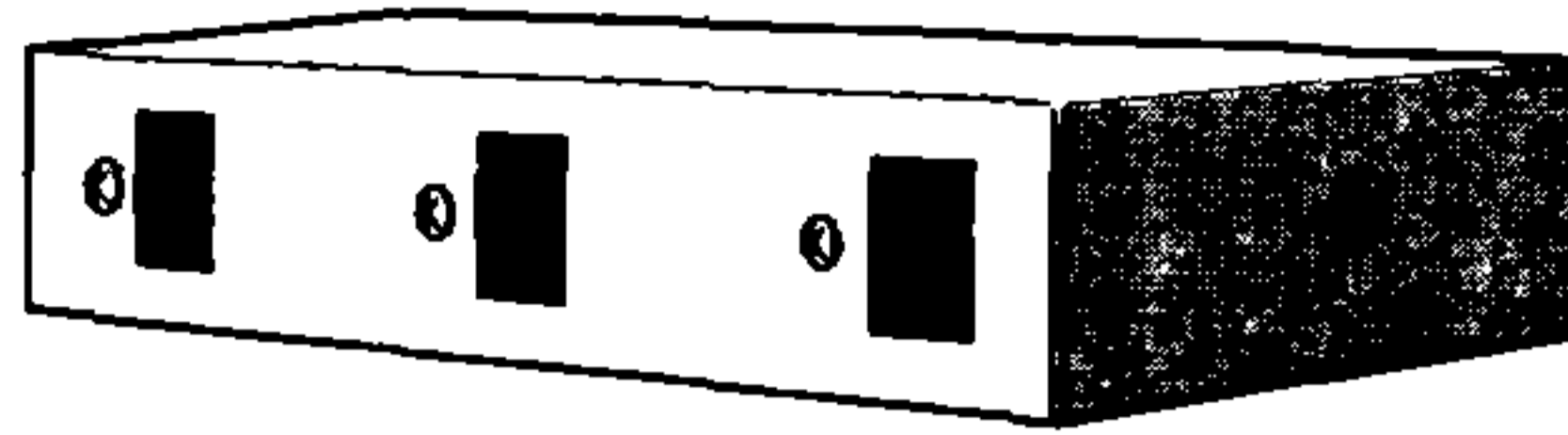


Service Manual



ORDER NO.
CRT1866

MULTIPLE INSTALLATION ADAPTOR

CD-P33 E

SPECIFICATIONS

General

Power source DC14.4V(10.8V—15.1V allowable)
Grounding system Negative type
Dimensions 162(W) × 30 (H) × 80 (D) mm
Weight 370g

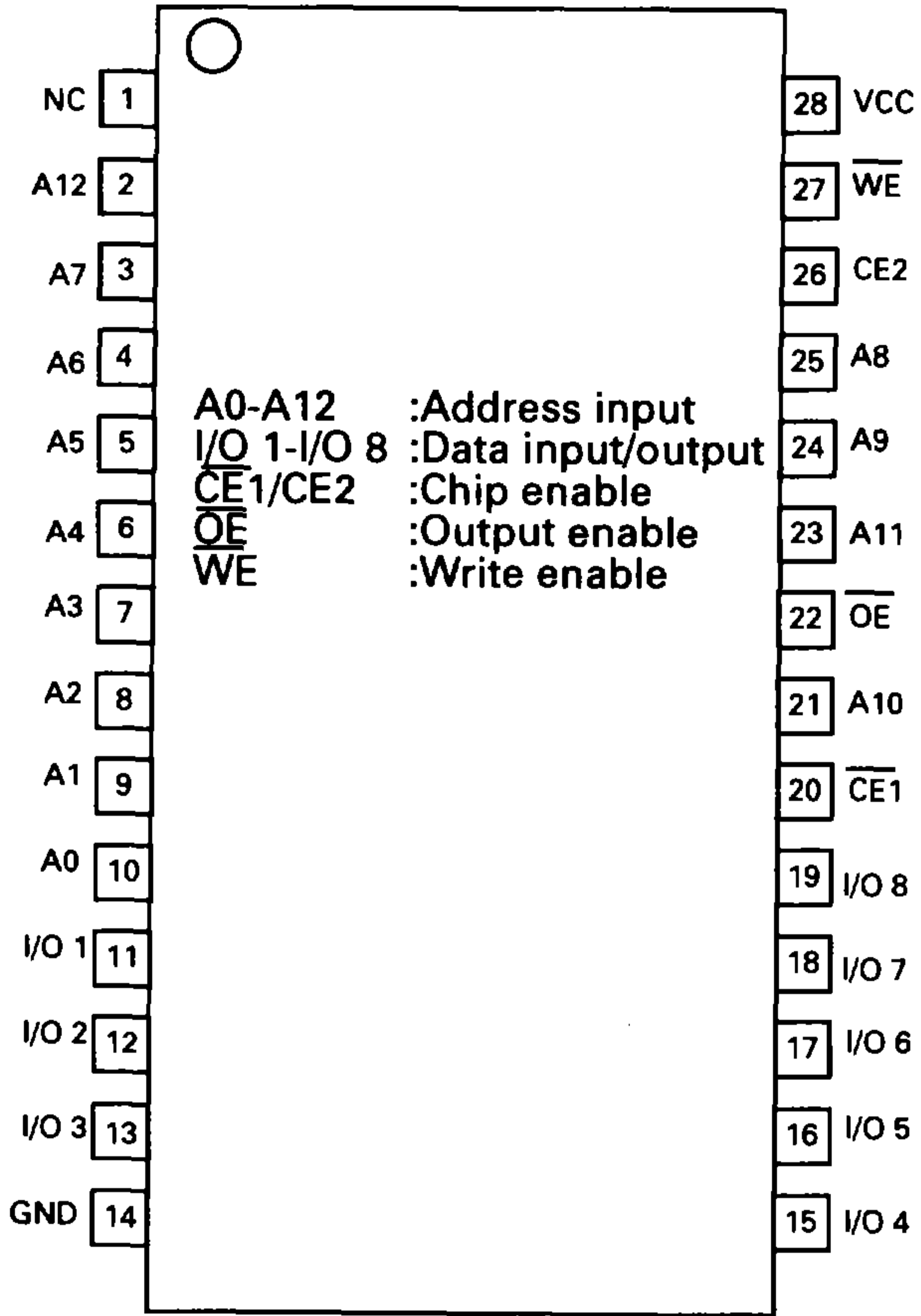
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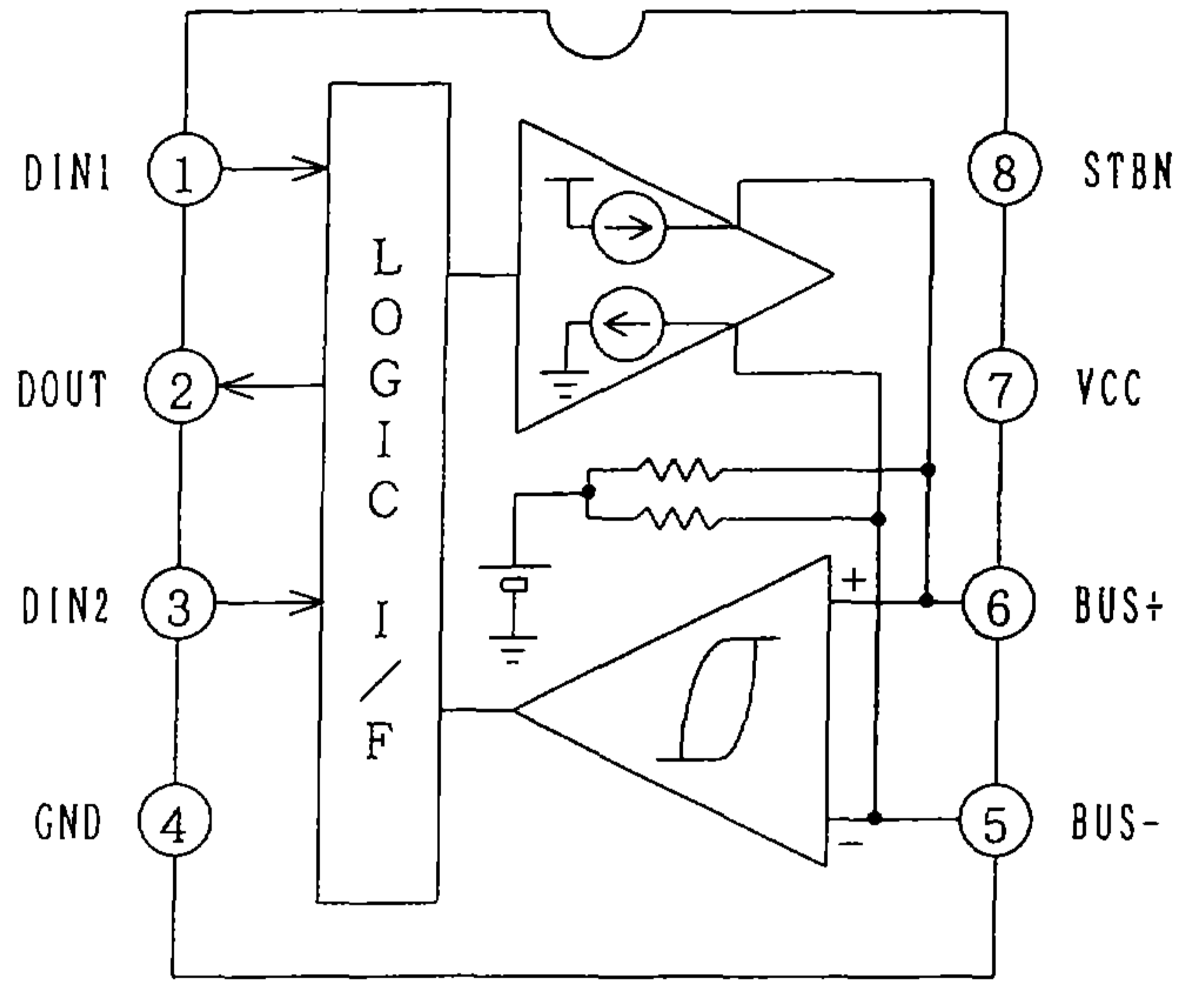
PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 501 Orchard Road, #10-00, Lane Crawford Place, Singapore 0923

1. IC INFORMATION

*LH5168HN-10L



CA0008AM



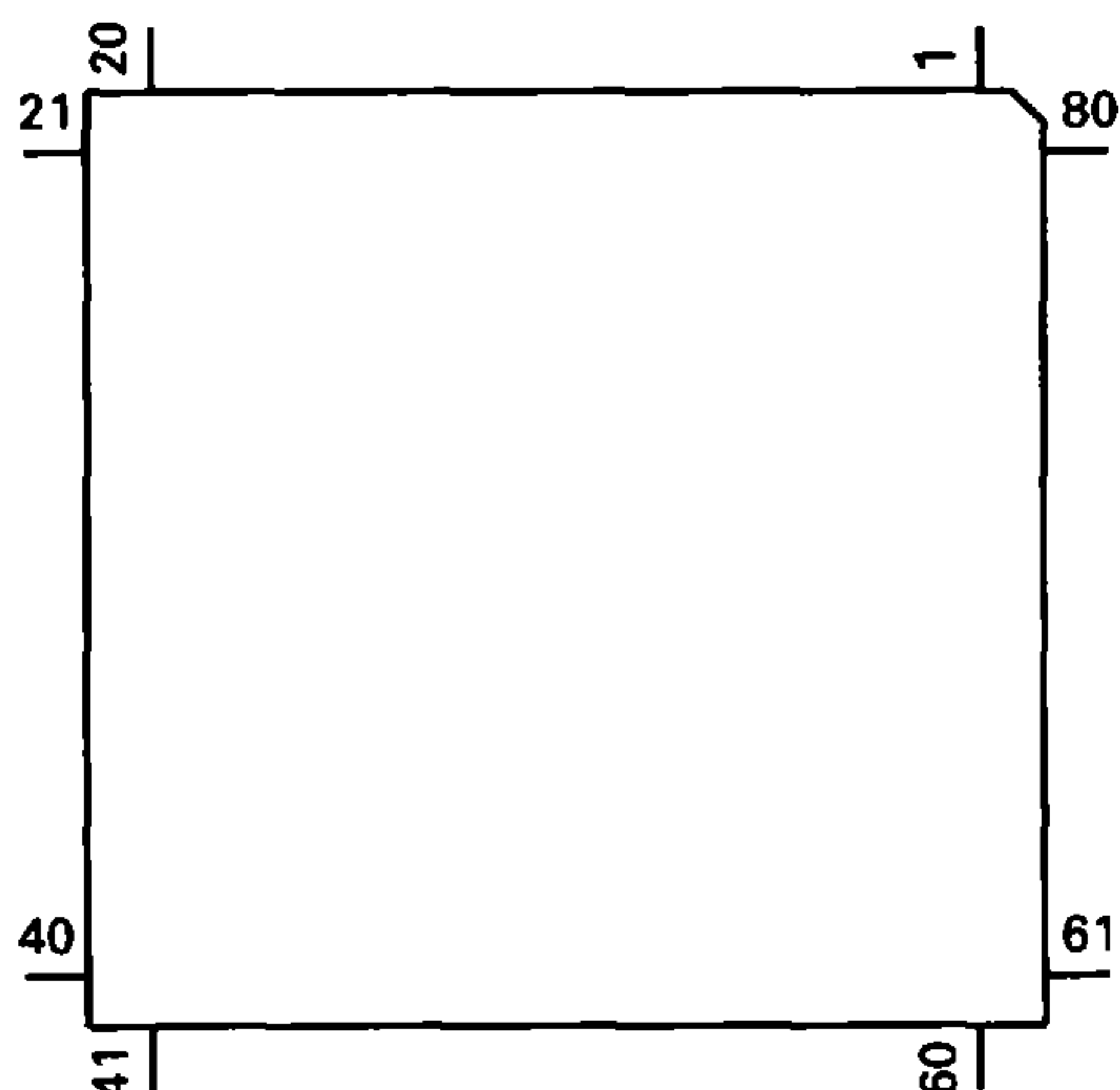
IC's marked by* are MOS type.
 Be careful in handling them because they are very liable to be damaged by electrostatic induction.

● Pin Functions (PD5365A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	NC			Open
2	NC			Open
3	CSI	I		IP-BUS data input
4	CSO	O	C	IP-BUS data output
5	APPW	O	C	IP-BUS driver power supply control output
6-13	NC			Open
14	ASENS	I		ACC power sense input
15	BSENS	I		Back up power sense input
16	MUTE	O	C	Mute control output
17	NC			Open
18	NC			Open
19	TCK	I		Test program clock
20	TSO	O	C	Test program data output
21	TSI	I		Test program data input
22	NC			Open
23	NC			Open
24	GND			GND
25	RESET	I		Reset input
26	POWER	O	C	+5V control
27	NC			Open
28	XIN	I		Crystal oscillating element connection pin
29	XOUT	O		Crystal oscillating element connection pin
30	VSS			GND
31-38	D7-0	I/O	C	External RAM data line
39	WE	O	C	External RAM write enable
40	PROT	O	C	External RAM output enable
41	CS	O	C	External RAM chip select
42-54	A12-0	O	C	External RAM address line
55-69	NC			Open
70	TESTIN	I		Unit check test input
71	VCC			5V
72	VREF	I		A/D converter reference voltage input
73	AVSS			A/D GND
74-80	NC			Open

Format	Meaning
C	C MOS

*PD5365A



2. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/OSOOOJ,RS1/OOSOOOJ

Chip Capacitor (except for CQS.....)

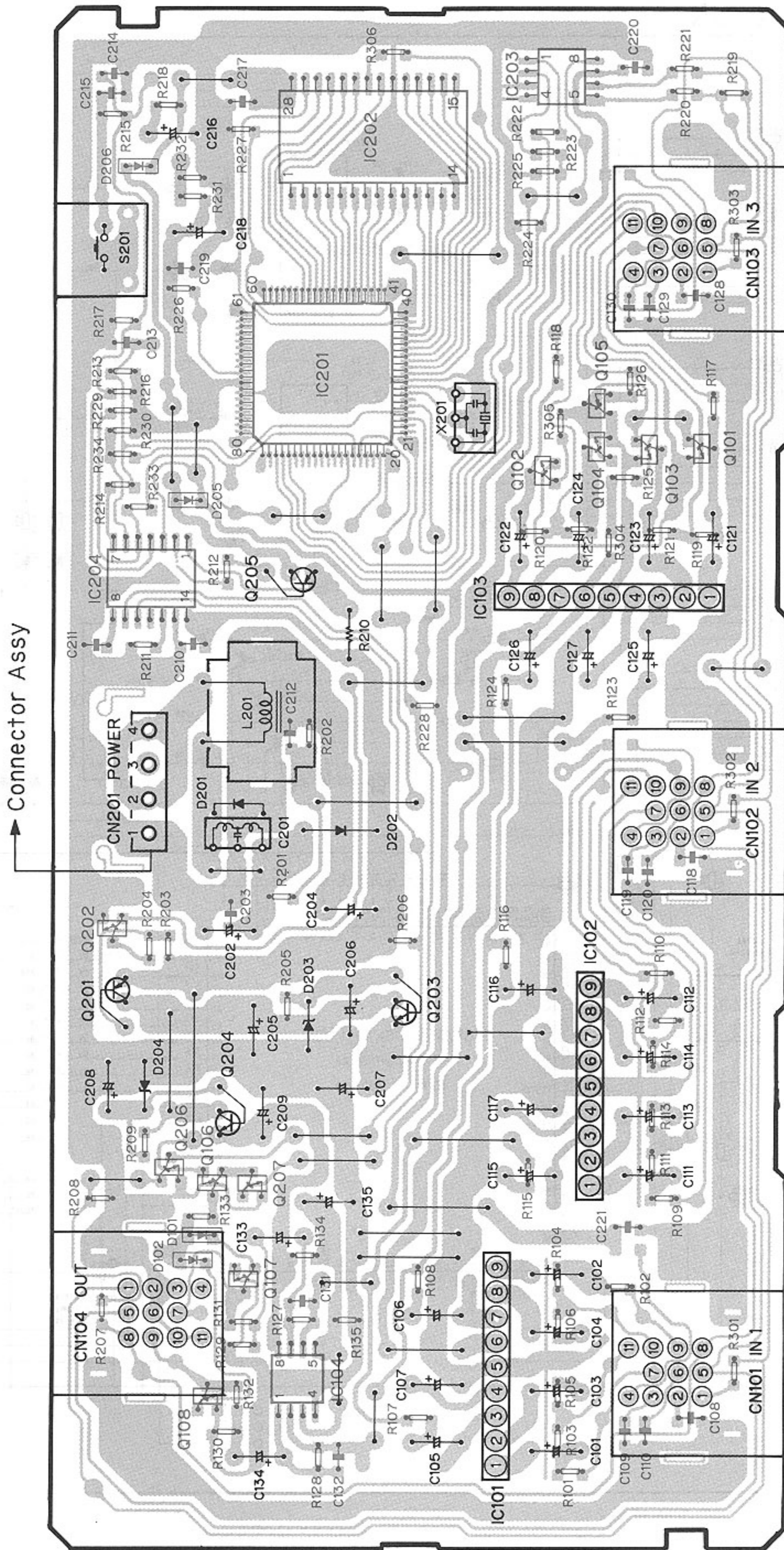
CKS....., CCS....., CSZS.....

====Circuit Symbol & No. Part Name====	Part No.	====Circuit Symbol & No. Part Name====	Part No.
Unit Number : CZX3176		C 131 132	CCSQCH271J50
Unit Name : Main Unit		C 135 209	CEAS101M10
MISCELLANEOUS		C 202	CCH1003
IC 101 102 103	TA2050S	C 203	CCSQCH102J50
IC 104	UPC4570G	C 204	CCH1001
IC 201	PD5365A		
IC 202	LH5168HN-10L		
IC 203	CA0008AM		
IC 204	PAJ002A		
Q 101 102 103 104	DTD114TK		
Q 105	DTA144TK		
Q 106	DTA144EK		
Q 107 108	DTC363TK		
Q 201	2SB1243		
Q 202 207	DTC144EK		
Q 203 204	2SD1858		
Q 205	2SB1329		
Q 206	2SC2412K		
D 101 102	1SS355		
D 201 202	ERA15-02		
D 203 204	HZS9L(B2)		
D 205 206	1SS356		
L 201	Choke 1.4mH		
X 201	Resonator		
S 201	Switch(Reset)		
	CZS2050		
	CZS2032		
RESISTORS			
R 101 102 109 110 117 118	RS1/10S181J		
R 103 104 111 112 119 120 129 130	RS1/10S223J		
R 105 106 113 114 121 122 126 212 214 215	RS1/10S102J		
R 107 108 115 116 123 124	RS1/10S362J		
R 125	RS1/10S562J		
R 127 128	RS1/10S392J		
R 131 132	RS1/10S821J		
R 133 134 135 204 233 234	RS1/10S222J		
R 201	RS1/10S224J		
R 202 206 216 217 229 230	RS1/10S104J		
R 203 211 226 228 232	RS1/10S103J		
R 205 209	RS1/10S332J		
R 207 208 213 224 225 227	RS1/10S473J		
R 210	RD1/4PU3R9J		
R 218 220 221	RS1/10S101J		
R 219	RS1/10S752J		
R 222 223	RS1/10S102J		
R 301 302 303 304 305 306	RS1/10S0R0J		
CAPACITORS			
C 101 102 103 104 111 112 113 114 121 122	CEAS010M50		
C 105 106 115 116 125 126 133 134	CEAS100M16		
C 107 117 127 218	CEAS220M16		
C 108 109 110 118 119 120 128 129 130 210	CKSQYF104Z25		
C 123 124	CEAS010M50		

3. CONNECTION DIAGRAM

MAIN UNIT

- | | | | | | | | |
|-------|------|------|-------|------|-------|-------|-------|
| IC104 | Q106 | Q204 | Q201 | Q104 | IC204 | IC202 | IC203 |
| Q108 | Q207 | Q206 | IC102 | Q203 | Q205 | Q103 | Q105 |
| Q107 | Q202 | Q202 | Q202 | Q102 | IC103 | IC103 | Q105 |



NOTE:
 The parts mounted on this PCB include all necessary parts for several destinations.
 For further information for respective destinations, be sure to check with the schematic diagram.

Fig.1

4. SCHEMATIC CIRCUIT DIAGRAM

MAIN UNIT

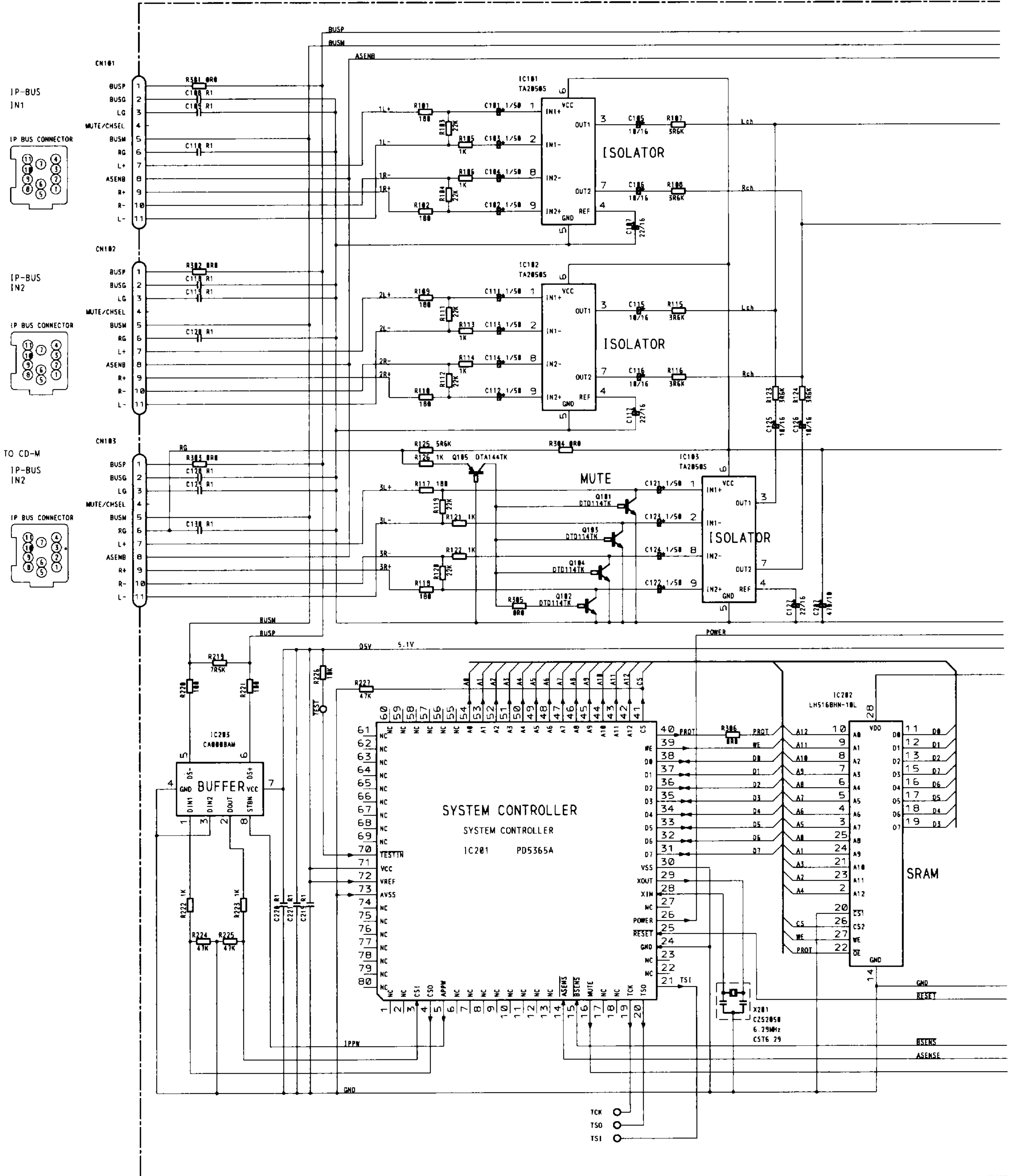
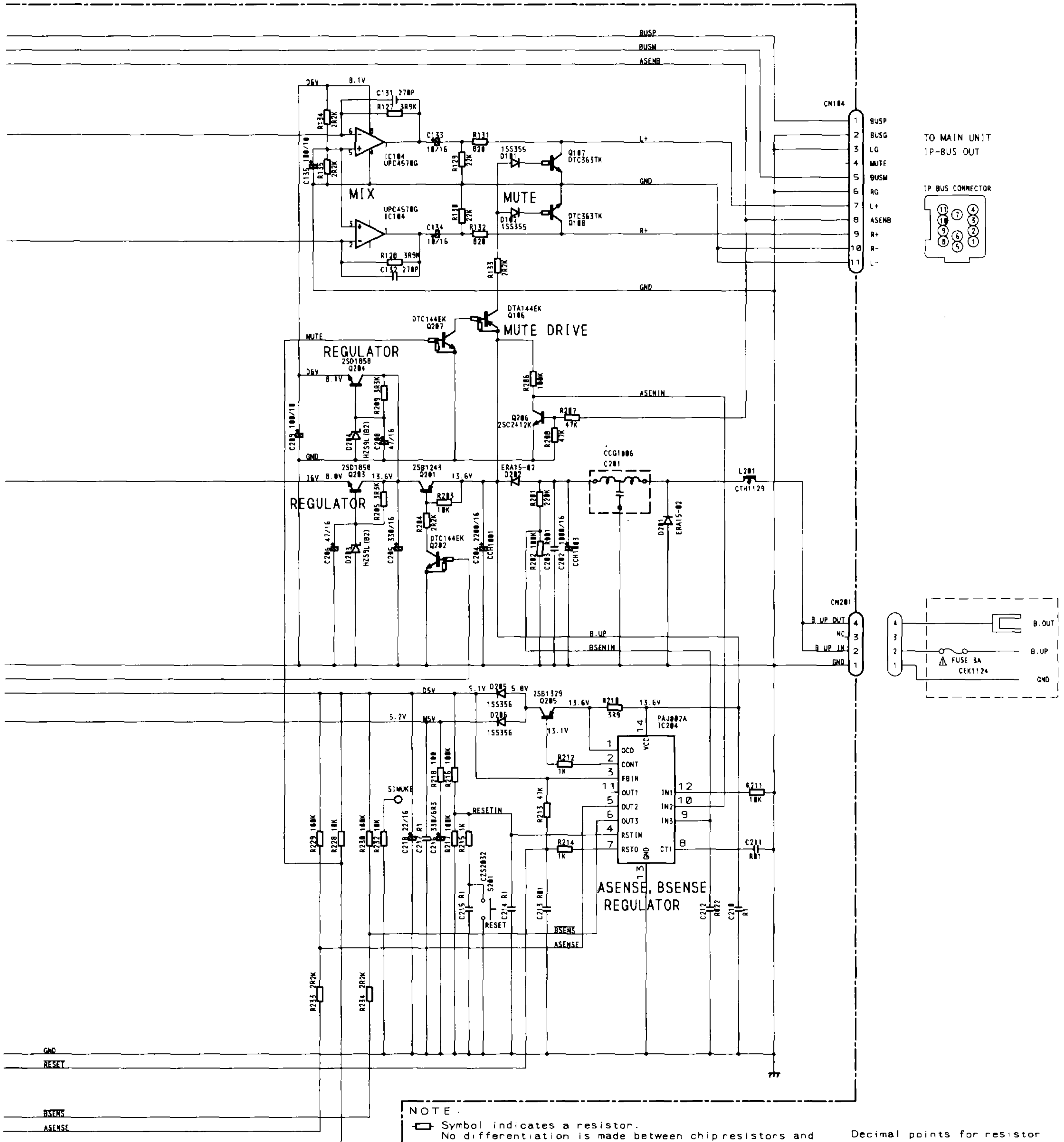


Fig.2



NOTE:

- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- ⊥ Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

Decimal points for resistor and capacitor fixed values are expressed as:
 2.2→2R2
 0.022→R022

Fig.3

5. EXPLODED VIEW AND PARTS LIST

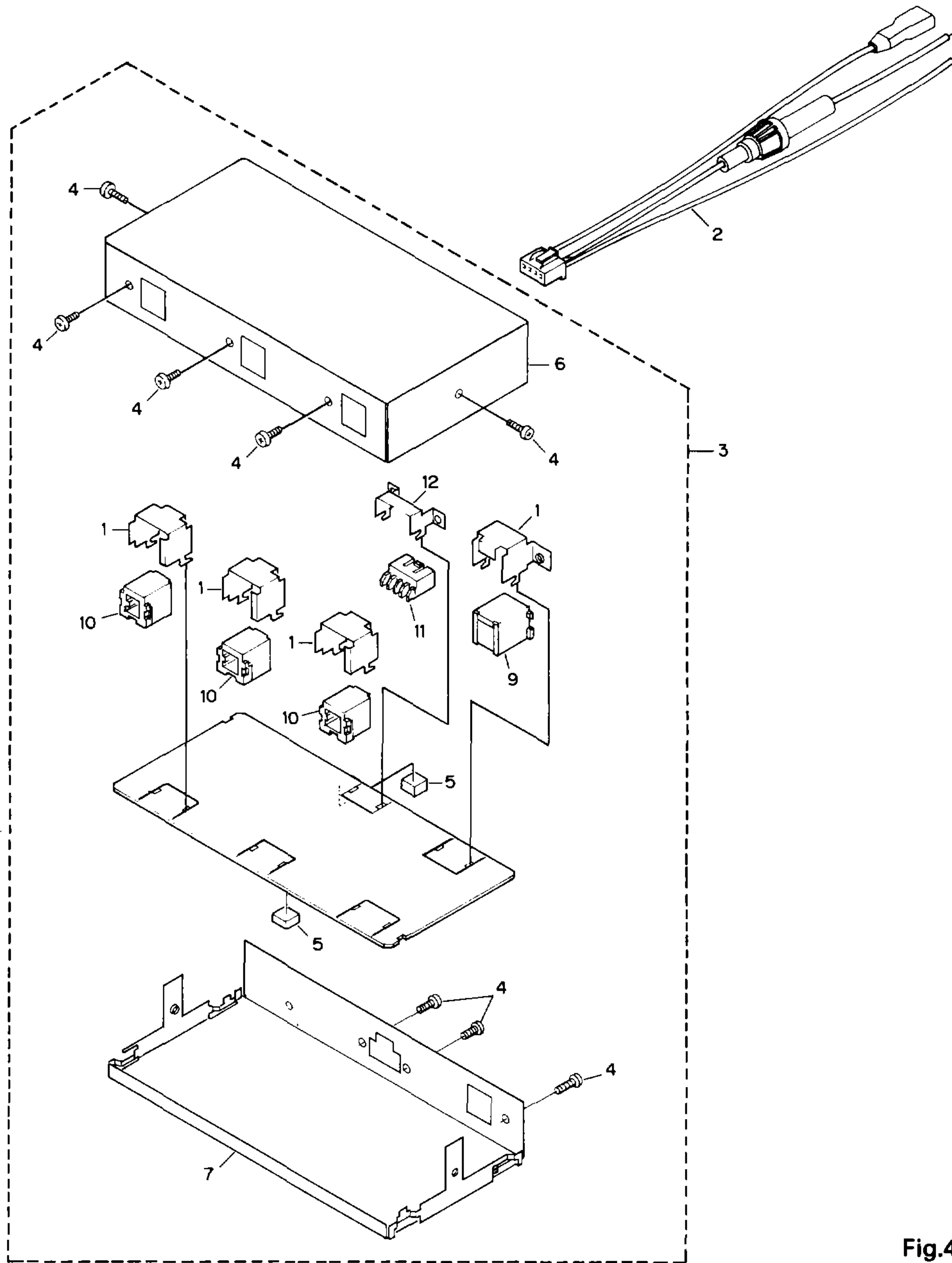


Fig.4

NOTE:

● Parts marked by " *" are generally unavailable because they are not in our Master Spare Parts List.

● **Parts List**

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Bracket	CZN6234	6	Case	CZN6374
2	Connector Assy	CZD3274	7	Chassis	CZN6375
3	Main Unit	CZX3176	8	
4	Screw	BSZ30P060FMC	9	Connector(CN104)	CKS2485
*	5 Spacer	CNM2798	10	Connector(CN101-103)	CKS2486
			11	Plug(CN201)	CZK2040
			12	Bracket	CZN6159

6. PACKING METHOD

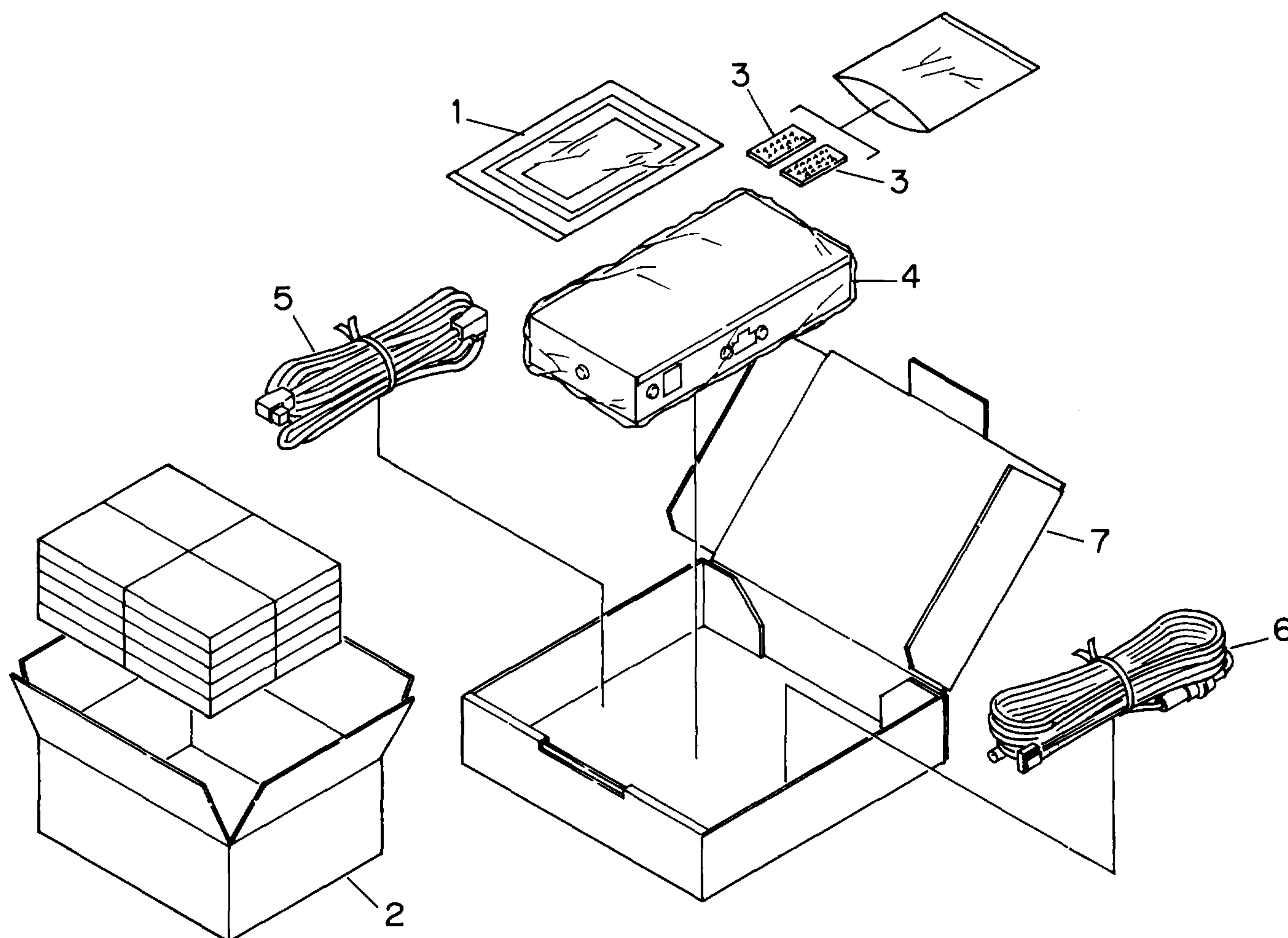


Fig.5

● Parts List

Mark No.	Description	Part No.
1-1	Polyethylene Bag	E36-618
1-2	Owner's Manual	CZR3161
* 1-3	Warranty Card	CRP1141
2	Contain Box	CZH6080
3	Fastener	CNM-667

Mark No.	Description	Part No.
* 4	Polyethylene Bag	CEG-185
* 5	Cord	CDE4115
6	Connector Assy	CZD3274
7	Carton	CZH6079

● Owner's Manual

Part No.	Language
CZR3161	English, Spanish, German, French, Italian