

PIONEER
The future of sound and vision.

Service Manual



ORDER NO.
CRZ1168

BRIDGEABLE 4 CHANNEL POWER AMPLIFIER

GM-3000

UC

ATO Fuse
30 Amp - CEK-1140
3 Amp - CEK-1134
4 Amp - CEK-1001

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8. CONNECTION DIAGRAM (EW)

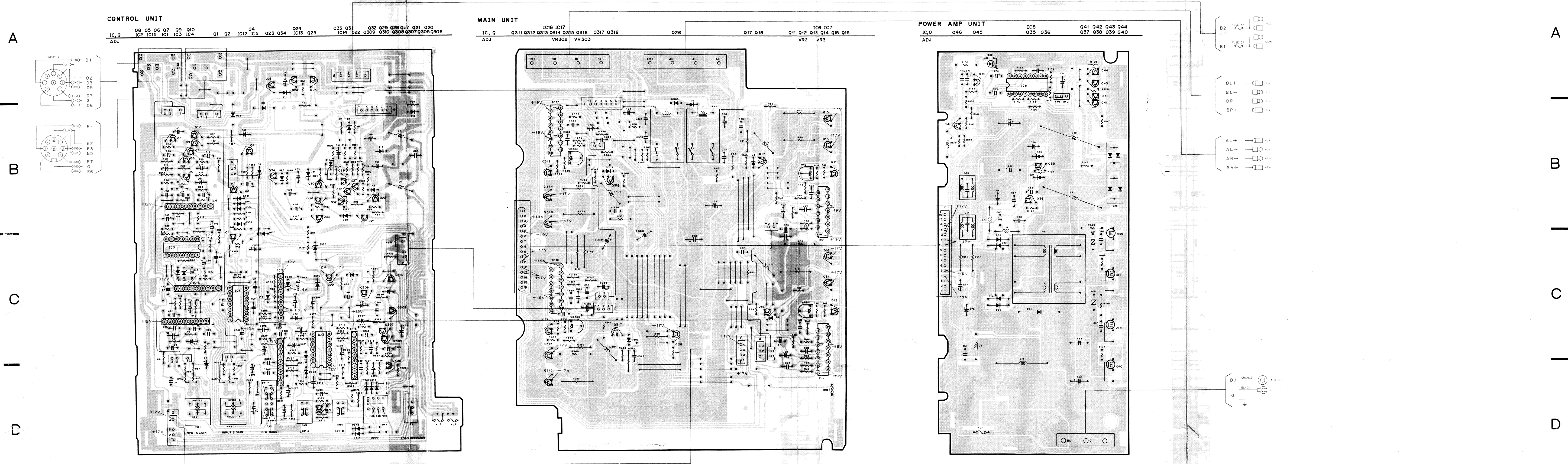


Fig. 21

9. SCHEMATIC CIRCUIT DIAGRAM (UC)

A

B

C

D

CONTROL UNIT

ANALOG SWITCH

ISOLATOR / INVERTER

MAIN AMP UNIT

POWER STAGE

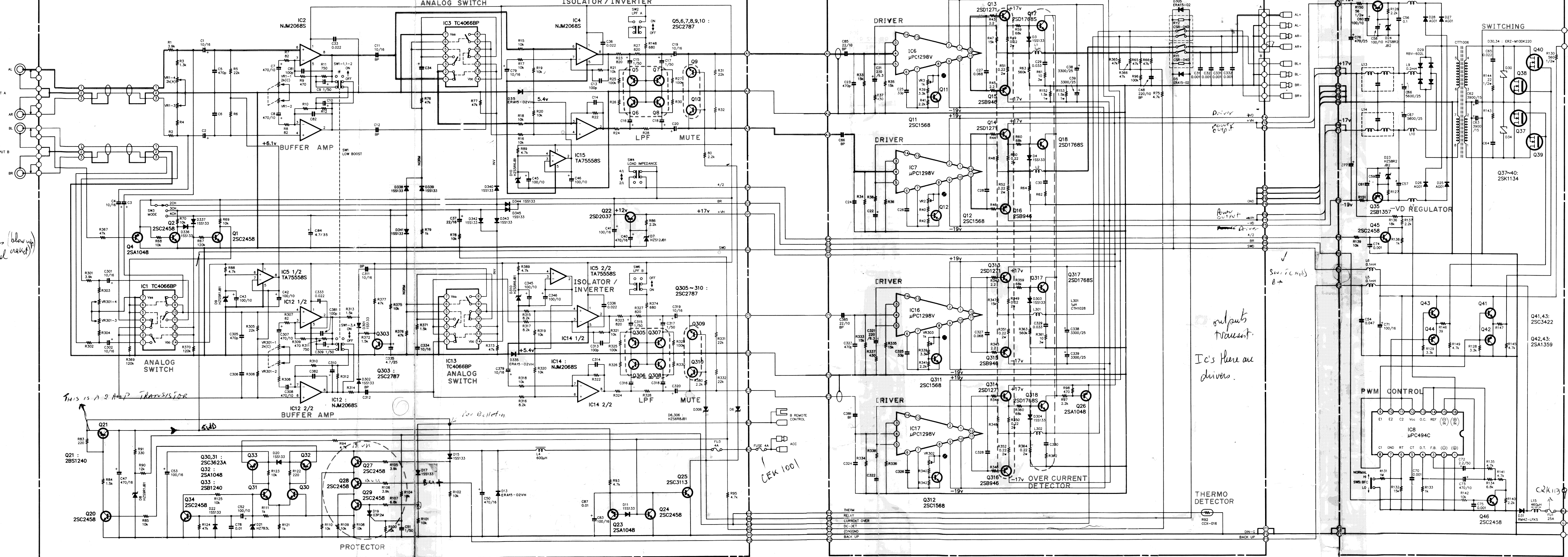
POWER SUPPLY UNIT

SWITCHING

PWM CONTROL

PROTECTOR

THERMO DETECTOR



Open diodes (blow up) D35 and resist D38

This is a 2 Amp TRANSISTOR

outputs transient. I c's there are drivers.

Power output driver

CEK 1001

- SWITCHES**
- CONTROL UNIT
 - SW1: LOW BOOST SWITCH ON-OFF
 - SW2: LPF A SWITCH ON-OFF
 - SW3: MODE SWITCH 2CH-3CH-4CH
 - SW4: LOAD IMPEDANCE SWITCH 4Ω-2Ω
 - SW6: LPF B SWITCH ON-OFF
 - POWER SUPPLY UNIT
 - SW5: BFC SWITCH HIGH-LOW
- The underlined, indicates the switch position.

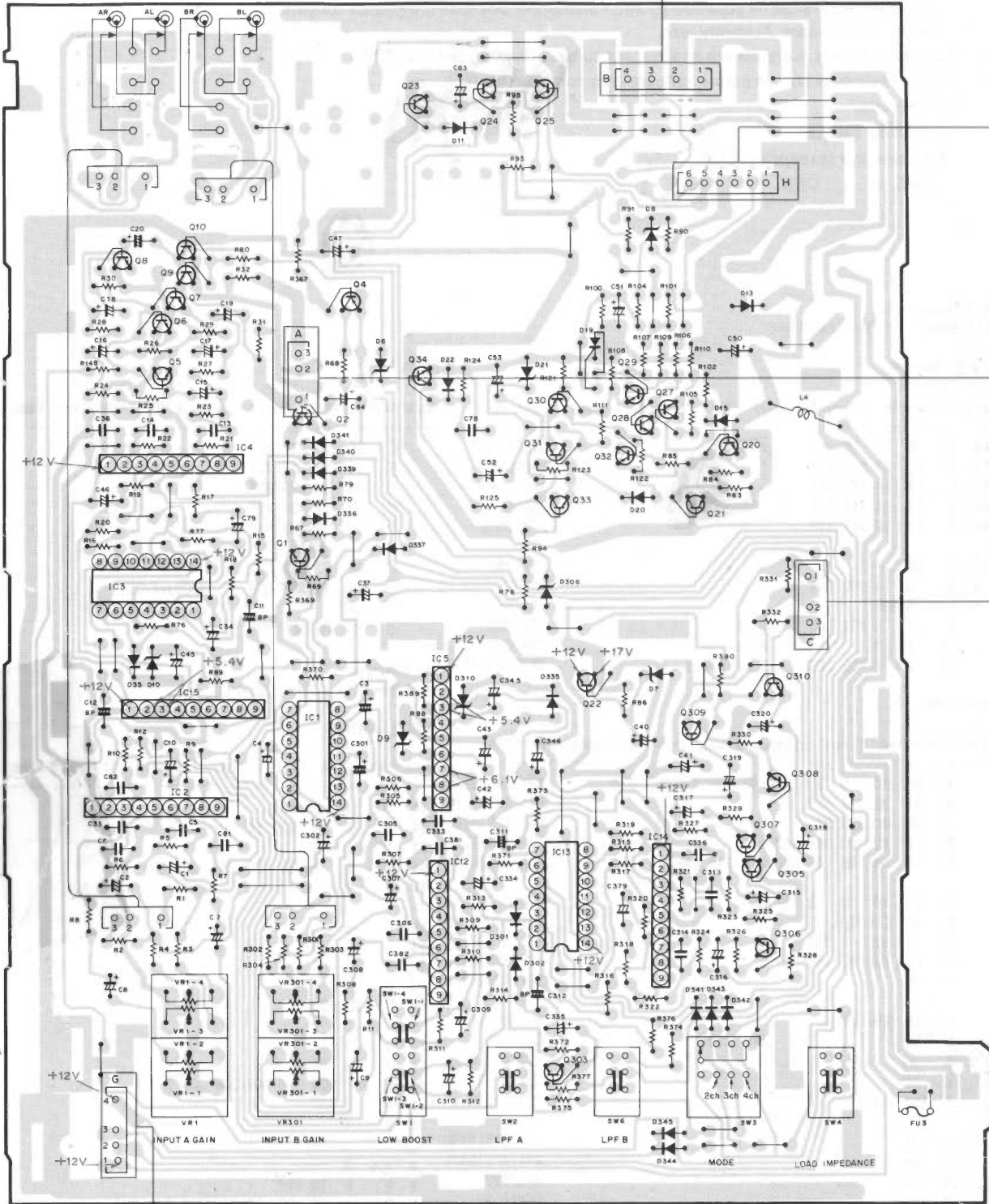
Voltage is referred to the cathode voltage of D35.

Fig. 22

10. CONNECTION DIAGRAM (UC)

CONTROL UNIT

A	IC, Q	Q8 Q5 Q6 Q7 Q9 Q10	Q1 Q2	Q4	Q23 Q34	Q24	Q33 Q31	Q32 Q29 Q28 Q27 Q21 Q20
	ADJ	IC2 IC15 IC1 IC3 IC4	IC12 IC5	IC23 IC34	IC13 Q25	IC14 Q22	Q309 Q310 Q308 Q307 Q305 Q306	



12. ELECTRICAL PARTS LIST

NOTE:

- For your Parts Stock Control, the fast moving items are indicated with the marks ** and *.
- ** : GENERALLY MOVES FASTER THAN *.
- This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/8S □□□J

Chip Capacitor (except for CQS.)

CKS., CCS.

Unit Number :
Unit Name : Main Amp Unit

MISCELLANEOUS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
**	IC	6 7 16 17			μPC1298V
**	Q	11 12 311 312			2SC1568
**	Q	13 14 313 314			2SD1271
**	Q	15 16 315 316			2SB946
**	Q	17 18 317 318			2SD1768S
**	Q	26			2SA1048
*	D	3 4 303 304			1SS133
*	D	5 305			ERA15-02
L		1 2 301 302		Coil	CTH1028
RV		1 2		Relay	CSR-040
VR		2 3 302 303		Semi-fixed	VRTB6VS102

CAPACITORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
C	21	22 321 322			CEA221MGR3LL
C	23	24 323 324			CKPYB471K50L
C	25	26 325 326			CCCC8330J50
C	27	28 327 328			CQMA683K50
C	29	30 329 330			CQMA333K50
C	31	32 331 332			CQMA102K50
C	38	39 338 339		3300 μF/25V	CCH1052
C	48			100 μF/10V (NP)	CCH1036
C	85	86 385 386			CEA220M10NPLL

Unit Number :
Unit Name : Control Unit

RESISTORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
R	33	34 35 36 47 48 333 334 335 336			RD1/4PS153JL
R	37	38 337 338			RD1/4PS431JL
R	39	40 339 340			RD1/4PS332JL
R	41	42 97 341 342			RD1/4PS222JL
R	43	44 45 46 343 344 345 346			RD1/4PS2R2JL
R	49	50 51 52 349 350			CCN1013
R	59	60 360			RD1/4PS683JL
R	61	62 361 362			RS1/2P100JL
R	63	64 363 364			RD1/4PS564JL
R	65				RD1/4PS473JL
R	66	365 366			RD1/4PS473JL
R	92			Posister	CX-016
R	96				RD1/4PS104JL
R	98				RD1/4PS471JL
R	152	153			RS1P152JL
R	347				RD1/4PS153JL
R	348				RD1/4PS153JL
R	351				RN2PR22J
R	352				CCN1013
R	359				RD1/4PS683JL

MISCELLANEOUS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
**	IC	1 3 13			TC4066BP
**	IC	2 4 12 14			NJM2068S
**	IC	5 15			TA75558S
**	Q	1 2 20 24 27 28 29 34			2SC2458
**	Q	4		(EW)	2SC2458
**	Q	4		(UC)	2SA1048
**	Q	5 6 7 8 9 10			2SC2787
**	Q	21 33			2SB1240
**	Q	22			2SD2037
**	Q	23 32			2SA1048
**	Q	25			2SC3113
**	Q	30 31			2SC3623A
**	Q	303 305 306 307 308 309 310			2SC2787
*	D	6 306			HZS6R8JB1
*	D	7			HZS12JB1
*	D	8			HZS9R1JB1
*	D	9 10 310			HZS5R6JB1
*	D	11 15 20 22 342 343 344 345			1SS133
*	D	12		(EW)	ERA15-02VH
*	D	13 35 335			ERA15-02VH