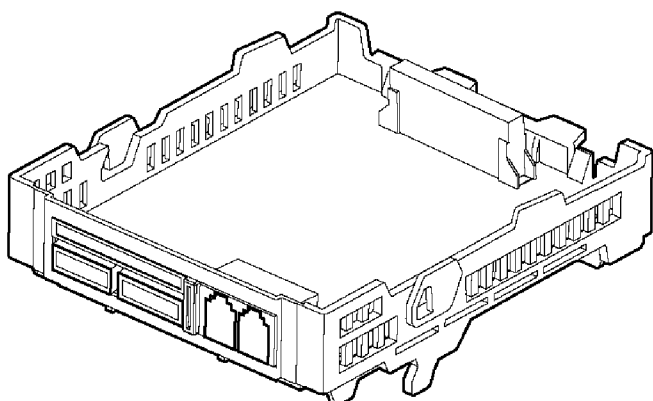


Service Manual

4-Port Doorphone Card

KX-TDA3161XJ

(for Canada, Asia, Oceania, Middle Near East, Europe,
Russia, Africa and Latin America)



WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

When you note the serial number, write down all of the 11 digits. The serial number may be found on the unit.

IMPORTANT INFORMATION ABOUT LEAD FREE, (PbF), SOLDERING

If lead free solder was used in the manufacture of this product the printed circuit boards will be marked PbF.

Standard leaded, (Pb), solder can be used as usual on boards without the PbF mark.

When this mark does appear please read and follow the special instructions described in this manual on the use of PbF and how it might be permissible to use Pb solder during service and repair work.

Panasonic

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1 ABOUT LEAD FREE SOLDER (PbF: Pb free)

Note:

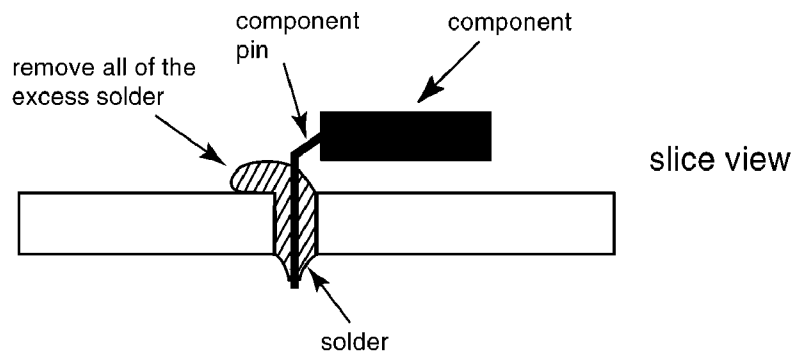
In the information below, Pb, the symbol for lead in the periodic table of elements, will refer to standard solder or solder that contains lead.

We will use PbF solder when discussing the lead free solder used in our manufacturing process which is made from Tin, (Sn), Silver, (Ag), and Copper, (Cu).

This model, and others like it, manufactured using lead free solder will have PbF stamped on the PCB. For service and repair work we suggest using the same type of solder although, with some precautions, standard Pb solder can also be used.

Caution

- PbF solder has a melting point that is 50° ~ 70° F, (30° ~ 40°C) higher than Pb solder. Please use a soldering iron with temperature control and adjust it to 700° ± 20° F, (370° ± 10°C). In case of using high temperature soldering iron, please be careful not to heat too long.
- PbF solder will tend to splash if it is heated much higher than its melting point, approximately 1100°F, (600°C).
- If you must use Pb solder on a PCB manufactured using PbF solder, remove as much of the original PbF solder as possible and be sure that any remaining is melted prior to applying the Pb solder.
- When applying PbF solder to double layered boards, please check the component side for excess which may flow onto the opposite side (See figure, below).



1.1. SUGGESTED PbF SOLDER

There are several types of PbF solder available commercially. While this product is manufactured using Tin, Silver, and Copper, (Sn+Ag+Cu), you can also use Tin and Copper, (Sn+Cu), or Tin, Zinc, and Bismuth, (Sn+Zn+Bi).

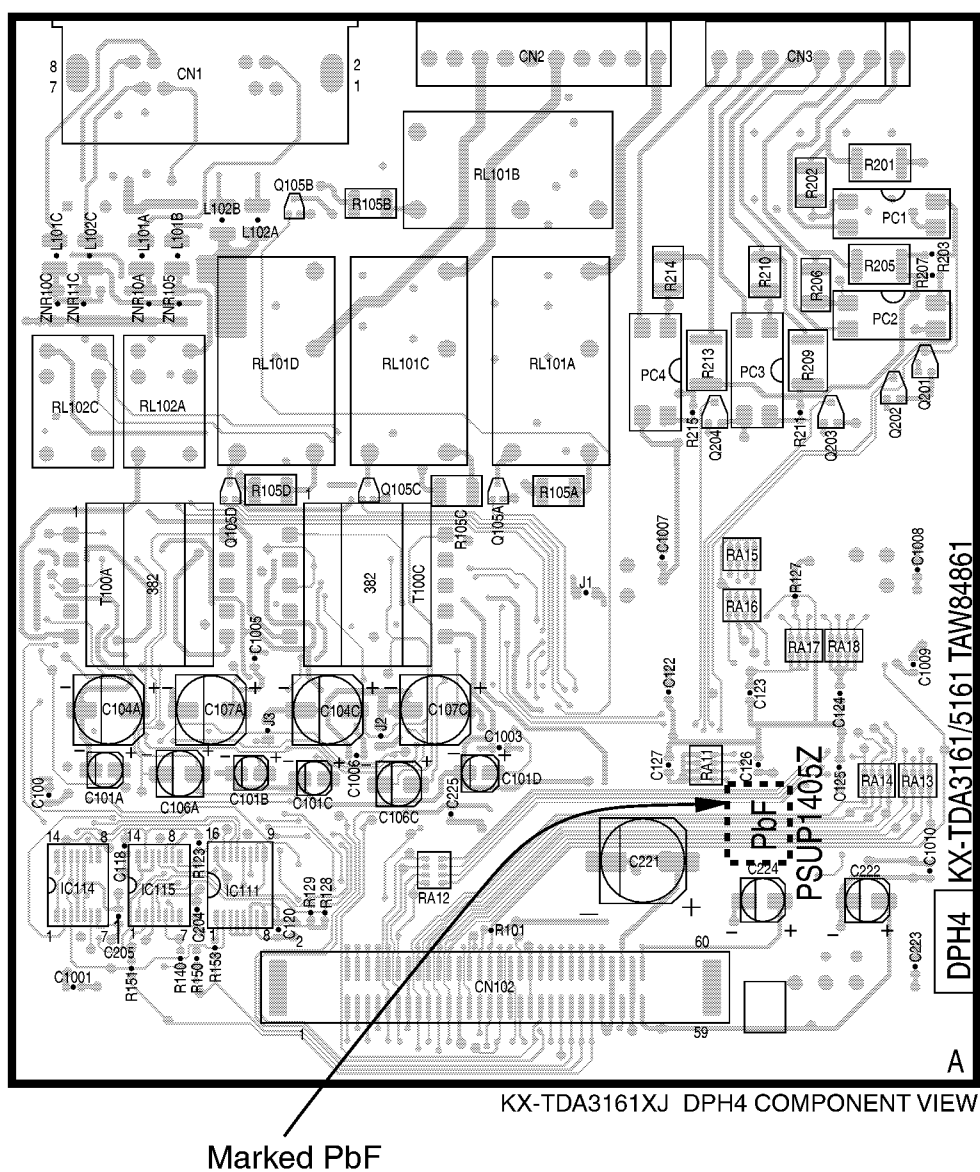
Please check the manufacturer's specific instructions for the melting points of their products and any precautions for using their product with other materials.

The following lead free (PbF) solder wire gauges are recommended for service of this product: 0.3mm, 0.6mm and 1.0mm.

0.3mm X 100g	0.6mm X 100g	1.0mm X 100g

1.2. HOW TO RECOGNIZE THAT Pb FREE SOLDER IS USED

"PbF" is marked on the PCB to show that Pb free solder is used.(See the figure below.)



2 FOR SERVICE TECHNICIANS

ICs and LSIs are vulnerable to static electricity.

When repairing, the following precautions will help prevent recurring malfunctions.

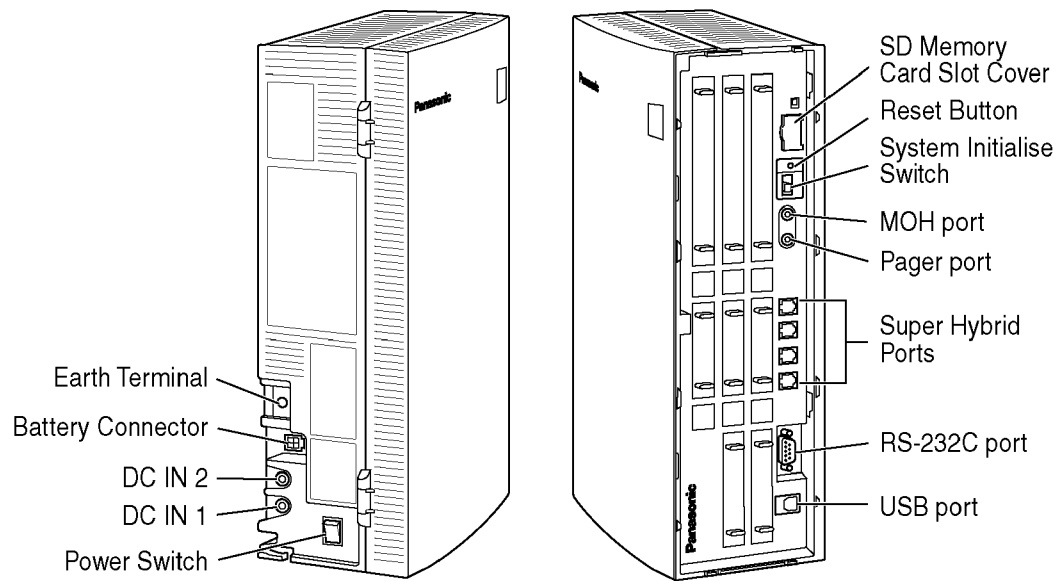
1. Cover the plastic parts boxes with aluminum foil.
2. Ground the soldering irons.
3. Use a conductive mat on the worktable.
4. Do not touch IC or LSI pins with bare fingers.

3 SPECIFICATION

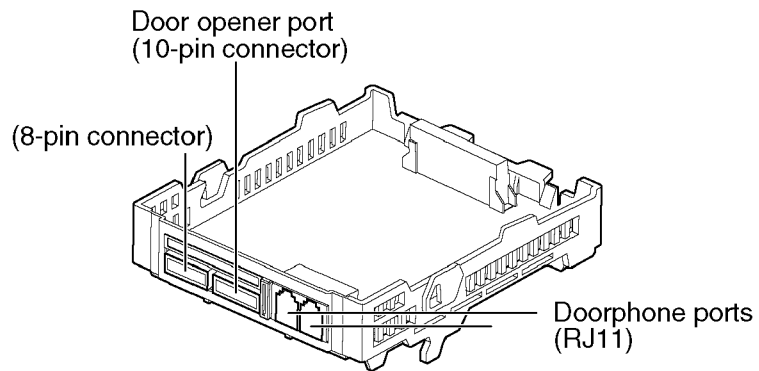
Symbol	Card Name	Feature Summary	Card Configuration Summary
DPH4	Door-phone Circuit	- 4-pot Door-phone & Door-opener card - For T30865	Without CPU

4 NAMES AND LOCATIONS

KX-TDA30 (The Hybrid IP-PBX)



KX-TDA3161XJ (DPH4 Card)

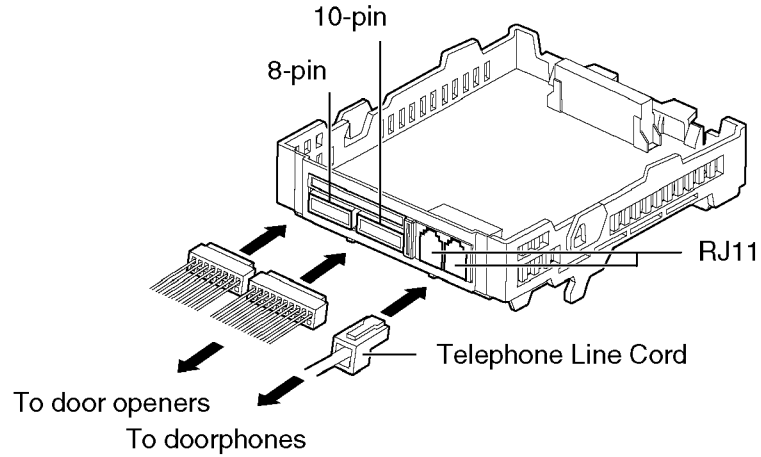


5 INSTALLING/REMOVING THE OPTIONAL SERVICE CARDS

5.1. Installation of KX-TDA3161XJ (DPH4 Card)

Function

4-port doorphone card for 4 doorphones and 4 door openers.



Note:

For details about connection to doorphones and door openers, refer to “5.1.1 Connection of Doorphones and Door Openers”.

Accessory and User-supplied Items

Accessory (included): Extension Bolt x 1, Strap x 1, 8-pin terminal block x 1, 10-pin terminal block x 1, Telephone Line Cord x 2, Terminal Box x 2

User-supplied (not included): Copper wire

Pin Assignments

RJ11 Connector

Signal Name		Function
DP2	Doorphone 2 transmit	
DP1	Doorphone 1 transmit	
com1	Doorphone 1 receive	
com2	Doorphone 2 receive	
DP4	Doorphone 4 transmit	
DP3	Doorphone 3 transmit	
com3	Doorphone 3 receive	
com4	Doorphone 4 receive	

8-pin Terminal Block

Signal Name		Function
—		Reserved

10-pin Terminal Block

Signal Name		Function
OP1b	Door opener 1	
OP1a	Door opener 1 com	
OP2b	Door opener 2	
OP2a	Door opener 2 com	
OP3b	Door opener 3	
OP3a	Door opener 3 com	
OP4b	Door opener 4	
OP4a	Door opener 4 com	
—		Reserved

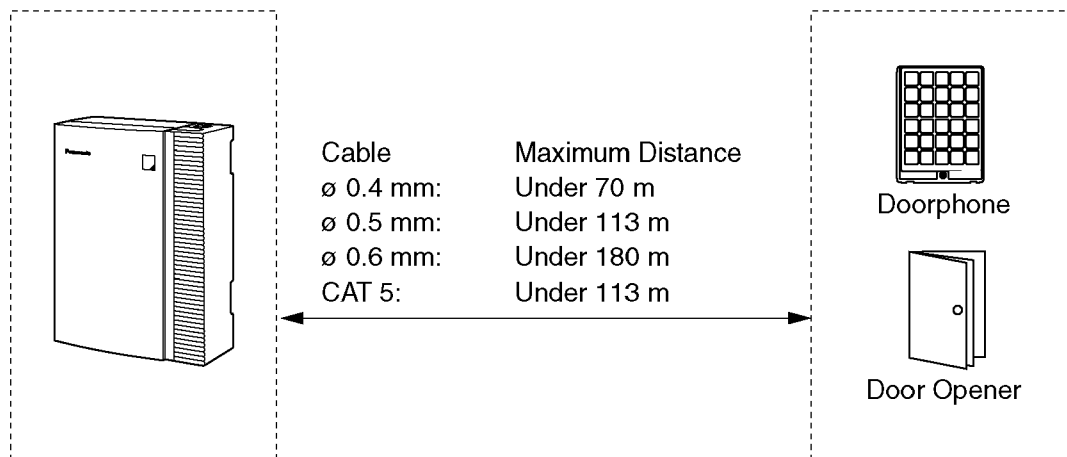
5.1.1. Connection of Doorphones and Door Openers

A maximum of 4 doorphones (KX-T30865) and 4 door openers can be connected to the Hybrid IP-PBX with a DPH4 card.

Notes:

- KX-T30865 is a Panasonic doorphone.
- Doorphones and door openers are user-supplied.

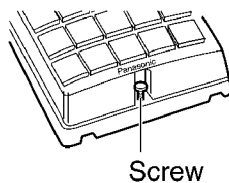
Maximum Cabling Distance



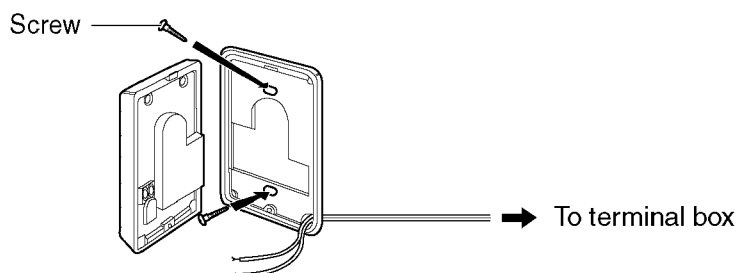
Current Limit for door opener: 24 V DC/30 V AC, 1 A maximum

Installing the Doorphone (KX-T30865)

1. Loosen the screw to separate the doorphone into 2 halves.



2. Pass the wires through the hole in the base cover, and attach the base cover to a wall using 2 screws.



Note:

Two kinds of screws are included with KX-T30865. Please choose the appropriate kind for user's wall type.



: when a doorphone plate has fixed to the wall.



: when you wish to install the doorphone directly to the wall.

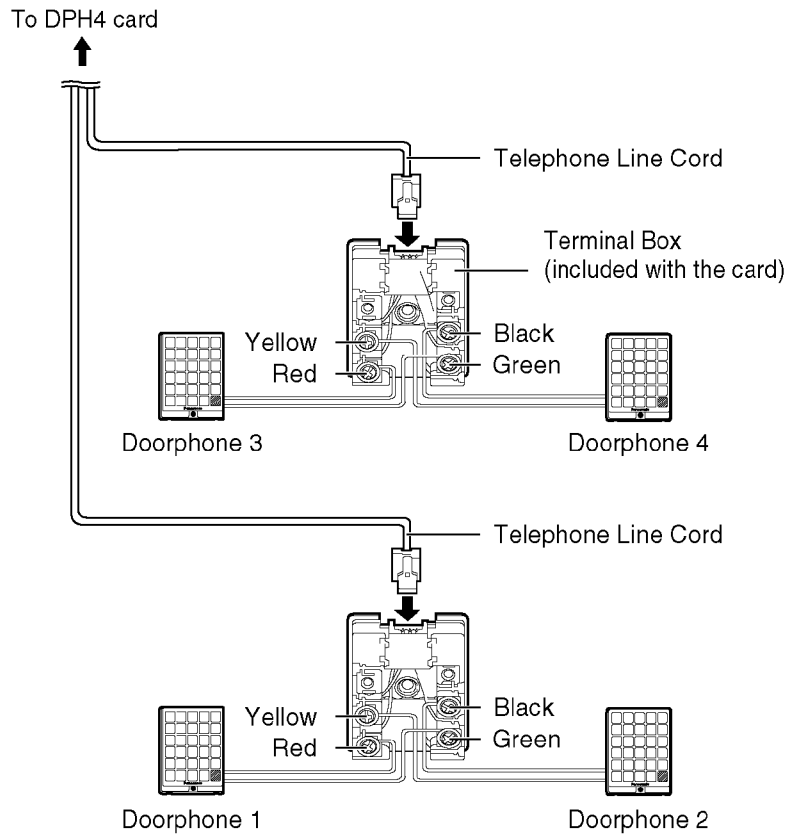
3. Connect the wires to the screws located in the front cover.



4. Re-attach the 2 halves and re-insert the screw.

Connection of Doorphones

1. Connect DPH4 Card to the terminal boxes using telephone line cords included with the card.
Refer to "5.1 Installation of DPH4 Card" for pin assignments.
2. Connect the wires of doorphones 1 and 3 to the red and green screws on the terminal box.
3. Connect the wires of doorphones 2 and 4 to the yellow and black screws on the terminal box.

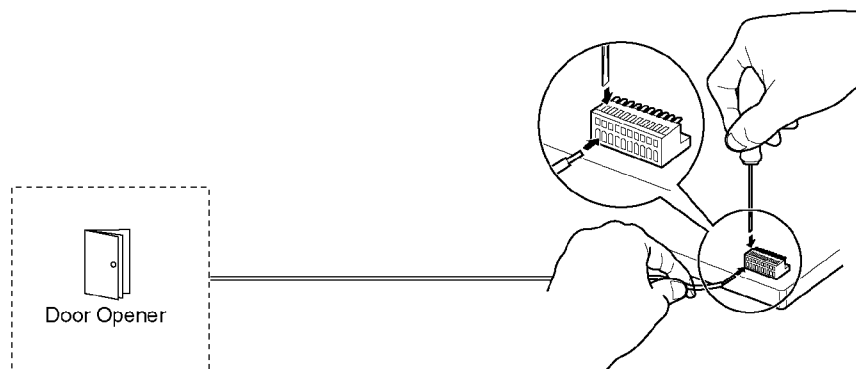


Connection of the Door Openers

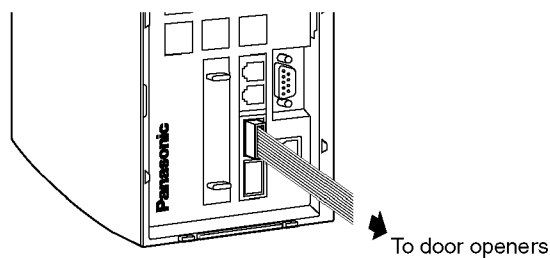
Use 10-pin terminal block (included with the card) for connection.

1. While pressing down on the hole at the top of the terminal block using a screwdriver, insert the wire into the side hole as shown below. Repeat this procedure for other door openers.

Refer to "5.1 Installation of DPH4 Card" for pin assignments.

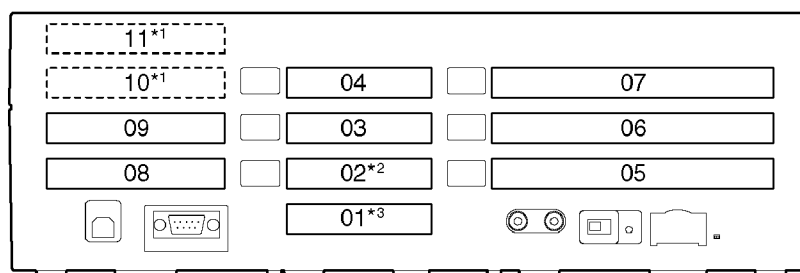


2. Attach the terminal blocks to the connectors of the DPH4 card in the Hybrid IP-PBX.



5.2. INSTALLING/REMOVING THE OPTIONAL SERVICE CARDS

Slot Position



*1 Slots 10 and 11 accept only cards which do not have external ports. Therefore, these slots do not have removable cover plates.

*2 Slot 01 contains the pre-installed Super Hybrid Ports. No optional service card can be installed.

Slot Restrictions

The following table shows the slot restrictions. "✓" indicates that the slot supports the optional service card.

Card		Slot Number									
Type	Max	02	03	04	05	06	07	08	09	10	11
LCOT4	3	✓	✓	✓							
BRI2	3	✓	✓	✓							
DLC4	1*1	✓	✓	✓							
SLC4		✓	✓	✓							
IP-GW4	1				✓	✓	✓				
DLC8	2*2				✓	✓	✓				
SLC8					✓	✓	✓				
DPH4	1*3							✓	✓		
DPH2								✓	✓		
ECHO8	1							✓	✓	✓	✓
EXT-CID	1							✓	✓	✓	✓
MSG2	2							✓	✓	✓	✓

*1 Only one of either DLC4 or SLC4 card can be installed.

*2 A maximum of two DLC8 cards, two SLC8 cards, or one of each card can be installed.

*3 Only one of either DPH4 or DPH2 card can be installed.

Caution:

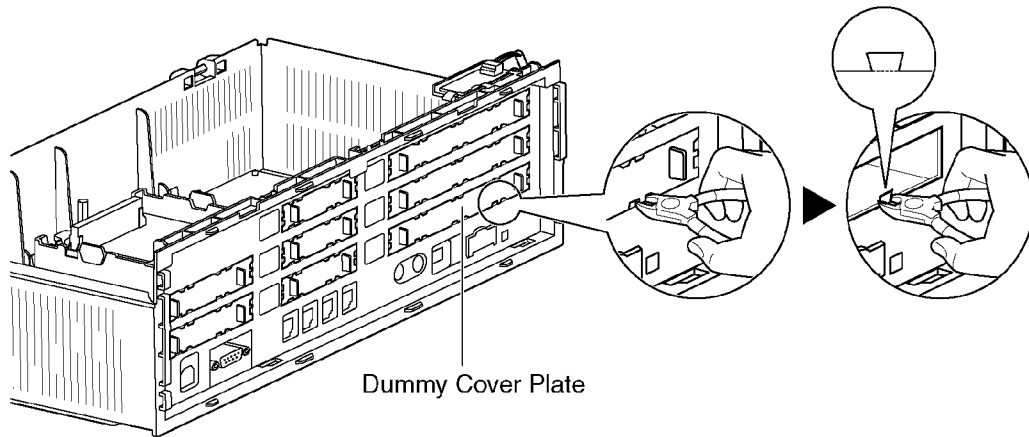
To protect the main board from static electricity, do not touch parts on the main board or on the optional service cards. To discharge static electricity, touch ground or wear an earthing strap.

Note:

When installing or removing the optional service cards, the power switch of the Hybrid IP-PBX must be in the off position.

Installing Optional Service Cards

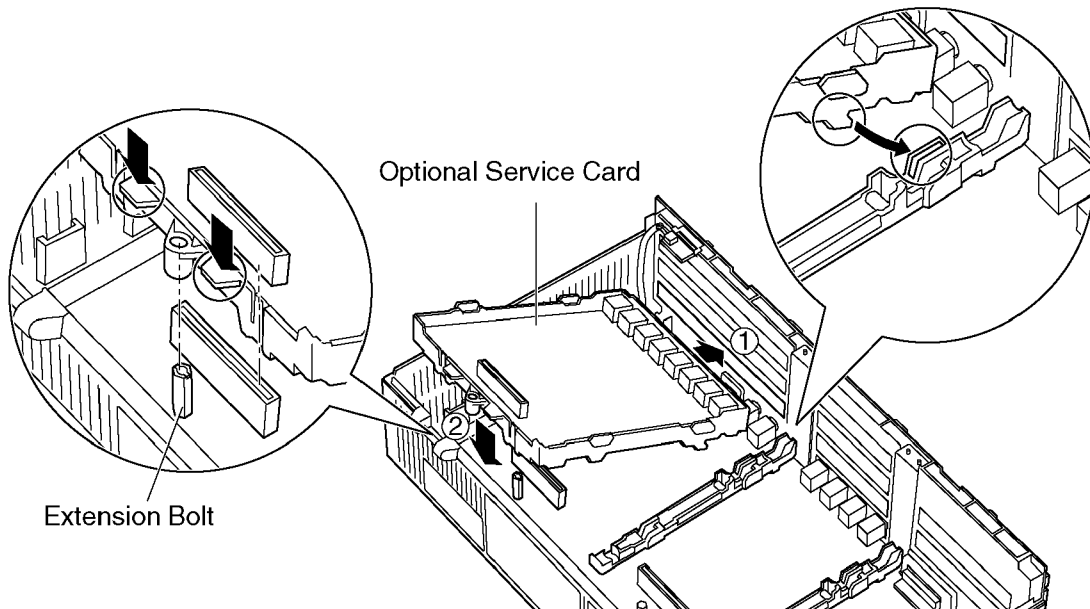
1. Before installing the optional service cards, cut and remove the appropriate dummy cover plates from the main unit.



Caution:

For safety reasons, smooth the cut edges after removing the dummy cover plates.

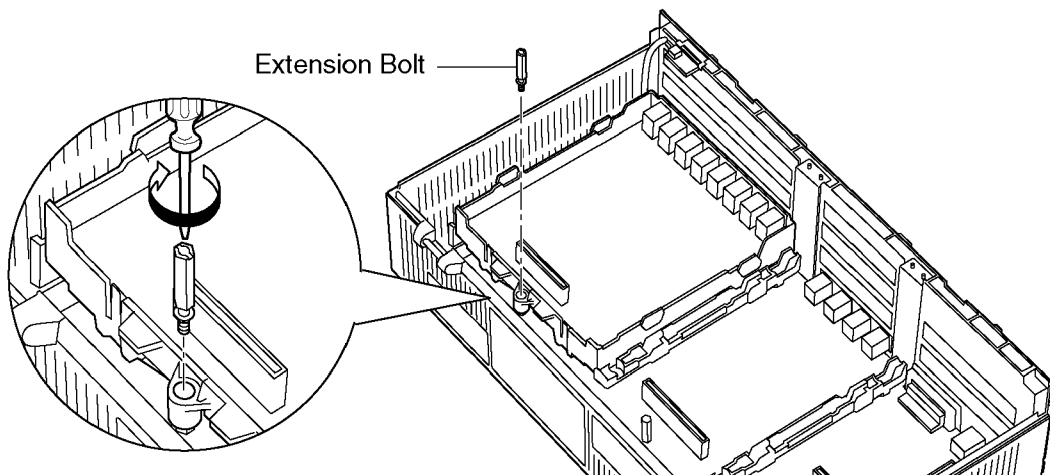
2. Position the card in the open slot, making sure that the tabs on the both sides of the card fit into place. Then, holding the card firmly in place, lower the rear end so that the hole of the card fits over the extension bolt.



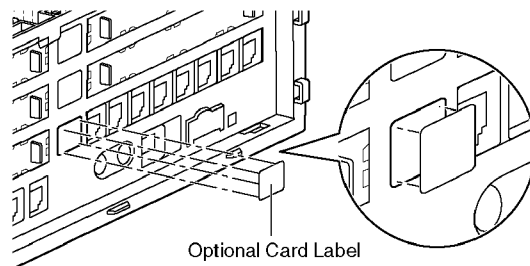
Caution:

When installing the optional service cards, do not put pressure on any parts of the main board (e.g., tall capacitors). Doing so may result in damage to the Hybrid IP-PBX.

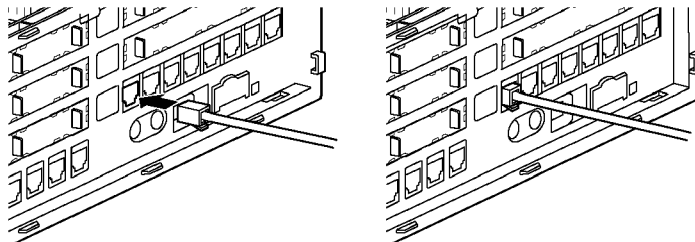
3. Insert the new extension bolt (included with the card) into the hole on the card, and tighten it to secure the card.



4. Stick an appropriate optional card label (included) to the left side of the corresponding card.



5. Connect a cable to an appropriate port of the card.

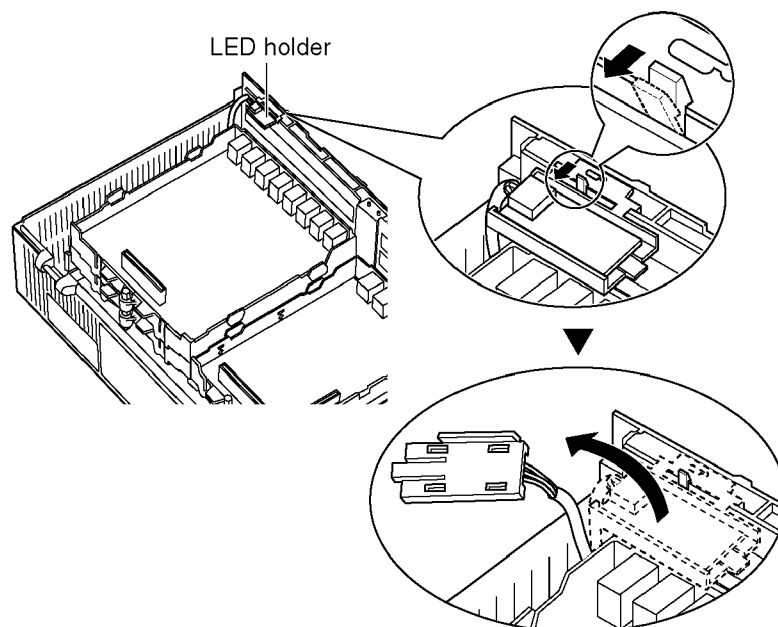


Note:

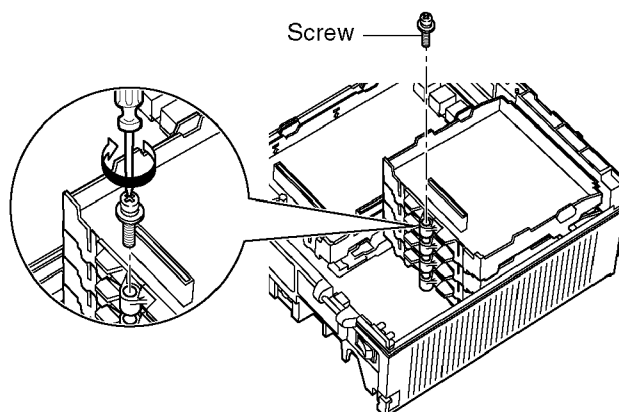
- Make sure to connect cables after installing the card in the Hybrid IP-PBX, not before.

6. Repeat the procedure for other cards.

- When installing a card in Slot 07, make sure to detach the LED holder first. After installing the card, reattach the LED holder.

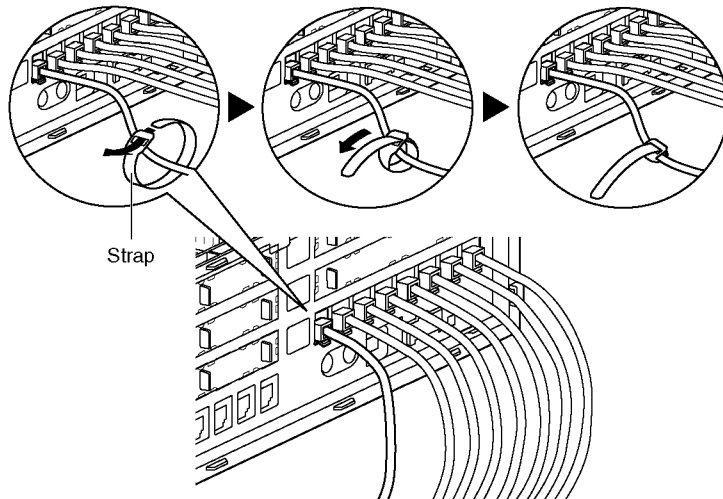


- When installing a card in Slot 11, tighten the card using the screw included with the card, instead of the extension bolt.

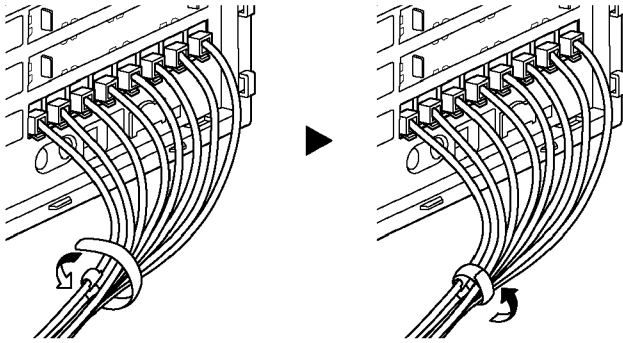


Handling of the Cables

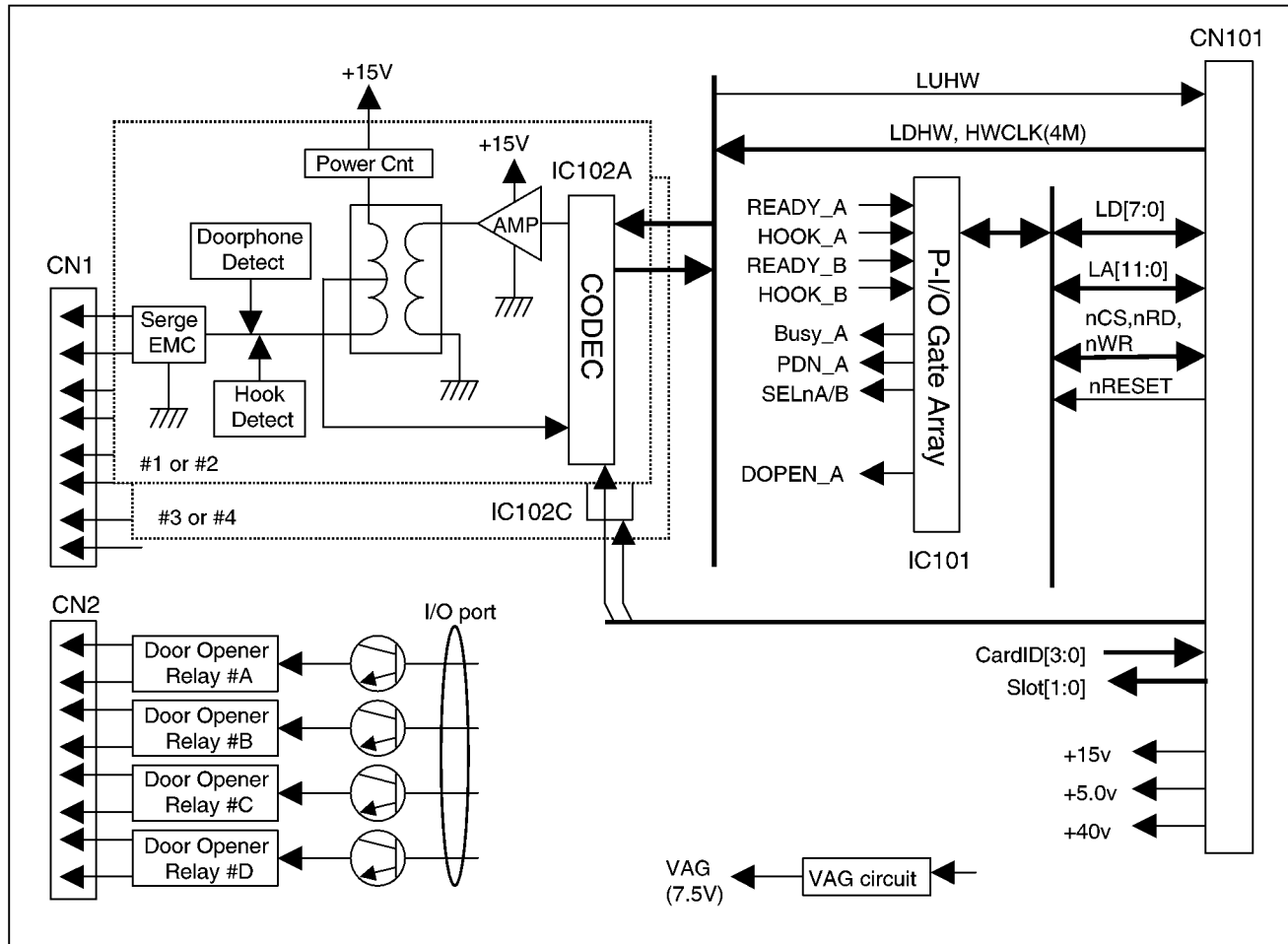
1. Attach the strap included with the card to one of the connected cables.



2. Bind all the connected cables together using the strap.



6 BLOCK DIAGRAM



KX-TDA3161XJ BLOCK DIAGRAM

7 CIRCUIT OPERATION

7.1. Option Card (KX-TDA3161)

Composition:

This Doorphone card is composed of the control interface and four doorphone interfaces and four door opener interface sections.

1. Doorphone Section

This card has four door phone interfaces.

This door phone intercom path is composed of the send amplifier and receive amplifier circuits.

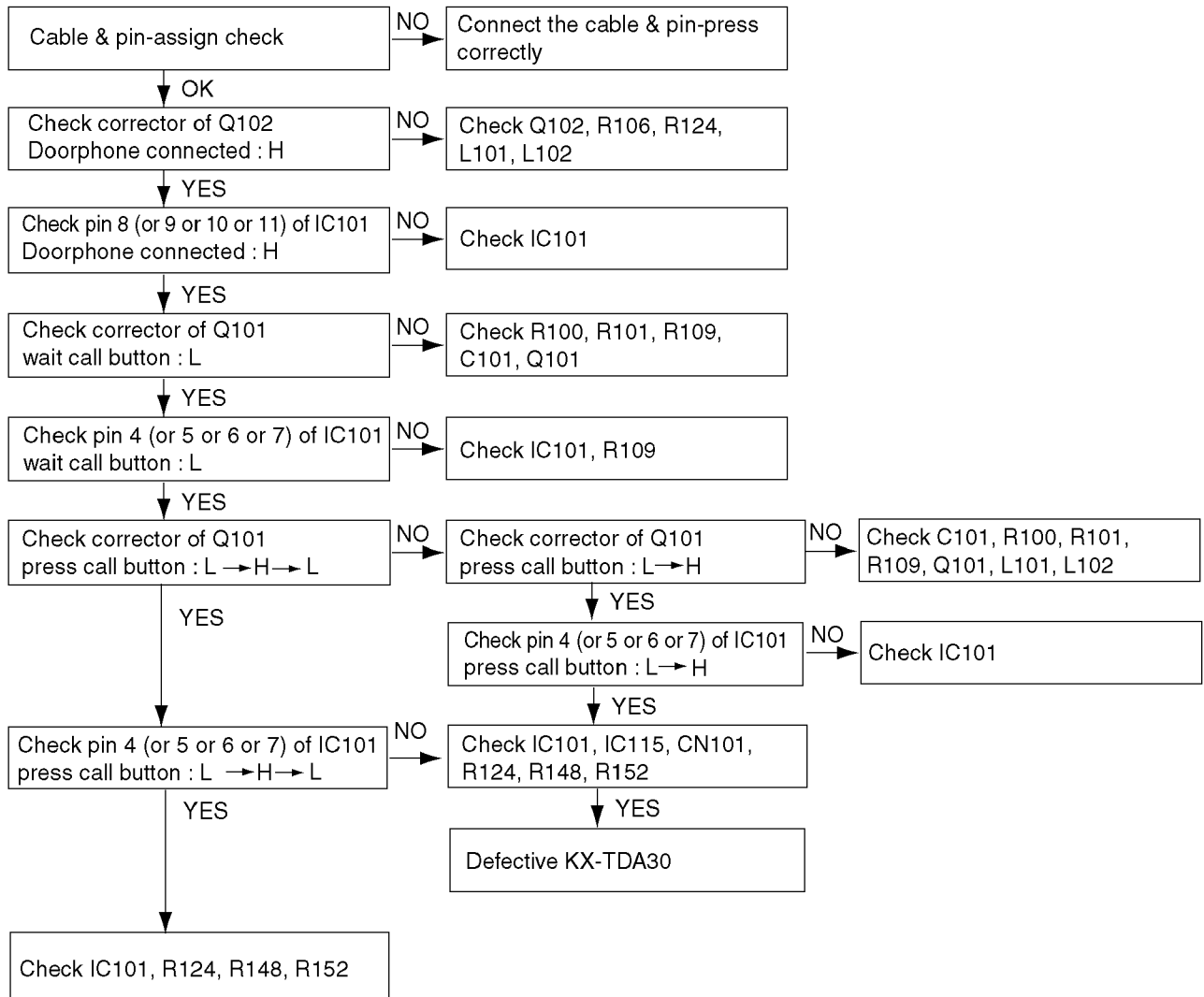
These interfaces have a door phone connect detection circuit and a door phone call detection circuit.

2. Door opener Section

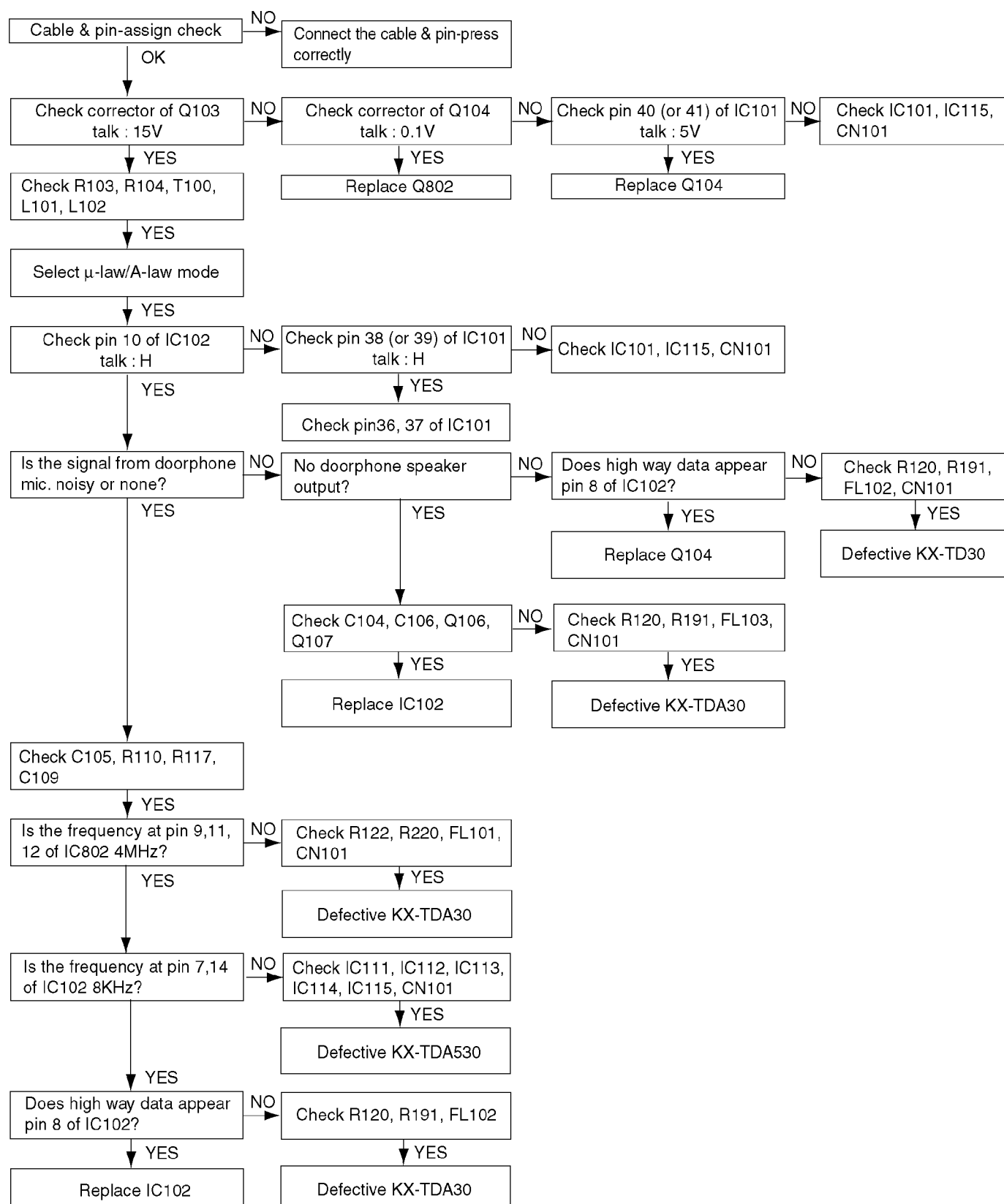
This card has four door opener interfaces. These interfaces are used for the door opener SW.

8 TROUBLESHOOTING GUIDE

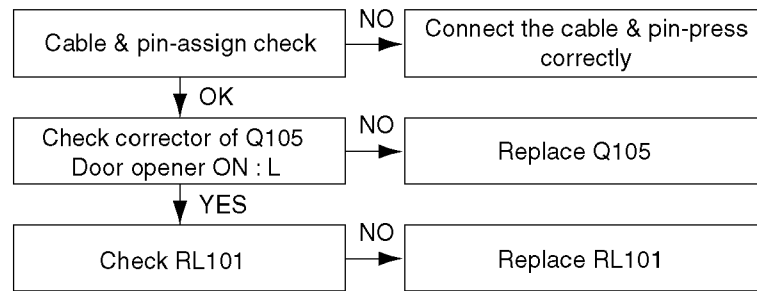
8.1. Cannot Call From Doorphone



8.2. Cannot Talk To Doorphone



8.3. Cannot Use Door Opener

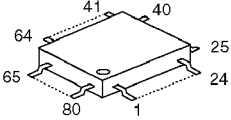
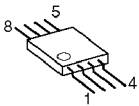
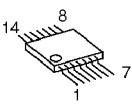
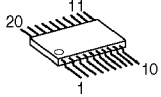
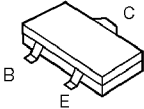
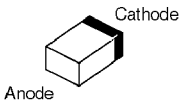
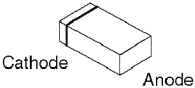


9 IC DATA

9.1. IC101

68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260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10 TERMINAL GUIDE OF ICS, TRANSISTORS AND DIODES

 <p>PQVI92011556</p>	 <p>PQVINJM2904V</p>	 <p>C0JBAA000174 C0JBAE000241 C0JBAK000189 PSVISNLV74AP</p>	 <p>PFVIMC5480SD</p>
 <p>B1ABCF000103 B1ADCF000020 B1GDCFNN0001 PQVTDTC123JU PSVTDTC124EE PSVTDTC143X PSVTDTC144E UNR921DJ0L</p>	 <p>MA110</p>	 <p>MA8068M</p>	

11 HOW TO REPLACE A FLAT PACKAGE IC

11.1. PREPARATION

- PbF (: Pb free) Solder
- Soldering Iron

Tip Temperature of 700°F ± 20°F (370°C ± 10°C)

Note: We recommend a 30 to 40 Watt soldering iron. An expert may be able to use a 60 to 80 Watt iron where someone with less experience could overheat and damage the PCB foil.

- Flux

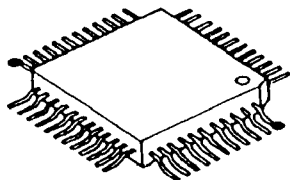
Recommended Flux: Specific Gravity → 0.82.

Type → RMA (lower residue, non-cleaning type)

Note: See **ABOUT LEAD FREE SOLDER (PbF: Pb free)** (P.3).

11.2. PROCEDURE

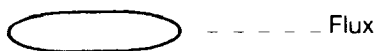
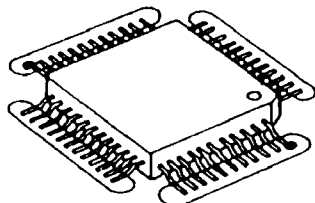
1. Tack the flat pack IC to the PCB by temporarily soldering two diagonally opposite pins in the correct positions on the PCB.



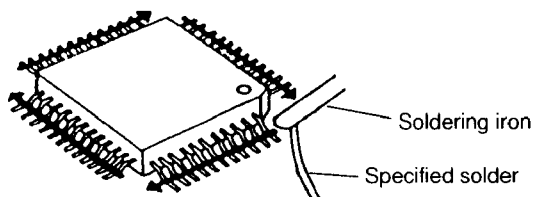
- - - - - - Temporary soldering point.

Be certain each pin is located over the correct pad on the PCB.

2. Apply flux to all of the pins on the IC.

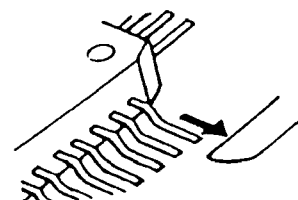
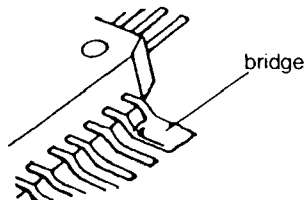


3. Being careful to not unsolder the tack points, slide the soldering iron along the tips of the pins while feeding enough solder to the tip so that it flows under the pins as they are heated.

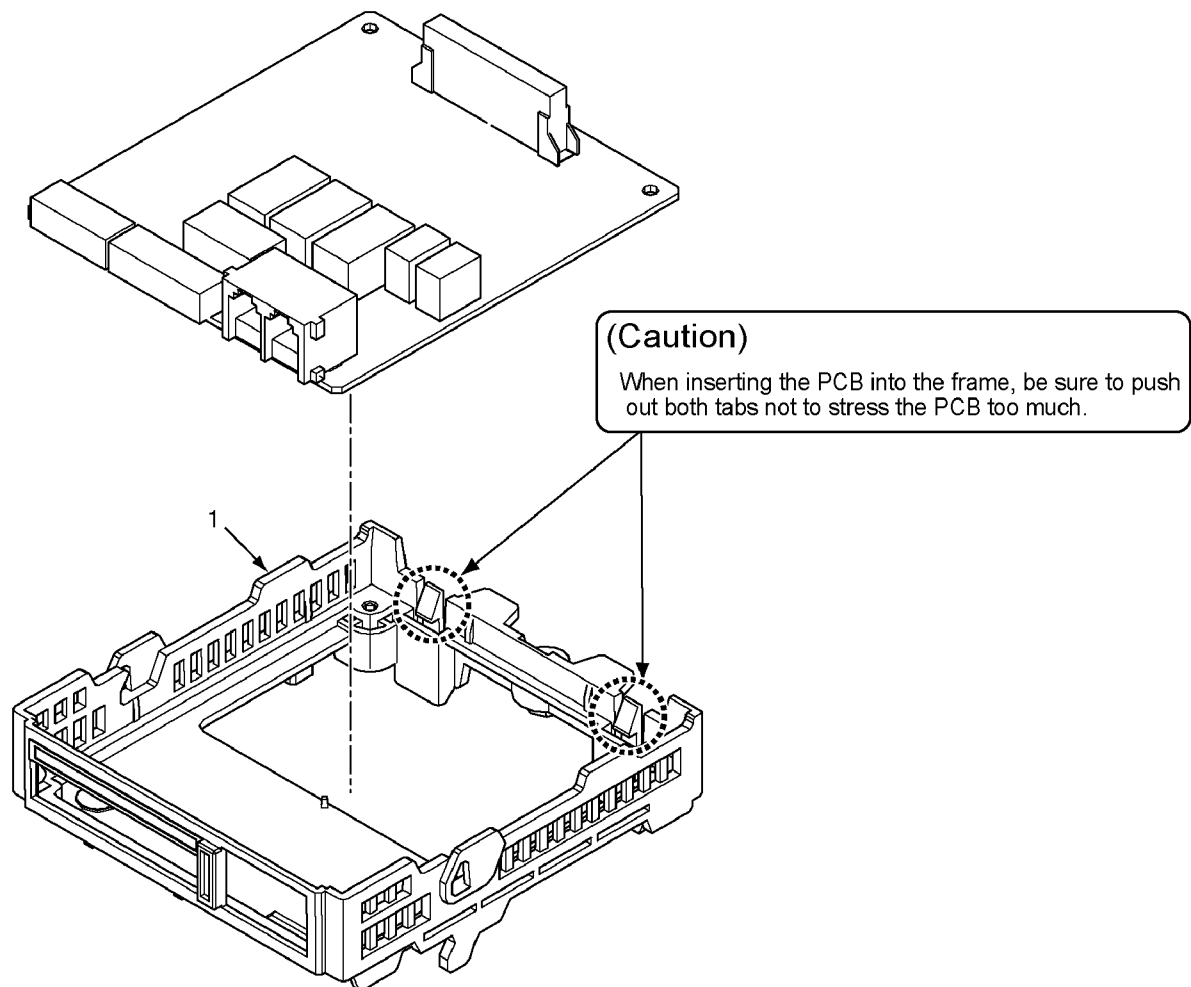


11.3. REMOVING SOLDER FROM BETWEEN PINS

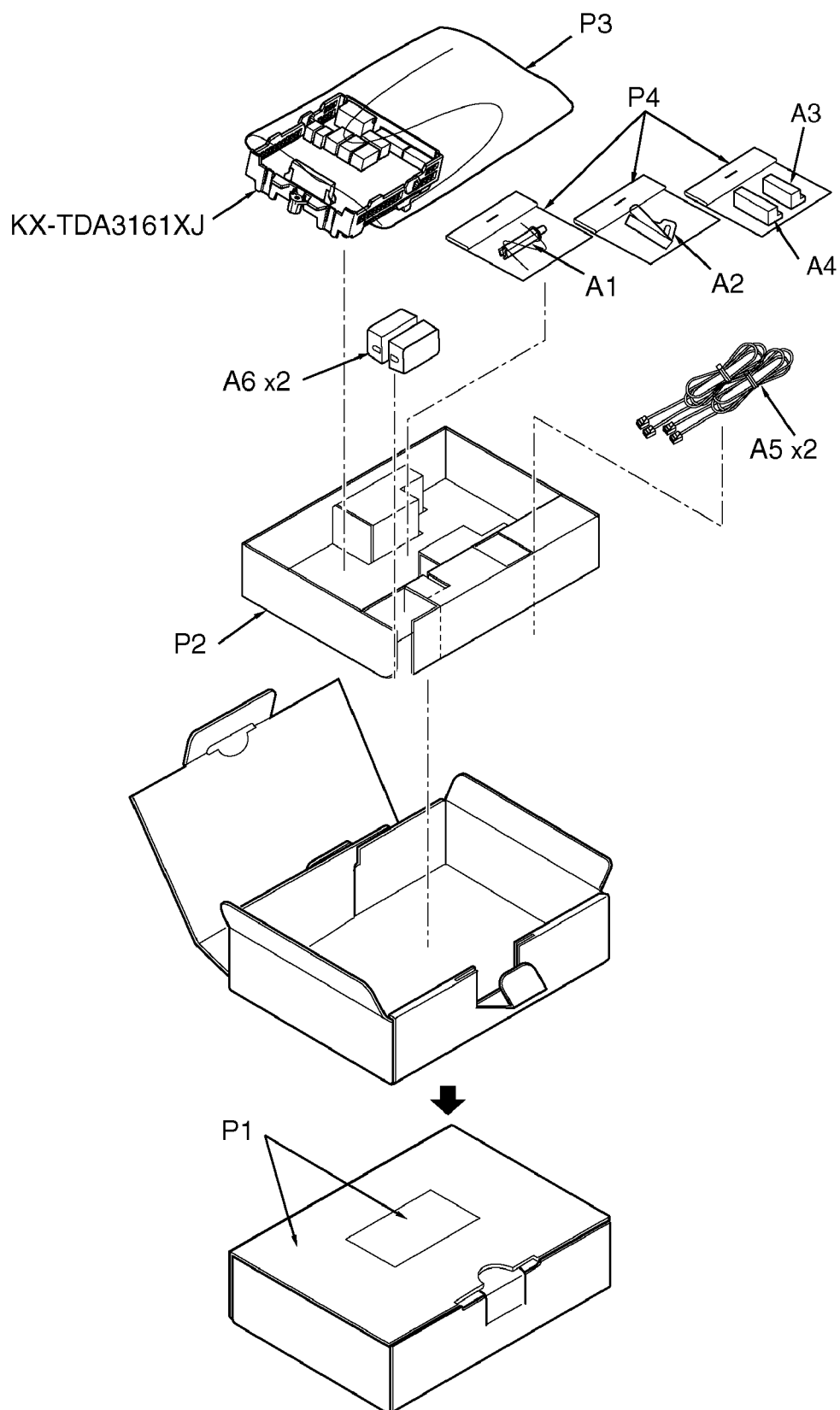
1. Add a small amount of solder to the bridged pins.
2. With a hot iron, use a sweeping motion along the flat part of the pin to draw the solder from between the adjacent pads.



12 CABINET PARTS LOCATION



13 ACCESSORIES AND PACKING MATERIALS



14 REPLACEMENT PARTS LIST

1. RTL (Retention Time Limited)

Note : The marking (RTL) indicates that the Retention Time is limited for this item.

After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is depends on the type of assembly, and in accordance with the laws governing parts and product retention.

After end of this period, the assembly will no longer be available.

2. Important safety notice

Components identified by \triangle mark have special characteristics important for safety. When replacing any of these components, use only manufacture's specified parts.

3. The S mark means the part is one of some identical parts.

For that reason, it may be different from the installed part.

4. ISO code (Example: ABS-94HB) of the remarks column shows quality of the material and a flame resisting grade about plastics.

5. RESISTORS & CAPACITORS

Unless otherwise specified;

All resistors are in ohms (Ω) K=1000 Ω , M=1000k Ω

All capacitors are in MICRO FARADS (μ F) P= μ F

*Type & Wattage of Resistor

Type

ERC:Solid	ERX:Metal Film	PQ4R:Carbon
ERD:Carbon	ERG:Metal Oxide	ERS:Fusible Resistor
PQRD:Carbon	ER0:Metal Film	ERF:Cement Resistor

Wattage

10,16:1/8W	14,25:1/4W	12:1/2W	1:1W	2:2W	3:3W
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*Type & Voltage of Capacitor

Type

ECFD:Semi-Conductor	ECCD,ECKD,ECBT,PQCBC: Ceramic
ECQS:Styrol	ECQE,ECQV,ECQG: Polyester
PQCUV:Chip	ECEA,ECSZ:Electrolytic
ECQMS:Mica	ECQP:Polypropylene

Voltage

ECQ Type	ECQG ECQV Type	ECSZ Type	Others		
1H:50V	05:50V	0F:3.15V	0J :6.3V	1V :35V	
2A:100V	1:100V	1A:10V	1A :10V	50,1H:50V	
2E:250V	2:200V	1V:35V	1C :16V	1J :63V	
2H:500V		0J:6.3V	1E,25:25V	2A :100V	

14.1. CABINET PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
1	PSKE1060Z1	GUIDE	PC+ABS

14.2. ACCESSORIES AND PACKING MATERIALS

Ref. No.	Part No.	Part Name & Description	Remarks
A1	PSHE1051Z	EXTENSION BOLT	S
A2	PSHE1161Z	STRAP	

Ref. No.	Part No.	Part Name & Description	Remarks
A3	PSJS08S08Z	8-PIN TERMINAL BLOCK	
A4	K1GB10A00006	10-PIN TERMINAL BLOCK	
A5	PQJA48W	TELEPHONE LINE CORD	S
A6	PQJS1T30Z	TERMINAL BOX	
P1	PSZKDA3161XJ	GIFT BOX	
P2	PSPD1244Z	CUSHION	
P3	PSPP1078Z	PROTECTION COVER	
P4	XZB05X08A03	PROTECTION COVER	

14.3. MAIN BOARD PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
		(ICS)	
IC101	PQVI92011556	IC	S
IC102A	PFVIMC5480SD	IC	S
IC102C	PFVIMC5480SD	IC	S
IC103A	PQVINJM2904V	IC	S
IC103C	PQVINJM2904V	IC	S
IC111	C0JBAK000189	IC	
IC112	C0JBAA000174	IC	
IC113	C0JBAA000174	IC	
IC114	PSVISNLV74AP	IC	S
IC115	C0JBAE000241	IC	
		(TRANSISTORS)	
Q101A	PSVTDTC124EE	TRANSISTOR (SI)	
Q101B	PSVTDTC124EE	TRANSISTOR (SI)	
Q101C	PSVTDTC124EE	TRANSISTOR (SI)	
Q101D	PSVTDTC124EE	TRANSISTOR (SI)	
Q102A	UNR921DJ0L	TRANSISTOR (SI)	
Q102B	UNR921DJ0L	TRANSISTOR (SI)	
Q102C	UNR921DJ0L	TRANSISTOR (SI)	
Q102D	UNR921DJ0L	TRANSISTOR (SI)	
Q103A	BlGDCFN0001	TRANSISTOR (SI)	
Q103C	BlGDCFN0001	TRANSISTOR (SI)	
Q104A	PSVTDTC144E	TRANSISTOR (SI)	S
Q104C	PSVTDTC144E	TRANSISTOR (SI)	S
Q105A	PSVTDTC143X	TRANSISTOR (SI)	
Q105B	PSVTDTC143X	TRANSISTOR (SI)	
Q105C	PSVTDTC143X	TRANSISTOR (SI)	
Q105D	PSVTDTC143X	TRANSISTOR (SI)	
Q106A	BlABCF000103	TRANSISTOR (SI)	
Q106C	BlABCF000103	TRANSISTOR (SI)	
Q107A	BlADCF000020	TRANSISTOR (SI)	
Q107C	BlADCF000020	TRANSISTOR (SI)	
Q108A	PSVTDTC143X	TRANSISTOR (SI)	
Q108C	PSVTDTC143X	TRANSISTOR (SI)	
Q201	PQVTDTC123JU	TRANSISTOR (SI)	S
Q202	PQVTDTC123JU	TRANSISTOR (SI)	S
Q203	PQVTDTC123JU	TRANSISTOR (SI)	S
Q204	PQVTDTC123JU	TRANSISTOR (SI)	S
		(DIODES)	
D101A	MA8068M	DIODE (SI)	S
D101C	MA8068M	DIODE (SI)	S
D102A	MA110	DIODE (SI)	S
D102B	MA110	DIODE (SI)	S
D102C	MA110	DIODE (SI)	S
D102D	MA110	DIODE (SI)	S
D103A	MA110	DIODE (SI)	S
D103C	MA110	DIODE (SI)	S
		(JACK & CONNECTORS)	
CN1	PSJJ2T004Z	JACK	S
CN2	PSJP10B06Z	CONNECTOR (10 PIN)	
CN3	PSJP08B06Z	CONNECTOR (8PIN)	S
CN101	K1KB60A00118	CONNECTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
CN102	K1KA60A00143	CONNECTOR	
		(COMPONENTS PARTS)	
RA11	D1H81034A010	RESISTOR ARRAY (10K)	
RA12	D1H82214A010	RESISTOR ARRAY (220)	
RA13	D1H82204A010	RESISTOR ARRAY (22)	
RA14	D1H82204A010	RESISTOR ARRAY (22)	
RA15	D1H81034A010	RESISTOR ARRAY (10K)	
RA16	D1H81034A010	RESISTOR ARRAY (10K)	
RA17	D1H81034A010	RESISTOR ARRAY (10K)	
RA18	D1H81034A010	RESISTOR ARRAY (10K)	
		(CAPACITORS)	
C101A	F2G1C4R70002	4.7	
C101B	F2G1C4R70002	4.7	
C101C	F2G1C4R70002	4.7	
C101D	F2G1C4R70002	4.7	
C102A	PSCUV2EY104K	0.1	S
C102B	PSCUV2EY104K	0.1	S
C102C	PSCUV2EY104K	0.1	S
C102D	PSCUV2EY104K	0.1	S
C103A	ECUV1C473KBV	0.047	
C103C	ECUV1C473KBV	0.047	
C104A	F2G1C4700017	47	
C104C	F2G1C4700017	47	
C105A	ECUV1C223KBV	0.022	
C105C	ECUV1C223KBV	0.022	
C106A	F2G1H1R00013	1	
C106C	F2G1H1R00013	1	
C107A	F2G1E3300012	33	
C107C	F2G1E3300012	33	
C108A	ECUV1H331JCV	330P	
C108C	ECUV1H331JCV	330P	
C109A	ECUV1H122KBV	0.0012	
C109C	ECUV1H122KBV	0.0012	
C110A	ECUV1C223KBV	0.022	
C110C	ECUV1C223KBV	0.022	
C111A	ECUV1C223KBV	0.022	
C111C	ECUV1C223KBV	0.022	
C112A	ECUV1H223KBV	0.022	S
C112C	ECUV1H223KBV	0.022	S
C113A	ECUV1H223KBV	0.022	S
C113C	ECUV1H223KBV	0.022	S
C115A	ECUV1H471JCV	470P	S
C115C	ECUV1H471JCV	470P	S
C118	ECUV1H332KBV	0.0033	
C120A	ECUV1C104ZFV	0.1	
C120C	ECUV1C104ZFV	0.1	
C122	ECUV1E103KBV	0.01	
C123	ECUV1E103KBV	0.01	
C124	ECUV1E103KBV	0.01	
C125	ECUV1E103KBV	0.01	
C126	ECUV1E103KBV	0.01	
C127	ECUV1E103KBV	0.01	
C201	ECUV1E103KBV	0.01	
C202	ECUV1E103KBV	0.01	
C203	ECUV1E103KBV	0.01	
C204	ECUV1E103KBV	0.01	
C205	ECUV1E103KBV	0.01	
C221	F2G1E1010011	100	
C222	F2G1C1000015	10	
C223	ECUV1E103KBV	0.01	
C224	F2G1C1000015	10	
C225	ECUV1E103KBV	0.01	
C1001	ECUV1E103KBV	0.01	
C1002	ECUV1E103KBV	0.01	
C1003	ECUV1E103KBV	0.01	
C1004	ECUV1E103KBV	0.01	
C1005	ECUV1E103KBV	0.01	
C1006	ECUV1E103KBV	0.01	
C1007	ECUV1E103KBV	0.01	
C1008	ECUV1E103KBV	0.01	
C1009	ECUV1E103KBV	0.01	

Ref. No.	Part No.	Part Name & Description	Remarks
C1010	ECUV1E103KBV	0.01	
		(RESISTORS)	
J1	PQ4R10XJ000	0	S
J2	PQ4R10XJ000	0	S
J3	PQ4R10XJ000	0	S
R100A	ERJ3GEYJ223	22K	
R100B	ERJ3GEYJ223	22K	
R100C	ERJ3GEYJ223	22K	
R100D	ERJ3GEYJ223	22K	
R101	ERJ3GEYJ103	10K	
R101A	ERJ3GEYJ102	1K	
R101B	ERJ3GEYJ102	1K	
R101C	ERJ3GEYJ102	1K	
R101D	ERJ3GEYJ102	1K	
R102A	ERJ14YJ151	150	
R102B	ERJ14YJ151	150	
R102C	ERJ14YJ151	150	
R102D	ERJ14YJ151	150	
R103A	ERJ3GEYJ182	1.8K	
R103C	ERJ3GEYJ182	1.8K	
R104A	ERJ3GEYJ101	100	
R104C	ERJ3GEYJ101	100	
R105A	ERJ14YJ151	150	
R105B	ERJ14YJ151	150	
R105C	ERJ14YJ151	150	
R105D	ERJ14YJ151	150	
R106A	ERJ3GEYJ473	47K	
R106B	ERJ3GEYJ473	47K	
R106C	ERJ3GEYJ473	47K	
R106D	ERJ3GEYJ473	47K	
R107A	ERJ3GEYJ101	100	
R107C	ERJ3GEYJ101	100	
R108A	ERJ3GEYJ473	47K	
R108C	ERJ3GEYJ473	47K	
R109A	ERJ3GEYJ473	47K	
R109B	ERJ3GEYJ473	47K	
R109C	ERJ3GEYJ473	47K	
R109D	ERJ3GEYJ473	47K	
R110A	ERJ3GEYJ563	56K	
R110C	ERJ3GEYJ563	56K	
R111A	ERJ3GEYJ564	560K	
R111C	ERJ3GEYJ564	560K	
R112A	ERJ3GEYJ104	100K	
R112C	ERJ3GEYJ104	100K	
R113A	ERJ3GEYJ274	270K	
R113C	ERJ3GEYJ274	270K	
R114A	ERJ3GEYJ274	270K	
R114C	ERJ3GEYJ274	270K	
R115A	ERJ3GEYJ823	82K	
R115C	ERJ3GEYJ823	82K	
R116A	ERJ3GEYJ823	82K	
R116C	ERJ3GEYJ823	82K	
R117A	ERJ3GEYJ104	100K	
R117C	ERJ3GEYJ104	100K	
R118A	ERJ3GEYJ103	10K	
R118C	ERJ3GEYJ103	10K	
R119A	ERJ3GEYJ103	10K	
R119C	ERJ3GEYJ103	10K	
R120	ERJ3GEYJ221	220	
R120A	ERJ14YJ271	270	
R120C	ERJ14YJ271	270	
R121	ERJ3GEYJ220	22	
R121A	ERJ3GEYJ223	22K	
R121C	ERJ3GEYJ223	22K	
R122	ERJ3GEYJ221	220	
R122A	ERJ3GEYJ223	22K	
R122C	ERJ3GEYJ223	22K	
R123	ERJ3GEYJ221	220	
R123A	ERJ3GEYJ103	10K	
R123C	ERJ3GEYJ103	10K	
R124	ERJ3GEYJ221	220	
R124A	ERJ3GEYJ330	33	

Ref. No.	Part No.	Part Name & Description	Remarks
R124B	ERJ3GEYJ330	33	
R124C	ERJ3GEYJ330	33	
R124D	ERJ3GEYJ330	33	
R125	ERJ3GEYJ103	10K	
R126	ERJ3GEYJ103	10K	
R128	ERJ3GEYJ103	10K	
R129	ERJ3GEYJ103	10K	
R130	ERJ3GEYJ103	10K	
R148	ERJ3GEYJ221	220	
R149	ERJ3GEYJ221	220	
R150	ERJ3GEYJ221	220	
R151	ERJ3GEYJ221	220	
R152	ERJ3GEYJ221	220	
R153	ERJ3GEYJ221	220	
R154	ERJ3GEYJ103	10K	
R155	ERJ3GEYJ103	10K	
R156	ERJ3GEYJ103	10K	
R191	ERJ3GEYJ330	33	
R201	ERJ12YJ330	33	
R203	ERJ3GEYJ103	10K	
R204	ERJ12YJ330	33	
R205	ERJ12YJ330	33	
R207	ERJ3GEYJ103	10K	
R208	ERJ12YJ330	33	
R209	ERJ12YJ330	33	
R211	ERJ3GEYJ103	10K	
R212	ERJ12YJ330	33	
R213	ERJ12YJ330	33	
R215	ERJ3GEYJ103	10K	
R216	ERJ12YJ330	33	
R220	ERJ3GEYJ330	33	
		(IC FILTERS)	
FL101	J0HAAB000020	IC FILTER	

Ref. No.	Part No.	Part Name & Description	Remarks
FL102	J0HAAB000020	IC FILTER	
		(COILS)	
L101A	PSLQR1K102MT	COIL	
L101B	PSLQR1K102MT	COIL	
L101C	PSLQR1K102MT	COIL	
L101D	PSLQR1K102MT	COIL	
L102A	PSLQR1K102MT	COIL	
L102B	PSLQR1K102MT	COIL	
L102C	PSLQR1K102MT	COIL	
L102D	PSLQR1K102MT	COIL	
		(RELAYS)	
RL101A	K6B1AGA00006	RELAY	
RL101B	K6B1AGA00006	RELAY	
RL101C	K6B1AGA00006	RELAY	
RL101D	K6B1AGA00006	RELAY	
RL102A	PSSLG5V1Z	RELAY	S
RL102C	PSSLG5V1Z	RELAY	S
		(TRANSFORMERS)	
T100A	G5A1A0000004	TRANSFORMER	
T100C	G5A1A0000004	TRANSFORMER	
		(VARISTORS)	
ZNR10A	D4ED3180A001	VARISTOR	
ZNR10B	D4ED3180A001	VARISTOR	
ZNR10C	D4ED3180A001	VARISTOR	
ZNR10D	D4ED3180A001	VARISTOR	
ZNR11A	D4ED3180A001	VARISTOR	
ZNR11B	D4ED3180A001	VARISTOR	
ZNR11C	D4ED3180A001	VARISTOR	
ZNR11D	D4ED3180A001	VARISTOR	

15 FOR SCHEMATIC DIAGRAM

Note:

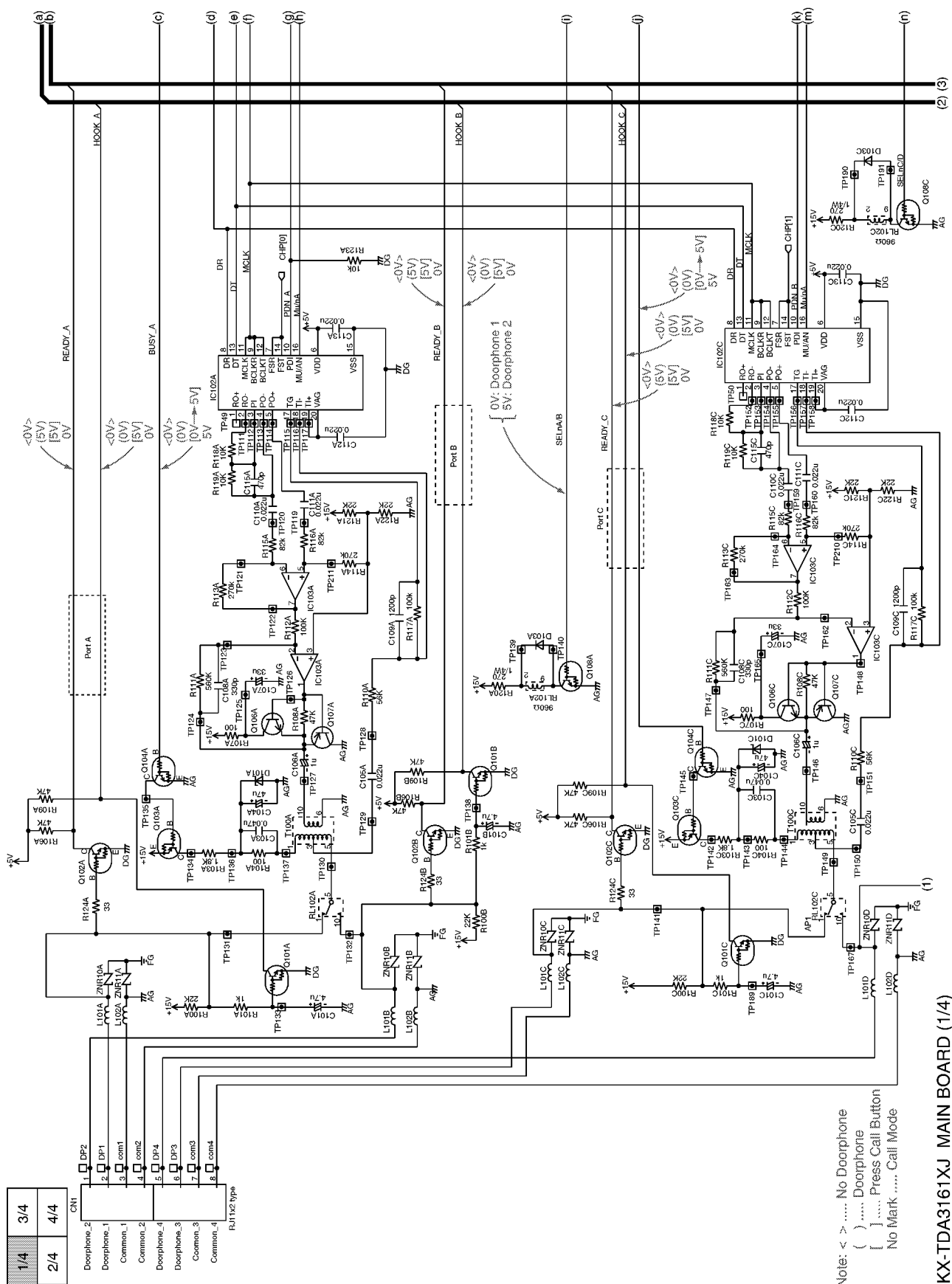
1. DC voltage measurements are taken with voltmeter from the negative voltage line.

Important Safety Notice:

Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only the manufacturer's specified parts.

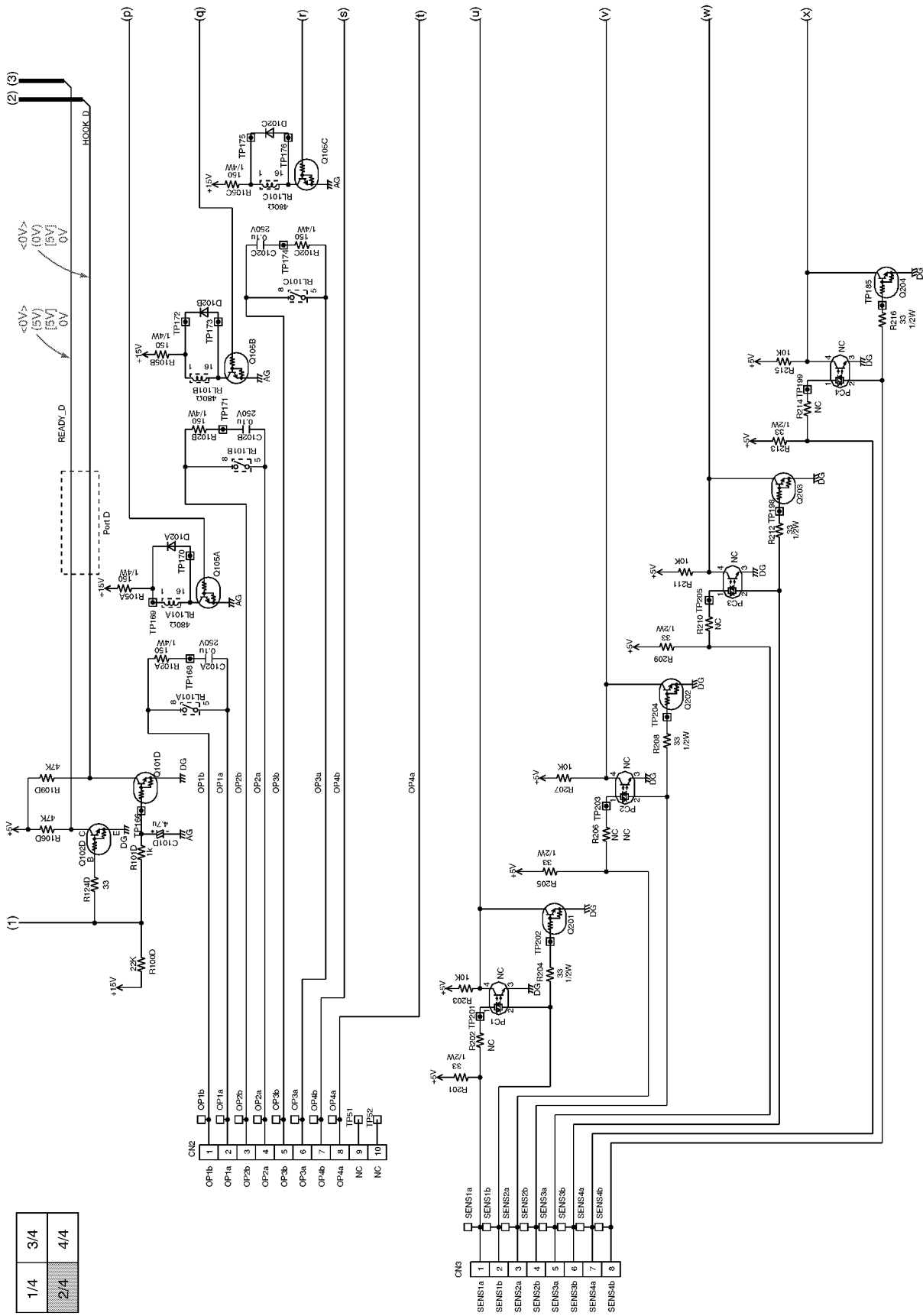
2. This schematic diagram may be modified at any time with the development of new technology.

16 SCHEMATIC DIAGRAM

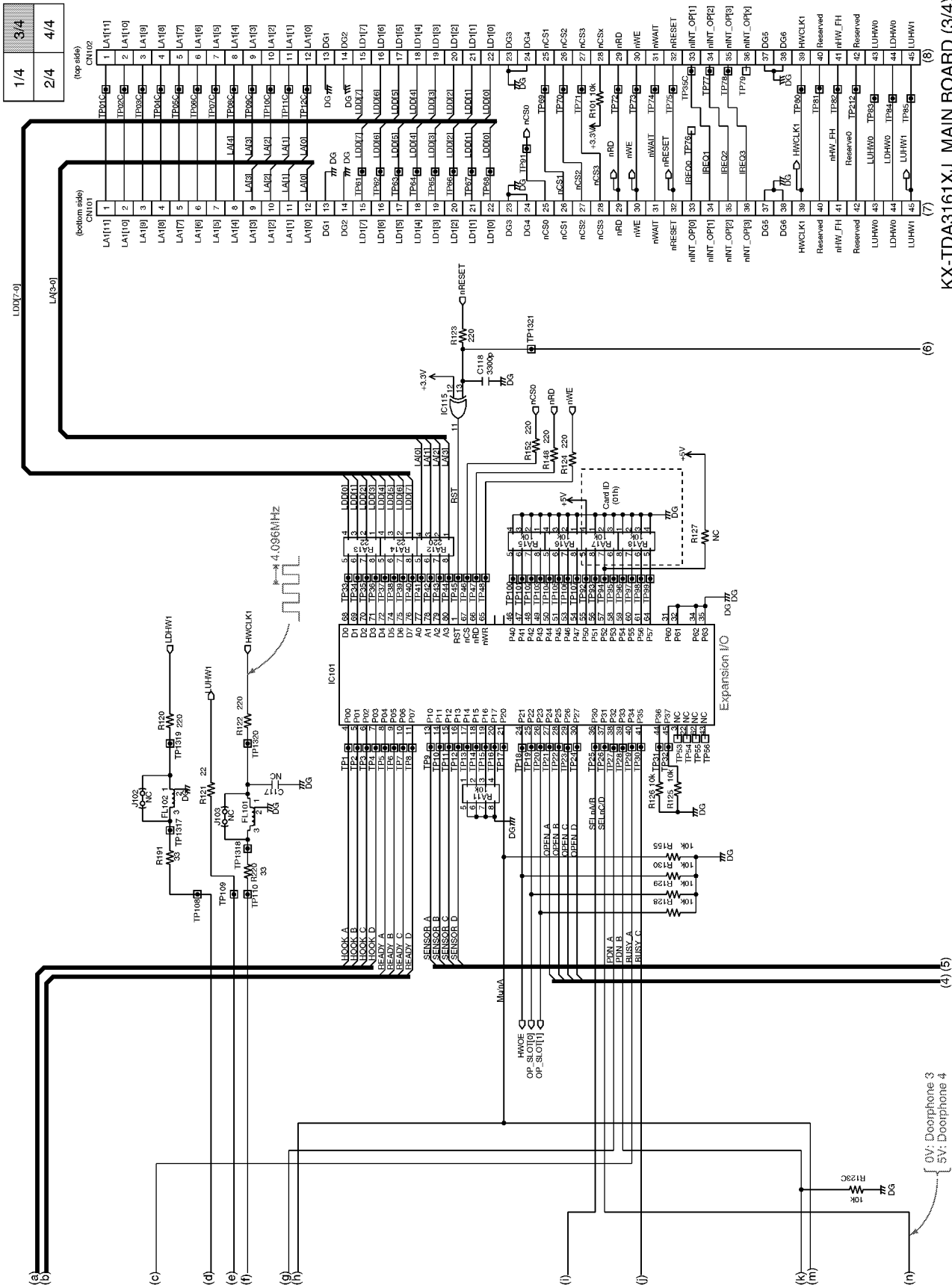


Note: < > No Doorphone
() Doorphone
[] Press Call Button
No Mark Call Mode

KX-TDA3161XJ MAIN BOARD (1/4)



KX-TDA3161XJ MAIN BOARD (2/4)

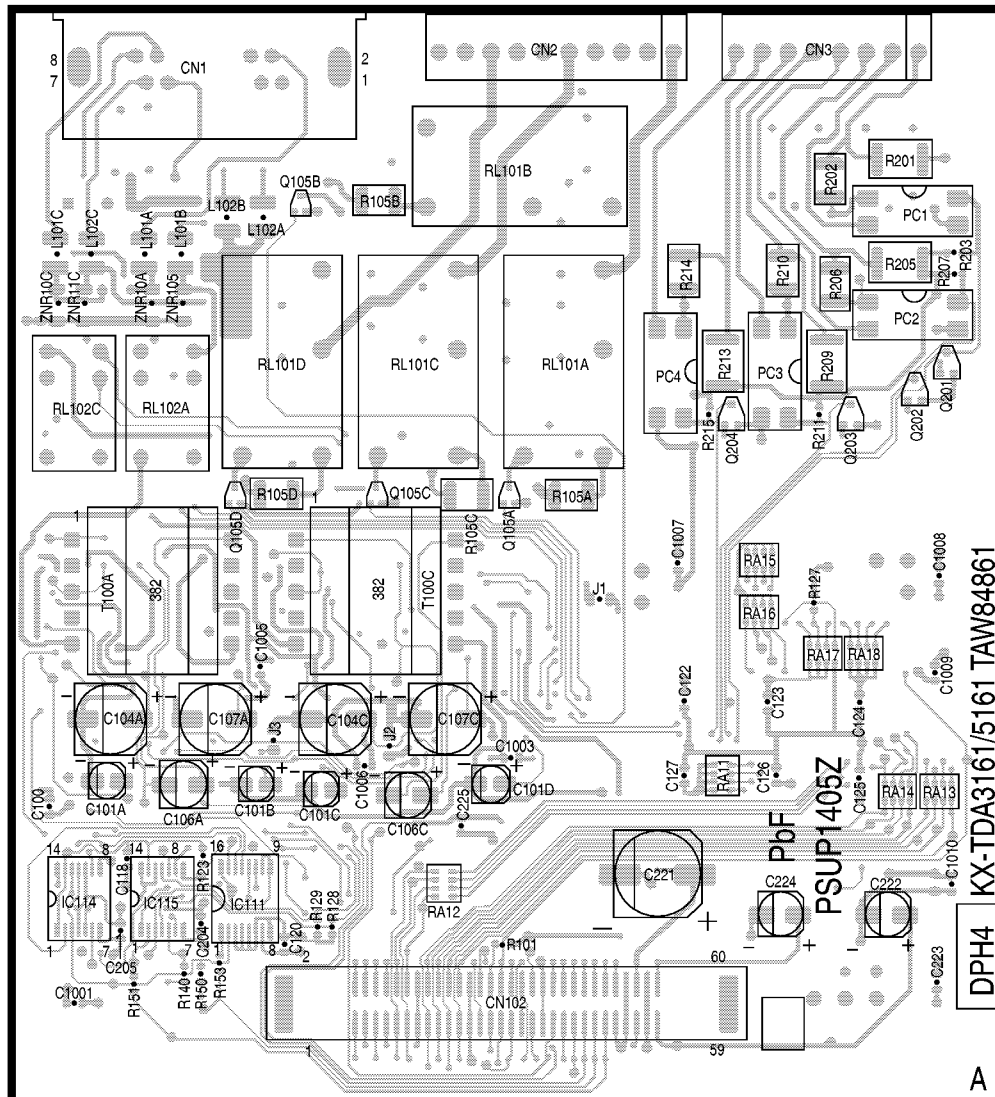


KX-TDA3161XJ MAIN BOARD (3/4)



17 PRINTED CIRCUIT BOARD

17.1. Component View



KX-TDA3161XJ DPH4 COMPONENT VIEW

