

HITACHI

No. 0414

CML171SXW



SERVICE MANUAL MANUEL D'ENTRETIEN WARTUNGSHANDBUCH

CAUTION:

Before servicing this chassis, it is important that the service technician read the "Safety Precautions" and "Product Safety Notices" in this service manual.

ATTENTION:

Avant d'effectuer l'entretien du châassis, le technicien doit lire les «Précautions de sécurité» et les «Notices de sécurité du produit» présentés dans le présent manuel.

VORSICHT:

Vor Öffnen des Gehäuses hat der Service-Ingenieur die „Sicherheitshinweise" und „Hinweise zur Produktsicherheit" in diesem Wartungshandbuch zu lesen.

Data contained within this Service manual is subject to alteration for improvement.

Les données fournies dans le présent manuel d'entretien peuvent faire l'objet de modifications en vue de perfectionner le produit.

Die in diesem Wartungshandbuch enthaltenen Spezifikationen können sich zwecks Verbesserungen ändern.

Version	Description	Date
1.0	1. Original document	10.26.2001
1.1	2.Link file together	11.09.2001

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

**LCD Monitor
Oct 2001**

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1. Precautions and Notices

1.1 Safety Precautions

Although LCD monitors are displays without high voltage as that in the CRTs, the following precautions still should be take care of.

- 1) Observe all cautions and safety related notes located inside the display cabinet and on the display chassis.
- 2) Operation of these displays outside the cabinet or with the cover removed involves a shock hazard from the display backlight's inverter. Work on the display should not be attempted by anyone who is not thoroughly familiar with precautions necessary when working on high voltage equipment.
- 3) Before returning a serviced display to the customer, a thorough safety test must be performed to verify that the display is safe to operate without danger or shock.

1.2 Product Safety Notice

- 1) Many electrical and mechanical parts in this chassis provide special visual safety protection. The protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc.
- 2) Before replacing any of these components, read the parts list manual carefully. The use of substitute replacement parts, which do not have the same safety characteristics, as specified in the parts list may create shock, fire or other hazards.

1.3 Service Notes

- 1) When replacing parts or circuit boards, wrap the wires around terminals before soldering.
- 2) Keep wires away from high temperature components.
- 3) Keep cable and their shielding in their original position so as to reduce interference.

2. Specifications

2.1 Monitor Specification

LCD Module	17-in, active matrix TFT, anti-glare coating, 0.264 mm pixel pitch
Display Size	337.9 mm x 270.3 mm
Viewing Angle	
Left/Right	60° / 60°(Typical)
Up/Down	40° /60°(Typical)
Luminance	230 cd/m² (Typical)
Contrast Ratio	300 : 1 (Typical)
Display Colors	16.7 million
Power Input	100 ~ 240 V _{AC} Full Range, 50/60 Hz (External AC adapter)
Maximum power consumption	< 45W
Signal Input	
Video Signal	RGB positive 0.7V _{pp} , 75ohm
Sync signals	Separate & Composite, TTL Level
Line (horizontal) frequency	31.5 kHz ~ 80 kHz
Raster (vertical) frequency	56 Hz ~ 75 Hz
Pixel dot clock	135 MHz (maximum)
Recommended mode	1280 x 1024 @ 60 Hz
Pedestal tilt	20° forward, -5°backward
Dimensions (W x H x D)	424 x 438 x 86 mm (without base)
Weight	7.0 kg
Operating Conditions	
Temperature	5° ~ 40°C at altitude 0 ~ 2000m 5° ~ 30°C at altitude 2000 ~ 3000m
Humidity	20% ~ 85% RH, non-condensing
Altitude	3000m Max.
Storage Conditions	
Temperature	-20° ~ 60°C
Humidity	5% ~ 95% RH
Altitude	10000m Max.

2.2– Analog Inputs

Mode No.	Mode Name Resolution	H.Freq.(KHZ) V.Freq.(HZ)	H. Polarity V. Polarity	Pixel CLK (MHZ)
1	VGA 60HZ 640*480	31.469 59.941	- -	25.175
2	VGA 72HZ 640*480	37.804 72.81	- -	31.5
3	VGA 75HZ 640*480	37.5 75.0	- -	31.5
4	SVGA 56HZ 800*600	35.156 56.25	+ +	36.0
5	SVGA 60HZ 800*600	37.879 60.317	+ +	40.0
6	SVGA 72HZ 800*600	48.077 72.188	+ +	50.0
7	SVGA 75HZ 800*600	46.875 75.0	+ +	49.5
8	XGA 60HZ 1024*768	48.363 60.004	- -	65.0
9	XGA 70HZ 1024*768	56.476 70.069	- -	75.0
10	XGA 75HZ 1024*768	60.023 75.029	+ +	78.75
11	SXGA 60HZ 1280*1024	63.981 60.020	+ +	108
12	SXGA 75HZ 1280*1024	79.976 75.025	+ +	135
13	MAC SVGA 640*480	35.0 66.667	- -	30.24
14	MAC SVGA 832*624	49.725 74.550	- -	57.283
15	US TEXT 720*400	31.469 70.087	- +	28.322
16	VGA 70HZ 640*350	31.469 70.087	+ -	25.175

Note: *The display is capable of going beyond these recommended modes.*

3. Control Buttons and Functions

There are four control buttons located at the lower part of the front panel of your display:

⇒ **POWER:** Push to turn on or turn off the display. The power indicator (Green) will light while the display is on.

⇒ **Select:** Display the On-Screen Display (OSD) “**Main Menu**” , selects items for user adjustment, and execute the function selected.

Note: *Hold down this key for 2 seconds will clear OSD menu.*

⇒ **Up():** Move upward through the choice in the OSD submenu. If an adjustment bar is displayed, this button increases the setting value.

Note: *This key is also used as ‘direct key’ to bring-up OSD “Audio Menu”.*

⇒ **Down():** Move downward through the choice in the OSD submenu. If an adjustment bar is displayed, this button decreases the setting value.

Note: *This key is also used as ‘direct key’. When the OSD “Main Menu” is inactive, press this key will execute ‘Auto Setup’ function.*

For detailed control functions, please refer to the User’s Manual

4. Disassembly Instructions

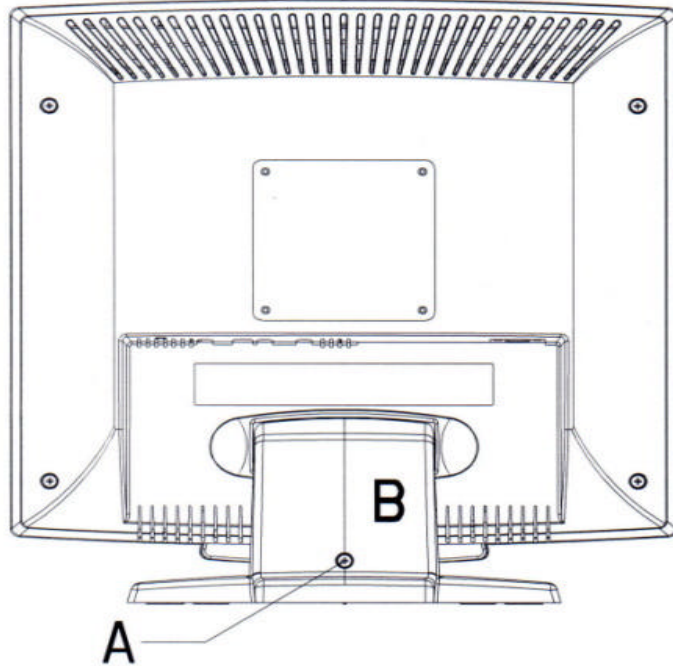
To disassembly the monitor, follow the steps as below:

1)Face Down the Monitor.

Note: *Face down the monitor on a smooth plane with a soft material on that plane to protect the panel faceplate.*

2)Hinge Cover Removal

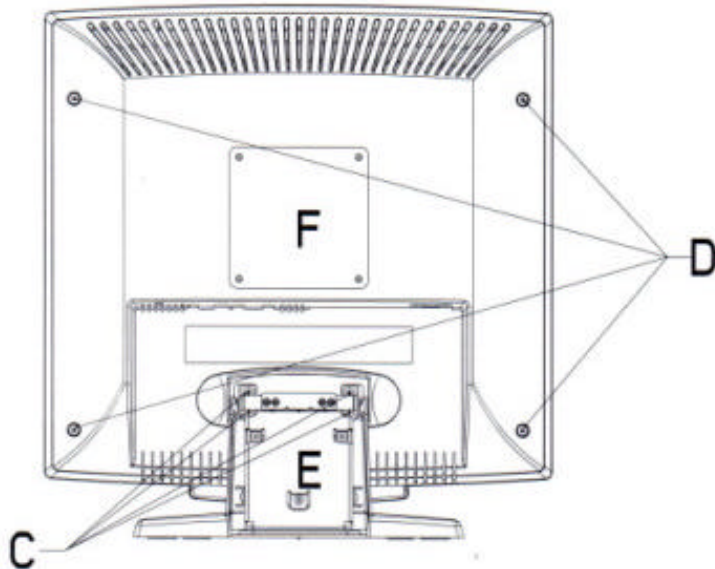
As below, remove the screw indicated by “A” from the hinge cover, and then remove the hinge cover (indicated by “B”) for the base.



3) Base and Back Cover Removal:

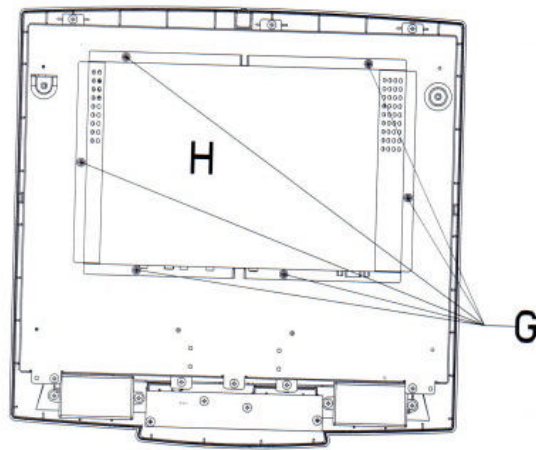
As below, after removing the hinge cover, there will be 4 screws (indicated by “C”), and remove them. Then you can remove the whole base of the monitor.

Remove 4 screws indicated as “D” of the back cover. Then remove the back cover with care .



4) Metallic Cover Removal:

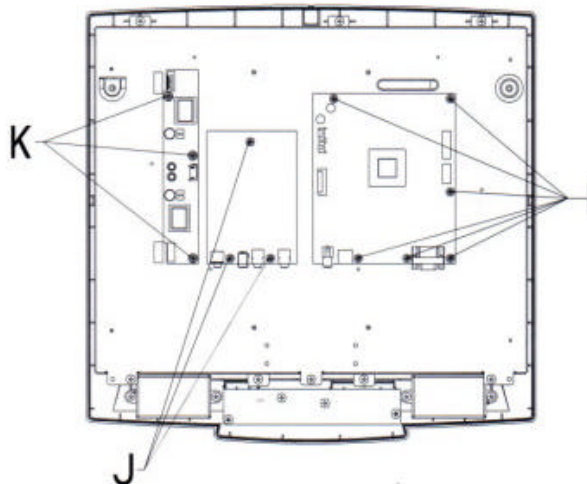
Remove 6 screws indicated as “G” from the back metallic cover. Then remove the back metallic cover.



5) PCB Assembly Removal:

Caution: *When serving or replacing the panel, disconnect the DC power jack completely.*

- (a) Unplug all connected wires from the PCB.
- (b) Remove 3 screws indicated as “K” from the inverter board, and then remove the board carefully.
- (c) Remove 2 screws indicated as “J” from the audio board, and then remove the board carefully.
- (d) Remove 7 screws indicated as “I” from the main board connected with front cover.

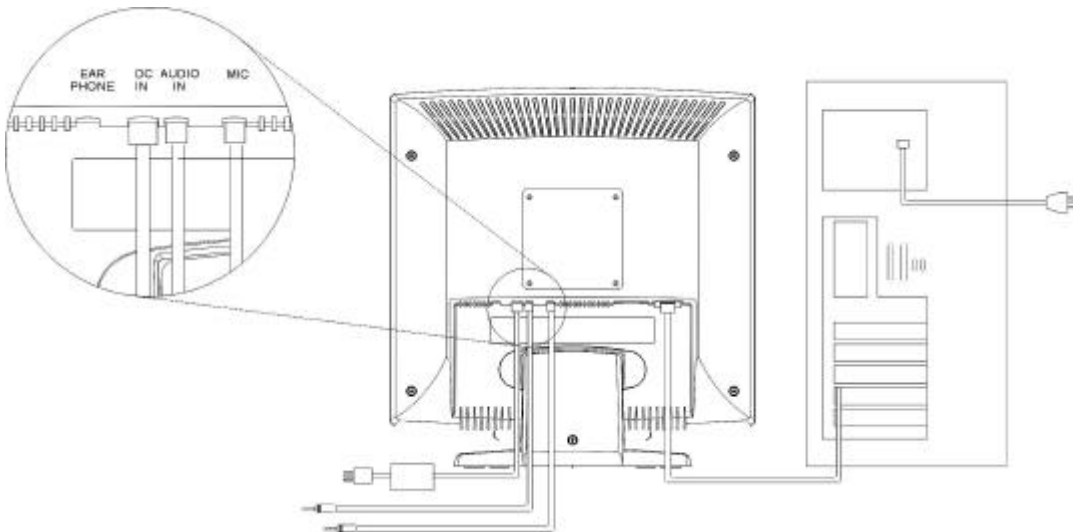


5. General Connection and Applications

Procedures for installing and using this CML171SX LCD monitor are described as below.

5.1 Connecting the monitor to the computer

- 1) Place the display on a flat, sturdy surface. Choose an area free from excessive heat, moisture, and sunlight. Avoid possible sources of electromagnetic interference, such as transformers, motors, and fluorescent lighting.
- 2) Locate the AC power adapter with attached power cable and then connect the power cable to the power jack on the back of the display. Plug the three-prong power cord into a power outlet, and plug the other end into the AC power adapter. The three-prong power cord is a shielded type and is provided as a safety precautions to ensure proper electrical grounding.



Plug the D-SUB 15-pin analog signal cable into the Analog Input port on the back of the display. Connect the other end of the signal cable into your computer's VGA output port. The assignment of the pins of the connector is as follows:

Pin Assignment of 15-pin D-SUB connector			
1	Red Video	9	+5V for DDC circuit
2	Green Video	10	Logic Ground
3	Blue Video	11	Monitor Ground
4	Monitor Ground	12	DDC-Serial Data
5	DDC-Return	13	H-Sync.
6	Red Ground	14	V-Sync.
7	Green Ground	15	DDC-Serial Clock
8	Blue Ground		

3) First turn the PC power switch ON. Then apply power to the display by pressing the power button to turn the monitor on. The power indicator LED will then illuminate.

Note: *Do not force the cable into the connector; line it up carefully so that you don't bend the pins.*

6. Electronic Circuit Description

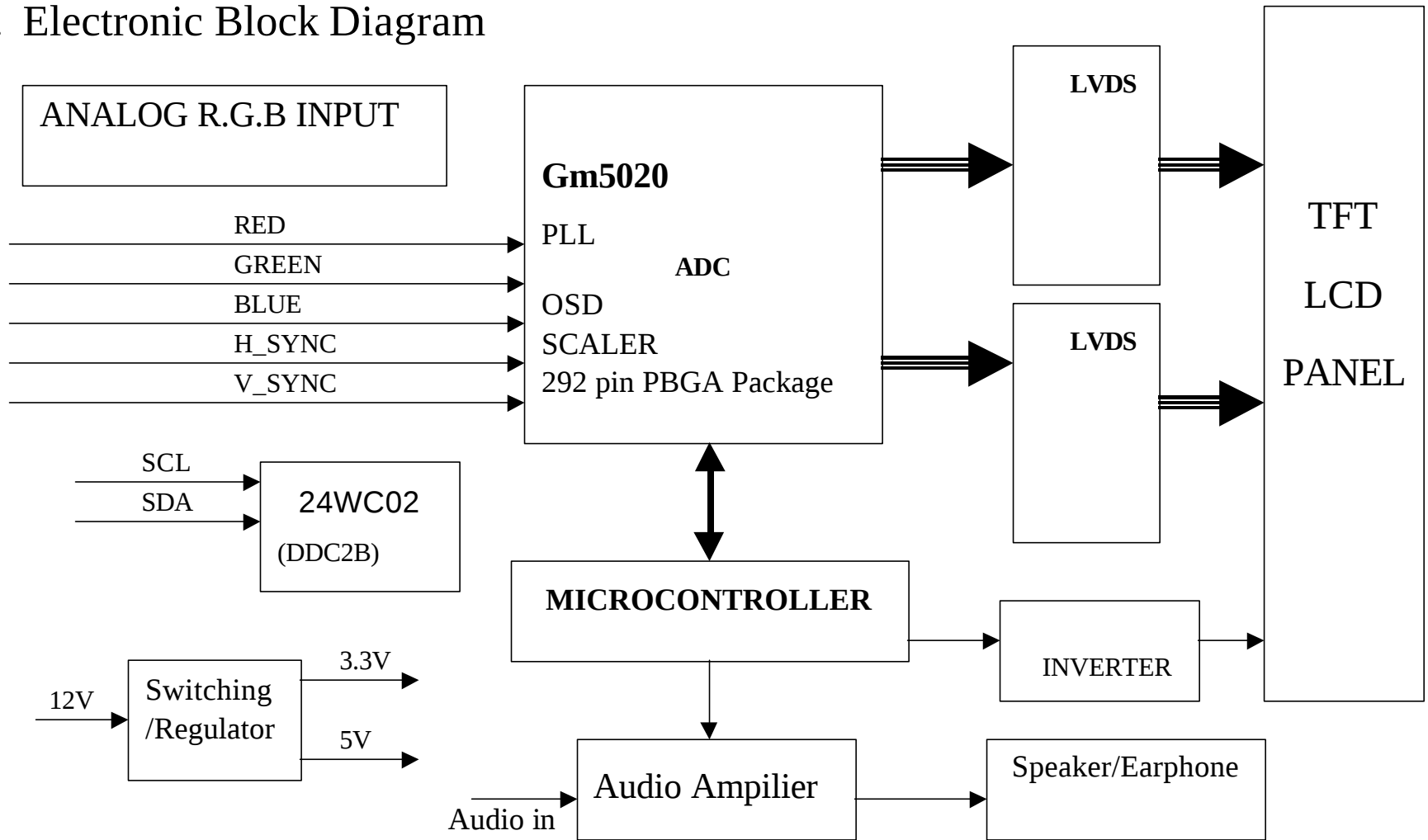
6.1 PCB Board Circuit

The circuit diagrams of main board (PWB-0393) audio board (PWB-0396) Inverter (PWB-0351) key board (PWB-0392) are shown in is shown in Appendix A

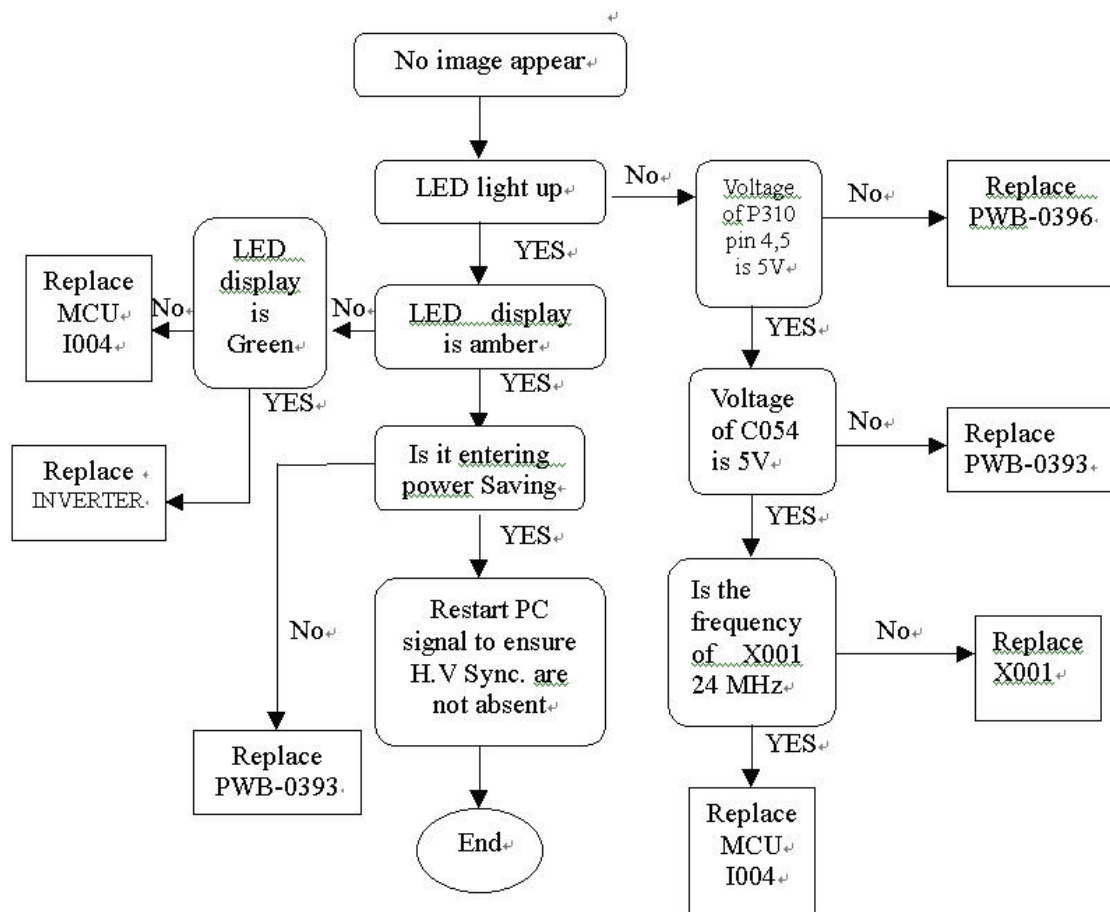
6.2 PCB Layout

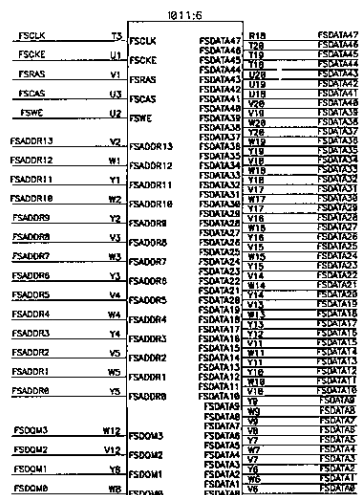
The PCB Layout of main board (PWB-0393) audio board (PWB-0396) Inverter (PWB-0351) key board (PWB-0392) are shown in is shown in Appendix B

7. Electronic Block Diagram

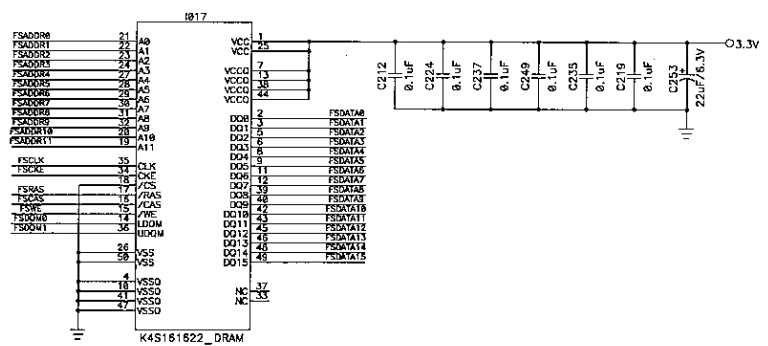
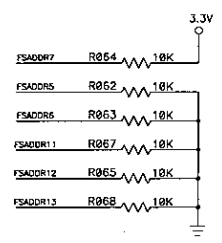


8. Troubleshooting Flow Chart

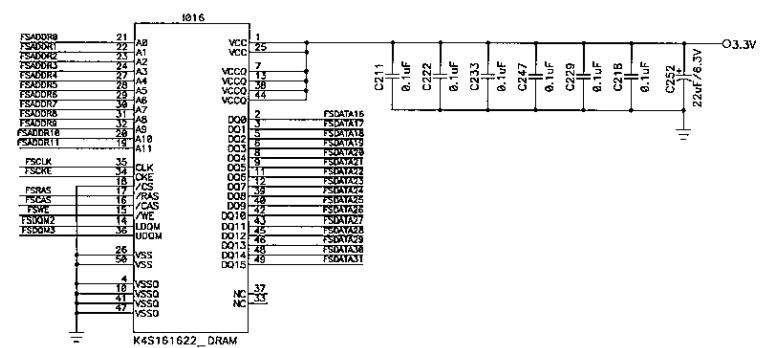




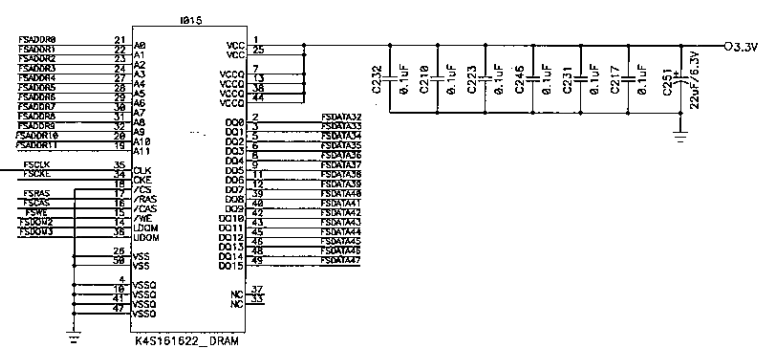
GM58028
FS I/F



K4S161622_DRAM



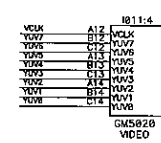
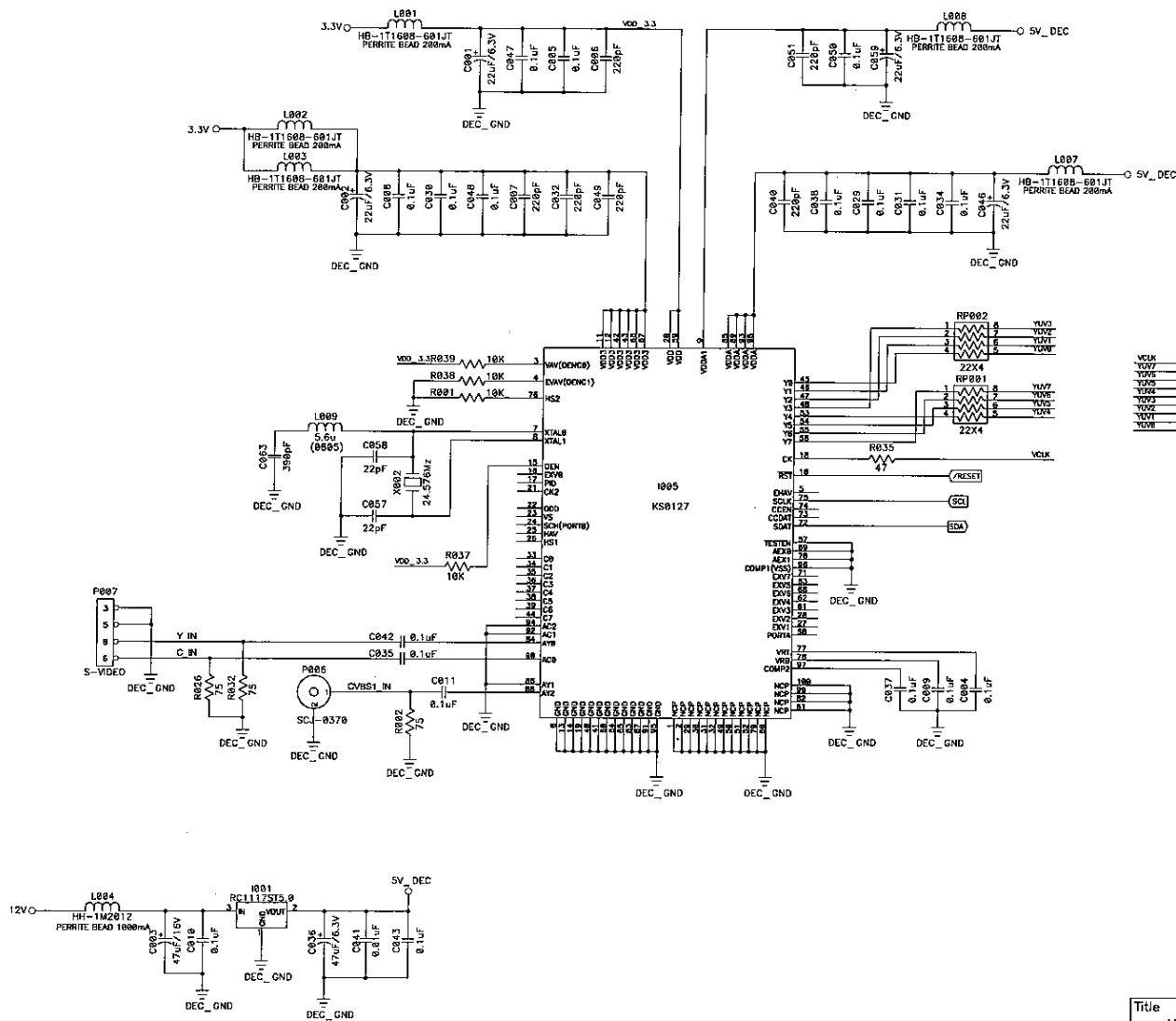
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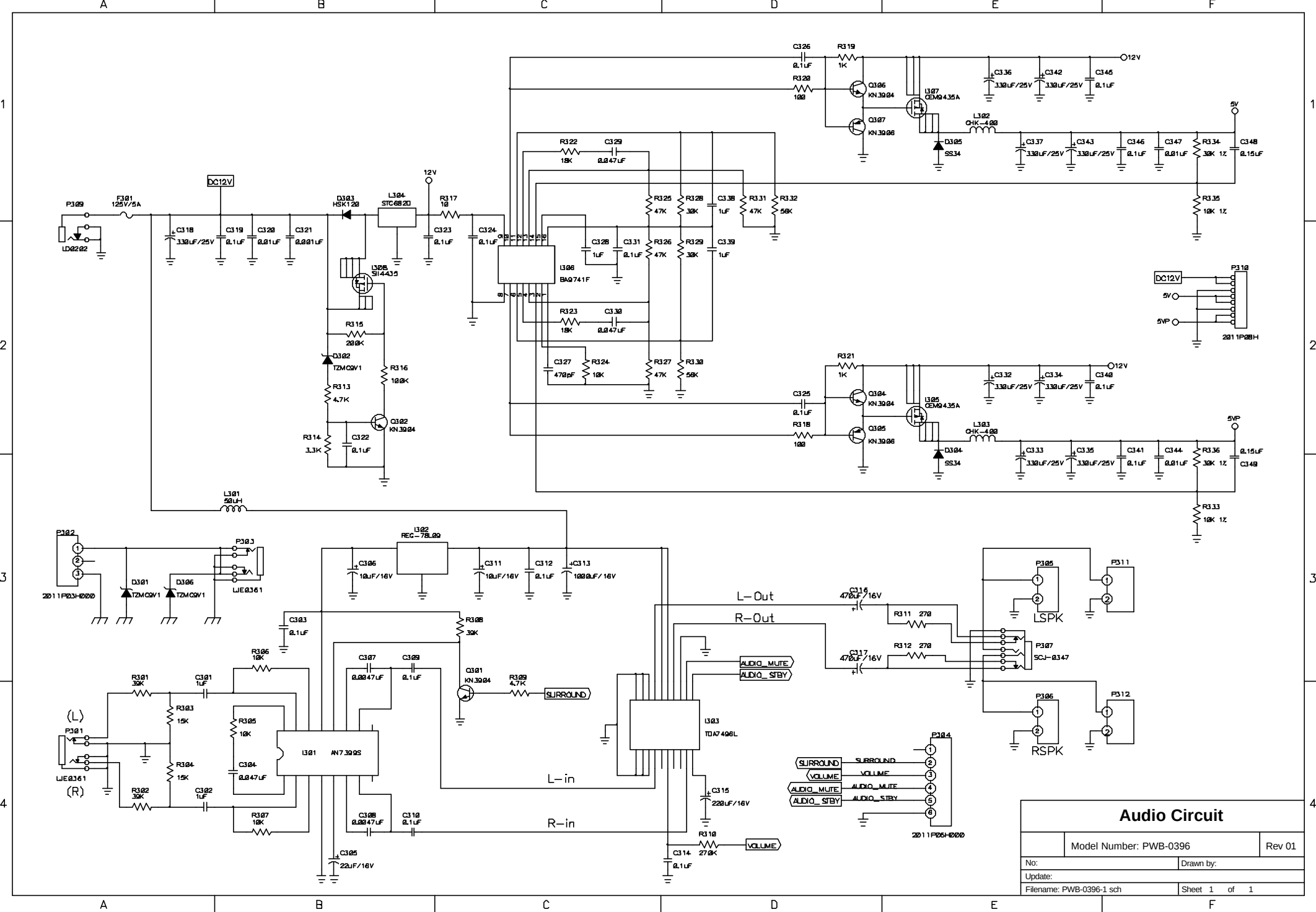
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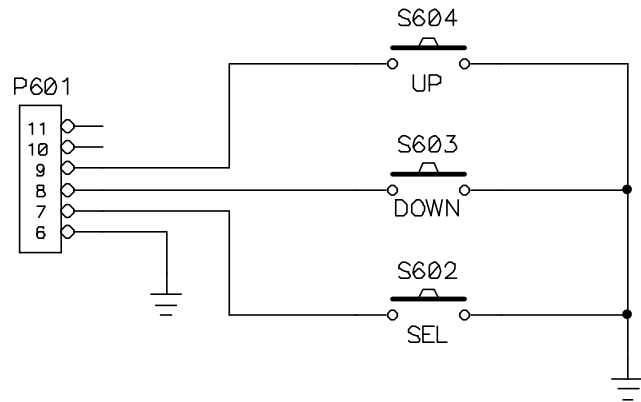
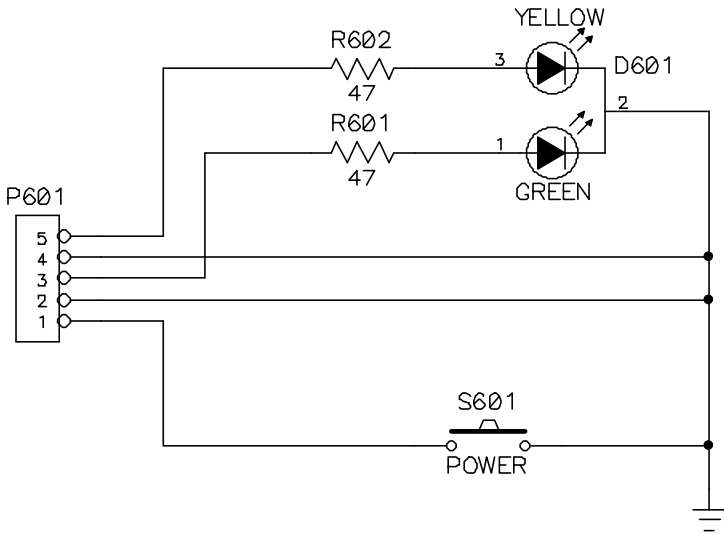




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Video Decoder		
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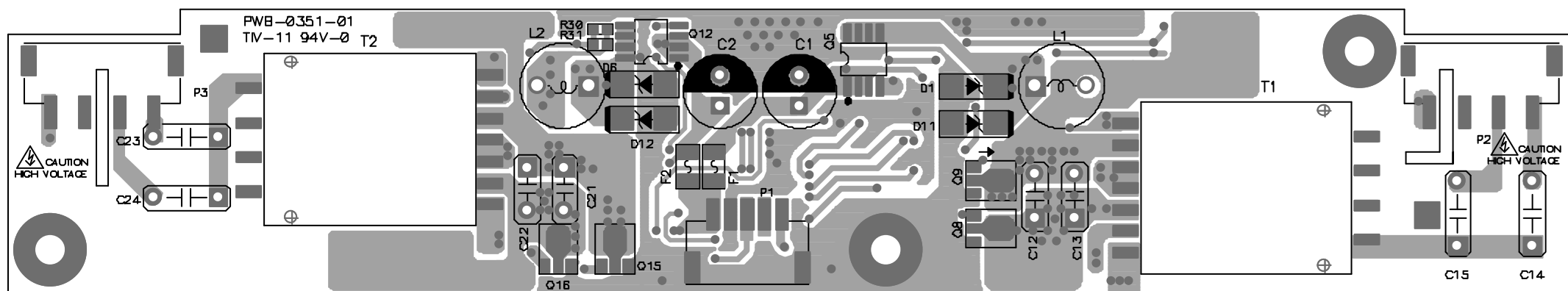
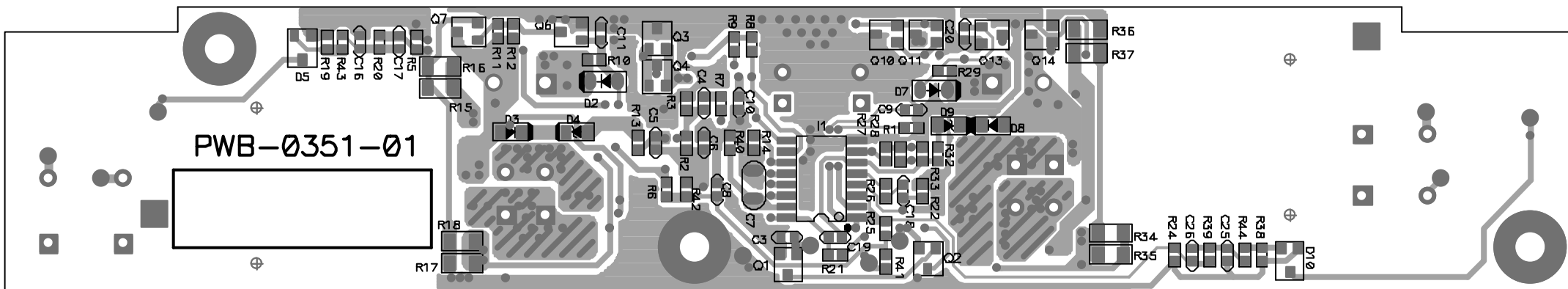


Audio Circuit		
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No:	Drawn by:	
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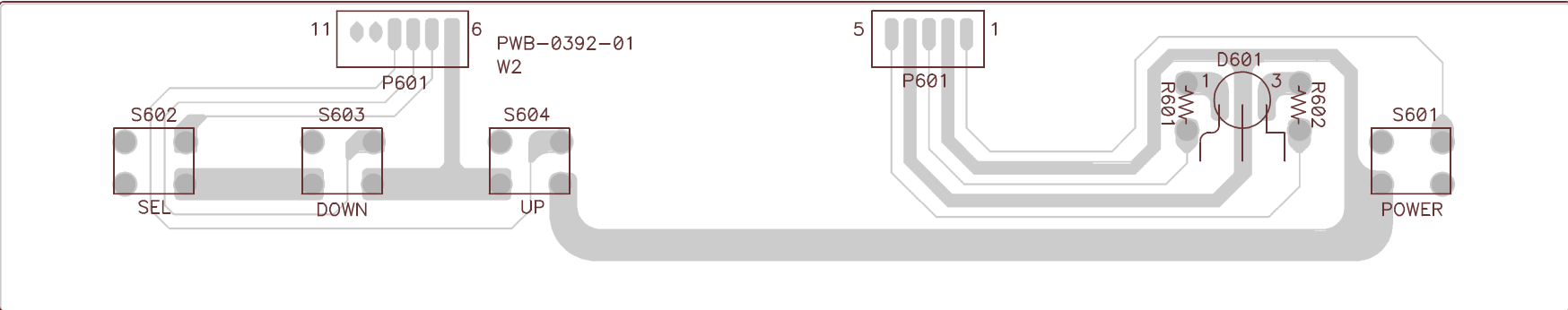
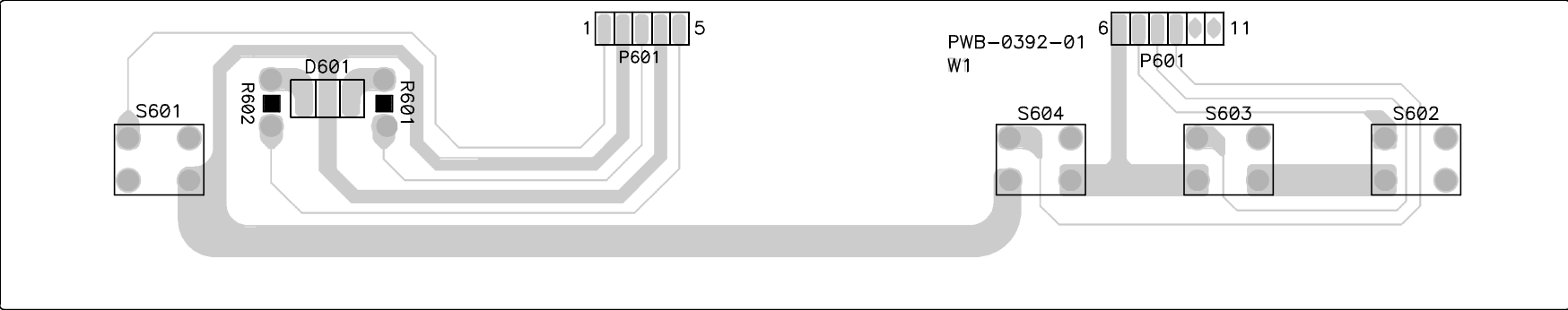


Keyboard Circuit

	Model No. Keyboard	Rev. 01
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Inverter Board PWB-0351



Key Board PWB-0392

APPENDIX C

PCB Parts List

CKT No.	Replace	Part Spec.	Part Number
PWB-0393	-	ASSEMBLY,PCB-MAIN	5097605300
		PWB-0393	
C012	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C013	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C014	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C015	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C016	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C017	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C018	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C019	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C020	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C021	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C022	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C023	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C024	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C025	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C026	-	CAPACITOR,MONOLITHIC SMD REEL	5230011191
		X7R DC 16V 1.00uFK T 0805	
C027	-	CAPACITOR,MONOLITHIC SMD REEL	5230011191
		X7R DC 16V 1.00uFK T 0805	
C028	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	
C033	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C039	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C044	-	CAP.,ELECTROLYTIC(105C) SMD	5218006591
		CE04W 6.3V 47.00UFM T 5x5	

C045	-	CAP.,ELECTROLYTIC(105C) SMD	5218006591
		CE04W 6.3V 47.00UFM T 5x5	
C052	-	CAPACITOR,MONOLITHIC SMD RELL	5240622091
		NPO DC 50V 22.00PFJ T 0603	
C053	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C054	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C055	-	CAPACITOR,MONOLITHIC SMD RELL	5240622091
		NPO DC 50V 22.00PFJ T 0603	
C056	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	
C060	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C061	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	-
C062	-	CAP.,ELECTROLYTIC(105C) SMD	5218006591
		CE04W 6.3V 47.00UFM T 5x5	
C064	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	
C065	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C066	-	CAP.,ELECTROLYTIC(105C) SMD	5218006591
		CE04W 6.3V 47.00UFM T 5x5	
C067	-	CAP.,ELECTROLYTIC(105C) SMD	5218006591
		CE04W 6.3V 47.00UFM T 5x5	
C068	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	
C069	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	
C070	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	
C071	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	
C072	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	
C073	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	
C074	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	
C075	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	
C076	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	

C077	-	CAP.,ELECTROLYTIC(105C) SMD	5218006591
		CE04W 6.3V 47.00UFM T 5x5	
C078	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	
C079	-	CAP.,ELECTROLYTIC(105C) SMD	5218006491
		6.3V 22.00UFM T 4x5.2	
C080	-	CAP.,ELECTROLYTIC(105C) SMD	5218006491
		6.3V 22.00UFM T 4x5.2	
C081	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C082	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C083	-	CAP.,ELECTROLYTIC(105C) SMD	5218006591
		CE04W 6.3V 47.00UFM T 5x5	-
C084	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C085	-	CAP.,ELECTROLYTIC(105C) SMD	5218006491
		6.3V 22.00UFM T 4x5.2	
C086	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C087	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C088	-	CAP.,ELECTROLYTIC(105C) SMD	5218006491
		6.3V 22.00UFM T 4x5.2	
C089	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C090	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C091	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C092	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C093	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C094	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C095	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C096	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
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		NPO DC 50V 47.00PFJ T 0603	-
C098	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-

C099	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C100	-	CAP.,ELECTROLYTIC(105C) SMD	5218006491
		6.3V 22.00UFM T 4x5.2	
C101	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C102	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C103	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C104	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C105	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C106	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C107	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C108	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C109	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C110	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C111	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C112	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C113	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C114	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	-
C115	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	-
C116	-	CAP.,ELECTROLYTIC(105C) SMD	5218006591
		CE04W 6.3V 47.00UFM T 5x5	-
C117	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C118	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C119	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C120	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-

C121	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C122	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C123	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C124	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C125	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C126	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C127	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C128	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C129	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C130	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C131	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-
C132	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C133	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-
C134	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C135	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C136	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C137	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C138	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-
C139	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C140	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C141	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C143	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-

C144	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C145	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C146	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C147	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C148	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C149	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C150	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C152	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C153	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C155	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C156	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C157	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C158	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C159	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C160	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C161	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C162	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C163	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C164	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C165	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C166	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C167	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-

C168	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C169	-	CAP.,ELECTROLYTIC(105C) SMD	5218006491
		6.3V 22.00UFM T 4x5.2	
C170	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C171	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C172	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	-
C173	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C174	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C175	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C176	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C177	-	CAPACITOR,MONOLITHIC SMD RELL	5240622091
		NPO DC 50V 22.00PFJ T 0603	-
C178	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C179	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C180	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C181	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C182	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	-
C183	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	-
C184	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C185	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C186	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C187	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C188	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C189	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-

C190	-	CAP.,ELECTROLYTIC(105C) SMD	5218006491
		6.3V 22.00UFM T 4x5.2	
C191	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C192	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C193	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C194	-	CAPACITOR,MONOLITHIC SMD RELL	5240622091
		NPO DC 50V 22.00PFJ T 0603	-
C195	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C196	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C197	-	CAPACITOR,MONOLITHIC SMD REEL	5240647091
		NPO DC 50V 47.00PFJ T 0603	-
C198	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C199	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C200	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C201	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C202	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C203	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C204	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C205	-	CAP.,ELECTROLYTIC(105C) SMD	5218006491
		6.3V 22.00UFM T 4x5.2	
C206	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C207	-	CAPACITOR,MOLITHIC SMD REEL	5240622191
		NPO 50V 220.00PFJ T 0603	-
C208	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C209	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C213	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C214	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-

C215	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C216	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-
C220	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C221	-	CAP.,ELECTROLYTIC(105C) SMD	5218006591
		CE04W 6.3V 47.00UFM T 5x5	-
C225	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C226	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	-
C227	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-
C228	-	CAPACITOR,MONOLITHIC SMD RELL	5230610291
		X7R 50V 1000.00PFK T 0603	-
C230	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	-
C234	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-
C236	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C238	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C239	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C240	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-
C241	-	CAP.,ELECTROLYTIC(105C) SMD	5218006591
		CE04W 6.3V 47.00UFM T 5x5	-
C242	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C243	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C244	-	CAPACITOR,ELECTROLYTIC (105C)	5216008802
		CE04CH 25V 330.00UFM 8x14	-
C245	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C248	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
D001	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D001	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-

D004	-	DIODE RECTIFIER SBD TSC	6611070541
		1N5817 SBD 20V 1A TAPE 52MM	-
D005	-	DIODE RECTIFIER SBD TSC	6611070541
		1N5817 SBD 20V 1A TAPE 52MM	-
D006	-	DIODE RECTIFIER SBD TSC	6611070541
		1N5817 SBD 20V 1A TAPE 52MM	-
D007	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D007	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D008	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D008	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D009	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D009	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D010	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D010	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D011	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D011	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D012	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D012	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D013	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D013	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D014	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D014	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D015	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D015	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D016	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-

D017	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D017	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D018	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D018	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D019	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D019	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D020	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D020	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
I002	-	IC VOLTAGE DETECTOR HOLTEK	6640000952
		HT7044A SOT-89	
I003	-	IC, MEMORY EEPROM CATALYST	6647026357
		CAT24WC16J-TE13 SOIC-8	
I004	-	IC, MICROCONTROLLER PHILIPS	6647039457
		P89C51RD+IA PLCC44 64K	
I004A	-	IC SOCKET LOW PROFILE SMT	5056304402
		44P PLCC	-
I006	-	IC VOLTAGE REGULATOR FAIRCHILD	6640003867
		RC1117ST-2.5 SOT-223 1A 2.5V	
I007	-	IC, VOLTAGE REGULATOR FAIRCHILD	6640003858
		RC1117ST-3.3 SOT-223 1A 3.3V	
I008	-	IC VOLTAGE REGULATOR FAIRCHILD	6640003867
		RC1117ST-2.5 SOT-223 1A 2.5V	
I009	-	IC, VOLTAGE REGULATOR FAIRCHILD	6640003858
		RC1117ST-3.3 SOT-223 1A 3.3V	
I010	-	IC LINEAR LVDS DECODER THINE	6644001354
		THC63LVDM83A TSSOP 56PIN	
I011	-	IC LSI FLAT PANEL CONT. GENESIS	6647010169
		GM5020BE PBGA-292PIN	
I013	-	IC, MEMORY EEPROM CATALYST	6647051862
		24WC02J-TE13 SO-8	
I014	-	IC LINEAR LVDS DECODER THINE	6644001354
		THC63LVDM83A TSSOP 56PIN	
I018	RA	IC, MOSFET P-CHANNEL CET	6642004951
		CEM9435A SO-8 -30V, -5.3A	
I018	RB	IC MOSFET P-CH. VISHAY-SILICONIX	6644009054
		SI4431DY-T1 30V 5.8A SO-8	

I018	RC	IC MOSFET P-CH.VISHAY-SILICONIX	6644009053
		SI4435DY-T1-A 30V 8A SO-8	
I019	-	IC,DIGITAL TTL SMD PHILIPS	6646032253
		PC 74HCT14D SO-14	
I020	-	IC,VOLTAGE REGULATOR FAIRCHILD	6640003858
		RC1117ST-3.3 SOT-223 1A 3.3V	
L005	-	CORE,FERRITE BEAD CHIP	5062120113
		HH-1M2012-601JT 1000mA/450 Ω	
L006	-	CORE,FERRITE BEAD CHIP	5062120113
		HH-1M2012-601JT 1000mA/450 Ω	
L010	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L011	-	CORE,FERRITE BEAD CHIP	5062120113
		HH-1M2012-601JT 1000mA/450 Ω	
L012	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L013	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L014	-	CORE,FERRITE BEAD CHIP	5062120113
		HH-1M2012-601JT 1000mA/450 Ω	
L015	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L016	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L017	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L018	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L019	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L020	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L021	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L022	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L023	-	CORE,FERRITE BEAD CHIP	5062120113
		HH-1M2012-601JT 1000mA/450 Ω	
L024	-	CORE,FERRITE BEAD CHIP	5062120112
		HB-1T1608-601JT 200mA/450 Ω	
L025	-	CORE,FERRITE BEAD CHIP	5062120113
		HH-1M2012-601JT 1000mA/450 Ω	
P001	-	BASE AND PIN	5056416115
		2011P11H000 LEOCO	-

P002	-	BASE & PIN	5056415852
		2011P08H000 (LEOCO)	-
P003	-	BASE & PIN	5056415570
		2011P05H000 (LEOCO)	-
P004	-	BASE AND PIN	5056415685
		2011P06H000 LEOCO	-
P005	-	BASE & PIN	5056415484
		2011P04H000 (LEOCO)	-
P009	-	CONNECTER,30P (P=1.25MM-L) HRS	5056901707
		DF14-30P-1.25H SIDE ENTRY	-
P010	-	CONNECTOR	5056309110
		DHSL-15UNL2 (LEOCO)	-
Q001	-	TR PNP HF KEC	6623001052
		KRA111S SOT-23 50V 0.1A	
Q002	-	TR PNP HF KEC	6623001052
		KRA111S SOT-23 50V 0.1A	
Q003	-	TR PNP HF KEC	6623001052
		KRA111S SOT-23 50V 0.1A	
Q004	-	TR NPN HF KEC	6621015356
		KN3904S SOT-23 60V 0.2A	
Q005	-	TR NPN HF KEC	6621015356
		KN3904S SOT-23 60V 0.2A	
Q006	-	TR MOSEET P-CH. SILICONIX	6626006456
		SI2301DS-Y1 20V 2.3A SOT-23	
R003	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R004	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R005	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R006	-	RESISTOR,THICK FILM CHIP 0603	5134347209
		RMC 1/16W 4.70KJ T	-
R007	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R008	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R009	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R010	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R011	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R012	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-

R013	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R014	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R015	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R016	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R017	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R018	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R019	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R020	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R021	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R022	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R023	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R024	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R025	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R027	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R028	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R029	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R030	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R031	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R033	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R034	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R036	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R040	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-

R041	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R042	-	RESISTOR,THICK FILM CHIP 0603	5134347209
		RMC 1/16W 4.70KJ T	-
R043	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R044	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R045	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R046	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R047	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R048	-	RESISTOR,THICK FILM CHIP 0603	5134110009
		RMC 1/16W 100.00 F T	-
R049	-	RESISTOR,THICK FILM CHIP 0603	5134322009
		RMC 1/16W 22.00 J T	-
R050	-	RESISTOR,THICK FILM CHIP 0603	5134110009
		RMC 1/16W 100.00 F T	-
R051	-	RESISTOR,THICK FILM CHIP 0603	5134322009
		RMC 1/16W 22.00 J T	-
R053	-	RESISTOR,THICK FILM CHIP 0603	5134322009
		RMC 1/16W 22.00 J T	-
R054	-	RESISTOR,THICK FILM CHIP 0603	5134110009
		RMC 1/16W 100.00 F T	-
R055	-	RESISTOR,THICK FILM CHIP 0603	5134322009
		RMC 1/16W 22.00 J T	-
R059	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R060	-	RESISTOR,THICK FILM CHIP 0603	5134322209
		RMC 1/16W 2.20KJ T	-
R061	-	RESISTOR,THICK FILM CHIP 0603	5134347309
		RMC 1/16W 47.00KJ T	-
R062	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R063	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R064	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R065	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R066	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-

R067	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R068	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R069	-	RESISTOR,THICK FILM CHIP 0603	5134110009
		RMC 1/16W 100.00 F T	-
R070	-	RESISTOR,THICK FILM CHIP 0603	5134375009
		RMC 1/16W 75.00 J T	-
R071	-	RESISTOR,THICK FILM CHIP 0603	5134110009
		RMC 1/16W 100.00 F T	-
R072	-	RESISTOR,THICK FILM CHIP 0603	5134375009
		RMC 1/16W 75.00 J T	-
R073	-	RESISTOR,THICK FILM CHIP 0603	5134110009
		RMC 1/16W 100.00 F T	-
R074	-	RESISTOR,THICK FILM CHIP 0603	5134375009
		RMC 1/16W 75.00 J T	-
R075	-	RESISTOR,THICK FILM CHIP 0603	5134320209
		RMC 1/16W 2.00KJ T	-
R076	-	RESISTOR,THICK FILM CHIP 0603	5134347209
		RMC 1/16W 4.70KJ T	-
R077	-	RESISTOR,THICK FILM CHIP 0603	5134322309
		RMC 1/16W 22.00KJ T	-
R079	-	RESISTOR,THICK FILM CHIP 0603	5134320209
		RMC 1/16W 2.00KJ T	-
R080	-	RESISTOR,THICK FILM CHIP 0603	5134347209
		RMC 1/16W 4.70KJ T	-
RP003	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
RP004	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
RP005	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
RP006	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
RP007	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
RP008	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
RP009	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
RP010	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
RP011	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-

RP012	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
RP013	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
RP014	-	RESISTOR,NETWORK DIP SMD REEL	5160310902
		YCN164220JR 1/16W 22.00 J X4	-
U001	-	PCB	5053103930
		PWB-0393-01 135x160 4L	-
X001	-	CRYSTAL	6699105004
		24MHZ 20PF TXC	-
X003	-	CRYSTAL	6699105004
		24MHZ 20PF TXC	-

CKT No.	Replace	Part Spec.	Part Number
PWB-0396	-	ASSEMBLY,PCB-AUDIO	5097605400
		PWB-0396	-
C301	-	CAPACITOR,MONOLITHIC SMD REEL	5230011191
		X7R DC 16V 1.00uFK T 0805	
C302	-	CAPACITOR,MONOLITHIC SMD REEL	5230011191
		X7R DC 16V 1.00uFK T 0805	
C303	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C304	-	CAPACITOR,MONOLITHIC SMD REEL	5230647391
		X7R DC 50V47000.00pFK T 0603	
C306	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	-
C307	-	CAPACITOR,MONOLITHIC SMD REEL	5230647291
		X7R 50V 4700.00PFK T 0603	-
C308	-	CAPACITOR,MONOLITHIC SMD REEL	5230647291
		X7R 50V 4700.00PFK T 0603	-
C309	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C310	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C311	-	CAP.,ELECTROLYTIC(105C) SMD	5218007891
		CE04W 16V 10.00UFM T 4x5	-
C312	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C313	-	CAPACIOR,ELECTROLYTIC (105C)	5205447102
		CE04W 25V 470.00UFM * 10X13	-
C314	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C315	-	CAPACIOR,ELECTROLYTIC (105C)	5205422102
		CE04W 25V 220.00UFM * 8X12	-
C316	-	CAPACIOR,ELECTROLYTIC (105C)	5205447102
		CE04W 25V 470.00UFM * 10X13	-
C317	-	CAPACIOR,ELECTROLYTIC (105C)	5205447102
		CE04W 25V 470.00UFM * 10X13	-
C318	-	CAPACITOR,ELECTROLYTIC (105C)	5216008802
		CE04CH 25V 330.00UFM 8x14	-
C319	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C320	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-
C321	-	CAPACITOR,MONOLITHIC SMD RELL	5230610291
		X7R 50V 1000.00PFK T 0603	-

C322	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C323	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C324	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C325	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C326	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C327	-	CAPACITOR,MONOLITHIC SMD REEL	5240647191
		NPO 50V 470.00PFJ T 0603	-
C328	-	CAPACITOR,MONOLITHIC SMD REEL	5230011191
		X7R DC 16V 1.00uFK T 0805	
C329	-	CAPACITOR,MONOLITHIC SMD REEL	5230647391
		X7R DC 50V47000.00pFK T 0603	
C330	-	CAPACITOR,MONOLITHIC SMD REEL	5230647391
		X7R DC 50V47000.00pFK T 0603	
C331	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C333	-	CAPACITOR,ELECTROLYTIC (105C)	5216008802
		CE04CH 25V 330.00UFM 8x14	-
C334	-	CAPACITOR,ELECTROLYTIC (105C)	5216008802
		CE04CH 25V 330.00UFM 8x14	-
C335	-	CAPACITOR,ELECTROLYTIC (105C)	5216008802
		CE04CH 25V 330.00UFM 8x14	-
C337	-	CAPACITOR,ELECTROLYTIC (105C)	5216008802
		CE04CH 25V 330.00UFM 8x14	-
C338	-	CAPACITOR,MONOLITHIC SMD REEL	5230011191
		X7R DC 16V 1.00uFK T 0805	
C339	-	CAPACITOR,MONOLITHIC SMD REEL	5230011191
		X7R DC 16V 1.00uFK T 0805	
C340	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C341	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C342	-	CAPACITOR,ELECTROLYTIC (105C)	5216008802
		CE04CH 25V 330.00UFM 8x14	-
C343	-	CAPACITOR,ELECTROLYTIC (105C)	5216008802
		CE04CH 25V 330.00UFM 8x14	-
C344	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-
C345	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-

C346	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C347	-	CAPACITOR,MONOLITHIC SMD RELL	5230610391
		X7R 50V10000.00PFK T 0603	-
C348	-	CAPACITOR,MONOLITHIC SMD REEL	5230013491
		X7R DC 25V 0.15uFK T 0805	
C349	-	CAPACITOR,MONOLITHIC SMD REEL	5230013491
		X7R DC 25V 0.15uFK T 0805	
D301	-	DIODE ZENER SMD REEL VISHAY	6615002357
		TZMC9V1 8.5-9.6V 0.5W SOD80	
D302	-	DIODE ZENER SMD REEL VISHAY	6615002357
		TZMC9V1 8.5-9.6V 0.5W SOD80	
D303	RA	DIODE SWITCHING SMD HIT	6613003052
		HSK120	-
D303	RB	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D304	-	DIODE RECTIFIER	6611026555
		SS34 SMD (3.0A 40V)	-
D305	-	DIODE RECTIFIER	6611026555
		SS34 SMD (3.0A 40V)	-
D306	-	DIODE ZENER SMD REEL VISHAY	6615002357
		TZMC9V1 8.5-9.6V 0.5W SOD80	
F301	-	FUSE	5054450072
		125V/5A,FB,3.2X7.1L,UL/CSA	-
I301	-	IC,3D SURROUND PANASONIC	6644000902
		AN7399S SMD 16PIN	
I302	-	IC VOLTAGE REGULATOR KEC	6640000134
		KIA78S09P-TA 9V 0.15A TO-92	
I303	-	IC,LINEAR 2W+2W AMPLIFIER ST	6644037601
		TDA7496L DIP-20	
I305	RA	IC,MOSFET P-CHANNEL CET	6642004951
		CEM9435A SO-8 -30V,-5.3A	
I305	RB	IC MOSFET P-CH.VISHAY-SILICONIX	6644009053
		SI4435DY-T1-A 30V 8A SO-8	
I305	RC	IC MOSFET P-CH.VISHAY-SILICONIX	6644009054
		SI4431DY-T1 30V 5.8A SO-8	-
I306	-	IC SWITCHING REGULATOR ROHM	6640008452
		BA9741F SOP-16 2-CHANNEL	
I307	RA	IC,MOSFET P-CHANNEL CET	6642004951
		CEM9435A SO-8 -30V,-5.3A	
I307	RB	IC MOSFET P-CH.VISHAY-SILICONIX	6644009053
		SI4435DY-T1-A 30V 8A SO-8	
I307	RC	IC MOSFET P-CH.VISHAY-SILICONIX	6644009054
		SI4431DY-T1 30V 5.8A SO-8	-

I308	RA	IC,MOSFET P-CHANNEL CET	6642004951
		CEM9435A SO-8 -30V,-5.3A	
I308	RB	IC MOSFET P-CH.VISHAY-SILICONIX	6644009053
		SI4435DY-T1-A 30V 8A SO-8	
I308	RC	IC MOSFET P-CH.VISHAY-SILICONIX	6644009054
		SI4431DY-T1 30V 5.8A SO-8	-
L301	-	COIL,CHOKE	5062129200
		CHK-292 50UHK	
L302	-	COIL,CHOKE	5062140000
		CHK-400 20UH T50-26B 1X20.5TS	
L303	-	COIL,CHOKE	5062140000
		CHK-400 20UH T50-26B 1X20.5TS	
L304	-	FILTER,SMD	5050717491
		STC-682D	-
P301	-	EARPHON TACK 3.50	5056300105
		SCJ-0349A-U-GN	-
P302	-	BASE AND PIN	5056415384
		2011P03H000 (LEOCO)	-
P303	-	EARPHON JACK 3.50	5056300103
		SCJ-0349A-U-PK	-
P304	-	BASE AND PIN	5056415685
		2011P06H000 LEOCO	-
P305	-	BASE AND PIN	5056415287
		B2B-ZR JST	-
P306	-	BASE AND PIN	5056415287
		B2B-ZR JST	-
P307	-	EARPHONE JACK,3.5MM	5056302037
		JY-3551-21-070	-
P309	-	DC JACK	5056300707
		LD-0202-2.5 (LIH SHENG)	-
P310	-	WIRE ASS'Y,W/08P CONN.	5057408064
		1007#24 A2001H02/B2011HR2 L=40mm	-
Q301	-	TR NPN HF KEC	6621015356
		KN3904S SOT-23 60V 0.2A	
Q302	-	TR NPN HF KEC	6621015356
		KN3904S SOT-23 60V 0.2A	
Q304	-	TR NPN HF KEC	6621015356
		KN3904S SOT-23 60V 0.2A	
Q305	-	TR PNP SMD ZOWIE	6623002956
		MMBT3906 SOT-23 40V 0.2A	
Q306	-	TR NPN HF KEC	6621015356
		KN3904S SOT-23 60V 0.2A	
Q307	-	TR PNP SMD ZOWIE	6623002956
		MMBT3906 SOT-23 40V 0.2A	

R301	-	RESISTOR,THICK FILM CHIP 0603	5134339309
		RMC 1/16W 39.00KJ T	-
R302	-	RESISTOR,THICK FILM CHIP 0603	5134339309
		RMC 1/16W 39.00KJ T	-
R303	-	RESISTOR,THICK FILM CHIP 0603	5134315309
		RMC 1/16W 15.00KJ T	-
R304	-	RESISTOR,THICK FILM CHIP 0603	5134315309
		RMC 1/16W 15.00KJ T	-
R305	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R306	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R307	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R308	-	RESISTOR,THICK FILM CHIP 0603	5134339309
		RMC 1/16W 39.00KJ T	-
R309	-	RESISTOR,THICK FILM CHIP 0603	5134347209
		RMC 1/16W 4.70KJ T	-
R310	-	RESISTOR,THICK FILM CHIP 0603	5134327409
		REC 1/16W 270.00KJ T (KOA)	-
R311	RA	RESISTOR,METAL FILM CHIP 1206	5131327109
		RMC 1/8W 270.00 J T	-
R311	RB	RESISTOR,THICK FILM CHIP 1206	5131127009
		RMC 1/8W 270.00 FT	-
R312	RA	RESISTOR,METAL FILM CHIP 1206	5131327109
		RMC 1/8W 270.00 J T	-
R312	RB	RESISTOR,THICK FILM CHIP 1206	5131127009
		RMC 1/8W 270.00 FT	-
R313	-	RESISTOR,THICK FILM CHIP 0603	5134347209
		RMC 1/16W 4.70KJ T	-
R314	-	RESISTOR,THICK FILM CHIP 0603	5134333209
		RMC 1/16W 3.30KJ T	-
R315	-	RESISTOR,THICK FILM CHIP 0603	5134320409
		RMC 1/16W 200.00K J T	-
R316	-	RESISTOR,THICK FILM CHIP 0603	5134310409
		RMC 1/16W 100.00KJ T	-
R317	-	RESISTOR,THICK FILM CHIP 0603	5134310009
		RMC 1/16W 10.00 J T	-
R318	-	RESISTOR,THICK FILM CHIP 0603	5134310109
		RMC 1/16W 100.00 J T	-
R319	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R320	-	RESISTOR,THICK FILM CHIP 0603	5134310109
		RMC 1/16W 100.00 J T	-

R321	-	RESISTOR,THICK FILM CHIP 0603	5134310209
		RMC 1/16W 1.00KJ T	-
R322	-	RESISTOR,THICK FILM CHIP 0603	5134318309
		RMC 1/16W 18.00KJ T	-
R323	-	RESISTOR,THICK FILM CHIP 0603	5134318309
		RMC 1/16W 18.00KJ T	-
R324	-	RESISTOR,THICK FILM CHIP 0603	5134310309
		RMC 1/16W 10.00KJ T	-
R325	-	RESISTOR,THICK FILM CHIP 0603	5134347309
		RMC 1/16W 47.00KJ T	-
R326	-	RESISTOR,THICK FILM CHIP 0603	5134347309
		RMC 1/16W 47.00KJ T	-
R327	-	RESISTOR,THICK FILM CHIP 0603	5134347309
		RMC 1/16W 47.00KJ T	-
R328	-	RESISTOR,CHIP FILM	5134330309
		RSM 1/16W 30.00KJ T	-
R329	-	RESISTOR,CHIP FILM	5134330309
		RSM 1/16W 30.00KJ T	-
R330	-	RESISTOR,THICK FILM CHIP 0603	5134356309
		RMC 1/16W 56.00KJ T	-
R331	-	RESISTOR,THICK FILM CHIP 0603	5134347309
		RMC 1/16W 47.00KJ T	-
R332	-	RESISTOR,THICK FILM CHIP 0603	5134356309
		RMC 1/16W 56.00KJ T	-
R333	-	RESISTOR,THICK FILM CHIP 0603	5134110029
		RSM 1/16W 10.00K F T	-
R334	-	RESISTOR,CHIP FILM	5134130029
		RSM 1/16W 30.00KF T	-
R335	-	RESISTOR,THICK FILM CHIP 0603	5134110029
		RSM 1/16W 10.00K F T	-
R336	-	RESISTOR,CHIP FILM	5134130029
		RSM 1/16W 30.00KF T	-
U301	-	PCB	5053103960
		PWB-0396-01 170x160 2L	-

CKT No.	Replace	Part Spec.	Part Number
Inverter	-	MONITOR	5098700304
		TIV-11	-
PWB-0351	-	ASSEMBLY,PCB-POWER	5097672126
		PWB-0351	-
C001	-	CAPACITOR,ELECTROLYTIC(105C)	5216013591
		CE04CH 25V 220.00UFM 8x11.5	-
C002	-	CAPACITOR,ELECTROLYTIC(105C)	5216013591
		CE04CH 25V 220.00UFM 8x11.5	-
C003	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C003	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C004	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C004	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C005	-	CAPACITOR,MONOLITHIC SMD REEL	5230012991
		Y5V 16V 0.47UFZ T 0603	-
C006	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C006	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C007	-	CAPACITOR,MONOLITHIC SMD REEL	5230008491
		Y5V 16V 4.70UFZ T 1206	-
C008	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C008	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C009	-	CAPACITOR,MONOLITHIC SMD REEL	5240002591
		NPO 25V 820.00PFJ T 0603	-
C010	-	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C011	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C011	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C012	-	CAPACITOR,METALLIZED P.E	5276110491
		CF93M 100V 0.1UFJ T	-
C013	-	CAPACITOR,METALLIZED P.E	5276110491
		CF93M 100V 0.1UFJ T	-
C014	-	CAPACITOR,CERAMIC CC45 P=7.5MM	5249901001
		SL DC 3KV 18.00PFJ *	

C015	-	CAPACITOR,CERAMIC CC45 P=7.5MM	5249901001
		SL DC 3KV 18.00PFJ *	
C016	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C016	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C017	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C017	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C018	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C018	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C019	-	CAPACITOR,MONOLITHIC SMD REEL	5230012991
		Y5V 16V 0.47UFZ T 0603	-
C020	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C020	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C021	-	CAPACITOR,METALLIZED P.E	5276110491
		CF93M 100V 0.1UFJ T	-
C022	-	CAPACITOR,METALLIZED P.E	5276110491
		CF93M 100V 0.1UFJ T	-
C023	-	CAPACITOR,CERAMIC CC45 P=7.5MM	5249901001
		SL DC 3KV 18.00PFJ *	
C024	-	CAPACITOR,CERAMIC CC45 P=7.5MM	5249901001
		SL DC 3KV 18.00PFJ *	
C025	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C025	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
C026	RA	CAPACITOR,MONOLITHIC SMD REEL	5230009491
		X7R 16V 0.10UFK T 0603	-
C026	RB	CAPACITOR,MONOLITHIC SMD RELL	5230005491
		Y5V 25V 0.10UFZ T 0603	-
D001	RA	DIODE RECTIFIER SBD DIODES	6611070452
		B240 40V 2A SBM	
D002	RA	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D003	RA	DIODE SWITCHING SMD ROHM	6613002551
		1SS355TE-17(T) UMD2 40V 0.1A	
D004	RA	DIODE ZENER ROHM	6615001052
		UDZS11B 10.76 11.22V/5mA	

D004	RB	DIODE ZENER SMD DII	6615026451
		BZT52C11S 10.4V~11.6V 5mA SOD-323	
D005	RA	DIODE SWITCHING SMD ZOWIE	6613000758
		BAV99 100V 150MA DUAL SOT-23	
D005	RB	DIODE SWITCHING ROHM	6613000754
		DAN217 T-146	-
D006	RA	DIODE RECTIFIER SBD DIODES	6611070452
		B240 40V 2A SBM	
D007	RA	DIODE SWITCHING SMD ROHM	6613003059
		RLS4148 (LL-34)SMD	-
D008	RA	DIODE SWITCHING SMD ROHM	6613002551
		1SS355TE-17(T) UMD2 40V 0.1A	
D009	RA	DIODE ZENER ROHM	6615001052
		UDZS11B 10.76 11.22V/5mA	
D009	RB	DIODE ZENER SMD DII	6615026451
		BZT52C11S 10.4V~11.6V 5mA SOD-323	
D010	RA	DIODE SWITCHING SMD ZOWIE	6613000758
		BAV99 100V 150MA DUAL SOT-23	
D010	RB	DIODE SWITCHING ROHM	6613000754
		DAN217 T-146	-
D011	RA	DIODE RECTIFIER SBD DIODES	6611070452
		B240 40V 2A SBM	
D012	RA	DIODE RECTIFIER SBD DIODES	6611070452
		B240 40V 2A SBM	
F001	RA	FUSE SMD 3216FF-2.5A BUSSMANN	5054425090
		63V/2.5A,FB,1206,UL/CSA	
F002	RA	FUSE SMD 3216FF-2.5A BUSSMANN	5054425090
		63V/2.5A,FB,1206,UL/CSA	
I001	-	IC,PULSE WIDTH MODULATOR TI	6644014103
		TL1451A 16PIN	
L001	-	COIL,CHOKE	5062133100
		CHK-331 100UHK DR10X8 0.4X47TS	
L002	-	COIL,CHOKE	5062133100
		CHK-331 100UHK DR10X8 0.4X47TS	
P001	-	BASE AND PIN	5056415560
		S5B-PH-SM3-TB (JST)	-
P002	-	CONNECTOR	5056304007
		SM04(4.0)B-BHS-TB JST	-
P003	-	CONNECTOR	5056304007
		SM04(4.0)B-BHS-TB JST	-
Q001	RA	TR NPN HF SMD ROHM	6621001855
		DTC144WKA	
Q002	RA	TR PNP HF SMD ROHM	6623001051
		DTA144WKA	

Q003	RA	TR PNP SMD ZOWIE	6623002956
		MMBT3906 SOT-23 40V 0.2A	
Q003	RB	TR PNP HF SMD FAIR	6623014351
		KST3906 -40V/0.2A	
Q004	RA	TR NPN SMD ZOWIE	6622002257
		MMBT3904 SOT-23 60V 0.2A	
Q004	RB	TR NPN HF SMD FAIR	6621038451
		KST3904 40V/0.2A	
Q005	RA	IC,MOSFET P-CHANNEL VISHAY SILICONIX	6642000603
		SI9435DY SO-08	
Q005	RB	IC,DIGITAL MOS FAIR	6645022900
		FDS9435A	
Q005	RC	IC MOSFET P-CH.VISHAY-SILICONIX	6644009054
		SI4431DY-T1 30V 5.8A SO-8	-
Q006	RA	TR MOSFET N-CHANNEL SMD FAIR	6626004655
		2N7002 SOT-23 60V 115mA	
Q006	RB	TR FET MOS DII	6626004954
		2N7002-7 N-CH SOT-23 SMD	
Q007	RA	TR NPN SMD ZOWIE	6622002257
		MMBT3904 SOT-23 60V 0.2A	
Q007	RB	TR NPN HF SMD FAIR	6621038451
		KST3904 40V/0.2A	
Q008	RA	TR NPN HF SMD ROHM	6621010352
		2SC4672Q	
Q009	RA	TR NPN HF SMD ROHM	6621010352
		2SC4672Q	
Q010	RA	TR PNP SMD ZOWIE	6623002956
		MMBT3906 SOT-23 40V 0.2A	
Q010	RB	TR PNP HF SMD FAIR	6623014351
		KST3906 -40V/0.2A	
Q011	RA	TR NPN SMD ZOWIE	6622002257
		MMBT3904 SOT-23 60V 0.2A	
Q011	RB	TR NPN HF SMD FAIR	6621038451
		KST3904 40V/0.2A	
Q012	RA	IC,MOSFET P-CHANNEL VISHAY SILICONIX	6642000603
		SI9435DY SO-08	
Q012	RB	IC,DIGITAL MOS FAIR	6645022900
		FDS9435A	
Q012	RC	IC MOSFET P-CH.VISHAY-SILICONIX	6644009054
		SI4431DY-T1 30V 5.8A SO-8	-
Q013	RA	TR MOSFET N-CHANNEL SMD FAIR	6626004655
		2N7002 SOT-23 60V 115mA	
Q013	RB	TR FET MOS DII	6626004954
		2N7002-7 N-CH SOT-23 SMD	

Q014	RA	TR NPN SMD ZOWIE	6622002257
		MMBT3904 SOT-23 60V 0.2A	
Q014	RB	TR NPN HF SMD FAIR	6621038451
		KST3904 40V/0.2A	
Q015	RA	TR NPN HF SMD ROHM	6621010352
		2SC4672Q	
Q016	RA	TR NPN HF SMD ROHM	6621010352
		2SC4672Q	
R001	-	RESISTOR,THICK FILM CHIP 0603	5134151019
		RSM 1/16W 5.10KF	-
R002	-	RESISTOR,THICK FILM CHIP 0603	5134110039
		RMC 1/16W 100.00KF T	
R003	-	RESISTOR,THICK FILM CHIP 0603	5134110039
		RMC 1/16W 100.00KF T	
R005	-	RESISTOR,THICK FILM CHIP 0603	5134139029
		RSM 1/16W 39.00KF T	-
R006	-	RESISTOR,THICK FILM CHIP 0603	5134133029
		RSM 1/16W 33.00KF T	-
R007	-	RESISTOR,THICK FILM CHIP 0603	5134300009
		RMC 1/16W 0.00 J T	-
R008	-	RESISTOR,THICK FILM CHIP 0603	5134110019
		RSM 1/16W 1.00KF T	-
R009	-	RESISTOR,THECK FILM CHIP 0603	5134330209
		RMC 1/16W 3.00KJ T	-
R010	-	RESISTOR,THICK FILM CHIP 0603	5134110049
		RSM 1/16W 1.00MF	-
R011	-	RESISTOR,THICK FILM CHIP 0603	5134362109
		RMC 1/16W 620.00 J T	-
R012	-	RESISTOR,THICK FILM CHIP 0603	5134362109
		RMC 1/16W 620.00 J T	-
R013	-	RESISTOR,THICK FILM CHIP 0603	5134110039
		RMC 1/16W 100.00KF T	
R014	-	RESISTOR,THICK FILM CHIP 0603	5134110039
		RMC 1/16W 100.00KF T	
R015	-	RESISTOR,THICK FILM CHIP 1206	5131312209
		RMC 1/8W 1.20KJ T	-
R016	-	RESISTOR,THICK FILM CHIP 1206	5131312209
		RMC 1/8W 1.20KJ T	-
R017	-	RESISTOR,THICK FILM CHIP 1206	5131312209
		RMC 1/8W 1.20KJ T	-
R018	-	RESISTOR,THICK FILM CHIP 1206	5131312209
		RMC 1/8W 1.20KJ T	-
R019	-	RESISTOR,THICK FILM CHIP 0603	5134110019
		RSM 1/16W 1.00KF T	-

R020	-	RESISTOR,THICK FILM CHIP 0603	5134197619
		RSM 1/16W 97.60KF T	-
R021	-	RESISTOR,THICK FILM CHIP 0603	5134110039
		RMC 1/16W 100.00KF T	
R022	-	RESISTOR,THICK FILM CHIP 0603	5134110039
		RMC 1/16W 100.00KF T	
R024	-	RESISTOR,THICK FILM CHIP 0603	5134139029
		RSM 1/16W 39.00KF T	-
R025	-	RESISTOR,THICK FILM CHIP 0603	5134133029
		RSM 1/16W 33.00KF T	-
R026	-	RESISTOR,THICK FILM CHIP 0603	5134300009
		RMC 1/16W 0.00 J T	-
R027	-	RESISTOR,THICK FILM CHIP 0603	5134110019
		RSM 1/16W 1.00KF T	-
R028	-	RESISTOR,THECK FILM CHIP 0603	5134330209
		RMC 1/16W 3.00KJ T	-
R029	-	RESISTOR,THICK FILM CHIP 0603	5134110049
		RSM 1/16W 1.00MF	-
R030	-	RESISTOR,THICK FILM CHIP 0603	5134362109
		RMC 1/16W 620.00 J T	-
R031	-	RESISTOR,THICK FILM CHIP 0603	5134362109
		RMC 1/16W 620.00 J T	-
R032	-	RESISTOR,THICK FILM CHIP 0603	5134110039
		RMC 1/16W 100.00KF T	
R033	-	RESISTOR,THICK FILM CHIP 0603	5134110039
		RMC 1/16W 100.00KF T	
R034	-	RESISTOR,THICK FILM CHIP 1206	5131312209
		RMC 1/8W 1.20KJ T	-
R035	-	RESISTOR,THICK FILM CHIP 1206	5131312209
		RMC 1/8W 1.20KJ T	-
R036	-	RESISTOR,THICK FILM CHIP 1206	5131312209
		RMC 1/8W 1.20KJ T	-
R037	-	RESISTOR,THICK FILM CHIP 1206	5131312209
		RMC 1/8W 1.20KJ T	-
R038	-	RESISTOR,THICK FILM CHIP 0603	5134110019
		RSM 1/16W 1.00KF T	-
R039	-	RESISTOR,THICK FILM CHIP 0603	5134197619
		RSM 1/16W 97.60KF T	-
R040	-	RESISTOR,THICK FILM CHIP 0603	5134168029
		RMC 1/16W 68.00KF T	-
R041	-	RESISTOR,THICK FILM CHIP 0603	5134168029
		RMC 1/16W 68.00KF T	-
R042	-	RESISTOR,THICK FILM CHIP 0603	5134156029
		RSM 1/16W 56.00KF T	-

R043	-	RESISTOR,THICK FILM CHIP 0603	5134151029
		RSM 1/16W 51.00K F	-
R044	-	RESISTOR,THICK FILM CHIP 0603	5134151029
		RSM 1/16W 51.00K F	-
T001	-	POWER TRANSFORMER, SWITCHING	5061375600
		TPW-756	
T002	-	POWER TRANSFORMER, SWITCHING	5061375600
		TPW-756	
U001	-	PCB	5053103510
		PWB-0351-01 182x33	-
Y001	-	ADHESIVE,HOLT MELT	5036200701
		LB-1101(1.1x30.0CM) UL94V0	-

CKT No.	Replace	Part Spec.	Part Number
PWB-0392	-	ASSEMBLY,PCB-KEY BOARD	5097605200
		PWB-0392	-
D601	-	DIODE,LED	6618019900
		CSL-F300YG2CT YELLOW/GREEN 3MM	-
P103	-	WIRE ASS'Y W/11P CONN	5057411101
		2010S11 L=245MM REV.01	-
R601	-	RESISTOR,CARBON FILM	5142147095
		RD S B 1/6W 47.00 J T	-
R602	-	RESISTOR,CARBON FILM	5142147095
		RD S B 1/6W 47.00 J T	-
S601	-	SWITCH,TACT SPST SKHHAM2520-TT	5054512951
		DC12V 50MA F=160GF H=5MM	-
S602	-	SWITCH,TACT SPST SKHHAM2520-TT	5054512951
		DC12V 50MA F=160GF H=5MM	-
S603	-	SWITCH,TACT SPST SKHHAM2520-TT	5054512951
		DC12V 50MA F=160GF H=5MM	-
S604	-	SWITCH,TACT SPST SKHHAM2520-TT	5054512951
		DC12V 50MA F=160GF H=5MM	-
U601	-	PCB	5053103920
		PWB-0392-01 167.5x152	-

Accessory Part

CKT No.	Part Spec.	Part Number
P101	WIRE ASS'Y SIGNAL CABLE	5057415190
	UL2919(3+5)GRAY D-SUB*2 L=1800	-
A301	AUDIO SIGNAL CABLE WIRE ASS'Y	5057402327
	3.5DL=29.3MM* L=1800MM	-
ADP8	AC/DC ADAPTOR HIPRO	5061370313
	HP-02060-D43 12V 5A 3P L1550mm	
P801	POWER CORD,SET	5056705900
	UL SVT#18X3C 1.8M BLK SHIELDED	-
Y001	USER'S MANUAL	5030032711
	L7CHTPP-J25(HITACHI)	-

Mechanical Part List

	Description	Q'ty	Material No.
M1	FRONT-COVER	1	5642285400
M2	KEY-FUNCTION	1	5642845000
M3	LED-LENS	1	5640327900
M4	KEY-POWER	1	5642845100
M5	BRACKET-LCD	1	5642720702
M6	BRACKET SMIELD	1	5646248800
M7	BACK COVER	1	5642282704
M8	VISA MOUNT BRACKET	1	5642721300
M9	HINGE-L	1	5642721400
M10	HINGE-R	1	5642721500
M11	NECK-B	1	5642282903
M12	NECK BRACKET	1	5642721200
M13	NECK-F	1	5642282803
M14	BASE	1	5642283003
M15	RUBBER FOOT	4	5642025400
S1	SCREW PZP 4X8	4	7134251182
S2	SCREW PPW 3X10	4	7000311042
S3	SCREW PZP 4X10	18	7134251482
S4	SCREW PPW 3X6	12	7000311032
S5	SCREW PZS 4X8	5	7134251156
S6	SCREW MS CROSS PANHEAD SW	4	7190030022
S7	SCREW PZS 4X10	4	7134251456
S8	SCREW BFB 4X8	4	7034251152
S9	SCREW PRWS 3X6	6	7136160652
S10	SCREW PP 4X6	2	7001260612

Pack and Other Part List

	Description	Q'ty	Material No.
P1	RS CARTON	1	9513051156
P2	EPS PAD-L	1	9523050156
P3	EPS PAD-R	1	9523050256
P4	PE BAG	1	9533070256
P5	PALLET	0.031	9543051156
P6	PAPER ANGLE	0.125	9512895456
P7	SHEET	0.031	9513059456
P8	STRETCH SHEET	2.15	9532670156
P9	TAPE,0PP	1.5	9560137612
P10	CARTON BAR CODE LABEL	1	5635584800
P11	BLANK LABEL	1	5030409100
P12	ZIP LOCK PE BAG	1	9533070356

APPENDIX F

Service Part for CML171SXW

WIRE ASS'Y SIGNAL CABLE UL2919(3+5)GRAY D-SUB*2 L=1800	-	<u>5057415190</u>
ASSEMBLY,PCB-AUDIO PWB-0396	-	<u>5097605400</u>
ASSEMBLY,PCB-KEY BOARD PWB-0392	-	<u>5097605200</u>
ASSEMBLY,PCB-MAIN PWB-0393	-	<u>5097605300</u>
Inverter TIV-11	-	<u>5098700304</u>
AUDIO SIGNAL CABLE WIRE ASS'Y 3.5DL=29.3MM* L=1800MM	-	<u>5057402327</u>
AC/DC ADAPTOR HIPRO HP-02060-D43 12V 5A 3P L1550mm	-	<u>5061370313</u>
Microphone Wire Ass'y DM1530-PT3 (L=230-/+10mm 2 P) Rev:0.1	-	<u>5055120001</u>
WIRE ASS'Y W/06P CONN 2010/2010 L=150MM VER.01	-	<u>5057406127</u>
WIRE ASS'Y W/05P CONN. UL/CSA1007#24 PHR/PHR L=140	-	<u>5057405110</u>
WIRE ASS'Y,W/30P CONN. UL1571#30 L=220mm FI-S30S/DF14-30S-1.25C	-	<u>5057430005</u>
17" TFT LCD PANEL M170E1	-	<u>5051286290</u>
USER'S MANUAL L7CHTPP-J25(HITACHI)	-	<u>5030032711</u>
MODEL LABEL L7CHT PP-J25(TPE)	-	<u>5030432723</u>
Speaker Box Ass'y JR39BOX	-	<u>5055120200</u>

MECHANICAL DISASSEMBLY
MODEL NAME: CML171SXW

