3. BLOCK DIAGRAM

BLOCK DIAGRAM

REV.	PART NO.	DESCRIPTION	APPROVED NO.	REMARK

ANT

MAIN BOARD

LPF — RX/TX SWITCH Q3,Q4 — POWER MODULE U7 — TX AMP(A1A7) Q1702 Q1701 — Q11 — AMP Q13 — VCO(A1A5) Q1502 Q1501 — MIC AMP(A1A3) U1301 Q1301

POWER DET. Q1,Q2

TX 8V   HI POWER VR2

Q27   Q28 Q29   Q30   APC   MID POWER VR3

Q11
Q12

PLL(A1A4)
Q1402   LPF
U1401   Q1404
Q1403

MUTE Q15

REGISTER U4

PLL & REG. 5V
PLL 10V

CRYSTAL X2

8V

AMP Q16

CN2

CN3

MUTE Q26

FM DETECTOR(A1A1)
Q9   Q1101   Q1104
Q1105   U1101
Q1103   Q1102

Q6 (OPTION)

IF AMP Q5 — MCF XF1 — MIXER Q4 — BPF — RF AMP Q3

AM SWITCH
Q32   Q1
Q33   Q2
Q5
(OPTION)

RX 8V

SP

AF AMP U5

AM DETECTOR
Q7   U1
(OPTION)

8V

5V REG. U3   Q25   RX/TX CONTROLLER

RX 8V

CN4

Q14

Q23   Q22   Q24

PLL & REG. 5V
VCO 7V
RX 8V
TX 8V
PLL 10V

Q21

Q20

8V REG. U2

10V REG. U6

Q19   D19   VOLTAGE DETECTOR
Q17   D15

Q18

FUSE   DC I/P 13.8V

DTMF ASS'Y (OPTION)

CN201   CN204

VOL VR201

SQL VR202

DCS DETECTOR U208   CTCSS DETECTOR U205   S-METER U207/1A

RESET U202

CPU U203

CTCSS U207/2A REPEATER TONE C203   EEPROM U204   LIGHT CONT. U206/2A

POWER S201   5V REG. U201   Q207   Q206

CPU BOARD   CN203   CN202

F
CALL
SHFT
TONE
DTMF
VFO
MR
MHz
LOW
ENCODER

MIC J202

LCD ASS'Y

TX/RX
TX
RX
CONTROL

MAIN BOARD
(BC273B006M)

A1A3 MIC AMP (BC217D01G)

A1A5 VCO
(BC273F296G)

A1A4 PLL
(BC273B006G)

DEVIATION

HI POWER

MID POWER

CPU BOARD
(BC273F007M)

VOLUME

SQUELCH

LCD BOARD
(BC217G002M)

NOTES 1. UNLESS OTHERWISE NOTED RESISTORS ARE IN OHM
       CAPACITORS ARE IN FARAD AND INDUCTORS ARE IN HENRY.
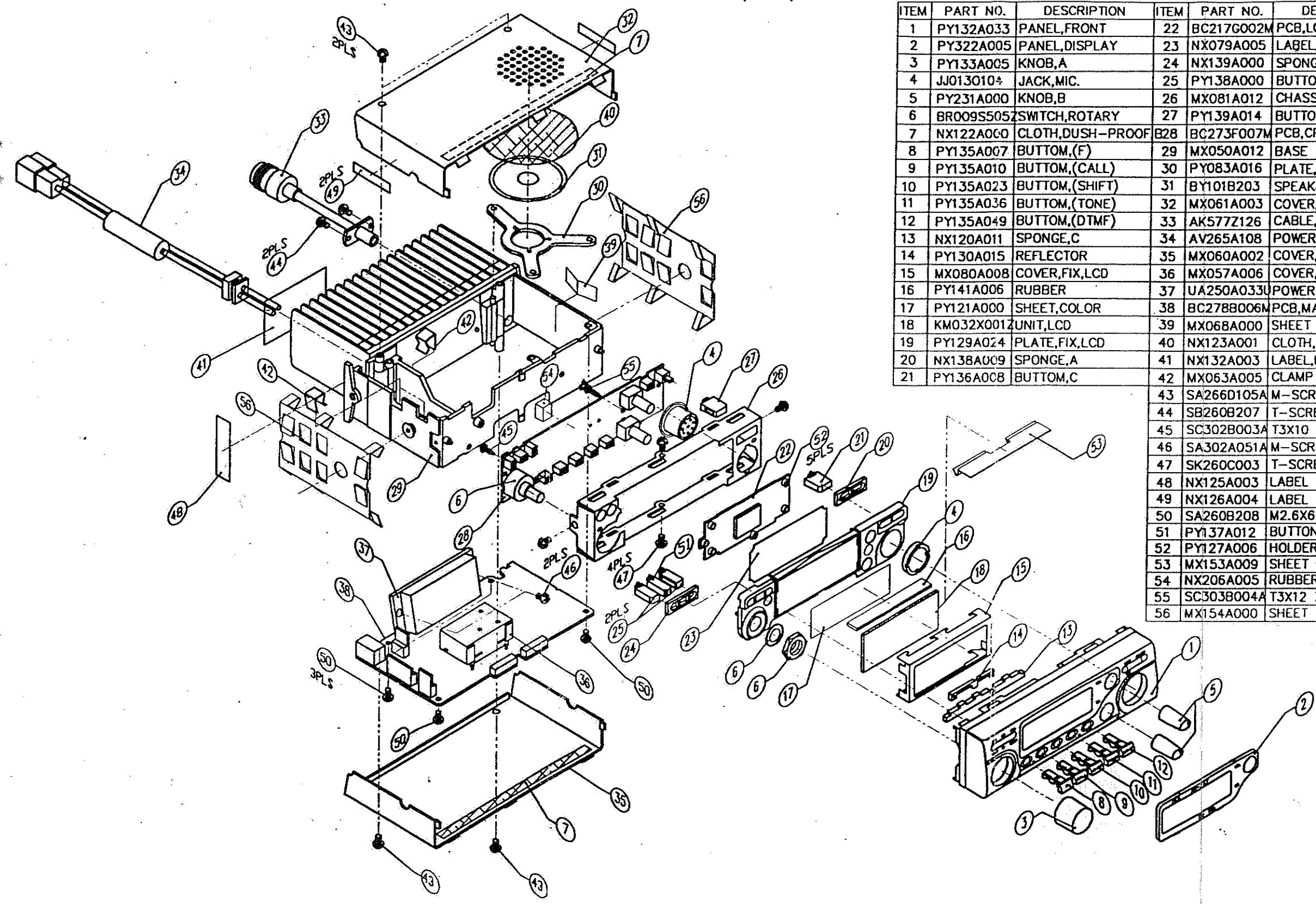
       2. AR-147 CIRCUIT DIAGRAM

AR-147/S02   G

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REV.	PART NO.	DESCRIPTION	APPROVED NO.	REMARK

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	PY132A033	PANEL,FRONT	22	BC217G002M	PCB,LCD
2	PY322A005	PANEL,DISPLAY	23	NX079A005	LABEL,SHIELD
3	PY133A005	KNOB,A	24	NX139A000	SPONGE,B
4	JJ0130104	JACK,MIC.	25	PY138A000	BUTTON,A
5	PY231A000	KNOB,B	26	MX081A012	CHASSIS,FRONT
6	BR009S505Z	SWITCH,ROTARY	27	PY139A014	BUTTON,POWER
7	NX122A000	CLOTH,DUSH-PROOF	B28	BC273F007M	PCB,CPU
8	PY135A007	BUTTOM,(F)	29	MX050A012	BASE
9	PY135A010	BUTTOM,(CALL)	30	PY083A016	PLATE,FIX,SPEAKER
10	PY135A023	BUTTOM,(SHIFT)	31	BY101B203	SPEAKER,8 OHM
11	PY135A036	BUTTOM,(TONE)	32	MX061A003	COVER,TOP
12	PY135A049	BUTTOM,(DTMF)	33	AK577Z126	CABLE,ANT,50 OHM
13	NX120A011	SPONGE,C	34	AV265A108	POWER CORD
14	PY130A015	REFLECTOR	35	MX060A002	COVER,BASE
15	MX080A008	COVER,FIX,LCD	36	MX057A006	COVER,SHIELD A
16	PY141A006	RUBBER	37	UA250A033U	POWER MODULE
17	PY121A000	SHEET,COLOR	38	BC278B006M	PCB,MAIN
18	KM032X001Z	UNIT,LCD	39	MX068A000	SHEET , GND(A)
19	PY129A024	PLATE,FIX,LCD	40	NX123A001	CLOTH,DUSH-PROOF
20	NX138A009	SPONGE,A	41	NX132A003	LABEL,LOGO
21	PY136A008	BUTTOM,C	42	MX063A005	CLAMP
			43	SA266D105A	M-SCREW,CBS,Ni
			44	SB260B207	T-SCREW,CBTA"A",N
			45	SC302B003A	T3X10 ZN
			46	SA302A051A	M-SCREW,Zn-Cc
			47	SK260C003	T-SCREW,"S",Zn-Cc
			48	NX125A003	LABEL A
			49	NX126A004	LABEL B
			50	SA260B208	M2.6X6 CBS,Ni
			51	PY137A012	BUTTON,B
			52	PY127A006	HOLDER,LAMP
			53	MX153A009	SHEET GND (B)
			54	NX206A005	RUBBER SPONGE
			55	SC303B004A	T3X12 ZN
			56	MX154A000	SHEET GND (A)

EXPLODED VIEW

FILE NO. AR-147