

7. EP-ROM PROGRAM METHOD

7-1 Calculating the "Reference Division Rate" Address Data

REFERENCE DIVISION RATE "R"

The Reference Division Rate must always be calculated for both the transmit and the receive frequencies.

The 12.000 MHz TCXO output signal is divided by 16 (by the divider, IC 101) to provide a 750 kHz Reference Frequency. This Reference Frequency is sampled and divided by the "Reference Division Rate" to determine the channel spacings.

e.g. $12.000 \text{ MHz}/16 = 750 \text{ kHz}$

then $750 \text{ kHz}/(\text{Channel spacing}) = \text{Reference Division Rate}$
as follows:

Channel Spacings	Calculations	Ref. Div. Rate "R"
25 kHz	$750 \text{ kHz}/25 \text{ kHz} =$	30
15 kHz	$750 \text{ kHz}/15 \text{ kHz} =$	50
12.5 kHz	$750 \text{ kHz}/12.5 \text{ kHz} =$	60
10 kHz	$750 \text{ kHz}/10 \text{ kHz} =$	75
5 kHz	$750 \text{ kHz}/5 \text{ kHz} =$	150

Next it is necessary to determine the address information by referring to the attached "A - D CONVERSION LIST".

e.g. $12.5 \text{ kHz channel spacing}$
 $= \text{Reference Division Rate "R"}$
 $= 60$
 \downarrow
 \hline
 $c 3 0$

7-2 Calculating the Transmit and Receive Address Data

It is necessary to calculate the following information for each channel and for both the transmit and receive frequencies required. (Please note: The receive frequency is the 1st local oscillator frequency).

D = Basic Division Rate

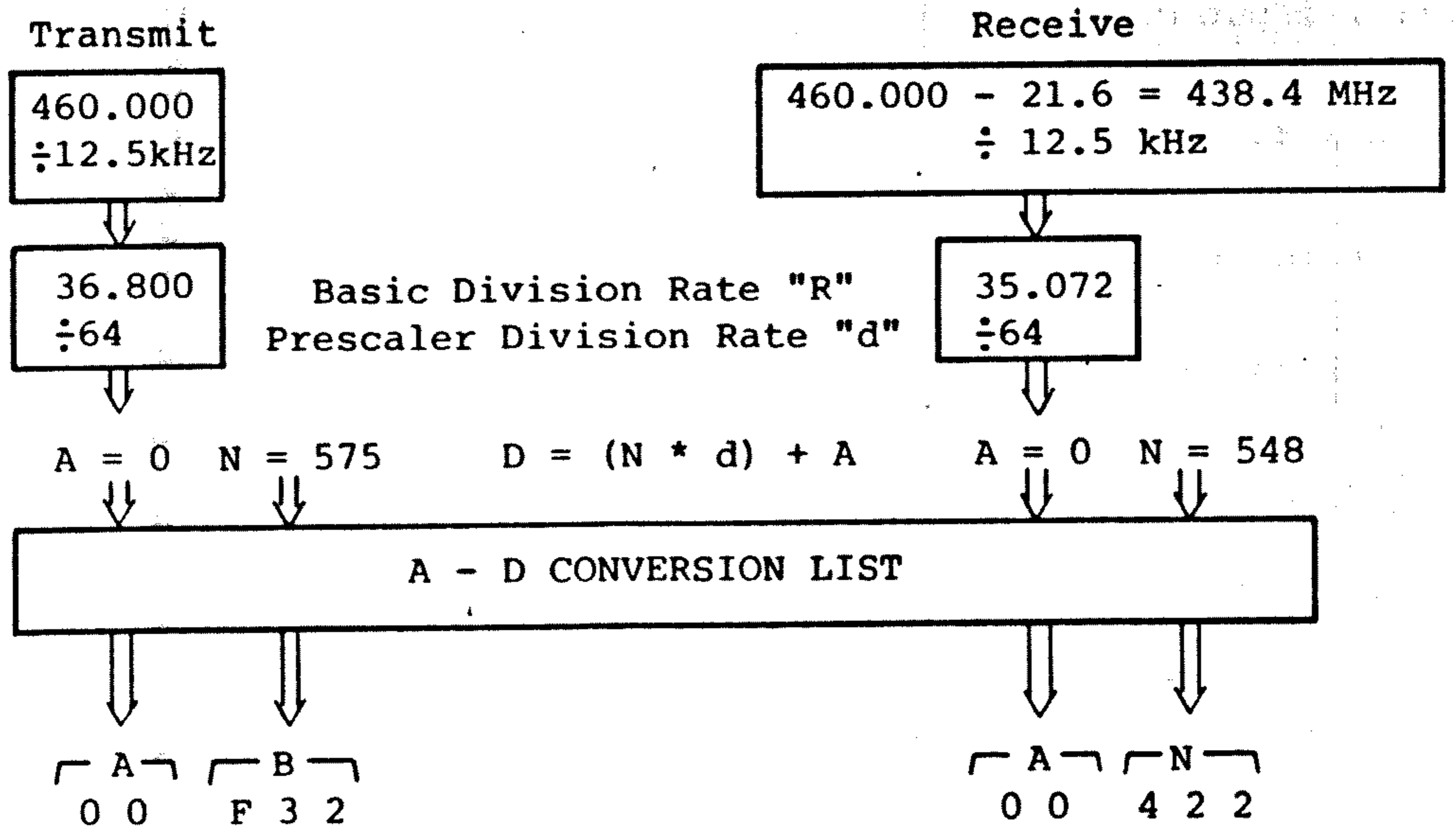
d = Prescaler Division Rate

N = Number of Complete Divisions

R = Remainder of the Basic Division Rate

- (a) "D" Calculation
 "D" is obtained by dividing the frequency required by the channel spacing required.
- (b) "d" Calculation
 "d" is the prescaler division rate, and it is fixed at 64.
- (c) "N" and "A" Calculation
 "N" and "A" are calculated using the following equation:

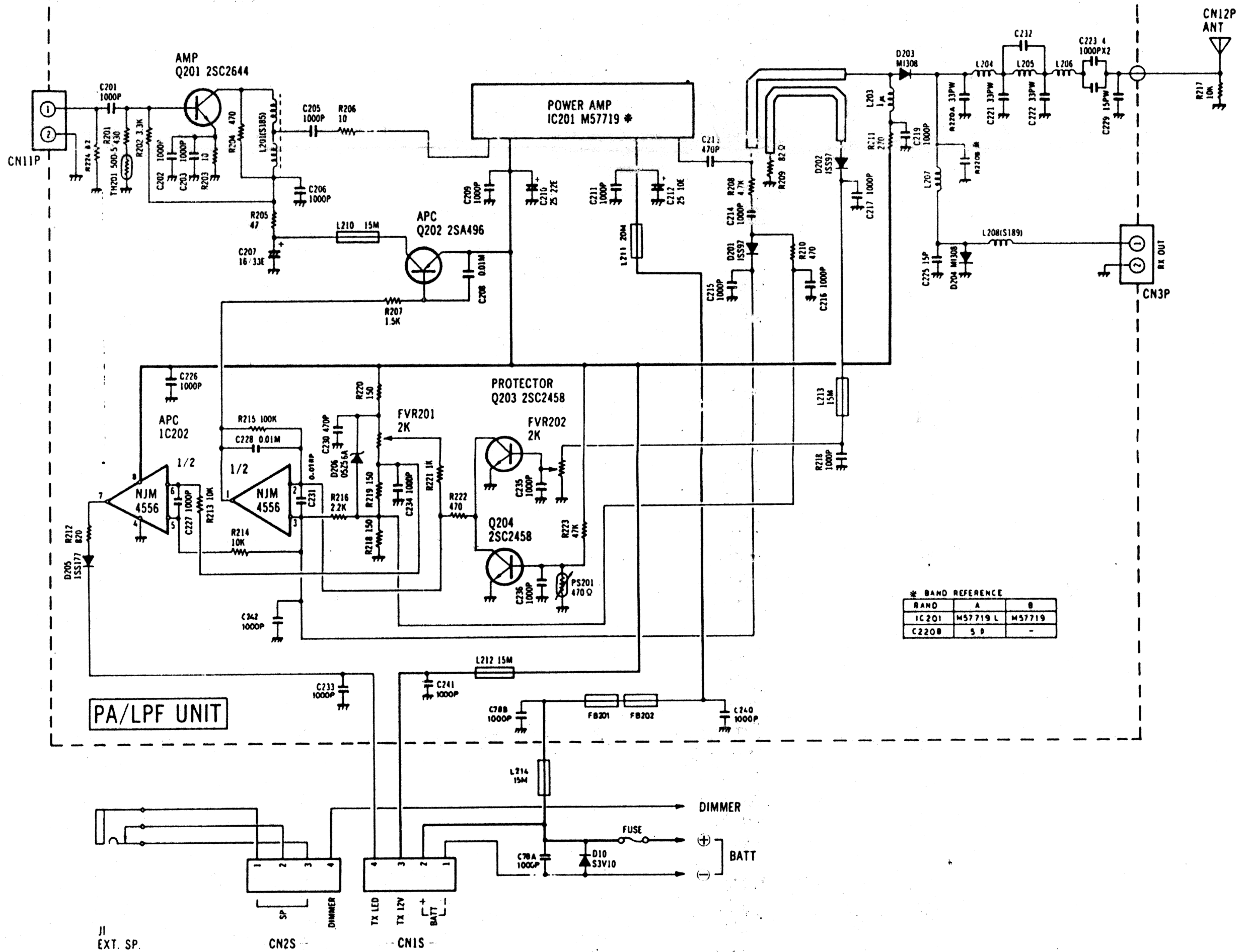
$$D = (N * d) + A$$
- (d) Example Calculation
 e.g.
 Channel # 1,460.000 MHz, Simplex, 25 kHz Channel Spacing



(e) LED Indicator

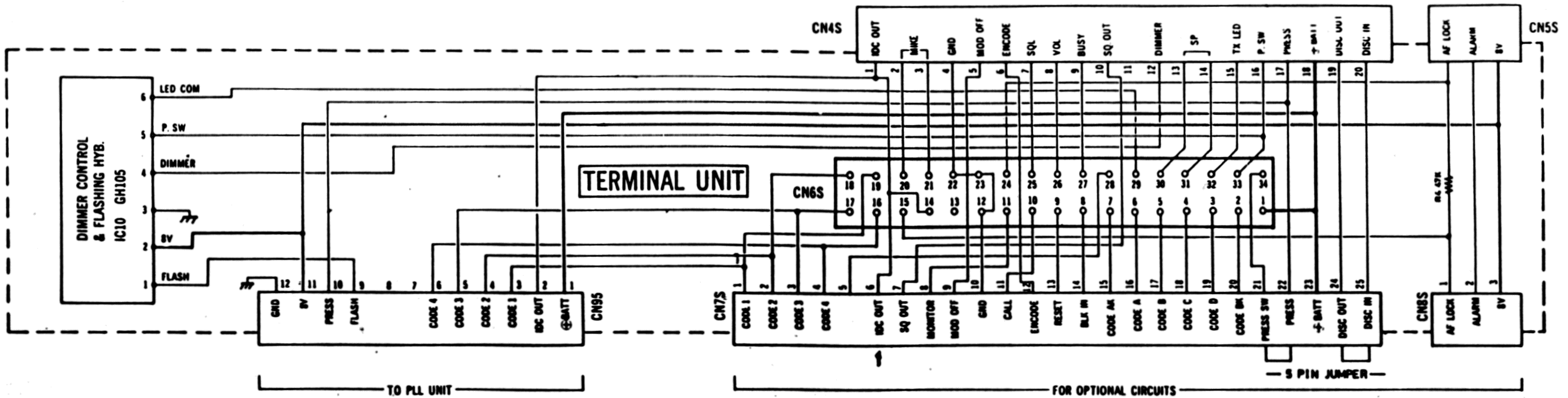
If required, the LED display can be programmed to "FLASH" or remain "ILLUMINATED" as follows:

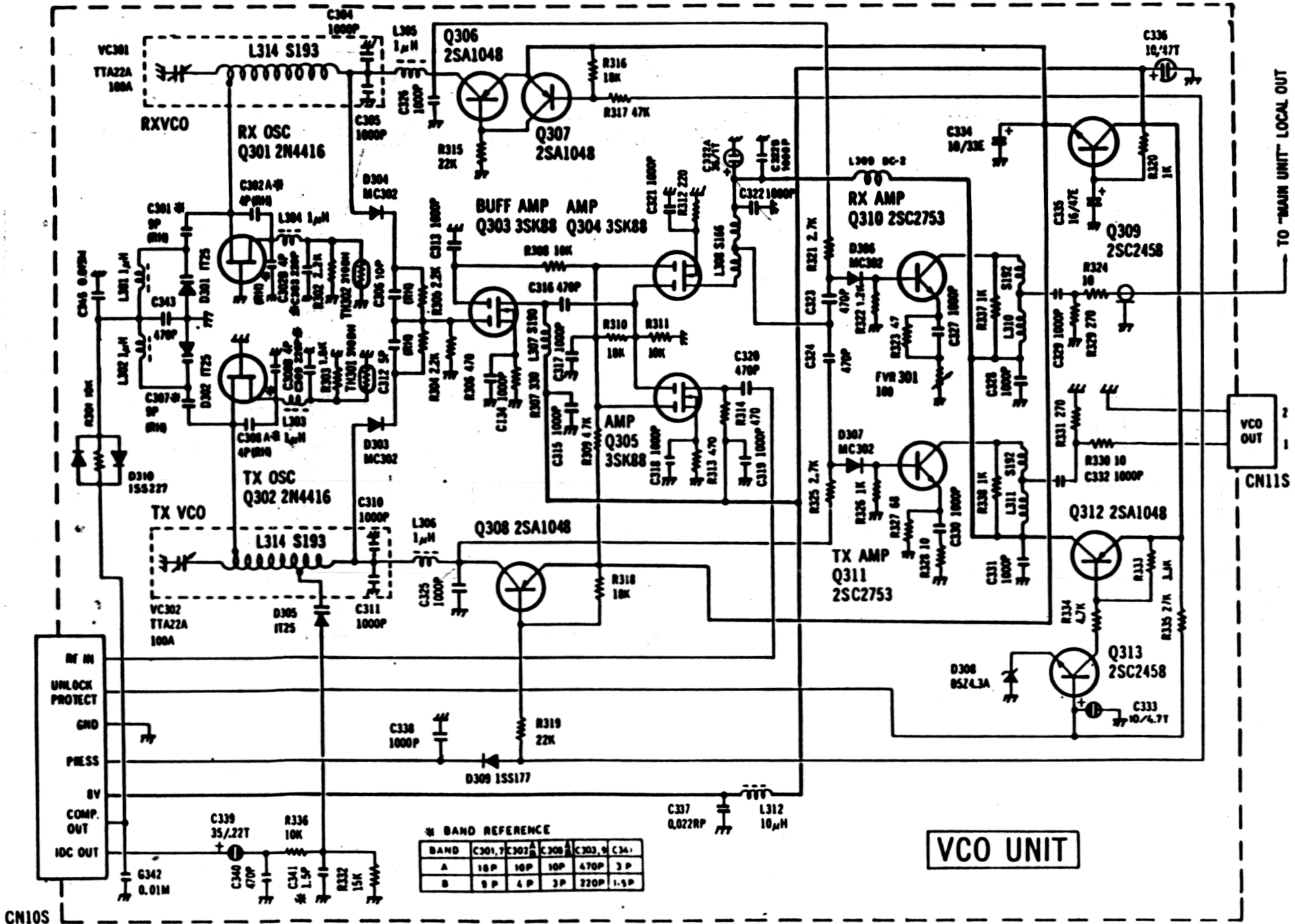
- 0 = FLASHING
- F = ILLUMINATED



CIRCUIT DIAGRAM FOR

VHF (148~174 MHz) / 10W TX-RX UNIT



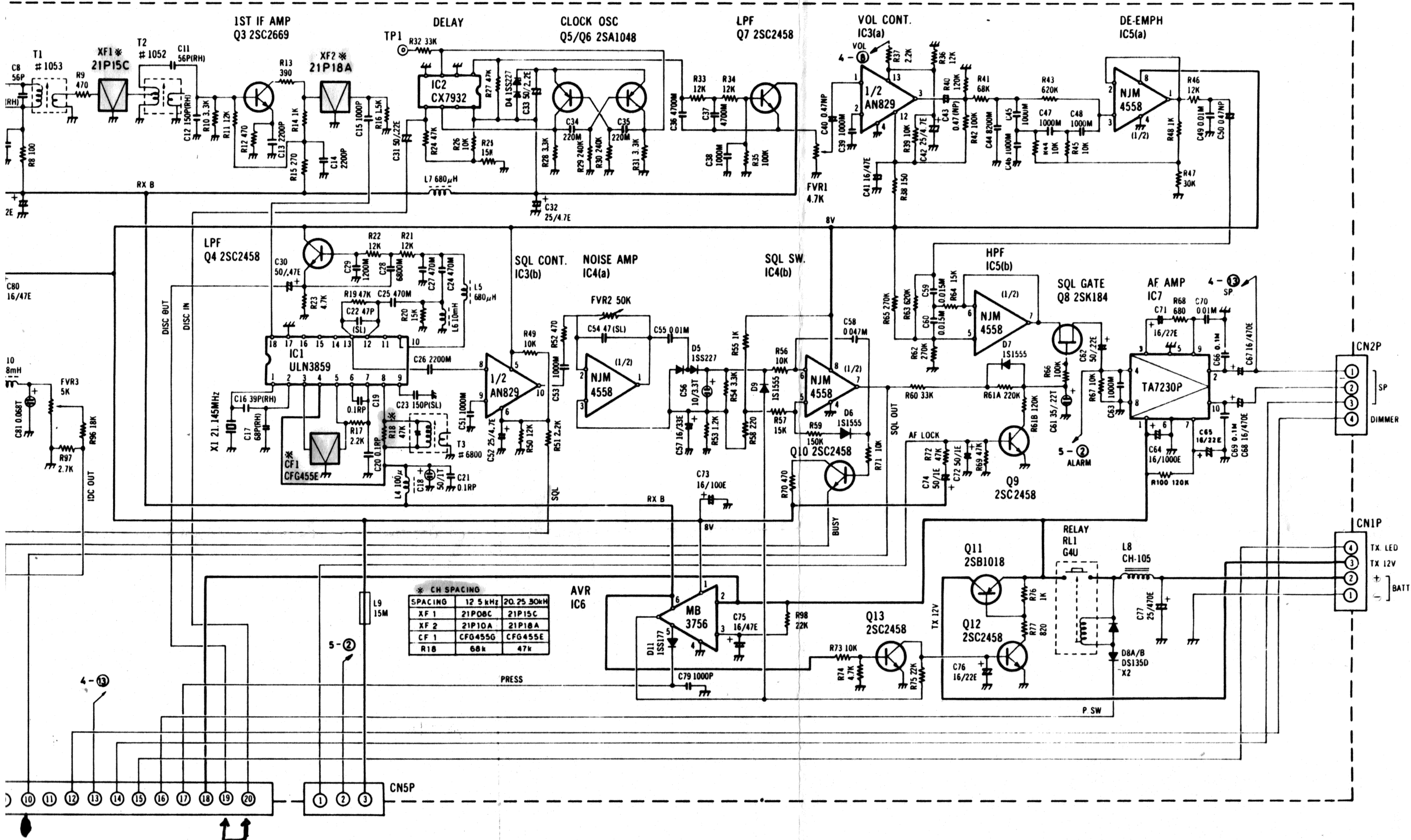


VCO UNIT

TO "MAIN UNIT" LOCAL OUT

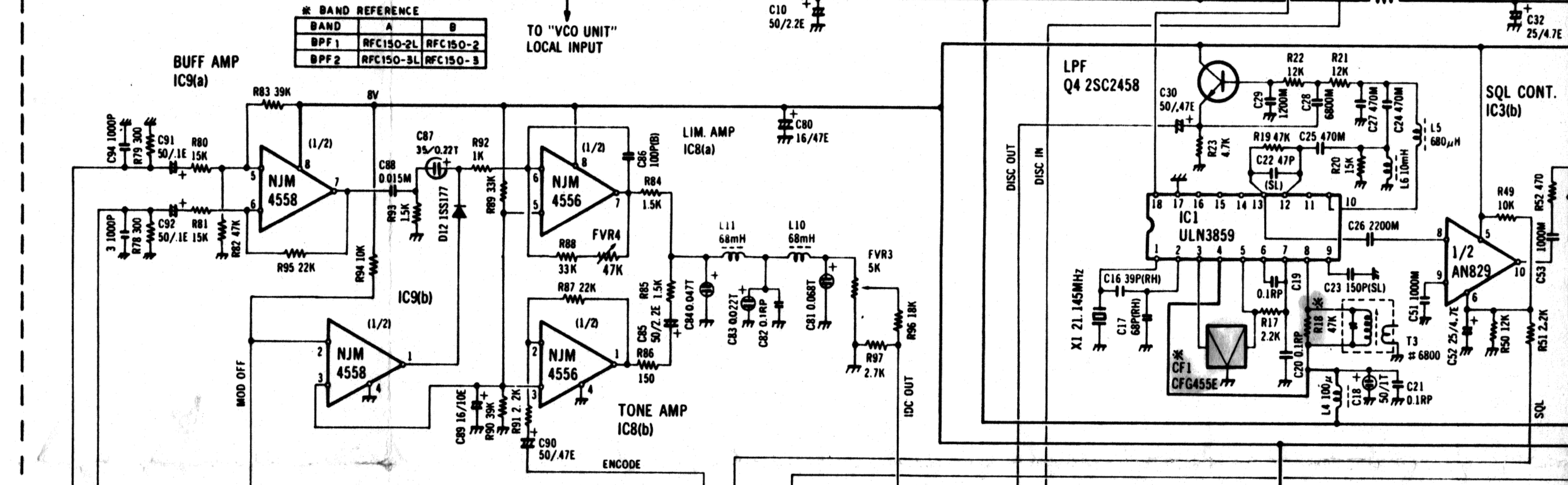
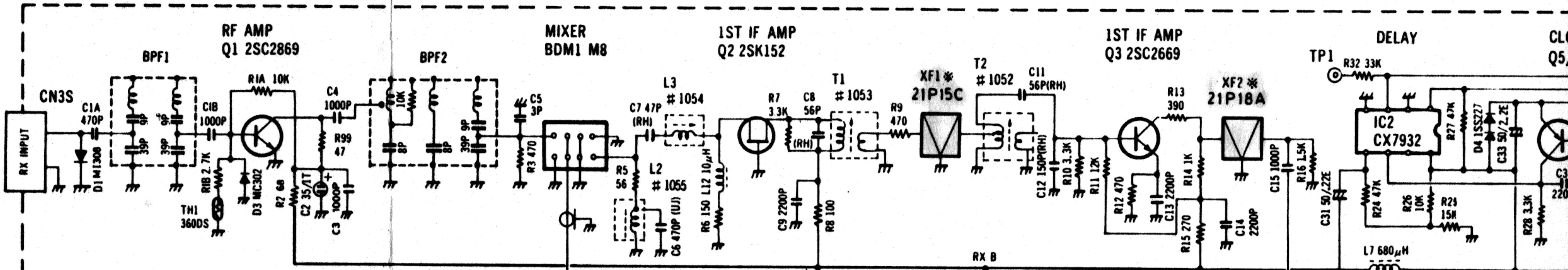
VCO OUT
CN115

CN105



* CH SPACING

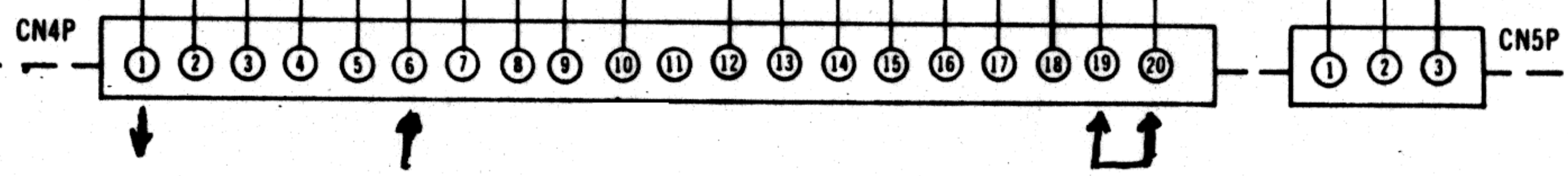
SPACING	12.5 kHz	20.25 kHz	30 kHz
XF 1	21P08C	21P15C	
XF 2	21P10A	21P18A	
CF 1	CFG455G	CFG455E	
R18	68k	47k	



* CH SPACING

SPACING	12.5 kHz	20.25 kHz
XF 1	21P08C	21P15C
XF 2	21P10A	21P18A
CF 1	CFG455G	CFG455E
R18	68k	47k

MAIN UNIT



AV IC

PRESS

PARTS LIST

MODEL : RT 714 VHF

UNIT : MAIN

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
IC01	IC	ULN3859	1
IC02	IC	CX7932	1
IC03	IC	AN829	1
IC04	IC	NJM4558D	1
IC05	IC	NJM4558D	1
IC06	IC	MB3756	1
IC07	IC	TA7230P	1
IC08	IC	NJM4556D	1
IC09	IC	NJM4558D	1
BDM1	BALANCED MIXER	M-8	1
Q01	TRANSISTOR	2SC2869L	1
Q02	FET	2SK152	1
Q03	TRANSISTOR	2SC2669Y	1
Q04	TRANSISTOR	2SC2458LY	1
Q05	TRANSISTOR	2SA1048LY	1
Q06	TRANSISTOR	2SA1048LY	1
Q07	TRANSISTOR	2SC2458LY	1
Q08	FET	2SK184Y	1
Q09	TRANSISTOR	2SC2458LY	1
Q10	TRANSISTOR	2SC2458LY	1
Q11	TRANSISTOR	2SB1018Y	1
Q12	TRANSISTOR	2SC2458LY	1
Q13	TRANSISTOR	2SC2458LY	1
D01	DIODE	MI308	1
D03	DIODE	MC302	1
D04	DIODE	1SS227	1
D05	DIODE	1SS227	1
D06	DIODE	1S1555	1
D07	DIODE	1S1555	1
D08A	DIODE	DS135D	1
D08B	DIODE	DS135D	1
D09	DIODE	1S1555	1
D11	DIODE	1SS177	1
D12	DIODE	1SS177	1
CF1	CERAMIC FILTER	CFG455E	1
RL1	RELAY	G4-U	1
TH1	THERMISTOR	360-DS	1
X1	CRYSTAL	21.145MHZ	1
XF1	CRYSTAL FILTER	21P15C	1
XF2	CRYSTAL FILTER	21P18A	1
BPF1	FERRITE CORE 2-CABITY BPF	OP3.5-3.5-1.2H RFC150-2	2 1
BPF2	3-CABITY BPF	RFC150-3	1
L02	COIL	#1055(5409X)	1
L03	COIL	#1054(5406X)	1
L04	MICRO INDUCTOR	LA03NA 100UH	1
L05	COIL	M2-680UH	1
L06	COIL	G02 10mH	1
L07	COIL	M2-680UH	1
L08	CHOKE COIL	CH-105	1

P A R T S L I S T

MODEL : RT 714 VHF

UNIT : MAIN

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
L09	READ CHOKE	15M (LN-0009)	1
L10	VARIABLE INDUCTOR	12UXA 68mH	1
L11	VARIABLE INDUCTOR	12UXA 68mH	1
L12	MICRO INDUCTOR	LA03NA 10UH	1
T01	COIL	#1053(5398X)	1
T02	COIL	#1052(5383X)	1
T03	COIL	R12-6800	1
C01A	CERAMIC C	B 470PF	1
C01B	CERAMIC C	B 1000PF	1
C02	TANTALUM C	DN 35V/1UF	1
C03	CERAMIC C	B 1000PF	1
C04	CERAMIC C	B 1000PF	1
C05	CERAMIC C	CH 3PF	1
C06	CERAMIC C	UJ 470PF	1
C07	CERAMIC C	RH 47PF	1
C08	CERAMIC C	RH 56PF	1
C09	CERAMIC C	B 2200PF	1
C10	ELECTROLYTIC C	RC2 50V/2.2UF	1
C11	CERAMIC C	RH 56PF	1
C12	CERAMIC C	RH 150PF	1
C13	CERAMIC C	B 2200PF	1
C14	CERAMIC C	B 2200PF	1
C15	CERAMIC C	B 1000PF	1
C16	CERAMIC C	RH 39PF	1
C17	CERAMIC C	RH 68PF	1
C18	TANTALUM C	DN 35V/1UF	1
C19	MONOLYTHIC CERAMIC C	X-0.1UF	1
C20	MONOLYTHIC CERAMIC C	X-0.1UF	1
C21	MONOLYTHIC CERAMIC C	X-0.1UF	1
C22	CERAMIC C	SL 47PF	1
C23	CERAMIC C	SL 150PF	1
C24	POLYPROPYLENE C	UPZ 470PF	1
C25	POLYPROPYLENE C	UPZ 470PF	1
C26	MYLER FILMED C	UMZ 2200PF	1
C27	POLYPROPYLENE C	UPZ 470PF	1
C28	MYLER FILMED C	UMZ 6800PF	1
C29	MYLER FILMED C	UMZ 1200PF	1
C40	ELECTROLYTIC C	BP 50V/0.47UF	1
C41	ELECTROLYTIC C	SS 16V/47UF	1
C42	ELECTROLYTIC C	RC2 25V/4.7UF	1
C43	ELECTROLYTIC C	BP 50V/0.47UF	1
C44	MYLER FILMED C	UMZ 8200PF	1
C45	MYLER FILMED C	UMZ 1000PF	1
C46	MYLER FILMED C	UMZ 1000PF	1
C47	MYLER FILMED C	UMZ 1000PF	1
C48	MYLER FILMED C	UMZ 1000PF	1
C49	MYLER FILMED C	UMZ 0.01UF	1
C50	ELECTROLYTIC C	BP 50V/0.47UF	1
C51	MYLER FILMED C	UMZ 1000PF	1
C52	ELECTROLYTIC C	RC2 25V/4.7UF	1

P A R T S L I S T

MODEL : RT 714 VHF

UNIT : MAIN

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
C53	MYLER FILMED C	UMZ 1000PF	1
C54	CERAMIC C	SL 47PF	1
C55	MYLER FILMED C	UMZ 0.01UF	1
C56	TANTALUM C	DN 10V/3.3UF	1
C57	ELECTROLYTIC C	SS 16V/33UF	1
C58	MYLER FILMED C	UMZ 0.047UF	1
C59	MYLER FILMED C	UMZ 0.015UF	1
C60	MYLER FILMED C	UMZ 0.015UF	1
C61	TANTALUM C	DN 35V/0.22UF	1
C62	ELECTROLYTIC C	RC2 50V/0.22UF	1
C63	MYLER FILMED C	UMZ 1000PF	1
C64	ELECTROLYTIC C	SSS 16V/1000UF	1
C65	ELECTROLYTIC C	RC2 16V/22UF	1
C66	MONOLYTHIC MYLER	B32510 0.1UF	1
C67	ELECTROLYTIC C	SS 16V/470UF	1
C68	ELECTROLYTIC C	SS 16V/470UF	1
C69	MONOLYTHIC MYLER	B32510 0.1UF	1
C70	MYLER FILMED C	UMZ 0.01UF	1
C71	ELECTROLYTIC C	RC2 16V/22UF	1
C72	ELECTROLYTIC C	RC2 50V/1UF	1
C73	ELECTROLYTIC C	RC2 16V/100UF	1
C74	ELECTROLYTIC C	RC2 50V/1UF	1
C75	ELECTROLYTIC C	SS 16V/47UF	1
C76	ELECTROLYTIC C	RC2 16V/22UF	1
C77	ELECTROLYTIC C	RE2 25V/470UF	1
C79	CERAMIC C	B 1000PF	1
C80	ELECTROLYTIC C	SS 16V/47UF	1
C81	TANTALUM C	MDS 0.068UF	1
C82	MONOLYTHIC CERAMIC C	X-0.1UF	1
C83	TANTALUM C	MDS 0.022UF	1
C84	TANTALUM C	MDS 0.047UF	1
C85	ELECTROLYTIC C	RC2 50V/2.2UF	1
C86	CERAMIC C	B 100PF	1
C87	TANTALUM C	DN 35V/0.22UF	1
C88	MYLER FILMED C	UMZ 0.015UF	1
C89	ELECTROLYTIC C	RC2 16V/10UF	1
C90	ELECTROLYTIC C	RC2 50V/0.47UF	1
C91	ELECTROLYTIC C	RC2 50V/0.1UF	1
C92	ELECTROLYTIC C	RC2 50V/0.1UF	1
C93	CERAMIC C	B 1000PF	1
C94	CERAMIC C	B 1000PF	1
R01A	CARBON RESISTOR	1/4W(R)-10K	1
R01B	CARBON RESISTOR	1/6W(R)-2.7K	1
R02	CARBON RESISTOR	1/4W(R)-68	1
R03	CARBON RESISTOR	1/6W(P)-150	1
R05	CARBON RESISTOR	1/6W(P)-56	1
R06	CARBON RESISTOR	1/4W(R)-150	1
R07	CARBON RESISTOR	1/4W(R)-3.3K	1
R08	CARBON RESISTOR	1/4W(F)-100	1
R09	CARBON RESISTOR	1/4W(R)-470	1

P A R T S L I S T

MODEL : RT 714 VHF

UNIT : MAIN

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
R10	CARBON RESISTOR	1/4W(R)-3.3K	1
R100	CARBON RESISTOR	1/6W(P)-120K	1
R11	CARBON RESISTOR	1/4W(R)-12K	1
R12	CARBON RESISTOR	1/4W(R)-470	1
R13	CARBON RESISTOR	1/4W(R)-390	1
R14	CARBON RESISTOR	1/4W(R)-1K	1
R15	CARBON RESISTOR	1/6W(R)-270	1
R16	CARBON RESISTOR	1/4W(R)-1.5K	1
R17	CARBON RESISTOR	1/4W(R)-2.2K	1
R18	CARBON RESISTOR	1/4W(R)-47K	1
R19	CARBON RESISTOR	1/4W(R)-47K	1
R20	CARBON RESISTOR	1/4W(R)-15K	1
R21	CARBON RESISTOR	1/4W(R)-12K	1
R22	CARBON RESISTOR	1/4W(R)-12K	1
R23	CARBON RESISTOR	1/4W(R)-4.7K	1
R24	CARBON RESISTOR	1/4W(R)-47K	1
R25	CARBON RESISTOR	1/4W(R)-15K	1
R26	CARBON RESISTOR	1/4W(R)-10K	1
R27	CARBON RESISTOR	1/4W(R)-47K	1
R28	CARBON RESISTOR	1/4W(R)-3.3K	1
R29	CARBON RESISTOR	1/4W(R)-240K	1
R30	CARBON RESISTOR	1/4W(R)-240K	1
R31	CARBON RESISTOR	1/4W(R)-3.3K	1
R32	CARBON RESISTOR	1/4W(R)-33K	1
R33	CARBON RESISTOR	1/4W(R)-12K	1
R45	CARBON RESISTOR	1/4W(R)-10K	1
R46	CARBON RESISTOR	1/4W(R)-12K	1
R47	CARBON RESISTOR	1/4W(R)-30K	1
R48	CARBON RESISTOR	1/4W(R)-1K	1
R49	CARBON RESISTOR	1/6W(R)-10K	1
R50	CARBON RESISTOR	1/4W(R)-12K	1
R51	CARBON RESISTOR	1/6W(R)-2.2K	1
R52	CARBON RESISTOR	1/6W(R)-470	1
R53	CARBON RESISTOR	1/4W(R)-1.2K	1
R54	CARBON RESISTOR	1/4W(R)-3.3K	1
R55	CARBON RESISTOR	1/4W(R)-1K	1
R56	CARBON RESISTOR	1/4W(R)-10K	1
R57	CARBON RESISTOR	1/4W(R)-15K	1
R58	CARBON RESISTOR	1/4W(R)-220	1
R59	CARBON RESISTOR	1/4W(R)-150K	1
R60	CARBON RESISTOR	1/4W(R)-33K	1
R61A	CARBON RESISTOR	1/4W(R)-220K	1
R61B	CARBON RESISTOR	1/4W(R)-120K	1
R62	CARBON RESISTOR	1/4W(R)-270K	1
R63	CARBON RESISTOR	1/4W(R)-620K	1
R64	CARBON RESISTOR	1/4W(R)-15K	1
R65	CARBON RESISTOR	1/4W(R)-270K	1
R66	CARBON RESISTOR	1/4W(R)-100K	1
R67	CARBON RESISTOR	1/4W(R)-10K	1
R68	CARBON RESISTOR	1/4W(R)-680	1

P A R T S L I S T

MODEL : RT 714 VHF

UNIT : MAIN

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
R69	CARBON RESISTOR	1/4W(R)-47K	1
R70	CARBON RESISTOR	1/4W(R)-470	1
R71	CARBON RESISTOR	1/4W(R)-10K	1
R72	CARBON RESISTOR	1/4W(R)-47K	1
R73	CARBON RESISTOR	1/4W(R)-10K	1
R74	CARBON RESISTOR	1/4W(R)-4.7K	1
R75	CARBON RESISTOR	1/4W(R)-22K	1
R76	CARBON RESISTOR	1/4W(R)-1K	1
R77	CARBON RESISTOR	1/4W(R)-820	1
R78	CARBON RESISTOR	1/6W(R)-300	1
R79	CARBON RESISTOR	1/4W(R)-300	1
R80	CARBON RESISTOR	1/4W(R)-15K	1
R81	CARBON RESISTOR	1/4W(R)-15K	1
R82	CARBON RESISTOR	1/4W(R)-47K	1
R83	CARBON RESISTOR	1/4W(R)-39K	1
R84	CARBON RESISTOR	1/4W(R)-1.5K	1
R85	CARBON RESISTOR	1/4W(R)-1.5K	1
R86	CARBON RESISTOR	1/4W(R)-150	1
R87	CARBON RESISTOR	1/4W(R)-22K	1
R88	CARBON RESISTOR	1/4W(R)-47K	1
R89	METAL FILMED R	SN2E-1/4W 33K	1
R90	METAL FILMED R	SN2E-1/4W 39K	1
R91	CARBON RESISTOR	1/4W(R)-2.2K	1
R92	CARBON RESISTOR	1/4W(R)-1K	1
R93	CARBON RESISTOR	1/4W(R)-1.5K	1
R94	CARBON RESISTOR	1/4W(R)-10K	1
R95	CARBON RESISTOR	1/4W(R)-22K	1
R96	CARBON RESISTOR	1/6W(P)-18K	1
R97	CARBON RESISTOR	1/6W(P)-2.7K	1
R98	CARBON RESISTOR	1/6W(F)-22K	1
R99	CARBON RESISTOR	1/6W(R)-47	1
R100	CARBON RESISTOR	1/6W(P)-120K	1
FUR1	SEMI FIXED RESISTOR	H0651A 4.7K	1
FUR2	SEMI FIXED RESISTOR	ET-6P 50K	1
FUR3	SEMI FIXED RESISTOR	ET-6P 5K	1
FUR4	SEMI FIXED RESISTOR	H0651A 47K	1
	NIJT	NT-2.6PAI	2
	IC RADIATOR	4A10-1008	1
	PAN SCREW	PN-2.6 X 4	1
	SPRING WASHER	SW-2.6PAI	3
	FLAT SCREW	FL-2.6 X 6	1
	FLAT SCREW	FL-2.6 X 8	1
	MAIN UNIT PCB	05MPV287	1
CN1P	4-PIN PLUG	5045-04A	1
CN2P	4-PIN PLUG	5045-04A	1
CN3S	2-PIN SOCKET	3024-02A	1
CN4P	20-PIN PLUG	3022-20A	1
CN5P	3-PIN PLUG	3022-03A	1
TP1	TEST POINT	RS3232	1

PARTS LIST

MODEL : RT 714 VHF			UNIT : TERMI
REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
IC10	HYBRID IC	GH-105	1
R4	CARBON RESISTOR	1/6W(F)-47K	1
CN4S	10-PIN SOCKET	3024-10A	2
CN5S	3-PIN SOCKET	3024-03A	1
CN6S	34-PIN SOCKET	PS34SDD4TS1	1
CN7S	5-PIN SOCKET	3024-05A	1
CN7S	10-PIN SOCKET	3024-10A	2
CN8S	3-PIN SOCKET	3024-03A	1
CN9S	12-PIN SOCKET	3024-12A	1
	TERMINAL UNIT PCB	05NCB68Y	1
	5-PIN PLUG	3022-05A	1

PARTS LIST

MODEL : RT 714 VHF

UNIT : PLL

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
IC101	IC	TC5036P	1
IC102	IC	TC5027P	1
IC103	IC	TC4050P	1
IC104	IC	MC145146P	1
IC105	IC	UPB571C	1
IC106	IC	78M05	1
DA101	DIODE ARREY	NAL-6CS	1
RA101	RESISTOR ARRAY	RKC1/8B6-4.7K	1
D101	DIODE	1SS177	1
D102	DIODE	1SS177	1
X101	TCXB	GFS210M	1
L102	READ CHØKE	15M(LN0009)	1
C101	MONOLYTHIC CERAMIC C	X-0.01UF	1
C102	ELECTROLYTIC C	RC2 16V/22UF	1
C103	TANTALUM C	DN 10V/47UF	1
C104	MYLER FILMED C	UMZ 0.01UF	1
C105	CERAMIC C	B 1000PF	1
C106	CERAMIC C	B 2200PF	1
C107	CERAMIC C	B 2200PF	1
C108	MYLER FILMED C	UMZ 0.01UF	1
C109	TANTALUM C	SST 35V/0.1UF	1
C110	TANTALUM C	DN 16V/2.2UF	1
C111	TANTALUM C	DN 35V/0.47UF	1
C112	TANTALUM C	DN 6.3V/33UF	1
C113	CERAMIC C	B 1000PF	1
C114	ELECTROLYTIC C	RC2 16V/47UF	1
C115	MONOLYTHIC CERAMIC C	X-0.01UF	1
C116	CERAMIC C	B 1000PF	1
C117	CERAMIC C	B 1000PF	1
C118	CERAMIC C	B 1000PF	1
C119	CERAMIC C	B 1000PF	1
	JUMPER	1/4W(P)-0	1
R101	CARBON RESISTOR	1/6W(F)-2.2K	1
R102	CARBON RESISTOR	1/6W(F)-2.2K	1
R103	CARBON RESISTOR	1/6W(F)-2.2K	1
R104	CARBON RESISTOR	1/6W(F)-2.2K	1
R105	CARBON RESISTOR	1/6W(F)-470	1
R106	CARBON RESISTOR	1/6W(P)-10K	1
R107	CARBON RESISTOR	1/6W(F)-1K	1
R108	CARBON RESISTOR	1/6W(F)-2.2K	1
R109	CARBON RESISTOR	1/6W(F)-4.7K	1
R110	CARBON RESISTOR	1/6W(F)-4.7K	1
R111	CARBON RESISTOR	1/6W(P)-4.7K	1
R112	CARBON RESISTOR	1/6W(F)-10K	1
CN10S	7-PIN PLUG	5124-07BHPB	1
CN9P	6-PIN PLUG	5089-06A	2
TP2-3	2-PIN PLUG	3022-02A	1
	IC-SOCKET	ICC05-024-360T	1
	PLL UNIT PCB	05PL484	1
	GROUND SPRING	4A10-0993	1

P A R T S L I S T

MODEL : RT 714 VHF

UNIT : PLL

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
	PAN SCREW	PN-2.6 X 8	1
	SPRING WASHER	SW-2.6PAI	1
	NUT	NT-2.6PAI	1

PARTS LIST

MODEL : RT 714 VHF

UNIT : PA

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
IC201	IC	NJM4556D	1
IC202	POWER MODULE	M57719	1
Q201	TRANSISTOR	2SC2644Y	1
Q202	TRANSISTOR	2SA496Y	1
Q203	TRANSISTOR	2SC2458LY	1
Q204	TRANSISTOR	2SC2458LY	1
D10	DIODE	S3U10	1
D201	DIODE	1SS97	1
D202	DIODE	1SS97	1
D203	DIODE	MI308	1
D204	DIODE	MI308	1
D205	DIODE	1SS177	1
D206	ZENER DIODE	05Z5.6Y	1
PS201	POSISTOR	PT59F04BP471TS	1
TH201	THERMISTER	500-5	1
L201	COIL	4A-S185	1
L202	NOT USED		
L203	MICRO INDUCTOR	LA04NA 1UH	1
L204	COIL	4A-S187	1
L205	COIL	4A-S188	1
L206	COIL	4A-S187	1
L207	COIL	4A-S188	1
L208	COIL	4A-S189	1
L209	NOT USED		
L210	READ CHOKE	15M(LN0009)	1
L211	READ CHOKE	20M(LN0010)	1
L212	READ CHOKE	15M(LN0009)	1
L213	READ CHOKE	15M(LN0009)	1
L214	READ CHOKE	15M(LN0009)	1
C201	CERAMIC C	B 1000PF	1
C202	CERAMIC C	B 1000PF	1
C203	CERAMIC C	B 1000PF	1
C204	NOT USED		
C205	CERAMIC C	B 1000PF	1
C206	CERAMIC C	B 1000PF	1
C207	ELECTROLYTIC C	SS 16V/33UF	1
C208	MYLER FILMED C	UMZ 0.01UF	1
C209	CERAMIC C	B 1000PF	1
C210	ELECTROLYTIC C	RC2 25V/22UF	1
C211	CERAMIC C	B 1000PF	1
C212	ELECTROLYTIC C	RC2 25V/22UF	1
C213	CERAMIC C	B 470PF	1
C214	CERAMIC C	B 1000PF	1
C215	CERAMIC C	B 1000PF	1
C216	CERAMIC C	B 1000PF	1
C217	CERAMIC C	B 1000PF	1
C218	CERAMIC C	B 1000PF	1
C219	CERAMIC C	B 1000PF	1
C220	WEDGE TYPE C	SUW SL 33PF	1
C221	WEDGE TYPE C	SUW SL 33PF	1

PARTS LIST

MODEL : RT 714 VHF

UNIT : PA

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
C222	WEDGE TYPE C	SUW SL 33PF	1
C223	CERAMIC CHIP C	GR40 B 1000PF	1
C224	CERAMIC CHIP C	GR40 B 1000PF	1
C225	CERAMIC CHIP C	GR40 CH 15PF	1
C226	CERAMIC C	B 1000PF	1
C227	CERAMIC C	B 1000PF	1
C228	MYLER FILMED C	UMZ 0.01UF	1
C229	WEDGE TYPE C	SUW SL 15PF	1
C230	CERAMIC C	B 470PF	1
C231	MONOLYTHIC CERAMIC C	X-0.01UF	1
C233	CERAMIC CHIP C	GR40 B 1000PF	1
C234	CERAMIC C	B 1000PF	1
C235	CERAMIC C	B 1000PF	1
C236	CERAMIC C	B 1000PF	1
C237	NOT USED		
C238	NOT USED		
C239	NOT USED		
C240	CERAMIC CHIP C	GR40 B 1000PF	1
C241	CERAMIC CHIP C	GR40 B 1000PF	1
C242	CERAMIC C	B 1000PF	1
C78A	CERAMIC C	B 1000PF	1
C78B	CERAMIC C	B 1000PF	1
R201	CARBON RESISTOR	1/6W(F)-430	1
R202	CARBON RESISTOR	1/4W(F)-3.3K	1
R203	CARBON RESISTOR	1/6W(F)-10	1
R204	CARBON RESISTOR	1/6W(F)-470	1
R205	CARBON RESISTOR	1/4W(F)-47	1
R206	CARBON RESISTOR	1/6W(F)-10	1
R207	CARBON RESISTOR	1/6W(F)-1.5K	1
R208	CARBON RESISTOR	1/6W(F)-4.7K	1
R209	CARBON RESISTOR	1/6W(F)-82	1
R210	CARBON RESISTOR	1/6W(F)-470	1
R211	CARBON RESISTOR	RC1/2GF-270	1
R212	CARBON RESISTOR	1/6W(F)-820	1
R213	CARBON RESISTOR	1/6W(F)-10K	1
R214	CARBON RESISTOR	1/6W(F)-10K	1
R215	CARBON RESISTOR	1/6W(F)-100K	1
R216	CARBON RESISTOR	1/6W(F)-2.2K	1
R217	CARBON RESISTOR	RC1/4GF-10K	1
R218	CARBON RESISTOR	1/6W(F)-150	1
R219	CARBON RESISTOR	1/6W(F)-150	1
R220	CARBON RESISTOR	1/6W(F)-150	1
R221	CARBON RESISTOR	1/6W(F)-1K	1
R222	CARBON RESISTOR	1/6W(F)-470	1
R223	CARBON RESISTOR	1/6W(F)-47K	1
R224	CARBON RESISTOR	1/6W(F)-82	1
R225	CARBON RESISTOR	1/6W(F)-27	1
FUR201	SEMI FIXED RESISTOR	ET-6P 2K	1
FUR202	SEMI FIXED RESISTOR	ET-6P 2K	1
CN11P	2-PIN PLUG	3022-02A	1

P A R T S L I S T

MODEL : RT 714 VHF			UNIT : PA
REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
CN1S	4-PIN SOCKET	5CN1S	1
CN2S	4-PIN SOCKET	5CN2S	1
CN3P	2-PIN PLUG	3022-02A	1
	PA UNIT PCB	05U10PA388	1
	PA TERMINAL PCB	05PATS388	1
	POWER UNIT PCB	05L-4	1
	PCB CUSHION	4A10-1096	2
	GROUND SPRING	4A10-0993	6
	LPF CASE	4A10-0994	3
	LPF COVER	4ALO-0995	1
	CORD	0.5-60M/M BRN	1

PARTS LIST

MODEL : RT 714 VHF

UNIT : UCA

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
Q301	FET	2N4416	1
Q302	FET	2N4416	1
Q303	FET	3SK88L	1
Q304	FET	3SK88L	1
Q305	FET	3SK88L	1
Q306	TRANSISTOR	2SA1048LY	1
Q307	TRANSISTOR	2SA1048LY	1
Q308	TRANSISTOR	2SA1048LY	1
Q309	TRANSISTOR	2SC2458LY	1
Q310	TRANSISTOR	2SC2753Y	1
Q311	TRANSISTOR	2SC2753Y	1
Q312	TRANSISTOR	2SA1048LY	1
Q313	TRANSISTOR	2SC2458LY	1
D301	VARICAP DIODE	1T-25	1
D302	VARICAP DIODE	1T-25	1
D303	DIODE	MC302	1
D304	DIODE	MC302	1
D305	VARICAP DIODE	1T-25	1
D306	DIODE	MC302	1
D307	DIODE	MC302	1
D308	ZENER DIODE	05Z4.3Y	1
D309	DIODE	1SS177	1
D310	DIODE	1SS227	1
TH301	THERMISTER	TD5-310DH	1
TH302	THERMISTER	TD5-310DH	1
L301	MICRO INDUCTOR	LA03NA-1UH	1
L302	MICRO INDUCTOR	LA03NA-1UH	1
L303	MICRO INDUCTOR	LA03NA-1UH	1
L304	MICRO INDUCTOR	LA03NA-1UH	1
L305	MICRO INDUCTOR	LA03NA-1UH	1
L306	MICRO INDUCTOR	LA03NA-1UH	1
L307	COIL	4A-S190	1
L308	COIL	4A-S191	1
L309	BEAD CHOKE	BC-2	1
L310	COIL	4A-S192	1
L311	COIL	4A-S192	1
L312	MICRO INDUCTOR	LA04NA-10UH	1
L313	COIL	4A-S193	1
L314	COIL	4A-S194	1
C301	CERAMIC CHIP C	GR40 RH 9PF	1
C302A	CERAMIC CHIP C	GR40 RH 4PF	1
C302B	CERAMIC CHIP C	GR40 RH 4PF	1
C304	WEDGE TYPE C	SUW/50V 1000PF	1
C305	WEDGE TYPE C	SUW/50V 1000PF	1
C306	CERAMIC C	RH 10PF	1
C307	CERAMIC CHIP C	GR40 RH 9PF	1
C308A	CERAMIC CHIP C	GR40 RH 3PF	1
C308B	CERAMIC CHIP C	GR40 RH 3PF	1
C310	WEDGE TYPE C	SUW/50V 1000PF	1
C311	WEDGE TYPE C	SUW/50V 1000PF	1

PARTS LIST

MODEL : RT 714 VHF

UNIT : UCB

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
C312	CERAMIC C	RH 5PF	1
C313	CERAMIC C	B 1000PF	1
C314	CERAMIC C	B 1000PF	1
C315	CERAMIC C	B 1000PF	1
C316	CERAMIC C	B 470PF	1
C317	CERAMIC C	B 1000PF	1
C318	CERAMIC C	B 1000PF	1
C319	CERAMIC C	B 1000PF	1
C320	CERAMIC C	B 470PF	1
C321	CERAMIC C	B 1000PF	1
C322A	CERAMIC CHIP C	GR40 B 1000PF	1
C322B	TANTALUM C	DN 35V/1UF	1
C323	CERAMIC C	B 470PF	1
C324	CERAMIC C	B 470PF	1
C325	CERAMIC C	B 1000PF	1
C326	CERAMIC C	B 1000PF	1
C327	CERAMIC C	B 1000PF	1
C328	CERAMIC C	B 1000PF	1
C329	CERAMIC C	B 1000PF	1
C330	CERAMIC C	B 1000PF	1
C331	CERAMIC C	B 1000PF	1
C332	CERAMIC C	B 1000PF	1
C333	TANTALUM C	DN 10V/4.7UF	1
C334	ELECTROLYTIC C	RC2 10V/33UF	1
C335	ELECTROLYTIC C	RC2 16V/47UF	1
C336	TANTALUM C	DN 10V/47UF	1
C337	MONOLYTHIC CERAMIC C	X-0.022UF	1
C338	CERAMIC C	B 1000PF	1
C339	TANTALUM C	DN 35V/0.22UF	1
C340	CERAMIC C	B 470PF	1
C341	CERAMIC C	CH 1.5PF	1
C342	MYLER FILMED C	UMZ 0.01UF	1
C343	CERAMIC C	B 470PF	1
C345	MYLER FILMED C	UMZ 0.015UF	1
C346	CERAMIC C	B 220PF	1
C347	CERAMIC C	B 220PF	1
UC301	TIRMMER	TTA22 10PF	1
UC302	TIRMMER	TTA22 10PF	1
R311	CARBON RESISTOR	1/6W(F)-10K	1
R312	CARBON RESISTOR	1/6W(F)-220	1
R313	CARBON RESISTOR	1/6W(F)-470	1
R314	CARBON RESISTOR	1/6W(F)-470	1
R315	CARBON RESISTOR	1/6W(F)-22K	1
R316	CARBON RESISTOR	1/6W(F)-18K	1
R317	CARBON RESISTOR	1/6W(F)-47K	1
R318	CARBON RESISTOR	1/6W(F)-18K	1
R319	CARBON RESISTOR	1/6W(F)-22K	1
R320	CARBON RESISTOR	1/6W(F)-1K	1
R321	CARBON RESISTOR	1/6W(F)-2.7K	1
R322	CARBON RESISTOR	1/6W(F)-1.2K	1

PARTS LIST

MODEL : RT 714 VHF

UNIT : UCB

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
R323	CARBON RESISTOR	1/6W(F)-47	1
R324	CARBON RESISTOR	1/6W(F)-10	1
R325	CARBON RESISTOR	1/6W(F)-2.7K	1
R326	CARBON RESISTOR	1/6W(F)-1K	1
R327	CARBON RESISTOR	1/6W(F)-68	1
R328	CARBON RESISTOR	1/6W(F)-10	1
R329	CARBON RESISTOR	1/6W(F)-270	1
R330	CARBON RESISTOR	1/6W(F)-10	1
R331	CARBON RESISTOR	1/6W(F)-270	1
R332	CARBON RESISTOR	1/6W(F)-15K	1
R333	CARBON RESISTOR	1/6W(F)-3.3K	1
R334	CARBON RESISTOR	1/6W(F)-4.7K	1
R335	CARBON RESISTOR	1/6W(F)-27K	1
R336	CARBON RESISTOR	1/6W(F)-10K	1
R337	CARBON RESISTOR	1/6W(F)-1K	1
R338	CARBON RESISTOR	1/6W(F)-1K	1
R339	CHIP CARBON RESISTOR	MCR18-4.7K	1
FUR301	SEMI FIXED RESISTOR	RJ-4W 100	1
	COAXIAL CORD	105-0.8D	1
	ISOLATION MAT	4A10-1041	1
	PCB MAT	4A10-1124	1
	UCB SHIELD CASE	4A10-1095	2
	UCB UNIT COVER	4A10-1039	1
	UCB UNIT FRAME	4A10-1038	1
	UCB UNIT PCB	05UCV397PB	1
CN10P	7-PIN PLUG	HKP-7M5W	1
CN11S	2-PIN SOCKET	3024-02CH	1

PARTS LIST

MODEL : RT 714 VHF

UNIT : CONTROL

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
IC401	IC	MS1304L	1
IC402	IC	NJM4556D	1
IC403	IC	78M08	1
IC404	IC	MC14518P	1
IC405	IC	MC14093P	1
IC406	IC	TC4019P	1
IC407	IC	TC5068P	1
IC408	IC	TC5068P	1
D401	DIODE	1S1885	1
D406	LED	SL2272	1
D407	LED	SL2272	1
D408	LED	TLS164	1
D409	LED	TLG164	1
SP401	SPEAKER	KS-105	1
C401	CERAMIC C	B 1000PF	1
C402	TANTALUM C	DN 10V/4.7UF	1
C403	TANTALUM C	DN 35V/0.47UF	1
C404	TANTALUM C	DN 10V/4.7UF	1
C405	ELECTROLYTIC C	RC2 16V/10UF	1
C406	TANTALUM C	DN 35V/0.47UF	1
C407	TANTALUM C	DN 35V/0.47UF	1
C408	TANTALUM C	DN 35V/0.47UF	1
C409	ELECTROLYTIC C	RC2 16V/10UF	1
C410	TANTALUM C	DN 10V/4.7UF	1
C411	TANTALUM C	DN 10V/4.7UF	1
C412	ELECTROLYTIC C	RC2 50V/1UF	1
C413	ELECTROLYTIC C	RC2 16V/10UF	1
C414	TANTALUM C	SST 35V/0.33UF	1
C415	TANTALUM C	SST 35V/0.33UF	1
C416	TANTALUM C	DN 35V/0.1UF	1
C417	ELECTROLYTIC C	RC2 16V/22UF	1
C419	TANTALUM C	DN 35V/0.1UF	1
	JUMPER	1/6W(P)-0	5
	JUMPER	1/4W(F)-0	7
R401	CARBON RESISTOR	1/6W(F)-270	1
R402	CARBON RESISTOR	1/6W(F)-3.3K	1
R403	CARBON RESISTOR	1/6W(F)-270	1
R404	CARBON RESISTOR	1/6W(F)-1K	1
R405	CARBON RESISTOR	1/6W(F)-150K	1
R406	CARBON RESISTOR	1/6W(F)-1.2K	1
R407	CARBON RESISTOR	1/6W(F)-47K	1
R408	CARBON RESISTOR	1/6W(F)-39K	1
R409	CARBON RESISTOR	1/6W(F)-33K	1
R410	CARBON RESISTOR	1/6W(F)-47K	1
R411	CARBON RESISTOR	1/6W(F)-6.8K	1
R412	CARBON RESISTOR	1/6W(F)-47K	1
R413	CARBON RESISTOR	1/6W(F)-270	1
R414	CARBON RESISTOR	1/6W(F)-270	1
R415	METAL OXIDE R	RSF1B 1W-2.2	1
R416	METAL OXIDE R	RSF1B 1W-8.2	1

P A R T S L I S T

MODEL : RT 714 VHF

UNIT : CONTROL

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
R417	METAL OXIDE R	RSF1B 1W-2.2	1
R418	CARBON RESISTOR	1/6W(F)-220K	1
R419	CARBON RESISTOR	1/6W(F)-10K	1
R420	CARBON RESISTOR	1/6W(F)-220K	1
R421	CARBON RESISTOR	1/6W(F)-10K	1
R422	CARBON RESISTOR	1/6W(F)-330K	1
R423	CARBON RESISTOR	1/6W(F)-100K	1
R424	CARBON RESISTOR	1/6W(F)-680K	1
R428	CARBON RESISTOR	1/6W(F)-560	1
R429	CARBON RESISTOR	1/6W(F)-560	1
R430	CARBON RESISTOR	1/6W(R)-560	1
R431	CARBON RESISTOR	1/6W(R)-560	1
R432	CARBON RESISTOR	1/6W(R)-560	1
R433	CARBON RESISTOR	1/6W(R)-560	1
R434	CARBON RESISTOR	1/6W(R)-560	1
R435	CARBON RESISTOR	1/6W(R)-560	1
R436	CARBON RESISTOR	1/6W(R)-560	1
R437	CARBON RESISTOR	1/6W(R)-560	1
R438	CARBON RESISTOR	1/6W(R)-560	1
R439	CARBON RESISTOR	1/6W(R)-560	1
R440	CARBON RESISTOR	1/6W(R)-560	1
R441	CARBON RESISTOR	1/6W(R)-560	1
R442	CARBON RESISTOR	1/6W(R)-560	1
R443	CARBON RESISTOR	1/6W(R)-560	1
R444	CARBON RESISTOR	1/6W(R)-560	1
R445	CARBON RESISTOR	1/6W(R)-560	1
R446	CARBON RESISTOR	1/6W(R)-560	1
R447	CARBON RESISTOR	1/6W(R)-560	1
R448	CARBON RESISTOR	1/6W(R)-560	1
R449	CARBON RESISTOR	1/6W(R)-560	1
R450	CARBON RESISTOR	1/6W(R)-560	1
FVR401	SEMI FIXED RESISTOR	647F 200	1
FVR402	SEMI FIXED RESISTOR	647F 20K	1
VR401	VARIABLE RESISTOR	K101B 0029-10K	2
VR402	VARIABLE RESISTOR	K101B 0029-10K	2
S401	CHANNEL SWITCH	SRS303G106	1
S402	POWER SWITCH	SUT11 D18	1
S403	TACT SWITCH	KHH15902	2
	COULER FOR LED	4A10-1089	2
	SPACER FOR PCB	4A10-1040	4
	PAN SCREW	PN-2.6 X 8	1
	SPRING WASHER	SW-2.6PAI	1
	RS-TUBE	RS-3PAI X 45	1
	GRASS-TUBE	GS-2PAI X 25	1
	CORD FOR MIC	O.1-150M/M WHT	1
	CORD FOR SPEAKER	O.1-120M/M WHT	2
CN6P	34-PIN PLUG	PS34PE-D4T1-PN	1
CN401S	MIC CONNECTOR	214-7SM	1
CN402P	12-PIN PLUG W/ASSY	990-CT	1
CN402S	12-PIN SOCKET	IL-S-12P-S2T2	1

P A R T S L I S T

MODEL : RT 714 VHF

UNIT : SHASSIS

REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
	POWER SWITCH KNOB	3A10-0218-2	1
	KEY TOP-10	4A10-0973-A	1
	KEY TOP-1	4A10-0973-B	1
	CAP FOR KEY TOP	4A10-0976	2
	TAPE FOR LED WINDOW	DF-43 X 2.5	2
	LED WINDOW	4A10-0975	1
	NET FOR SPEAKER	4A11-1036	1
	RUBBER FOR SPEAKER	4A10-1116	1
	KEY TOP SPACER	4A10-1004	2
	POWER SWITCH SPACER	4A10-1107	1
	INSULATOR FOR CONT.	4A10-1086	1
	CHANNEL KNOB	4A10-1045-2	1
	VOL/SOL KNOB	4A11-1138-2	2
	SPRING FOR SPEAKER	4A10-1030	1
	CONTROL PANEL	2A10-0080-11E	1
	PA UNIT COVER	4A10-0988-02	1
	PA RADIATOR	2A10-0081-02	1
	SHASSIS FRAME	2A10-0083-03	1
	UCB COVER	3A10-0254	1
	PA REAR COVER	3A10-0255	1
	COAXIAL CLUMPER	4A10-0977	1
	CLUMPER FOR SP-A	4A10-1028	1
	CLUMPER FOR SP-B	4A10-1029	2
	RADIATOR FOR IC	4A10-1140	1
	PCB SHIELD PLATE	4A11-1121	1
	STUD FOR UCB	4A10-1033	4
	RING FOR MIC.	714-SM	1
	STUD FOR PA	4A10-1035	2
	STUD FOR CONTROL-A	4A10-1034-A	4
	STUD FOR CONTROL-B	4A10-1034-B	2
	NYLON BAND	NO. 08432	3
	STRAIN RELIEF	Sr-14-1	1
	COAXIAL CABLE	SCN-12P	1
	DC CORD RADIO SIDE	SCN-14-RC	1
	DIM. CORD RADIO SIDE	SCN-14-RD	1
	EARPHONE JACK	HSJ0780-01-010	1
	FERRITE CORE	OP-3.5-5-1.2H	2
	FERRITE CORE	OP4-10-2H	2
	WASHER FOR MIC	OD-16-19	1
	WASHER FOR EXT-JACK	4A10-1060	1
	BIND SCREW	BD-2 X 5	2
	BIND SCREW	BD-2.6 X 4	4
	BIND SCREW	BDB-2.6 X 4	4
	BIND SCREW	BD-2.6 X 5	4
	SEMS SCREW	SE-2.6 X 5	9
	SEMS SCREW	SE-2.6 X 6	4
	SEMS SCREW	SE-2.6 X 8	1
	SEMS SCREW	SE-2.6 X 10	4
	FLAT SCREW	FLB-2 X 4	4
	FLAT SCREW	FL-3 X 12	2

P A R T S L I S T

MODEL : RT 714 VHF		UNIT : SHASSIS	
REFERENCE NO.	PARTS NAME	DESCRIPTION	QTY
	OVAL SCREW	OVB-2.6 X 5	4
	OVAL SCREW	OVB-2.6 X 8	2
	OVAL SCREW	OVB-4 X 5	2
	NUT	NT-3PAI	2
	SPRING WASHER	SW-3PAI	2
	FLAT WASHER	FW-2PAI	2
	FLAT WASHER	FW-3PAI	2
	SEAL FOR SHASSIS	4A-S175	1
	INSPECTED LABEL	4A-S183	3
	CHECK LABEL	NO. 14	2
	EP-ROM	UPD2732	1
	MICROPHONE	KD357M	1
	MOUNT BRACKET	3A10-0309-01	1
	TOP/BOTTOM COVER	3A10-0223-03	2
	DC CORD BATT. SIDE	SCN-14-BC	1
	DIM. CORD BATT. SIDE	SCN-14-BD	1
	FUSE	MINI-6.3A	4
	SELF TAP SCREW	STB-5 X 15	4
	FLAT WASHER	FW-5PAI	4
	FREQUENCY CARD	4A11-1125	1
	TOP COVER SEAL	4A-S200	1
	BOTTOM COVER SEAL	4A-S199	1
	MASKING SEAL FOR ROM	MASK-10PAI	1