

105VR/KR-V5090 ADJUSTMENT

105VR/KR-V5090 WIRING DIAGRAM

FM SECTION INPUT SELECTOR : FM MODE X05-4700

NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	DISCRIMINATOR	(A) 98 MHz, 60dBμ (ANT INPUT) 1 kHz, ±40 kHz DEV : E/T/Q TYPE 1 kHz, ±75 kHz DEV (OTHER TYPE)	Connect a DC voltmeter between pin 1 and pin2 of CN2.	MONO 98.0 MHz	L31	0V	(a)
					L32 (EXCEPT K/P)	Minimum distortion.	
2	DISTORTION (STEREO)	(B) 98 MHz, 60dBμ (ANT INPUT) 1 kHz, ±40 kHz DEV : E/T/Q TYPE 1 kHz, ±67.5 kHz DEV PILOT ±7.5 kHz DEV OTHER TYPE	(E)	AUTO 98.0 MHz	T 1 (A1)	Minimum distortion.	(a)

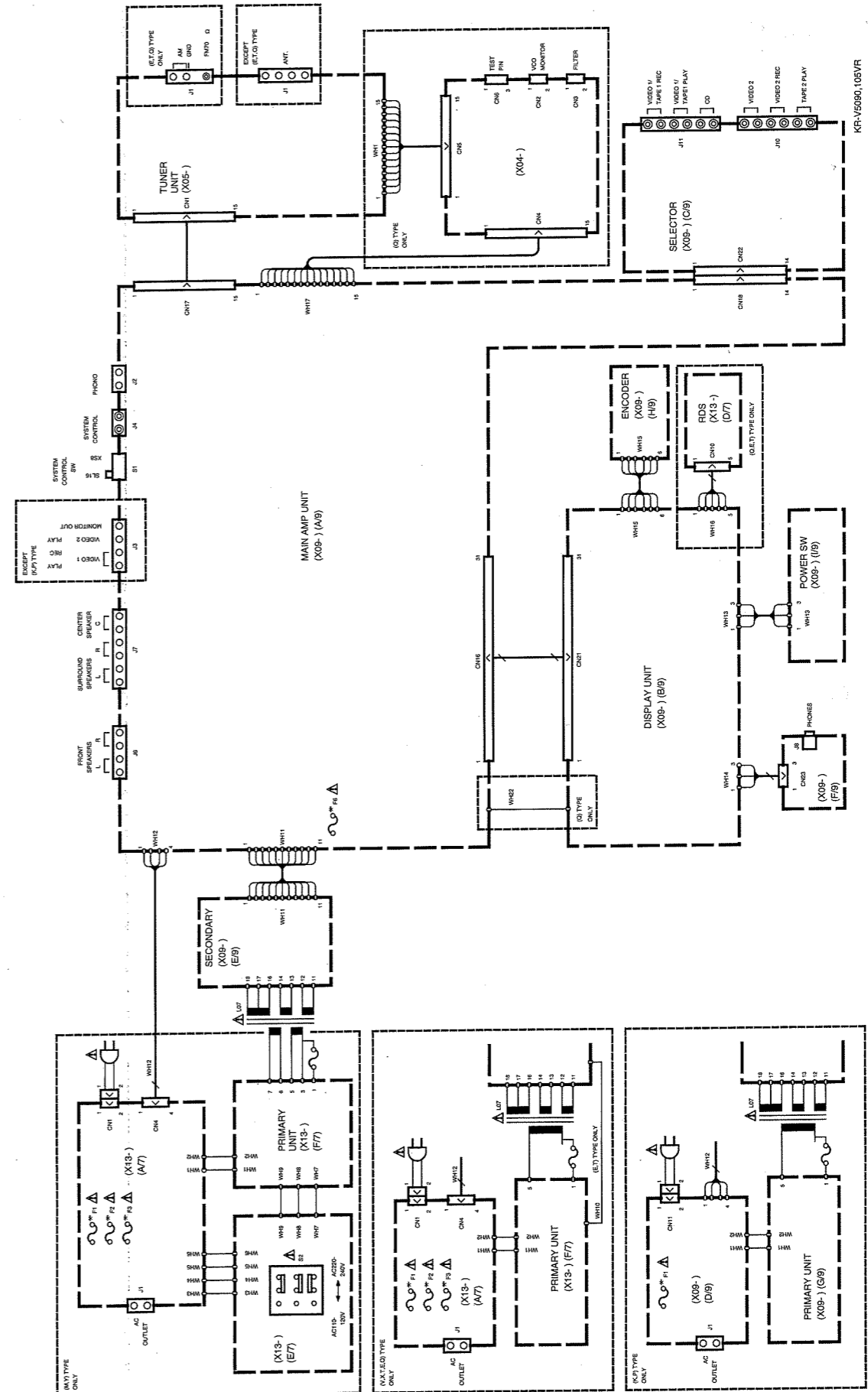
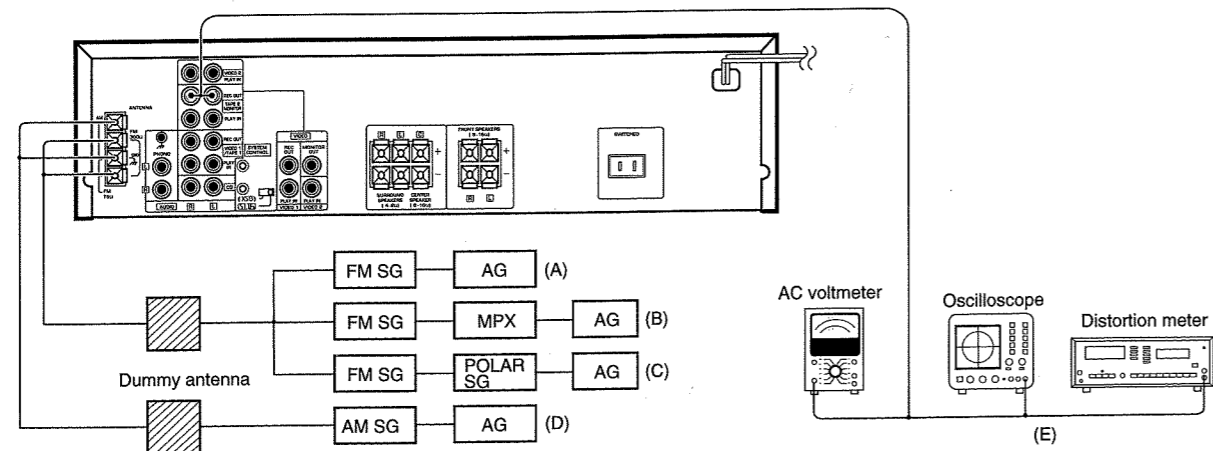
X05-4690

NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	DISTORTION (STEREO)	(B) 98 MHz, 60dBμ (ANT INPUT) 1 kHz, ±67.5 kHz DEV PILOT: ±7.5 kHz DEV	(E)	AUTO 98.0 MHz	T1 (A1)	Minimum distortion.	(a)

POLAR UNIT X04-1313 Q TYPE (65MHz~74MHz BAND)

NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	VCO	(C) 69 MHz, 60dBμ (ANT INPUT) 1 kHz, 0 kHz DEV SUB, 0 kHz DEV	Connect a frequency counter to VCO monitor (CN2).	AUTO 69 MHz	VR 2	Adjust it the frequency counter reads 31.25 kHz ±100 kHz.	
2	SEPARATION	(C) 69 MHz, 60dBμ (ANT INPUT) 1 kHz, 40 kHz DEV SUB, 10 kHz DEV Select : L or R	Connect a oscilloscope to TUNER OUT (CN6).	AUTO 69 MHz	TC 1	Minimum crosstalk.	
3	SEPARATION	(C) SAME AS ABOVE	Connect a oscilloscope to TUNER OUT (CN6).	AUTO 69 MHz	VR 1	Minimum crosstalk.	

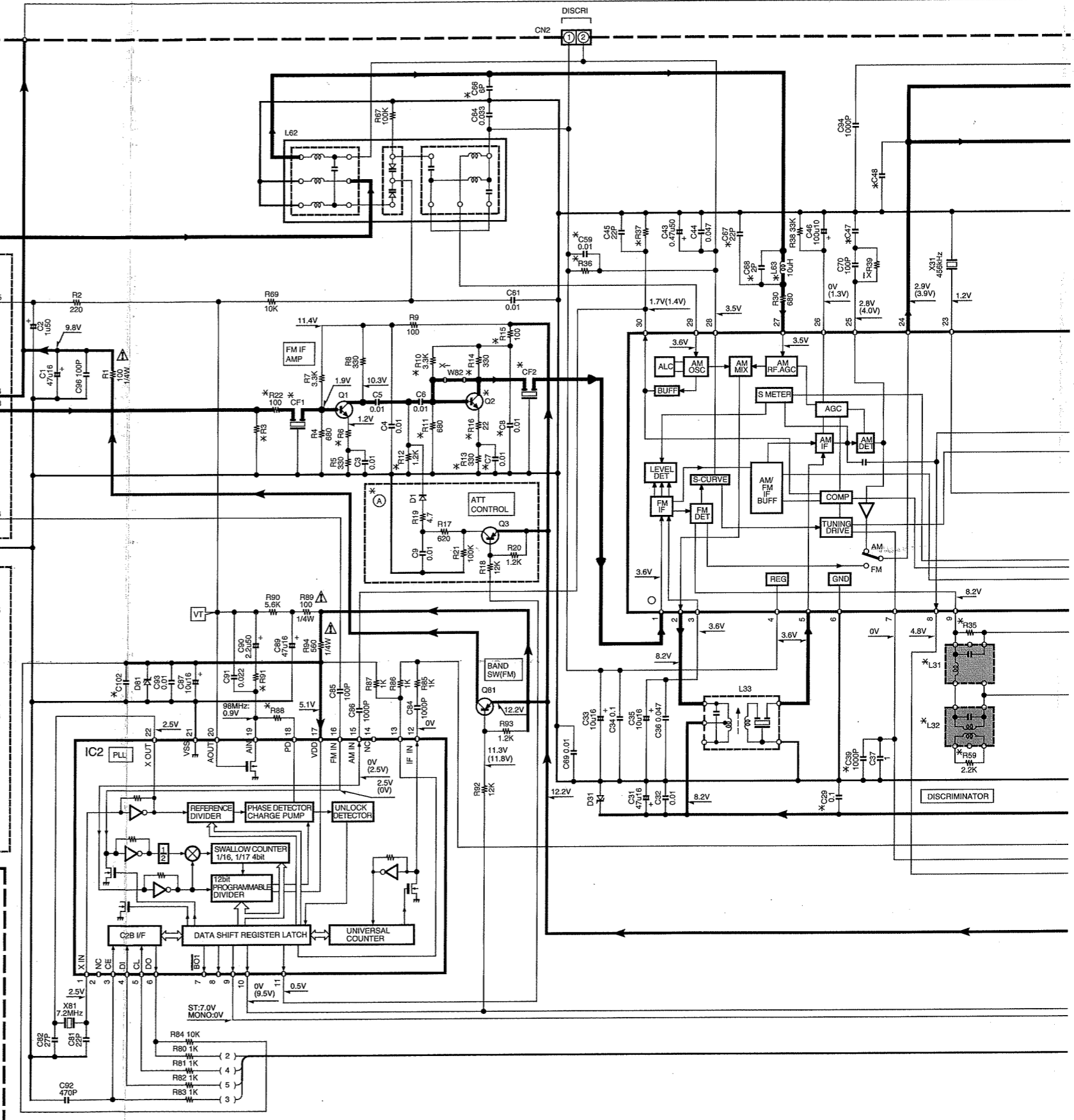
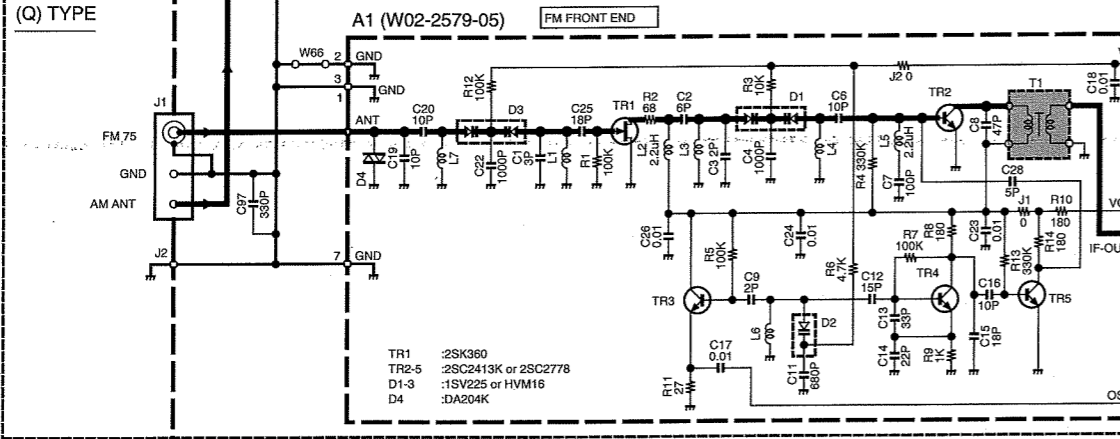
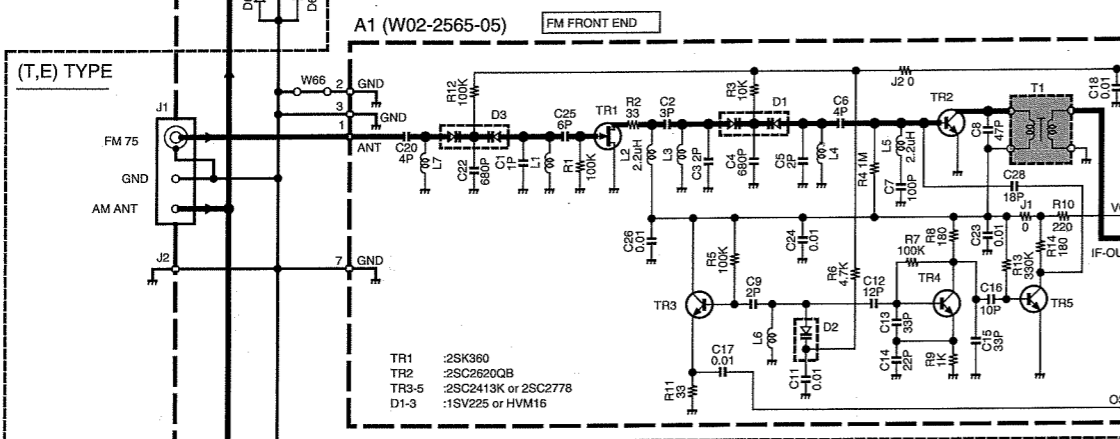
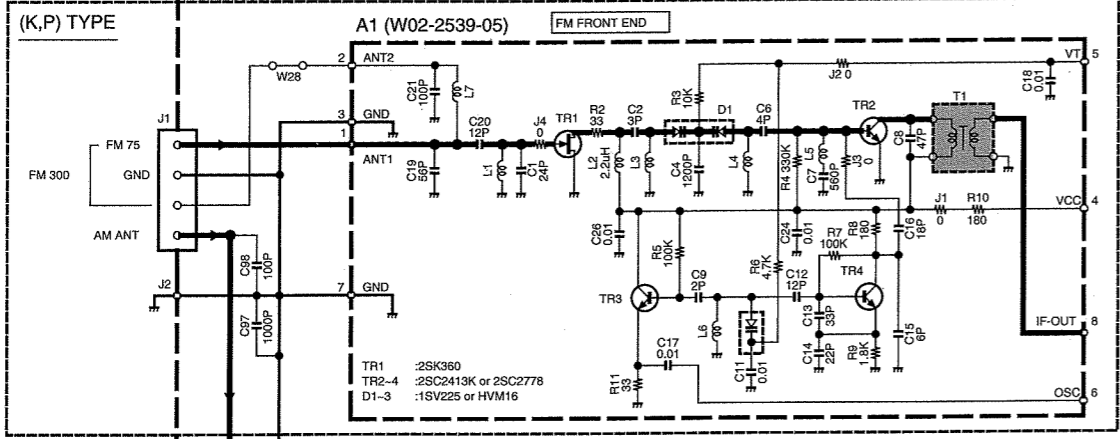
INSTRUMENT CONNECTION



(X05-470X-XX) : K,P,T,E,Q TYPE

KR-V5090 (X05-470X-XX)

DESTINATION COUNTRY	UNIT No.	⊕	⊙	C7,8, 86-88	C29,59 103	C39,59, 99,100	C47	C48	C63,54	C57, 58	C102	L31	L32, L35, 36	Q2, R3	R6	R10-16, 59	R22	R35, 36	R37	R39	R43, 44,41	R45	R46	R47, 48	R88	W68, 92	W76, 77	CF1,2	CN1	WH1		
U.K.	E	2-71	YES	YES	NO	NO	6800P	1000P	0.022	YES	NO	L30-0929-05	YES	YES	YES	3.3K	22	YES	W61	33K	3K	47K	2.2K	1.2K	1.2K	3.9K	1K	NO	NO	L72-0596-05	YES	NO
EUHOPE	E	2-71	YES	YES	NO	NO	6800P	1000P	0.022	YES	NO	L30-0929-05	YES	YES	YES	3.3K	22	YES	W61	33K	3K	47K	2.2K	1.2K	1.2K	3.9K	1K	NO	NO	L72-0596-05	YES	NO
RUSSIA	Q	3-81	NO	NO	YES	YES	6800P	100P	0.022	NO	1000P																					



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in () is actual reading measured in the AM mode.

MODE	CARRIER	MODULATION		ANT INPUT
		FREQUENCY	DEVIATION	
FM	98MHz	1kHz	STEREO 67.5kHz 7.5kHz(Pilot)	60dB
AM	1000(999)kHz	400Hz	MONO 30% MOD	60dB

- IC1 : LA1836
- IC2 : LC72131
- IC3 : NJM2904M
- Q1,2 : 2SC2714(R,Q)
- Q3,81,103 : 2SA1578A(R,S)
- Q31,32 : 2SC4081(R,S)
- Q101,102 : 2SD1328
- D1,33,61,62 : 1SS133
- D31 : MTZJ6.2(B)
- D32 : MA111
- D81 : MTZJ5.1(B)
- D101 : MTZJ3.3(B)

BAND	FREQ	VT
FM	LF	2.2V(0.8V)
FM	HF	7.5V
AM	LF	1.2V
AM	HF	4.8V

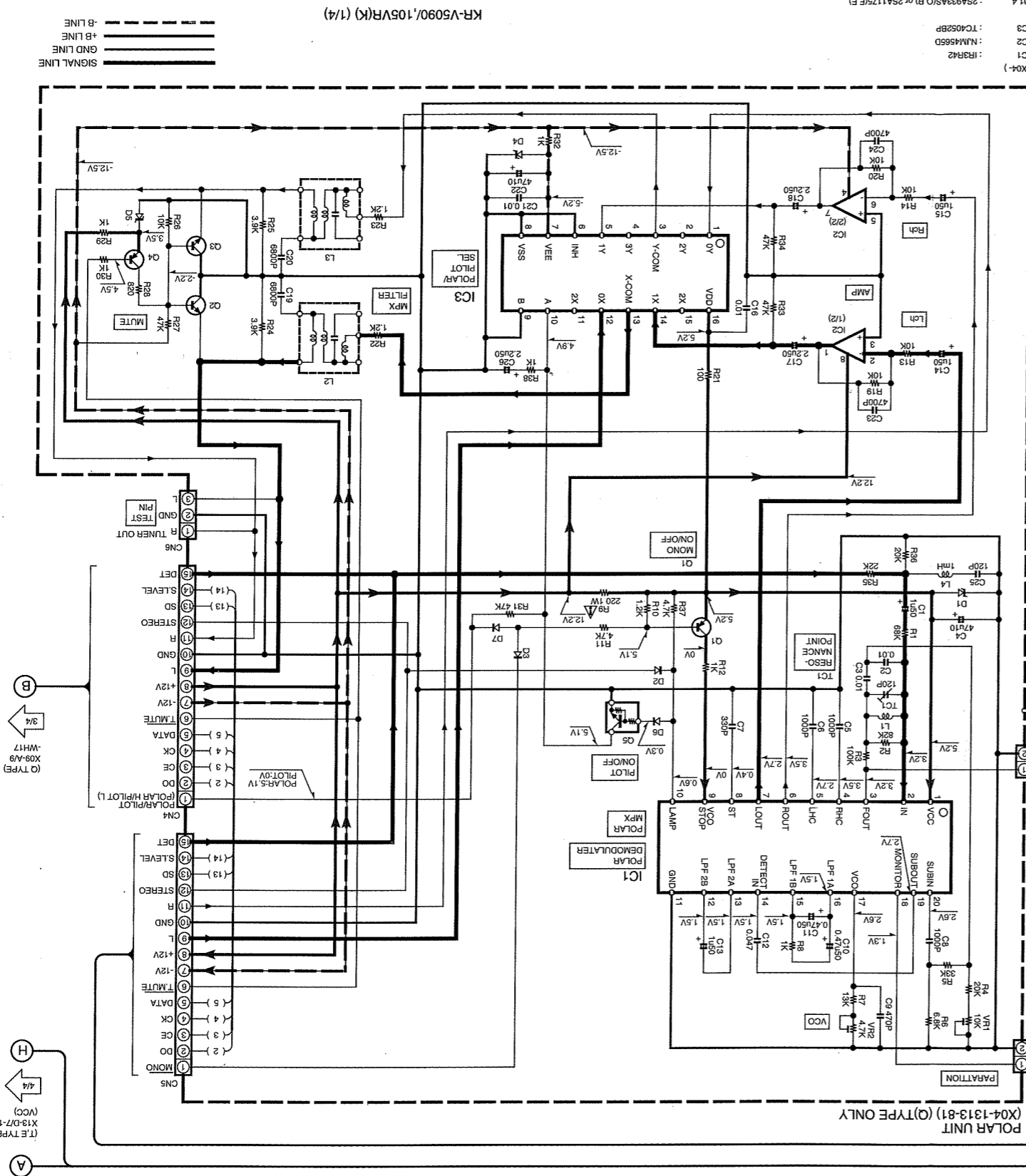
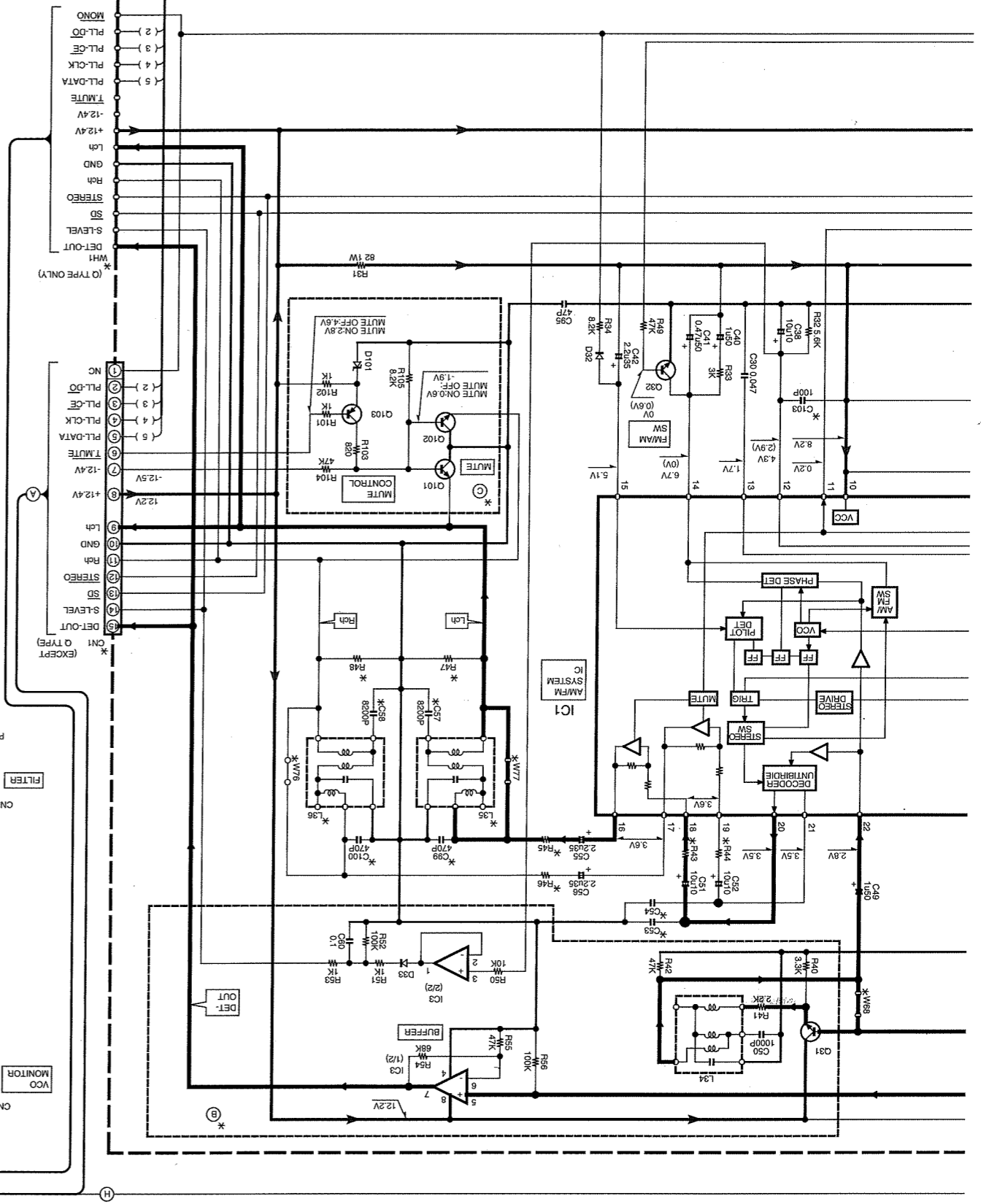
() Q TYPE

105VR/KR-V5090

KENWOOD

Y05-3270-10

DESTINATION	UNIT	COUNTRY	LABB No.	U.S.A.	CANADA
C7 A5/55	(A) (B)	88-88	99-100-103	NO	NO
C29 A5/55	(A) (B)	88-88	99-100-103	NO	NO
C48	(A) (B)	88-88	99-100-103	NO	NO
C53, C54	(A) (B)	88-88	99-100-103	NO	NO
C102	(A) (B)	88-88	99-100-103	NO	NO
L31	(A) (B)	88-88	99-100-103	NO	NO
L22	(A) (B)	88-88	99-100-103	NO	NO
W26	(A) (B)	88-88	99-100-103	NO	NO
R10-16	(A) (B)	88-88	99-100-103	NO	NO
R22	(A) (B)	88-88	99-100-103	NO	NO
R35	(A) (B)	88-88	99-100-103	NO	NO
R36	(A) (B)	88-88	99-100-103	NO	NO
R37	(A) (B)	88-88	99-100-103	NO	NO
R38	(A) (B)	88-88	99-100-103	NO	NO
R47	(A) (B)	88-88	99-100-103	NO	NO
R48	(A) (B)	88-88	99-100-103	NO	NO
R88	(A) (B)	88-88	99-100-103	NO	NO
R91	(A) (B)	88-88	99-100-103	NO	NO
W88/76	(A) (B)	88-88	99-100-103	NO	NO
CF-1.2	(A) (B)	88-88	99-100-103	NO	NO
CF-1.2	(A) (B)	88-88	99-100-103	NO	NO
CN1	(A) (B)	88-88	99-100-103	NO	NO
WH	(A) (B)	88-88	99-100-103	NO	NO
L72-0586-05	(A) (B)	88-88	99-100-103	NO	NO
YES	(A) (B)	88-88	99-100-103	NO	NO

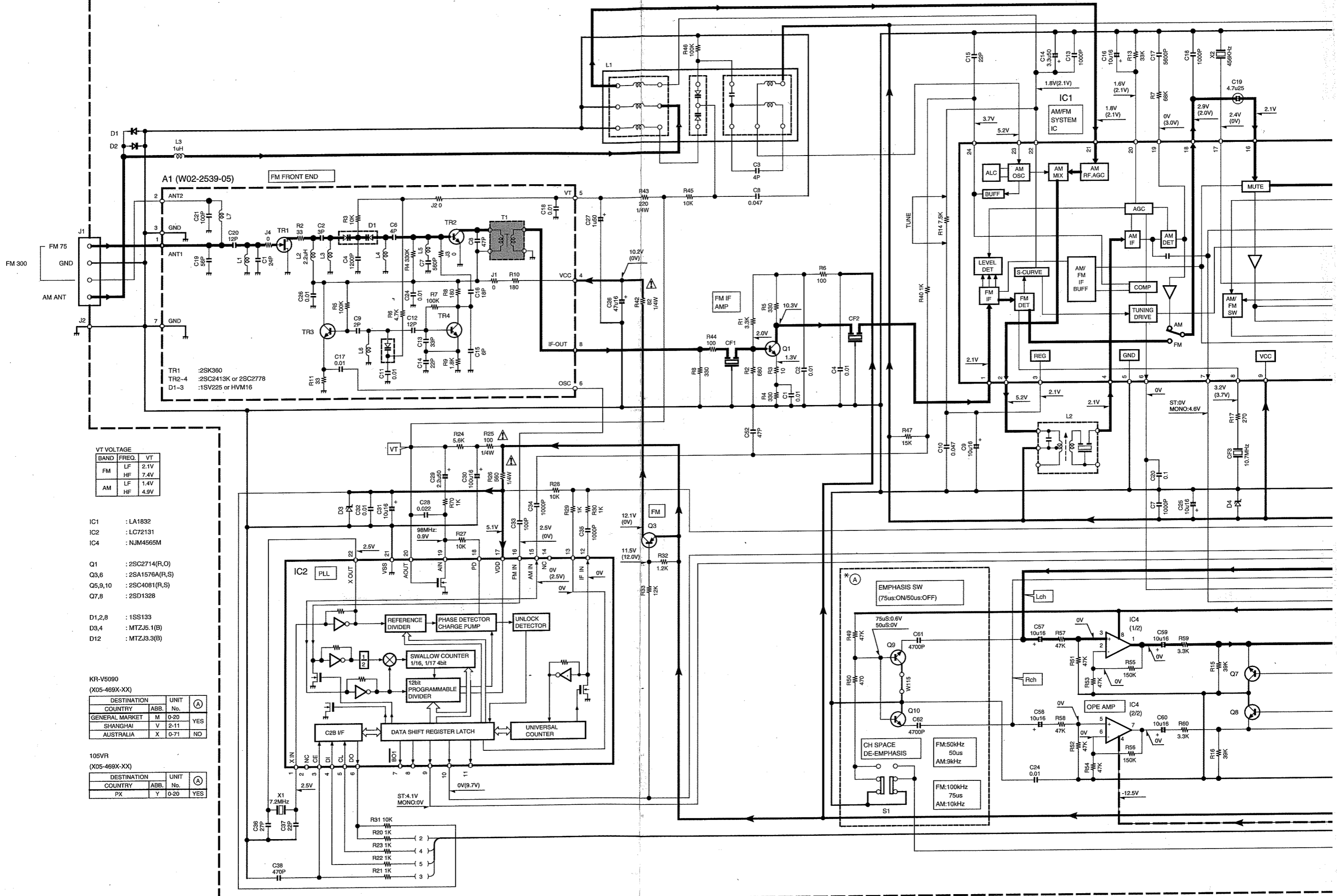


- (X04-) IC1 : R3R42
- IC2 : NJM4565D
- IC3 : TC4052BP
- Q1,4 : 2SA93A(S,Q,R) or 2SA1175(F,E)
- Q2,3 : 2SC2878(B)
- Q5 : DTC1245A or UN4212
- D1,4 : MTJ25, 1(B) or UZ-5, 1BSB
- D2,3,6,7 : MTJ23, 3(B) or UZ-3, 3BSB

SIGNAL LINE
 GND LINE
 +B LINE
 -B LINE

(K,P,T,E TYPE) X09-A/9 -CN17
 (T,E TYPE) X13-D/1 -V(C)
 (A) 3/4
 (H) 4/4
 (B) 3/4
 (Q TYPE) X03-A/9 -WH17

(X05-469X-XX) : M,V,X,Y TYPE



VT VOLTAGE

BAND	FREQ.	VT
FM	LF	2.1V
	HF	7.4V
AM	LF	1.4V
	HF	4.9V

- IC1 : LA1832
- IC2 : LC72131
- IC4 : NJM4565M

- Q1 : 2SC2714(R,O)
- Q3,6 : 2SA1576A(R,S)
- Q5,9,10 : 2SC4081(R,S)
- Q7,8 : 2SD1328

- D1,2,8 : 1SS133
- D3,4 : MTZJ5.1(B)
- D12 : MTZJ3.3(B)

KR-V5090 (X05-469X-XX)

DESTINATION	UNIT	(A)
COUNTRY	ABB. No.	
GENERAL MARKET	M 0-20	YES
SHANGHAI	V 2-11	
AUSTRALIA	X 0-71	NO

105VR (X05-469X-XX)

DESTINATION	UNIT	(A)
COUNTRY	ABB. No.	
PX	Y 0-20	YES

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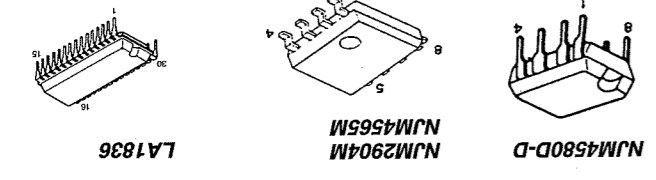
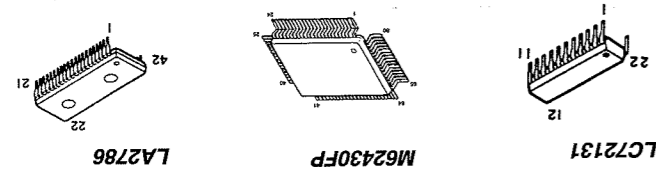
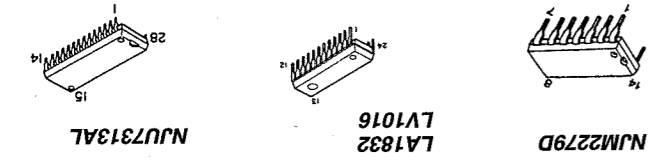
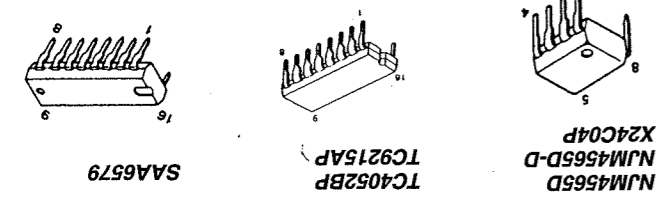
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KENWOOD 105VR/KR-V5090

Y05-3270-10

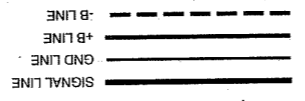


MODE	CARRIER	MODULATION	
		FREQUENCY	DEVIATION
AM	1000(999)kHz	400Hz	MONO 30% MOD
FM	98MHz	1kHz	STEREO 67.5kHz(7.5kHz(Pilot))
			ANT INPUT

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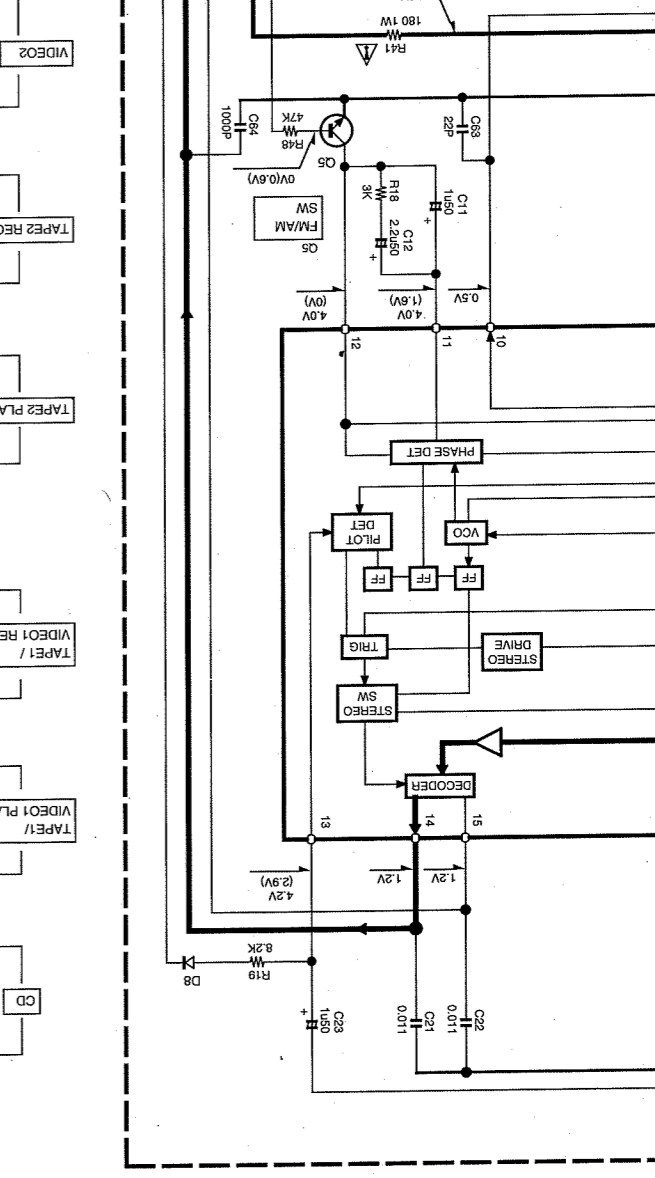
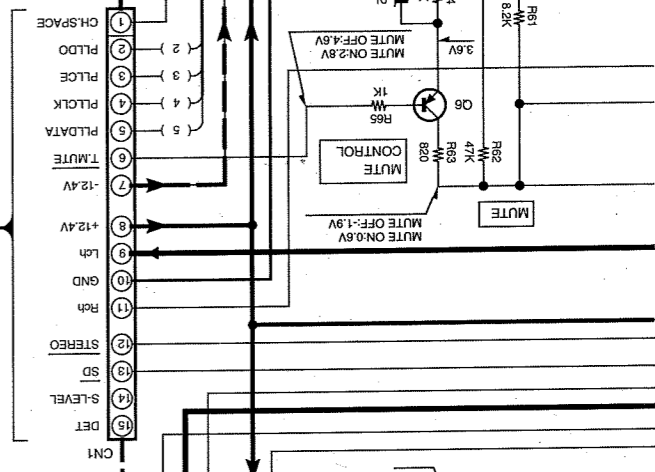
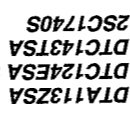
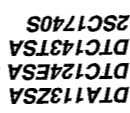
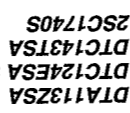
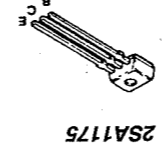
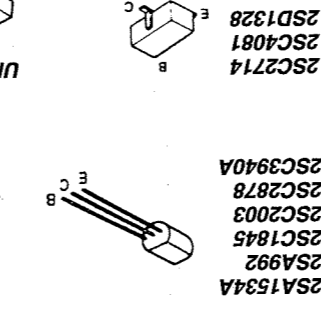
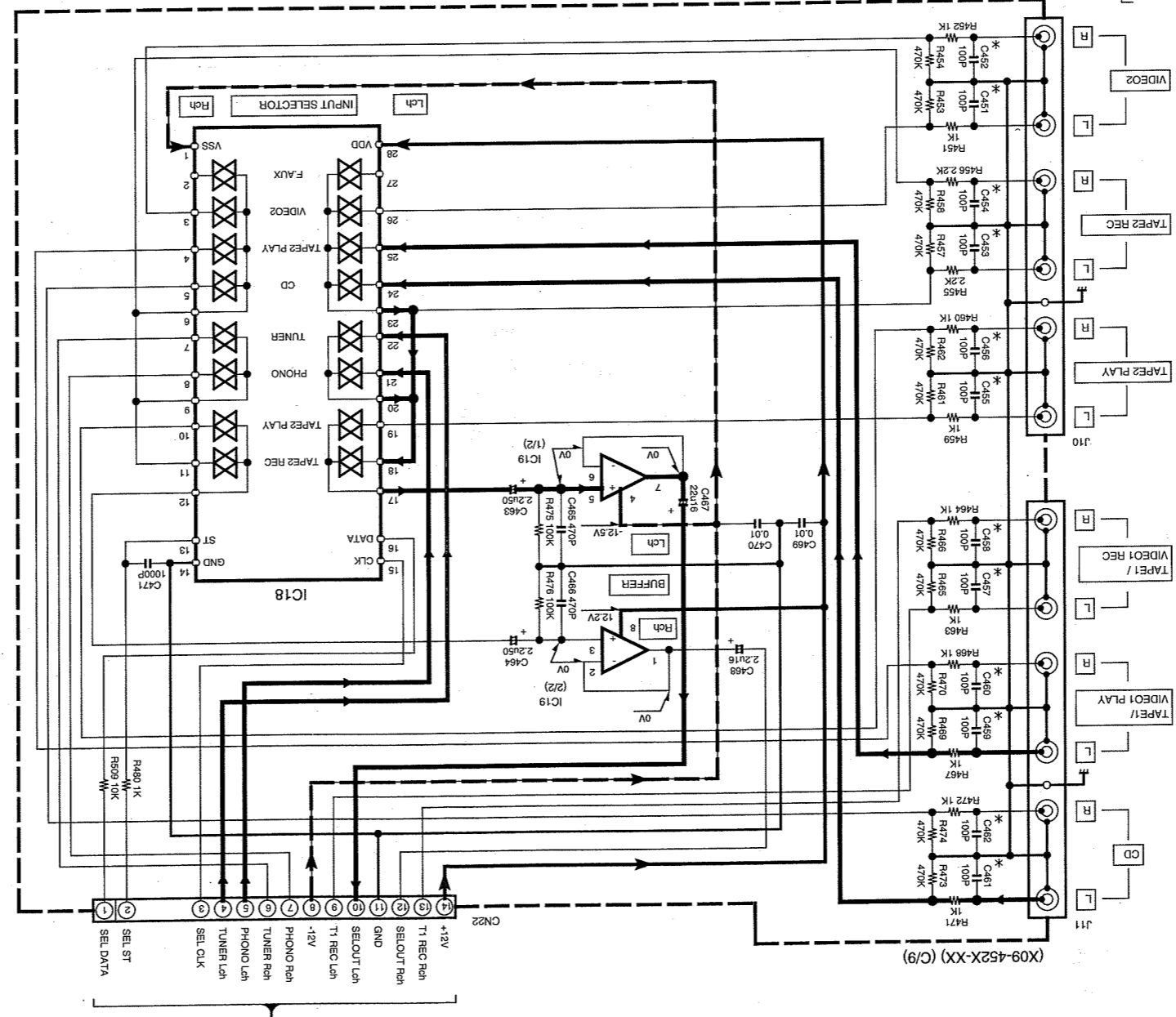
KR-V5090,105VR(M) (2/4)



IC18 : NJU7313AL
IC19 : NJM4555D-D

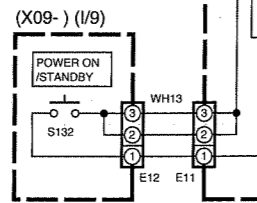
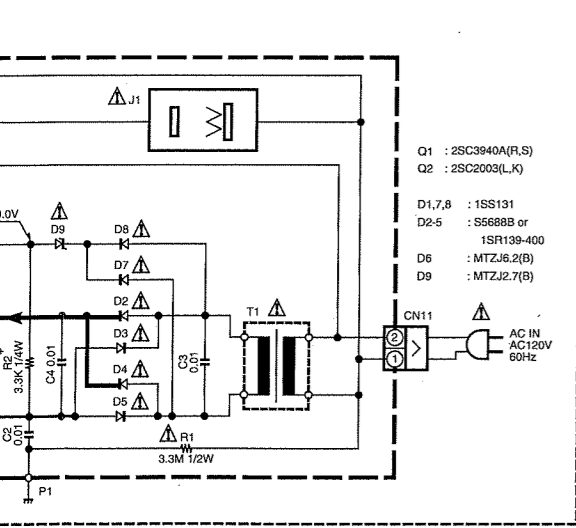
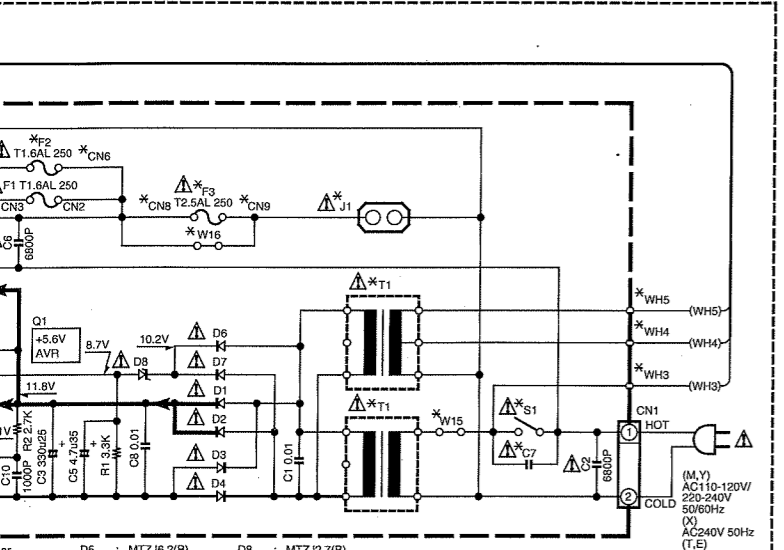
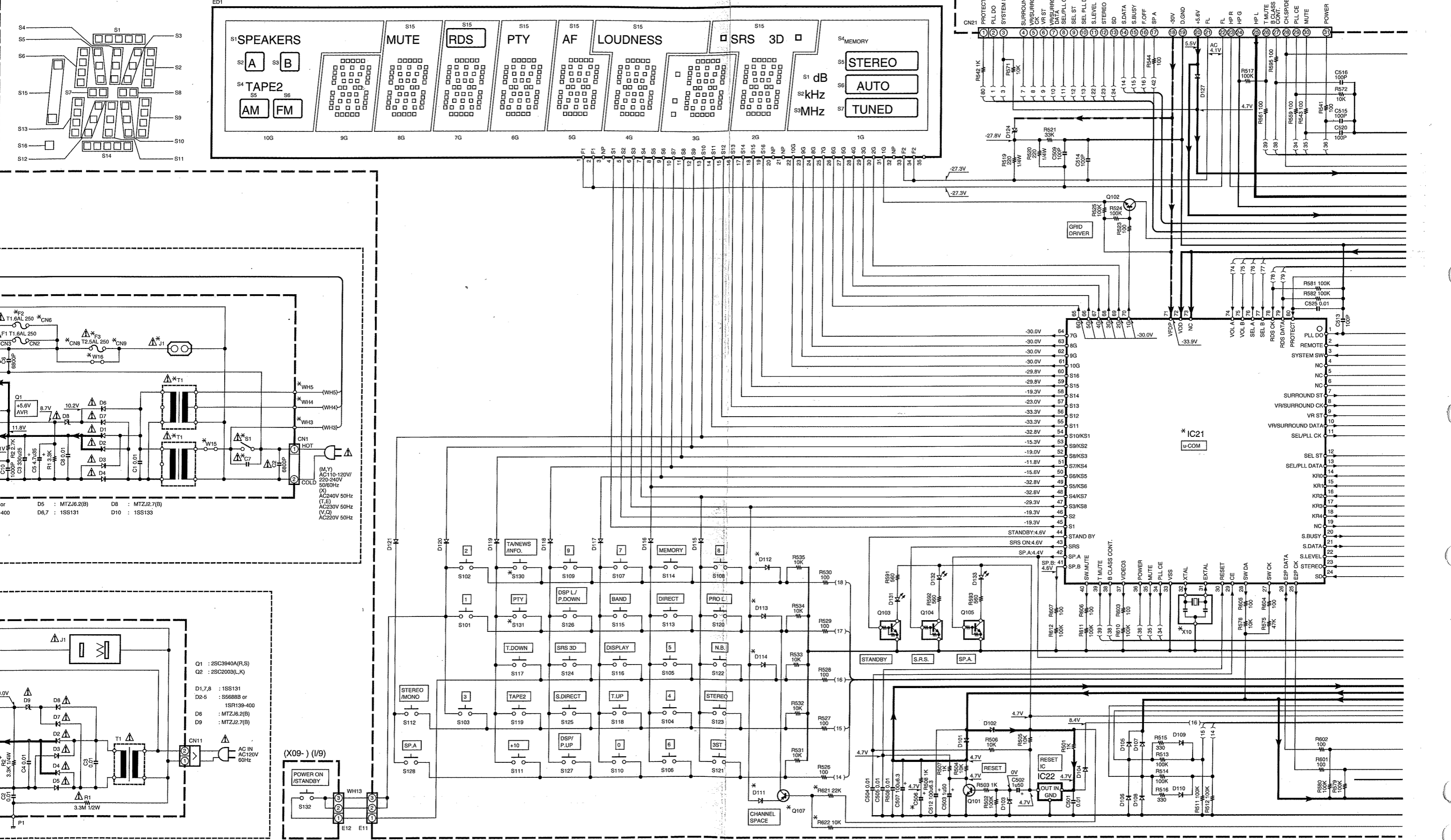
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RUSSIA	O	3-81				
EUROPE	E	2-71				
U.K.	X	0-71				
AUSTRALIA	V	2-11				
GENERAL MARKET	M	0-21				
U.S.A.	K	0-10				
CANADA	P	0-10				
DESTINATION <th>UNIT</th> <th>ABB. No.</th> <th>COUNTRY</th> <th>U.S.A.</th> <th>CANADA</th> <th>PX</th>	UNIT	ABB. No.	COUNTRY	U.S.A.	CANADA	PX
RUSSIA	O	3-81				
EUROPE	E	2-71				
U.K.	X	0-71				
AUSTRALIA	V	2-11				
GENERAL MARKET	M	0-21				
U.S.A.	K	0-10				
CANADA	P	0-10				

105VR (X09-452X-XX)
KR-V5090 (X09-452X-XX)
C451-462



AN AL AK AU AI AH AG AF AE

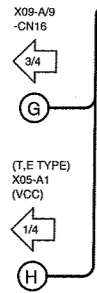
(X09-452X-XX) (B/9)



D5 : MTZJ6.2(B)
 D6,7 : 1SS131
 D8 : MTZJ2.7(B)
 D10 : 1SS133

Q1 : 2SC3940A(RLS)
 Q2 : 2SC2003(L,K)
 D1,7,8 : 1SS131
 D2-5 : S5688B or 1SR139-400
 D6 : MTZJ6.2(B)
 D9 : MTZJ2.7(B)

(X09-) (I/9)



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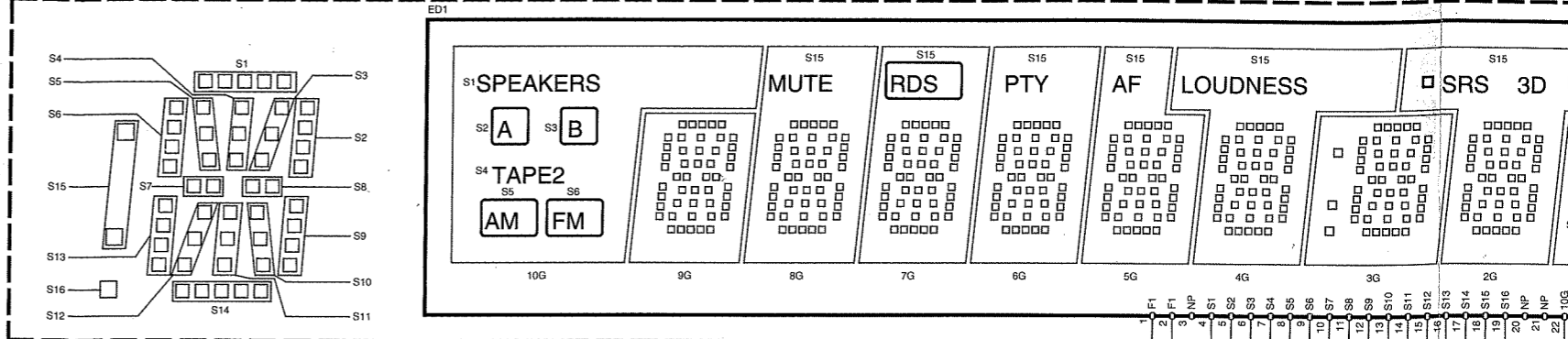
KR-V5090 (X13-745X-XX)

DESTINATION	UNIT	WH3-9	WH10	S1	S2	W14	W16	W19	T1	F2	F3	CN6,7	CN8,9	C7	X13-D7	J1
COUNTRY	ABB No.															
GENERAL MARKET	M 0-20	YES	NO	YES	NO				L07-2128-05	YES	NO	YES			NO	E03-0305-05
SHANGHAI	V 2-11														NO	E03-0337-05
AUSTRALIA	X 0-71					YES			L07-2128-05	NO	NO	NO		YES	NO	E03-0325-05
U.K.	T 0-51	NO	YES	NO	YES										NO	E03-0109-05
EUROPE	E 2-71	YES								YES		YES			YES	E03-0305-05
RUSSIA	Q															

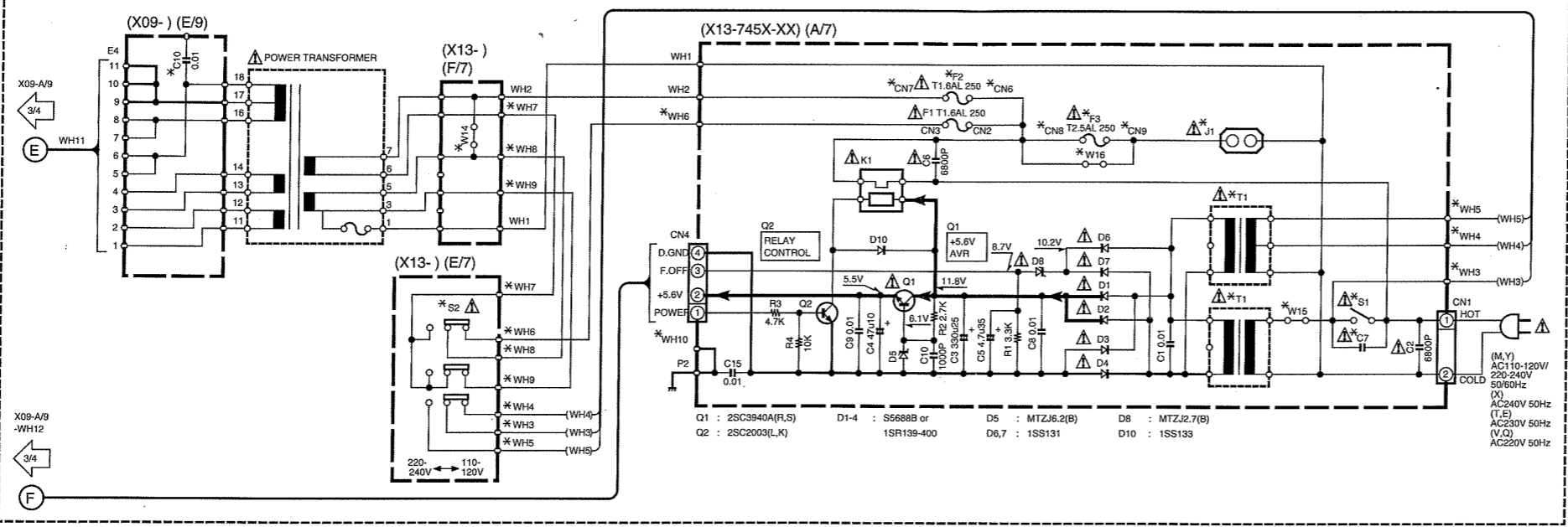
105VR (X13-745X-XX)

DESTINATION	UNIT	WH3-9	WH10	S1	S2	W14	W16	T1	F2	F3	CN6,7	CN8,9	C7	X13-D7	J1
COUNTRY	ABB No.														
GENERAL MARKET	Y 2-91	YES	NO	NO	YES	NO	YES	L07-2128-05	YES	NO	YES	NO	NO	NO	E03-0318-05

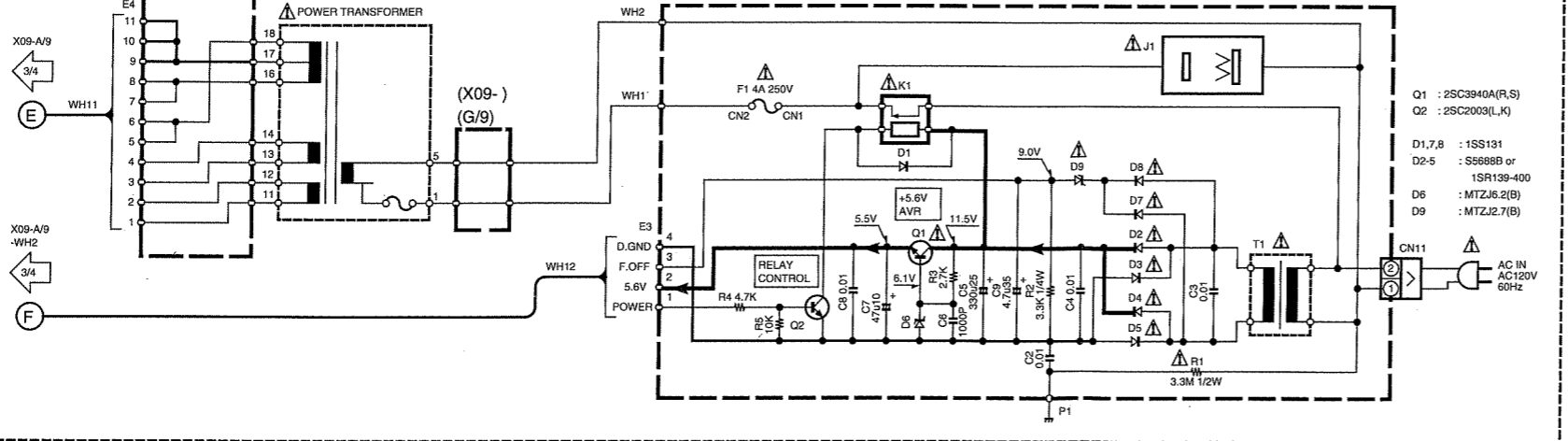
(X09-452X-XX) (B/9)



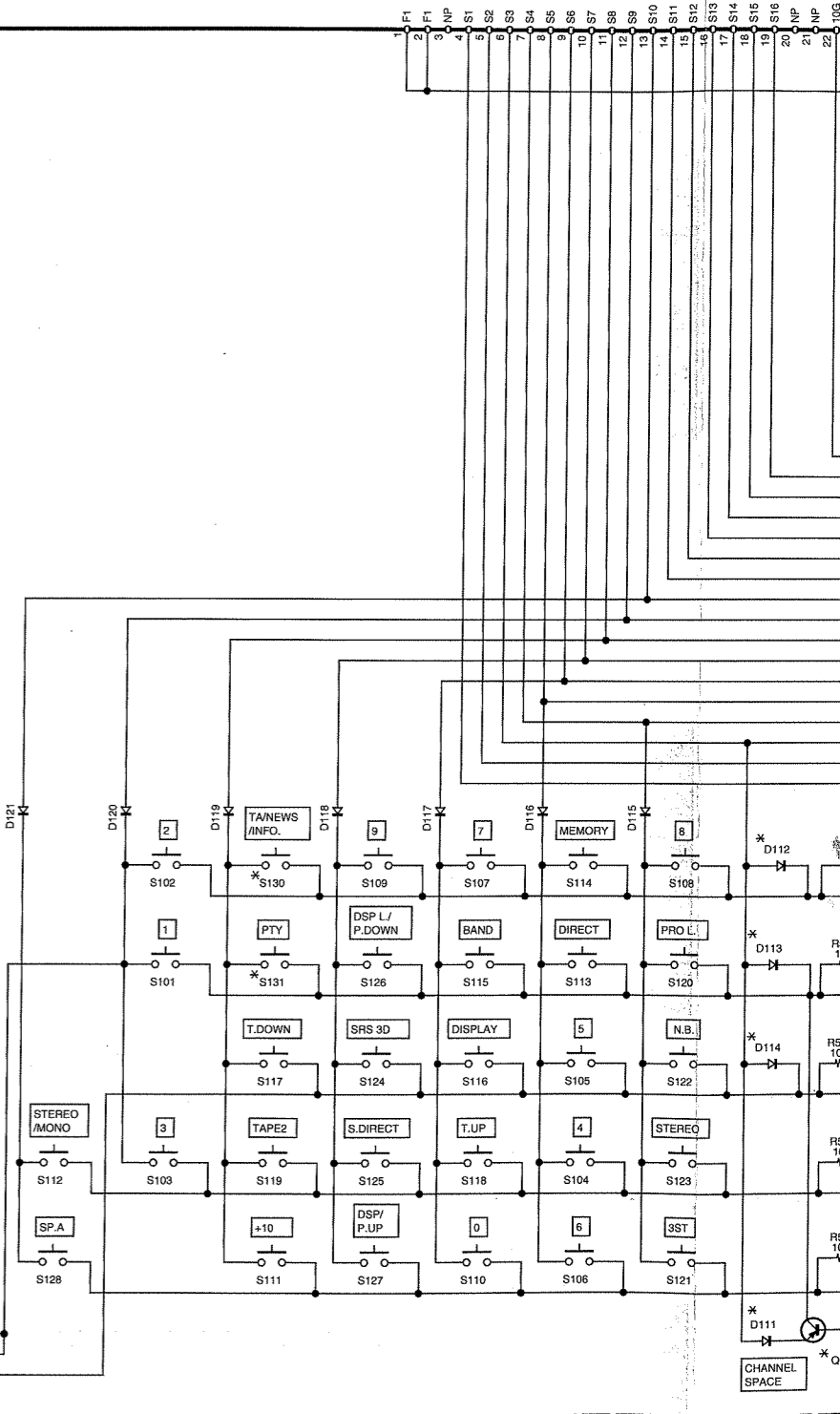
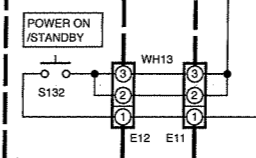
EXCEPT (K,P) TYPE



(K,P) TYPE



(X09-) (I/9)



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3
4
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