HU-001060250	C CAPACITOR	0.1uF 16V K
C256	HU-001071194	E CAPACITOR	100uF 25V	C684	HU-001060250	C CAPACITOR	0.1uF 16V K
C271	HU-001060250	C CAPACITOR	0.1uF 16V K	C685	HU-001060250	C CAPACITOR	0.1uF 16V K
C272	HU-001060250	C CAPACITOR	0.1uF 16V K	C730	HU-001060286	C CAPACITOR	10uF 10V
C273	HU-001060286	C CAPACITOR	10uF 10V	C731	HU-001060286	C CAPACITOR	10uF 10V
C286	HU-001060250	C CAPACITOR	0.1uF 16V K	C732	HU-001060286	C CAPACITOR	10uF 10V
C287	HU-001060250	C CAPACITOR	0.1uF 16V K	C733	HU-001060286	C CAPACITOR	10uF 10V
C288	HU-001060286	C CAPACITOR	10uF 10V	C734	HU-001060219	C CAPACITOR	1nF 50V K
C289	HU-001060250	C CAPACITOR	0.1uF 16V K	C735	HU-001060219	C CAPACITOR	1nF 50V K
C296	HU-001060286	C CAPACITOR	10uF 10V	C736	HU-001060297	C CAPACITOR	10nF 50V K
C299	HU-001060250	C CAPACITOR	0.1uF 16V K	C737	HU-001060297	C CAPACITOR	10nF 50V K
C300	HU-001060250	C CAPACITOR	0.1uF 16V K	C738	HU-001060250	C CAPACITOR	0.1uF 16V K
C301	HU-001060250	C CAPACITOR	0.1uF 16V K	C739	HU-001060250	C CAPACITOR	0.1uF 16V K
C302	HU-001060286	C CAPACITOR	10uF 10V	C740	HU-001060219	C CAPACITOR	1nF 50V K
C306	HU-001060250	C CAPACITOR	0.1uF 16V K	C741	HU-001060250	C CAPACITOR	0.1uF 16V K
C307	HU-001071190	E CAPACITOR	10uF 16V	C742	HU-001060250	C CAPACITOR	0.1uF 16V K
C308	HU-001060250	C CAPACITOR	0.1uF 16V K	C743	HU-001060288	C CAPACITOR	1uF 25V
C309	HU-001060250	C CAPACITOR	0.1uF 16V K	C744	HU-001060219	C CAPACITOR	1nF 50V K
C311	HU-001060221	C CAPACITOR	22pF 50V J	C745	HU-001060250	C CAPACITOR	0.1uF 16V K
C313	HU-001060221	C CAPACITOR	22pF 50V J	C746	HU-001060250	C CAPACITOR	0.1uF 16V K
C315	HU-001060221	C CAPACITOR	22pF 50V J	C747	HU-001060219	C CAPACITOR	1nF 50V K
C317	HU-001060221	C CAPACITOR	22pF 50V J	C748	HU-001060297	C CAPACITOR	10nF 50V K
C326	HU-001060286	C CAPACITOR	10uF 10V	C749	HU-001060250	C CAPACITOR	0.1uF 16V K
C327	HU-001060250	C CAPACITOR	0.1uF 16V K	C750	HU-001060250	C CAPACITOR	0.1uF 16V K
C328	HU-001071192	E CAPACITOR	10uF 25V	C751	HU-001060286	C CAPACITOR	10uF 10V
C329	HU-001071192	E CAPACITOR	10uF 25V	C752	HU-001060286	C CAPACITOR	10uF 10V
C330	HU-001060250	C CAPACITOR	0.1uF 16V K	C753	HU-001060250	C CAPACITOR	0.1uF 16V K
C331	HU-001071192	E CAPACITOR	10uF 25V	C754	HU-001060250	C CAPACITOR	0.1uF 16V K
C332	HU-001060250	C CAPACITOR	0.1uF 16V K	C759	HU-001063073	C CAPACITOR	20pF 50V J
C333	HU-001071192	E CAPACITOR	10uF 25V	C761	HU-001063073	C CAPACITOR	20pF 50V J
C341	HU-001060250	C CAPACITOR	0.1uF 16V K	C762	HU-001063063	C CAPACITOR	1pF 50V
C342	HU-001060250	C CAPACITOR	0.1uF 16V K	C790	HU-001060288	C CAPACITOR	1uF 25V
C343	HU-001060250	C CAPACITOR	0.1uF 16V K	C791	HU-001071082	E CAPACITOR	470uF 25V
C344	HU-001060250	C CAPACITOR	0.1uF 16V K	C792	HU-001060288	C CAPACITOR	1uF 25V
C345	HU-001060286	C CAPACITOR	10uF 10V	C793	HU-001060288	C CAPACITOR	1uF 25V
C346	HU-001060250	C CAPACITOR	0.1uF 16V K	C794	HU-001071082	E CAPACITOR	470uF 25V
C410	HU-001071194	E CAPACITOR	100uF 25V	C795	HU-001060288	C CAPACITOR	1uF 25V
C411	HU-001060318	C CAPACITOR	0.1uF 50V	C797	HU-001060219	C CAPACITOR	1nF 50V K
C414	HU-001071228	E CAPACITOR	470uF 16V	C799	HU-001060219	C CAPACITOR	1nF 50V K
C416	HU-001060221	C CAPACITOR	22pF 50V J	C800	HU-001060199	C CAPACITOR	0.22uF 25V
C418	HU-001071228	E CAPACITOR	470uF 16V	C801	HU-001060199	C CAPACITOR	0.22uF 25V
C420	HU-001060221	C CAPACITOR	22pF 50V J	C802	HU-001060288	C CAPACITOR	1uF 25V
C440	HU-001071190	E CAPACITOR	10uF 16V	C803	HU-001060288	C CAPACITOR	1uF 25V
C441	HU-001071192	E CAPACITOR	10uF 25V	C805	HU-001060224	C CAPACITOR	0.47uF 16V
C442	HU-001060297	C CAPACITOR	10nF 50V K	C806	HU-001060288	C CAPACITOR	1uF 25V
C443	HU-001060250	C CAPACITOR	0.1uF 16V K	C807	HU-001060219	C CAPACITOR	1nF 50V K
C444	HU-001060318	C CAPACITOR	0.1uF 50V	C808	HU-001060288	C CAPACITOR	1uF 25V
C445	HU-001071190	E CAPACITOR	10uF 16V	C809	HU-001060199	C CAPACITOR	0.22uF 25V
C446	HU-001060224	C CAPACITOR	0.47uF 16V	C810	HU-001060199	C CAPACITOR	0.22uF 25V
C447	HU-001060250	C CAPACITOR	0.1uF 16V K	C811	HU-001060199	C CAPACITOR	0.22uF 25V
C448	HU-001060250	C CAPACITOR	0.1uF 16V K	C812	HU-001060199	C CAPACITOR	0.22uF 25V
C449	HU-001060250	C CAPACITOR	0.1uF 16V K	C813	HU-001060224	C CAPACITOR	0.47uF 16V
C450	HU-001060250	C CAPACITOR	0.1uF 16V K	C814	HU-001060199	C CAPACITOR	0.22uF 25V
C451	HU-001060250	C CAPACITOR	0.1uF 16V K	C815	HU-001060199	C CAPACITOR	0.22uF 25V
C452	HU-001060250	C CAPACITOR	0.1uF 16V K	C816	HU-001060297	C CAPACITOR	10nF 50V K

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
C817	HU-001060288	C CAPACITOR	1uF 25V	R102	HU-002000405	RESISTOR	1kΩ
C818	HU-001060288	C CAPACITOR	1uF 25V	R103	HU-002000417	RESISTOR	4.7kΩ
C819	HU-001060250	C CAPACITOR	0.1uF 16V K	R104	HU-002000417	RESISTOR	4.7kΩ
C821	HU-001071191	E CAPACITOR	47uF 16V	R105	HU-002000405	RESISTOR	1kΩ
C822	HU-001060288	C CAPACITOR	1uF 25V	R106	HU-002000405	RESISTOR	1kΩ
C823	HU-001071191	E CAPACITOR	47uF 16V	R107	HU-002000417	RESISTOR	4.7kΩ
C824	HU-001060288	C CAPACITOR	1uF 25V	R108	HU-002000417	RESISTOR	4.7kΩ
C826	HU-001071190	E CAPACITOR	10uF 16V	R111	HU-002000417	RESISTOR	4.7kΩ
C827	HU-001060288	C CAPACITOR	1uF 25V	R112	HU-002000417	RESISTOR	4.7kΩ
C850	HU-001060250	C CAPACITOR	0.1uF 16V K	R113	HU-002000417	RESISTOR	4.7kΩ
C853	HU-001060250	C CAPACITOR	0.1uF 16V K	R114	HU-002000417	RESISTOR	4.7kΩ
C855	HU-001060250	C CAPACITOR	0.1uF 16V K	R115	HU-002000417	RESISTOR	4.7kΩ
C856	HU-001060250	C CAPACITOR	0.1uF 16V K	R116	HU-002000417	RESISTOR	4.7kΩ
C858	HU-001060250	C CAPACITOR	0.1uF 16V K	R117	HU-002000417	RESISTOR	4.7kΩ
C880	HU-001060288	C CAPACITOR	1uF 25V	R118	HU-002000417	RESISTOR	4.7kΩ
C881	HU-001060250	C CAPACITOR	0.1uF 16V K	R140	HU-002000443	RESISTOR	22Ω
C882	HU-001071194	E CAPACITOR	100uF 25V	R141	HU-002000443	RESISTOR	22Ω
C883	HU-001060318	C CAPACITOR	0.1uF 50V	R142	HU-002000443	RESISTOR	22Ω
C884	HU-001060293	C CAPACITOR	1.5nF 50V K	R143	HU-002000443	RESISTOR	22Ω
C885	HU-001071210	E CAPACITOR	47uF 25V	R144	HU-002000443	RESISTOR	22Ω
C886	HU-001060318	C CAPACITOR	0.1uF 50V	R145	HU-002000443	RESISTOR	22Ω
C923	HU-001071194	E CAPACITOR	100uF 25V	R146	HU-002000443	RESISTOR	22Ω
C924	HU-001060250	C CAPACITOR	0.1uF 16V K	R147	HU-002000443	RESISTOR	22Ω
C925	HU-001060250	C CAPACITOR	0.1uF 16V K	R148	HU-002000443	RESISTOR	22Ω
C926	HU-001060318	C CAPACITOR	0.1uF 50V	R149	HU-002000443	RESISTOR	22Ω
C940	HU-001071191	E CAPACITOR	47uF 16V	R154	HU-002000405	RESISTOR	1kΩ
C941	HU-001071191	E CAPACITOR	47uF 16V	R159	HU-002000417	RESISTOR	4.7kΩ
C942	HU-001060250	C CAPACITOR	0.1uF 16V K	R160	HU-002000405	RESISTOR	1kΩ
C943	HU-001060288	C CAPACITOR	1uF 25V	R161	HU-002000405	RESISTOR	1kΩ
C944	HU-001060250	C CAPACITOR	0.1uF 16V K	R170	HU-002000437	RESISTOR	10kΩ
C945	HU-001060288	C CAPACITOR	1uF 25V	R171	HU-002000437	RESISTOR	10kΩ
C946	HU-001060249	C CAPACITOR	100pF 50V J	R172	HU-002000405	RESISTOR	1kΩ
C947	HU-001071191	E CAPACITOR	47uF 16V	R180	HU-002000436	RESISTOR	100kΩ
C948	HU-001060250	C CAPACITOR	0.1uF 16V K	R181	HU-002000436	RESISTOR	100kΩ
C949	HU-001060288	C CAPACITOR	1uF 25V	R185	HU-002000436	RESISTOR	100kΩ
C950	HU-001060249	C CAPACITOR	100pF 50V J	R186	HU-002000436	RESISTOR	100kΩ
C951	HU-001071191	E CAPACITOR	47uF 16V	R223	HU-002000417	RESISTOR	4.7kΩ
C952	HU-001060250	C CAPACITOR	0.1uF 16V K	R224	HU-002000417	RESISTOR	4.7kΩ
C953	HU-001060288	C CAPACITOR	1uF 25V	R225	HU-002000910	RESISTOR	20kΩ
C956	HU-001060250	C CAPACITOR	0.1uF 16V K	R226	HU-002000910	RESISTOR	20kΩ
C957	HU-001071228	E CAPACITOR	470uF 16V	R227	HU-002000520	RESISTOR	47Ω
C958	HU-001060250	C CAPACITOR	0.1uF 16V K	R228	HU-002000417	RESISTOR	4.7kΩ
C960	HU-001071191	E CAPACITOR	47uF 16V	R233	HU-002000437	RESISTOR	10kΩ
C961	HU-001060250	C CAPACITOR	0.1uF 16V K	R234	HU-002000437	RESISTOR	10kΩ
C964	HU-001071191	E CAPACITOR	47uF 16V	R235	HU-002000437	RESISTOR	10kΩ
C965	HU-001063096	C CAPACITOR	1uF 6.3V K	R236	HU-002000448	RESISTOR	33Ω
C968	HU-001071223	E CAPACITOR	100uF 16V	R239	HU-002000527	RESISTOR	100Ω
C969	HU-001071191	E CAPACITOR	47uF 16V	R242	HU-002000437	RESISTOR	10kΩ
C970	HU-001063096	C CAPACITOR	1uF 6.3V K	R243	HU-002000433	RESISTOR	0Ω
C972	HU-001071191	E CAPACITOR	47uF 16V	R244	HU-002000433	RESISTOR	0Ω
C973	HU-001063096	C CAPACITOR	1uF 6.3V K	R245	HU-002000437	RESISTOR	10kΩ
C974	HU-001060250	C CAPACITOR	0.1uF 16V K	R246	HU-002000437	RESISTOR	10kΩ
C975	HU-001060250	C CAPACITOR	0.1uF 16V K	R251	HU-002000527	RESISTOR	100Ω
C976	HU-001071191	E CAPACITOR	47uF 16V	R252	HU-002000437	RESISTOR	10kΩ
C977	HU-001060250	C CAPACITOR	0.1uF 16V K	R253	HU-002000437	RESISTOR	10kΩ
C978	HU-001071191	E CAPACITOR	47uF 16V	R254	HU-002000417	RESISTOR	4.7kΩ
C979	HU-001063096	C CAPACITOR	1uF 6.3V K	R256	HU-002000527	RESISTOR	100Ω
C1002	HU-001060250	C CAPACITOR	0.1uF 16V K	R257	HU-002000522	RESISTOR	680Ω
C1003	HU-001060318	C CAPACITOR	0.1uF 50V	R258	HU-002000433	RESISTOR	0Ω
C1006	HU-001060250	C CAPACITOR	0.1uF 16V K	R259	HU-002000417	RESISTOR	4.7kΩ
C1007	HU-001060250	C CAPACITOR	0.1uF 16V K	R260	HU-002000417	RESISTOR	4.7kΩ
C1008	HU-001060250	C CAPACITOR	0.1uF 16V K	R261	HU-002000552	RESISTOR	22kΩ
				R263	HU-002000417	RESISTOR	4.7kΩ
R1	HU-002000453	RESISTOR	470Ω	R264	HU-002000417	RESISTOR	4.7kΩ
R2	HU-002000453	RESISTOR	470Ω	R265	HU-002000552	RESISTOR	22kΩ
R3	HU-002000453	RESISTOR	470Ω	R267	HU-002000405	RESISTOR	1kΩ
R4	HU-002000453	RESISTOR	470Ω	R268	HU-002000405	RESISTOR	1kΩ
R5	HU-002000557	RESISTOR	6.2kΩ	R269	HU-002000527	RESISTOR	100Ω
R60	HU-002000417	RESISTOR	4.7kΩ	R270	HU-002000522	RESISTOR	680Ω
R61	HU-002000592	RESISTOR	1.6kΩ	R271	HU-002000437	RESISTOR	10kΩ
R62	HU-002000592	RESISTOR	1.6kΩ	R272	HU-002000437	RESISTOR	10kΩ
R63	HU-002000437	RESISTOR	10kΩ	R273	HU-002000437	RESISTOR	10kΩ
R64	HU-002000437	RESISTOR	10kΩ	R274	HU-002000437	RESISTOR	10kΩ
R65	HU-002000437	RESISTOR	10kΩ	R275	HU-002000437	RESISTOR	10kΩ
R67	HU-002000519	RESISTOR	10Ω	R276	HU-002000417	RESISTOR	4.7kΩ
R68	HU-002000437	RESISTOR	10kΩ	R277	HU-002000417	RESISTOR	4.7kΩ
R75	HU-002000436	RESISTOR	100kΩ	R278	HU-002001138	RESISTOR	560Ω
R76	HU-002000405	RESISTOR	1kΩ	R279	HU-002001138	RESISTOR	560Ω
R77	HU-002000405	RESISTOR	1kΩ	R280	HU-002000407	RESISTOR	2.2kΩ
R78	HU-002000405	RESISTOR	1kΩ	R281	HU-002000407	RESISTOR	2.2kΩ
R79	HU-002000405	RESISTOR	1kΩ	R286	HU-002000433	RESISTOR	0Ω
R80	HU-002000405	RESISTOR	1kΩ	R291	HU-002000433	RESISTOR	0Ω
R81	HU-002000405	RESISTOR	1kΩ	R306	HU-002000908	RESISTOR	330Ω
R83	HU-002000405	RESISTOR	1kΩ	R307	HU-002000266	RESISTOR	470Ω
R84	HU-002000405	RESISTOR	1kΩ	R308	HU-002000266	RESISTOR	470Ω
R85	HU-002000405	RESISTOR	1kΩ	R309	HU-002000421	RESISTOR	75Ω
R87	HU-002000405	RESISTOR	1kΩ	R310	HU-002000908	RESISTOR	330Ω
R89	HU-002000417	RESISTOR	4.7kΩ	R311	HU-002000266	RESISTOR	470Ω
R91	HU-002000527	RESISTOR	100Ω	R312	HU-002000266	RESISTOR	470Ω
R97	HU-002000405	RESISTOR	1kΩ	R313	HU-002000421	RESISTOR	75Ω

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
R314	HU-002000908	RESISTOR	330Ω	R605	HU-002000417	RESISTOR	4.7kΩ
R315	HU-002000266	RESISTOR	470Ω	R606	HU-002000417	RESISTOR	4.7kΩ
R316	HU-002000266	RESISTOR	470Ω	R607	HU-002000417	RESISTOR	4.7kΩ
R317	HU-002000421	RESISTOR	75Ω	R608	HU-002000437	RESISTOR	10kΩ
R318	HU-002000908	RESISTOR	330Ω	R609	HU-002000433	RESISTOR	0Ω
R319	HU-002000266	RESISTOR	470Ω	R610	HU-002000433	RESISTOR	0Ω
R320	HU-002000266	RESISTOR	470Ω	R612	HU-002000437	RESISTOR	10kΩ
R321	HU-002000421	RESISTOR	75Ω	R613	HU-002000519	RESISTOR	10Ω
R322	HU-002000908	RESISTOR	330Ω	R614	HU-002001060	RESISTOR	220kΩ
R323	HU-002000908	RESISTOR	330Ω	R615	HU-002000519	RESISTOR	10Ω
R326	HU-002000417	RESISTOR	4.7kΩ	R616	HU-002001060	RESISTOR	220kΩ
R327	HU-002000433	RESISTOR	0Ω	R617	HU-002000099	RESISTOR	4.7Ω
R328	HU-002000453	RESISTOR	470Ω	R621	HU-002000433	RESISTOR	0Ω
R329	HU-002000453	RESISTOR	470Ω	R641	HU-002000421	RESISTOR	75Ω
R336	HU-002000421	RESISTOR	75Ω	R643	HU-002000421	RESISTOR	75Ω
R337	HU-002000421	RESISTOR	75Ω	R644	HU-002000433	RESISTOR	0Ω
R338	HU-002000421	RESISTOR	75Ω	R645	HU-002000433	RESISTOR	0Ω
R339	HU-002000421	RESISTOR	75Ω	R646	HU-002000433	RESISTOR	0Ω
R341	HU-002000405	RESISTOR	1kΩ	R647	HU-002000433	RESISTOR	0Ω
R352	HU-002000437	RESISTOR	10kΩ	R648	HU-002000433	RESISTOR	0Ω
R353	HU-002000437	RESISTOR	10kΩ	R650	HU-002000433	RESISTOR	0Ω
R355	HU-002000437	RESISTOR	10kΩ	R651	HU-002000421	RESISTOR	75Ω
R410	HU-002000433	RESISTOR	0Ω	R655	HU-002001060	RESISTOR	220kΩ
R412	HU-002000266	RESISTOR	470Ω	R657	HU-002001060	RESISTOR	220kΩ
R415	HU-002000266	RESISTOR	470Ω	R658	HU-002000436	RESISTOR	100kΩ
R417	HU-002000433	RESISTOR	0Ω	R659	HU-002000436	RESISTOR	100kΩ
R418	HU-002000266	RESISTOR	470Ω	R660	HU-002000436	RESISTOR	100kΩ
R421	HU-002000266	RESISTOR	470Ω	R661	HU-002000436	RESISTOR	100kΩ
R440	HU-002000421	RESISTOR	75Ω	R662	HU-002000436	RESISTOR	100kΩ
R441	HU-002000421	RESISTOR	75Ω	R663	HU-002000436	RESISTOR	100kΩ
R442	HU-002000421	RESISTOR	75Ω	R680	HU-002000437	RESISTOR	10kΩ
R443	HU-002000421	RESISTOR	75Ω	R681	HU-002000437	RESISTOR	10kΩ
R444	HU-002000421	RESISTOR	75Ω	R682	HU-002000405	RESISTOR	1kΩ
R445	HU-002000421	RESISTOR	75Ω	R683	HU-002000405	RESISTOR	1kΩ
R446	HU-002000421	RESISTOR	75Ω	R684	HU-002000433	RESISTOR	0Ω
R447	HU-002000421	RESISTOR	75Ω	R685	HU-002000437	RESISTOR	10kΩ
R450	HU-002000436	RESISTOR	100kΩ	R686	HU-002000591	RESISTOR	18kΩ
R451	HU-002000527	RESISTOR	100Ω	R687	HU-002000437	RESISTOR	10kΩ
R452	HU-002000527	RESISTOR	100Ω	R688	HU-002000591	RESISTOR	18kΩ
R453	HU-002000421	RESISTOR	75Ω	R690	HU-002000454	RESISTOR	47kΩ
R454	HU-002000421	RESISTOR	75Ω	R691	HU-002000454	RESISTOR	47kΩ
R455	HU-002000910	RESISTOR	20kΩ	R695	HU-002000527	RESISTOR	100Ω
R456	HU-002000910	RESISTOR	20kΩ	R696	HU-002000527	RESISTOR	100Ω
R457	HU-002000910	RESISTOR	20kΩ	R697	HU-002000454	RESISTOR	47kΩ
R458	HU-002000910	RESISTOR	20kΩ	R698	HU-002000454	RESISTOR	47kΩ
R459	HU-002000499	RESISTOR	10kΩ	R701	HU-002000527	RESISTOR	100Ω
R460	HU-002000499	RESISTOR	10kΩ	R702	HU-002000527	RESISTOR	100Ω
R461	HU-002000499	RESISTOR	10kΩ	R703	HU-002000433	RESISTOR	0Ω
R462	HU-002000499	RESISTOR	10kΩ	R704	HU-002000433	RESISTOR	0Ω
R490	HU-002000443	RESISTOR	22Ω	R705	HU-002000433	RESISTOR	0Ω
R491	HU-002000421	RESISTOR	75Ω	R706	HU-002000433	RESISTOR	0Ω
R492	HU-002000421	RESISTOR	75Ω	R730	HU-002000519	RESISTOR	10Ω
R493	HU-002000421	RESISTOR	75Ω	R731	HU-002000519	RESISTOR	10Ω
R494	HU-002000421	RESISTOR	75Ω	R732	HU-002000519	RESISTOR	10Ω
R495	HU-002000421	RESISTOR	75Ω	R733	HU-002000519	RESISTOR	10Ω
R496	HU-002000433	RESISTOR	0Ω	R734	HU-002000519	RESISTOR	10Ω
R499	HU-002000421	RESISTOR	75Ω	R735	HU-002000519	RESISTOR	10Ω
R500	HU-002001060	RESISTOR	220kΩ	R736	HU-002000519	RESISTOR	10Ω
R501	HU-002000503	RESISTOR	22kΩ	R737	HU-002000519	RESISTOR	10Ω
R502	HU-002001166	RESISTOR	8.2kΩ	R738	HU-002000527	RESISTOR	100Ω
R505	HU-002001060	RESISTOR	220kΩ	R739	HU-002000527	RESISTOR	100Ω
R506	HU-002000527	RESISTOR	100Ω	R740	HU-002000519	RESISTOR	10Ω
R509	HU-002000527	RESISTOR	100Ω	R741	HU-002000519	RESISTOR	10Ω
R540	HU-002000421	RESISTOR	75Ω	R742	HU-002000519	RESISTOR	10Ω
R541	HU-002000421	RESISTOR	75Ω	R743	HU-002000519	RESISTOR	10Ω
R542	HU-002000421	RESISTOR	75Ω	R744	HU-002000519	RESISTOR	10Ω
R543	HU-002000443	RESISTOR	22Ω	R745	HU-002000519	RESISTOR	10Ω
R544	HU-002000421	RESISTOR	75Ω	R746	HU-002000519	RESISTOR	10Ω
R545	HU-002000421	RESISTOR	75Ω	R747	HU-002000519	RESISTOR	10Ω
R546	HU-002000433	RESISTOR	0Ω	R748	HU-002000527	RESISTOR	100Ω
R549	HU-002000421	RESISTOR	75Ω	R749	HU-002000527	RESISTOR	100Ω
R550	HU-002001060	RESISTOR	220kΩ	R750	HU-002000443	RESISTOR	22Ω
R551	HU-002000503	RESISTOR	22kΩ	R751	HU-002000443	RESISTOR	22Ω
R552	HU-002001166	RESISTOR	8.2kΩ	R752	HU-002000443	RESISTOR	22Ω
R555	HU-002001060	RESISTOR	220kΩ	R753	HU-002000527	RESISTOR	100Ω
R556	HU-002000527	RESISTOR	100Ω	R754	HU-002000527	RESISTOR	100Ω
R559	HU-002000527	RESISTOR	100Ω	R755	HU-002000433	RESISTOR	0Ω
R590	HU-002000433	RESISTOR	0Ω	R756	HU-002000433	RESISTOR	0Ω
R591	HU-002000421	RESISTOR	75Ω	R757	HU-002001106	RESISTOR	390Ω
R592	HU-002000433	RESISTOR	0Ω	R759	HU-002000437	RESISTOR	10kΩ
R594	HU-002000417	RESISTOR	4.7kΩ	R760	HU-002000519	RESISTOR	10Ω
R595	HU-002000433	RESISTOR	0Ω	R761	HU-002000433	RESISTOR	0Ω
R596	HU-002000421	RESISTOR	75Ω	R763	HU-002000437	RESISTOR	10kΩ
R597	HU-002000433	RESISTOR	0Ω	R770	HU-002000437	RESISTOR	10kΩ
R598	HU-002000421	RESISTOR	75Ω	R771	HU-002000437	RESISTOR	10kΩ
R599	HU-002000405	RESISTOR	1kΩ	R790	HU-002001028	RESISTOR	12.1kΩ
R600	HU-002000437	RESISTOR	10kΩ	R791	HU-002001124	RESISTOR	47kΩ
R601	HU-002000591	RESISTOR	18kΩ	R792	HU-002001028	RESISTOR	12.1kΩ
R602	HU-002000433	RESISTOR	0Ω	R793	HU-002001124	RESISTOR	47kΩ
R603	HU-002000433	RESISTOR	0Ω	R798	HU-002000454	RESISTOR	47kΩ

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
R799	HU-002000433	RESISTOR	0Ω	L260	HU-002000090	COIL	
R804	HU-002000436	RESISTOR	100kΩ	L261	HU-002000090	COIL	
R805	HU-002000405	RESISTOR	1kΩ	L291	HU-011030011	FERRITE BEAD	
R806	HU-002000437	RESISTOR	10kΩ	L292	HU-011030011	FERRITE BEAD	
R807	HU-002000433	RESISTOR	0Ω	L306	HU-011030011	FERRITE BEAD	
R808	HU-002000910	RESISTOR	20kΩ	L326	HU-011030011	FERRITE BEAD	
R809	HU-002001041	RESISTOR	16kΩ	L341	HU-011030015	FERRITE BEAD	
R810	HU-002000437	RESISTOR	10kΩ	L342	HU-011030015	FERRITE BEAD	
R811	HU-002000437	RESISTOR	10kΩ	L343	HU-011030015	FERRITE BEAD	
R812	HU-002000910	RESISTOR	20kΩ	L344	HU-011030015	FERRITE BEAD	
R813	HU-002001041	RESISTOR	16kΩ	L345	HU-011030015	FERRITE BEAD	
R815	HU-002000437	RESISTOR	10kΩ	L346	HU-011030015	FERRITE BEAD	
R816	HU-002000454	RESISTOR	47kΩ	L347	HU-011030015	FERRITE BEAD	
R823	HU-002000437	RESISTOR	10kΩ	L348	HU-011030015	FERRITE BEAD	
R824	HU-002000437	RESISTOR	10kΩ	L349	HU-011030015	FERRITE BEAD	
R851	HU-002000527	RESISTOR	100Ω	L350	HU-011030015	FERRITE BEAD	
R852	HU-002000527	RESISTOR	100Ω	L351	HU-011030015	FERRITE BEAD	
R857	HU-002000437	RESISTOR	10kΩ	L352	HU-011030015	FERRITE BEAD	
R858	HU-002000417	RESISTOR	4.7kΩ	L353	HU-011030015	FERRITE BEAD	
R859	HU-002000437	RESISTOR	10kΩ	L354	HU-011030015	FERRITE BEAD	
R881	HU-002000602	RESISTOR	2kΩ	L355	HU-011030015	FERRITE BEAD	
R883	HU-002000405	RESISTOR	1kΩ	L356	HU-011030015	FERRITE BEAD	
R884	HU-002000405	RESISTOR	1kΩ	L357	HU-011030015	FERRITE BEAD	
R887	HU-002000437	RESISTOR	10kΩ	L358	HU-011030015	FERRITE BEAD	
R888	HU-002000405	RESISTOR	1kΩ	L359	HU-011030015	FERRITE BEAD	
R889	HU-002000433	RESISTOR	0Ω	L360	HU-011030015	FERRITE BEAD	
R892	HU-002000405	RESISTOR	1kΩ	L364	HU-011030003	FERRITE BEAD	
R893	HU-002000405	RESISTOR	1kΩ	L370	HU-011030015	FERRITE BEAD	
R897	HU-002000437	RESISTOR	10kΩ	L371	HU-011030015	FERRITE BEAD	
R900	HU-002000437	RESISTOR	10kΩ	L372	HU-011030015	FERRITE BEAD	
R902	HU-002000437	RESISTOR	10kΩ	L373	HU-011030015	FERRITE BEAD	
R907	HU-002000433	RESISTOR	0Ω	L374	HU-011030015	FERRITE BEAD	
R941	HU-002000547	RESISTOR	120Ω	L375	HU-011030015	FERRITE BEAD	
R943	HU-002000547	RESISTOR	120Ω	L410	HU-011030011	FERRITE BEAD	
R944	HU-002000509	RESISTOR	200Ω	L440	HU-011030011	FERRITE BEAD	
R945	HU-002000509	RESISTOR	200Ω	L441	HU-011030011	FERRITE BEAD	
R948	HU-002000547	RESISTOR	120Ω	L493	HU-011000060	INDUCTOR	1.8uH
R949	HU-002000509	RESISTOR	200Ω	L494	HU-011000060	INDUCTOR	1.8uH
R950	HU-002000547	RESISTOR	120Ω	L495	HU-011000060	INDUCTOR	1.8uH
R951	HU-002000547	RESISTOR	120Ω	L496	HU-011000060	INDUCTOR	1.8uH
R952	HU-002001002	RESISTOR	56Ω	L543	HU-011000060	INDUCTOR	1.8uH
R953	HU-002001002	RESISTOR	56Ω	L544	HU-011000060	INDUCTOR	1.8uH
R954	HU-002000547	RESISTOR	120Ω	L545	HU-011000060	INDUCTOR	1.8uH
R955	HU-002000547	RESISTOR	120Ω	L546	HU-011000060	INDUCTOR	1.8uH
R1001	HU-002000437	RESISTOR	10kΩ	L590	HU-011000056	INDUCTOR	1.8uH
R1002	HU-002000405	RESISTOR	1kΩ	L591	HU-011000056	INDUCTOR	1.8uH
R1005	HU-002000437	RESISTOR	10kΩ	L640	HU-011030020	FERRITE BEAD	
R1006	HU-002000437	RESISTOR	10kΩ	L641	HU-011030006	FERRITE BEAD	
R1007	HU-002000453	RESISTOR	470Ω	L642	HU-011030006	FERRITE BEAD	
R1012	HU-002000113	RESISTOR	750Ω	L680	HU-011030020	FERRITE BEAD	
R1014	HU-002000113	RESISTOR	750Ω	L681	HU-011030020	FERRITE BEAD	
R1015	HU-002000437	RESISTOR	10kΩ	L682	HU-011000056	INDUCTOR	1.8uH
R1016	HU-002000437	RESISTOR	10kΩ	L683	HU-011000056	INDUCTOR	1.8uH
R1020	HU-002000437	RESISTOR	10kΩ	L684	HU-011000056	INDUCTOR	1.8uH
R1021	HU-002000437	RESISTOR	10kΩ	L685	HU-011000056	INDUCTOR	1.8uH
PR326	HU-002070014	NET RESISTOR	33Ωx4	L730	HU-011030011	FERRITE BEAD	
PR730	HU-002070006	NET RESISTOR	47Ωx4	L731	HU-011030011	FERRITE BEAD	
PR731	HU-002070006	NET RESISTOR	47Ωx4	L732	HU-011030011	FERRITE BEAD	
PR732	HU-002070006	NET RESISTOR	47Ωx4	L733	HU-011030011	FERRITE BEAD	
PR733	HU-002070006	NET RESISTOR	47Ωx4	L734	HU-011030011	FERRITE BEAD	
PR734	HU-002070006	NET RESISTOR	47Ωx4	L735	HU-011030011	FERRITE BEAD	
PR735	HU-002070006	NET RESISTOR	47Ωx4	L790	HU-011002180	INDUCTOR	15uH
PR736	HU-002070001	NET RESISTOR	22Ωx4	L791	HU-011002180	INDUCTOR	15uH
				L792	HU-011002180	INDUCTOR	15uH
L1	HU-011030011	FERRITE BEAD		L793	HU-011002180	INDUCTOR	15uH
L2	HU-011030011	FERRITE BEAD		L881	HU-011030025	FERRITE BEAD	
L3	HU-011030011	FERRITE BEAD		L1000	HU-011030025	FERRITE BEAD	
L4	HU-011030011	FERRITE BEAD		L1001	HU-011030025	FERRITE BEAD	
L5	HU-011030011	FERRITE BEAD		L1002	HU-011030025	FERRITE BEAD	
L6	HU-011030011	FERRITE BEAD		L1003	HU-011030011	FERRITE BEAD	
L7	HU-011030011	FERRITE BEAD		L1004	HU-011030011	FERRITE BEAD	
L8	HU-011030011	FERRITE BEAD		L1005	HU-011030025	FERRITE BEAD	
L9	HU-011030011	FERRITE BEAD		L1007	HU-011030025	FERRITE BEAD	
L10	HU-011030011	FERRITE BEAD					
L12	HU-011030011	FERRITE BEAD		JP490	HU-009040060	SCART CONNECTOR	EXT-1/EXT-2
L13	HU-011030011	FERRITE BEAD		JP591	HU-009011080	JACK	DIGITAL AUDIO OUT
L14	HU-011030011	FERRITE BEAD		JP640	HU-009011090	JACK	EXT-3
L15	HU-011030025	FERRITE BEAD		JP680	HU-009100330	HDMI CONNECTOR	EXT-6
L221	HU-011030011	FERRITE BEAD		JP681	HU-009100330	HDMI CONNECTOR	EXT-5
L222	HU-011030011	FERRITE BEAD		RV490	HU-002110004	VARISTOR	100pF 5.6V
L224	HU-011030011	FERRITE BEAD		RV491	HU-002110004	VARISTOR	100pF 5.6V
L225	HU-011030011	FERRITE BEAD		RV492	HU-002110004	VARISTOR	100pF 5.6V
L226	HU-002000090	COIL		RV493	HU-002110004	VARISTOR	100pF 5.6V
L227	HU-002000090	COIL		RV494	HU-002110004	VARISTOR	100pF 5.6V
L229	HU-011030011	FERRITE BEAD		RV495	HU-002110008	VARISTOR	
L230	HU-011030011	FERRITE BEAD		RV496	HU-002110008	VARISTOR	
L231	HU-011030011	FERRITE BEAD		RV497	HU-002110008	VARISTOR	
L232	HU-011030011	FERRITE BEAD		RV498	HU-002110008	VARISTOR	
L233	HU-002000090	COIL		RV499	HU-002110008	VARISTOR	
L234	HU-002000090	COIL		RV540	HU-002110004	VARISTOR	100pF 5.6V

△Ref No.	Part No.	Part Name	Description	Local	△Ref No.	Part No.	Part Name	Description	Local
RV541	HU-002110004	VARISTOR	100pF 5.6V		C187	HU-001071223	E CAPACITOR	100uF 16V	
RV542	HU-002110004	VARISTOR	100pF 5.6V		C188	HU-001060105	C CAPACITOR	0.1uF 50V	
RV543	HU-002110004	VARISTOR	100pF 5.6V		C220	HU-001060250	C CAPACITOR	0.1uF 16V K	
RV544	HU-002110004	VARISTOR	100pF 5.6V		C223	HU-001060258	C CAPACITOR	30pF 50V J	
RV545	HU-002110008	VARISTOR			C224	HU-001060258	C CAPACITOR	30pF 50V J	
RV546	HU-002110008	VARISTOR			C227	HU-001060250	C CAPACITOR	0.1uF 16V K	
RV547	HU-002110008	VARISTOR			C228	HU-001060250	C CAPACITOR	0.1uF 16V K	
RV548	HU-002110008	VARISTOR			C229	HU-001060250	C CAPACITOR	0.1uF 16V K	
RV549	HU-002110008	VARISTOR			C230	HU-001060250	C CAPACITOR	0.1uF 16V K	
RV590	HU-002110004	VARISTOR	100pF 5.6V		C231	HU-001060250	C CAPACITOR	0.1uF 16V K	
RV591	HU-002110004	VARISTOR	100pF 5.6V		C232	HU-001060250	C CAPACITOR	0.1uF 16V K	
RV592	HU-002110004	VARISTOR	100pF 5.6V		C234	HU-001060250	C CAPACITOR	0.1uF 16V K	
RV593	HU-002110008	VARISTOR			C235	HU-001060250	C CAPACITOR	0.1uF 16V K	
RV594	HU-002110008	VARISTOR			C237	HU-001060250	C CAPACITOR	0.1uF 16V K	
RV595	HU-002110008	VARISTOR			C238	HU-001060265	C CAPACITOR	1uF 16V K	
RV596	HU-002110008	VARISTOR			C239	HU-001060265	C CAPACITOR	1uF 16V K	
RV643	HU-002110008	VARISTOR			C300	HU-001060219	C CAPACITOR	1nF 50V K	
RV644	HU-002110008	VARISTOR			C301	HU-001060219	C CAPACITOR	1nF 50V K	
RV680	HU-002110008	VARISTOR			C302	HU-001060230	C CAPACITOR	22nF 16V K	
RV681	HU-002110008	VARISTOR			C303	HU-001060230	C CAPACITOR	22nF 16V K	
RV682	HU-002110008	VARISTOR							
RV683	HU-002110008	VARISTOR			R1	HU-002000090	COIL		
RV850	HU-002110008	VARISTOR			R3	HU-002000520	RESISTOR	47Ω	
RV851	HU-002110008	VARISTOR			R4	HU-002000520	RESISTOR	47Ω	
S60	HU-008020005	TACT SWITCH			R6	HU-002000520	RESISTOR	47Ω	
S280	HU-008020005	TACT SWITCH			R9	HU-002000520	RESISTOR	47Ω	
Y60	HU-005000900	CRYSTAL	20.25MHz		R10	HU-002000520	RESISTOR	47Ω	
					R11	HU-002000520	RESISTOR	47Ω	
					R12	HU-002000437	RESISTOR	10kΩ	
					R13	HU-002000417	RESISTOR	4.7kΩ	
					R16	HU-002000417	RESISTOR	4.7kΩ	
					R18	HU-002000090	COIL		
					R50	HU-002000087	RESISTOR	4.7kΩ	
					R51	HU-002000096	RESISTOR	10kΩ	
					R52	HU-002000417	RESISTOR	4.7kΩ	
					R53	HU-002000262	RESISTOR	220Ω	
					R54	HU-002000417	RESISTOR	4.7kΩ	
					R55	HU-002000096	RESISTOR	10kΩ	
					R56	HU-002000437	RESISTOR	10kΩ	
					R57	HU-002000437	RESISTOR	10kΩ	
					R58	HU-002000437	RESISTOR	10kΩ	
					R59	HU-002000417	RESISTOR	4.7kΩ	
					R60	HU-002000417	RESISTOR	4.7kΩ	
					R61	HU-002000437	RESISTOR	10kΩ	
					R62	HU-002000437	RESISTOR	10kΩ	
					R63	HU-002000437	RESISTOR	10kΩ	
					R64	HU-002000437	RESISTOR	10kΩ	
					R65	HU-002000437	RESISTOR	10kΩ	
					R66	HU-002000437	RESISTOR	10kΩ	
					R67	HU-002000417	RESISTOR	4.7kΩ	
					R130	HU-002000509	RESISTOR	200Ω	
					R131	HU-002000547	RESISTOR	120Ω	
					R175	HU-002000522	RESISTOR	680Ω	
					R177	HU-002000433	RESISTOR	0Ω	
					R178	HU-002001022	RESISTOR	110Ω	
					R184	HU-002000436	RESISTOR	100kΩ	
					R185	HU-002000436	RESISTOR	100kΩ	
					R186	HU-002000417	RESISTOR	4.7kΩ	
					R192	HU-002000437	RESISTOR	10kΩ	
					R193	HU-002000437	RESISTOR	10kΩ	
					R221	HU-002000405	RESISTOR	1kΩ	
					R230	HU-002001050	RESISTOR	2.7kΩ	
					R231	HU-002001050	RESISTOR	2.7kΩ	
					R232	HU-002000454	RESISTOR	47kΩ	
					R238	HU-002000433	RESISTOR	0Ω	
					R273	HU-002000433	RESISTOR	0Ω	
					R274	HU-002000433	RESISTOR	0Ω	
					R275	HU-002000433	RESISTOR	0Ω	
					R276	HU-002000433	RESISTOR	0Ω	
					R277	HU-002000433	RESISTOR	0Ω	
					R278	HU-002000433	RESISTOR	0Ω	
					R279	HU-002000433	RESISTOR	0Ω	
					R280	HU-002000433	RESISTOR	0Ω	
					R281	HU-002000433	RESISTOR	0Ω	
					R282	HU-002000433	RESISTOR	0Ω	
					R283	HU-002000433	RESISTOR	0Ω	
					R284	HU-002000433	RESISTOR	0Ω	
					R285	HU-002000433	RESISTOR	0Ω	
					R286	HU-002000433	RESISTOR	0Ω	
					R300	HU-002000443	RESISTOR	22Ω	
					R301	HU-002000421	RESISTOR	75Ω	
					R302	HU-002000405	RESISTOR	1kΩ	
					R303	HU-002001060	RESISTOR	220kΩ	
					R304	HU-002000405	RESISTOR	1kΩ	
					R305	HU-002001060	RESISTOR	220kΩ	
					R306	HU-002000443	RESISTOR	22Ω	
					R307	HU-002000421	RESISTOR	75Ω	
					R308	HU-002000443	RESISTOR	22Ω	
					R309	HU-002000421	RESISTOR	75Ω	
					R310	HU-002000443	RESISTOR	22Ω	

TUNER P.W. BOARD ASS'Y (HU-2201320)

△Ref No.	Part No.	Part Name	Description	Local
U1	HU-000030020	IC	ASIC	
U2	HU-000120027	IC	INPUT INVERTER	
U130	HU-000090075	IC	REGULATOR	
U131	HU-000091070	IC	REGULATOR	
U132	HU-000091100	IC	REGULATOR	
U134	HU-000091100	IC	REGULATOR	
U170	HU-014040890	TUNER		
U171	HU-000300001	IC	DUAL COMPARATOR	
U172	HU-000091070	IC	REGULATOR	
U220	HU-000270090	IC	DEMODULATOR	
Q50	HU-004020004	FET		
Q51	HU-004001001	TRANSISTOR		
Q171	HU-004000008	TRANSISTOR		
Q173	HU-004001001	TRANSISTOR		
C1	HU-001060250	C CAPACITOR	0.1uF 16V K	
C2	HU-001060250	C CAPACITOR	0.1uF 16V K	
C3	HU-001060250	C CAPACITOR	0.1uF 16V K	
C4	HU-001060250	C CAPACITOR	0.1uF 16V K	
C5	HU-001060250	C CAPACITOR	0.1uF 16V K	
C50	HU-001060282	C CAPACITOR	6.8nF 50V K	
C51	HU-001060250	C CAPACITOR	0.1uF 16V K	
C52	HU-001060250	C CAPACITOR	0.1uF 16V K	
C53	HU-001060250	C CAPACITOR	0.1uF 16V K	
C54	HU-001060267	C CAPACITOR	68pF 50V J	
C55	HU-001060250	C CAPACITOR	0.1uF 16V K	
C56	HU-001060250	C CAPACITOR	0.1uF 16V K	
C100	HU-001071223	E CAPACITOR	100uF 16V	
C101	HU-001071223	E CAPACITOR	100uF 16V	
C102	HU-001060250	C CAPACITOR	0.1uF 16V K	
C103	HU-001060250	C CAPACITOR	0.1uF 16V K	
C130	HU-001071223	E CAPACITOR	100uF 16V	
C131	HU-001071223	E CAPACITOR	100uF 16V	
C133	HU-001071223	E CAPACITOR	100uF 16V	
C135	HU-001060250	C CAPACITOR	0.1uF 16V K	
C136	HU-001060250	C CAPACITOR	0.1uF 16V K	
C138	HU-001060250	C CAPACITOR	0.1uF 16V K	
C140	HU-001071223	E CAPACITOR	100uF 16V	
C141	HU-001071223	E CAPACITOR	100uF 16V	
C143	HU-001063096	C CAPACITOR	1uF 6.3V K	
C144	HU-001060250	C CAPACITOR	0.1uF 16V K	
C147	HU-001071223	E CAPACITOR	100uF 16V	
C148	HU-001063096	C CAPACITOR	1uF 6.3V K	
C171	HU-001071224	E CAPACITOR	220uF 16V	
C172	HU-001060250	C CAPACITOR	0.1uF 16V K	
C173	HU-001060219	C CAPACITOR	1nF 50V K	
C174	HU-001071225	E CAPACITOR	2.2uF 50V	
C178	HU-001060250	C CAPACITOR	0.1uF 16V K	
C181	HU-001060250	C CAPACITOR	0.1uF 16V K	
C182	HU-001060250	C CAPACITOR	0.1uF 16V K	
C183	HU-001060250	C CAPACITOR	0.1uF 16V K	
C184	HU-001060250	C CAPACITOR	0.1uF 16V K	
C185	HU-001071224	E CAPACITOR	220uF 16V	
C186	HU-001060219	C CAPACITOR	1nF 50V K	

△Ref No.	Part No.	Part Name	Description Local
R311	HU-002000443	RESISTOR	22Ω
R312	HU-002000433	RESISTOR	0Ω
PR1	HU-002070006	NET RESISTOR	47Ωx4
PR3	HU-002070006	NET RESISTOR	47Ωx4
PR5	HU-002070006	NET RESISTOR	47Ωx4
PR6	HU-002070006	NET RESISTOR	47Ωx4
PR50	HU-002070003	NET RESISTOR	10kΩx4
PR51	HU-002070003	NET RESISTOR	10kΩx4
PR221	HU-002070050	NET RESISTOR	47Ωx4
PR222	HU-002070050	NET RESISTOR	47Ωx4
PR223	HU-002070050	NET RESISTOR	47Ωx4
PR270	HU-002070040	NET RESISTOR	0Ωx4
PR271	HU-002070040	NET RESISTOR	0Ωx4
L1	HU-011030015	FERRITE BEAD	
L50	HU-011030015	FERRITE BEAD	
L100	HU-011030011	FERRITE BEAD	
L101	HU-011030011	FERRITE BEAD	
L130	HU-011030011	FERRITE BEAD	
L134	HU-011030020	FERRITE BEAD	
L170	HU-011030011	FERRITE BEAD	
L173	HU-011030011	FERRITE BEAD	
L174	HU-011030011	FERRITE BEAD	
L220	HU-011030020	FERRITE BEAD	
L221	HU-011030020	FERRITE BEAD	
L222	HU-011030020	FERRITE BEAD	
L223	HU-011030020	FERRITE BEAD	
L224	HU-011030020	FERRITE BEAD	
L300	HU-011000060	INDUCTOR	1.8uH
L301	HU-011000060	INDUCTOR	1.8uH
L303	HU-011000056	INDUCTOR	1.8uH
L304	HU-011000056	INDUCTOR	1.8uH
JP50	HU-009030060	CONNECTOR	PCMCIA
JP300	HU-009011210	PIN JACK	EXT-4
JP301	HU-009010076	JACK	HEADPHONE
RV300	HU-002110004	VARISTOR	100pF 5.6V
RV301	HU-002110008	VARISTOR	
RV302	HU-002110008	VARISTOR	
RV303	HU-002110004	VARISTOR	100pF 5.6V
RV304	HU-002110004	VARISTOR	100pF 5.6V
Y220	HU-005000940	CRYSTAL	16MHz

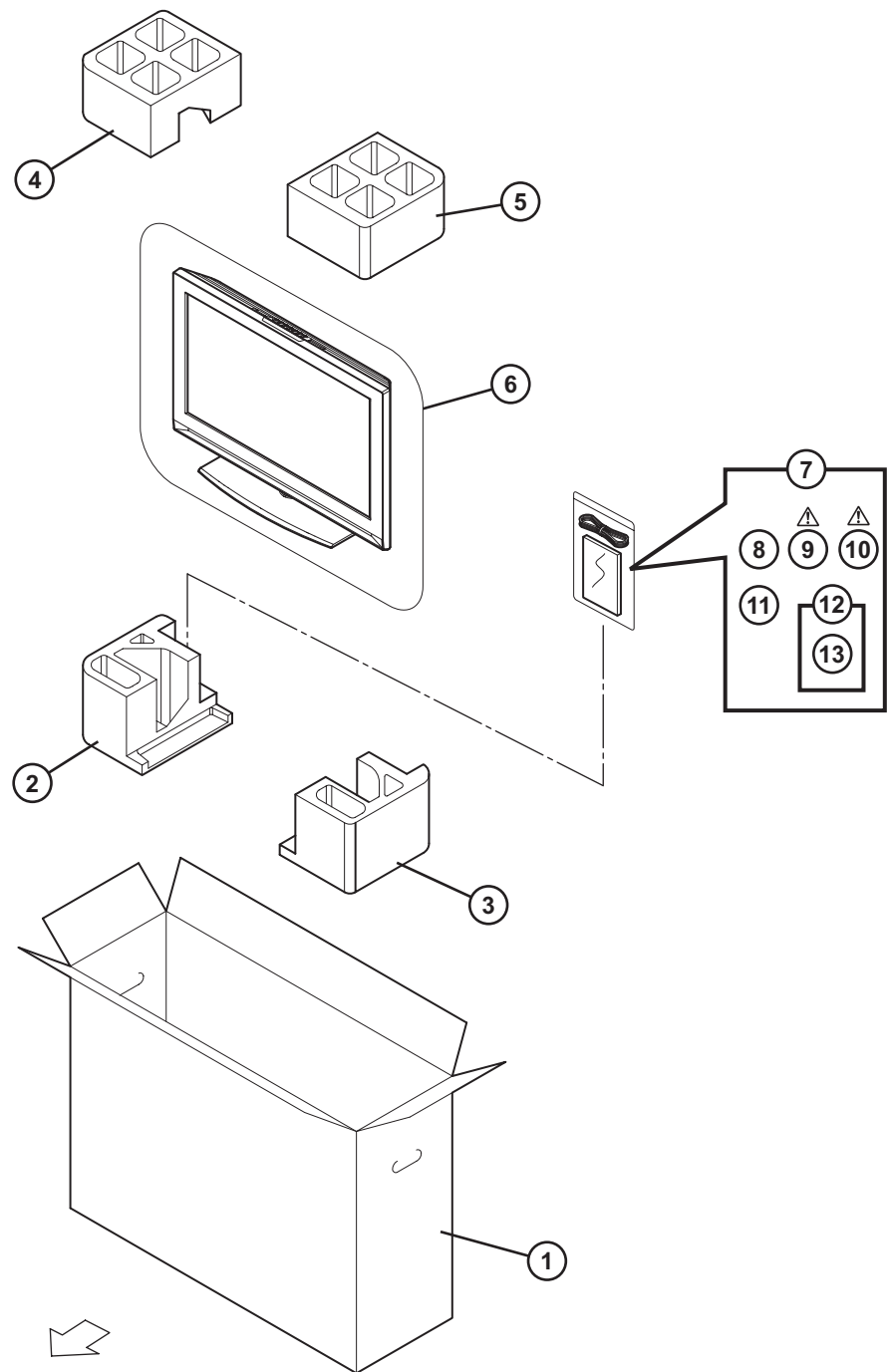
KEY P.W. BOARD ASS'Y (HU-2201290)

△Ref No.	Part No.	Part Name	Description Local
C1	HU-001060250	C CAPACITOR	0.1uF 16V K
R5	HU-002000599	RESISTOR	200Ω
R6	HU-002000599	RESISTOR	200Ω
R7	HU-002000453	RESISTOR	470Ω
R8	HU-002000453	RESISTOR	470Ω
R9	HU-002000522	RESISTOR	680Ω
R10	HU-002000522	RESISTOR	680Ω
R11	HU-002000510	RESISTOR	1.8kΩ
R12	HU-002000510	RESISTOR	1.8kΩ
RV2	HU-002110004	VARISTOR	100pF 5.6V
RV3	HU-002110004	VARISTOR	100pF 5.6V
S1	HU-008020005	TACT SWITCH	TV/AV/OK
S2	HU-008020005	TACT SWITCH	CH +
S3	HU-008020005	TACT SWITCH	MENU
S4	HU-008020005	TACT SWITCH	CH -
S5	HU-008020005	TACT SWITCH	VOL -
S6	HU-008020005	TACT SWITCH	STAND-BY
S7	HU-008020005	TACT SWITCH	VOL -

IR & LED P.W. BOARD ASS'Y (HU-2201300)

△Ref No.	Part No.	Part Name	Description Local
U1	HU-006050110	IC	REMOCON SENSOR
LED2	HU-006020580	LED	RED/GREEN
C1	HU-001060288	C CAPACITOR	1uF 25V
C2	HU-001060288	C CAPACITOR	1uF 25V
R2	HU-002000433	RESISTOR	0Ω
RV1	HU-002110004	VARISTOR	100pF 5.6V
RV2	HU-002110004	VARISTOR	100pF 5.6V
RV3	HU-002110004	VARISTOR	100pF 5.6V

PACKING



PACKING PARTS LIST

	△	Ref.No.	Part No.	Part Name	Description	Local
		1	HU-3070125001PE	PACKING CASE		
		2	HU-3071120001PS	CUSHION		
		3	HU-3071120002PS	CUSHION		
		4	HU-3071119001PS	CUSHION		
		5	HU-3071119002PS	CUSHION		
		6	HU-3072113001	POLY BAG		
		7	HU-1071101002	BAG	For Accesory	
		8	HU-014003470	REMOTE CONTROL UNIT		
		9	HU-013000097	POWER CORD		
△		10	HU-200101790	INST BOOK	English/French/Spanish	
△		11	-----	WARRANTY CARD	HU-203000430PT	
		12	-----	BAG	For Battery	
		13	-----	BATTERY	AA/R6(x2)	