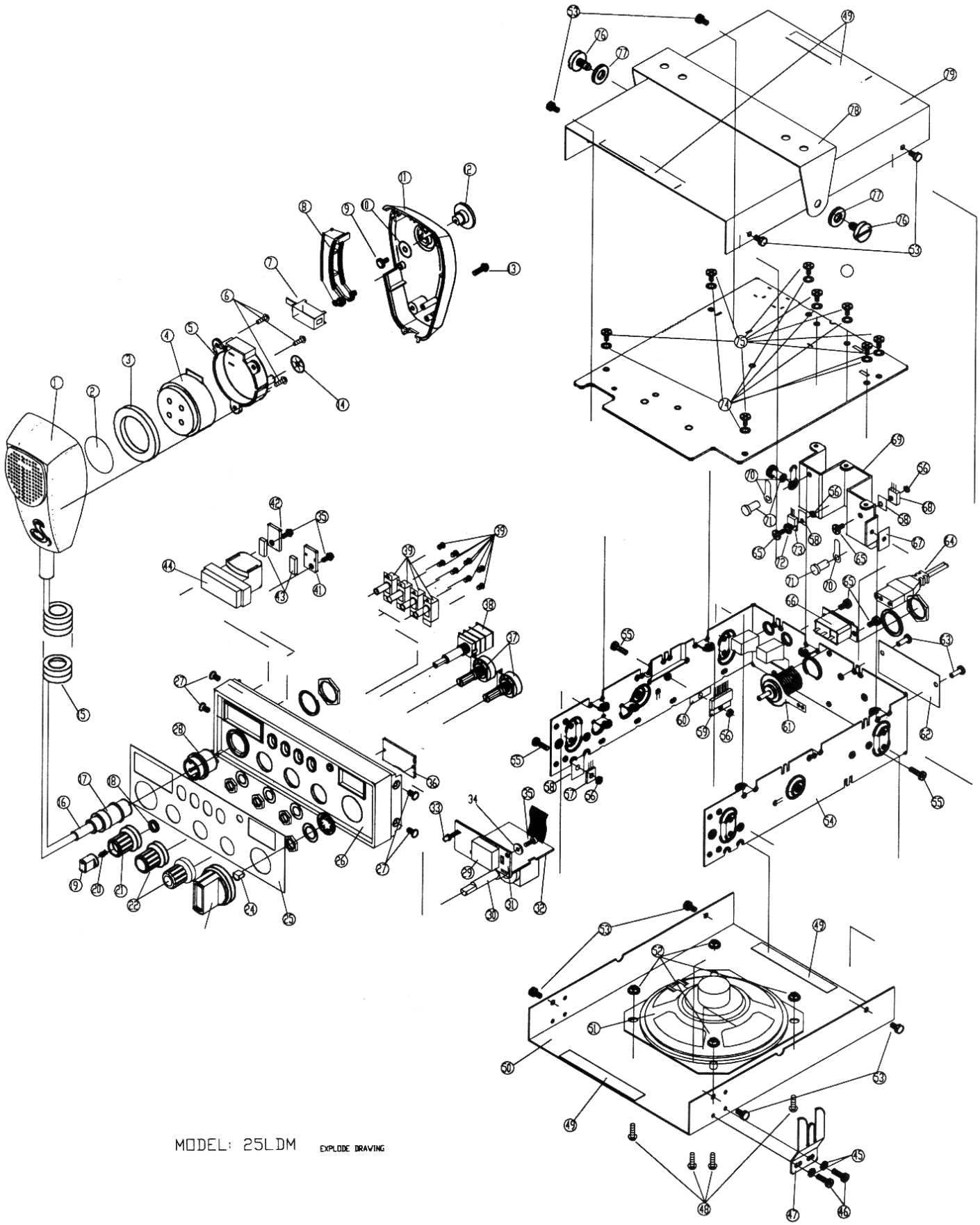
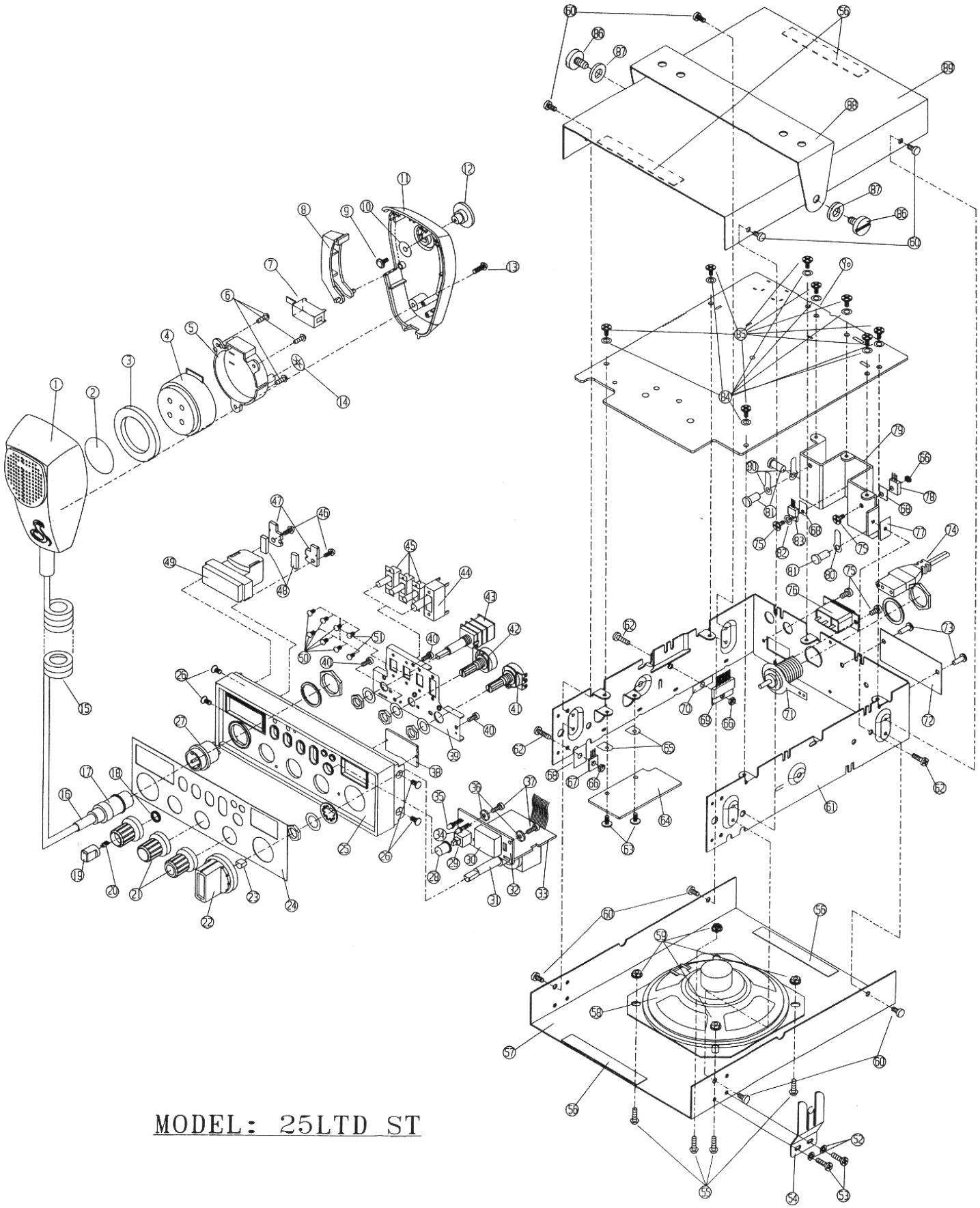
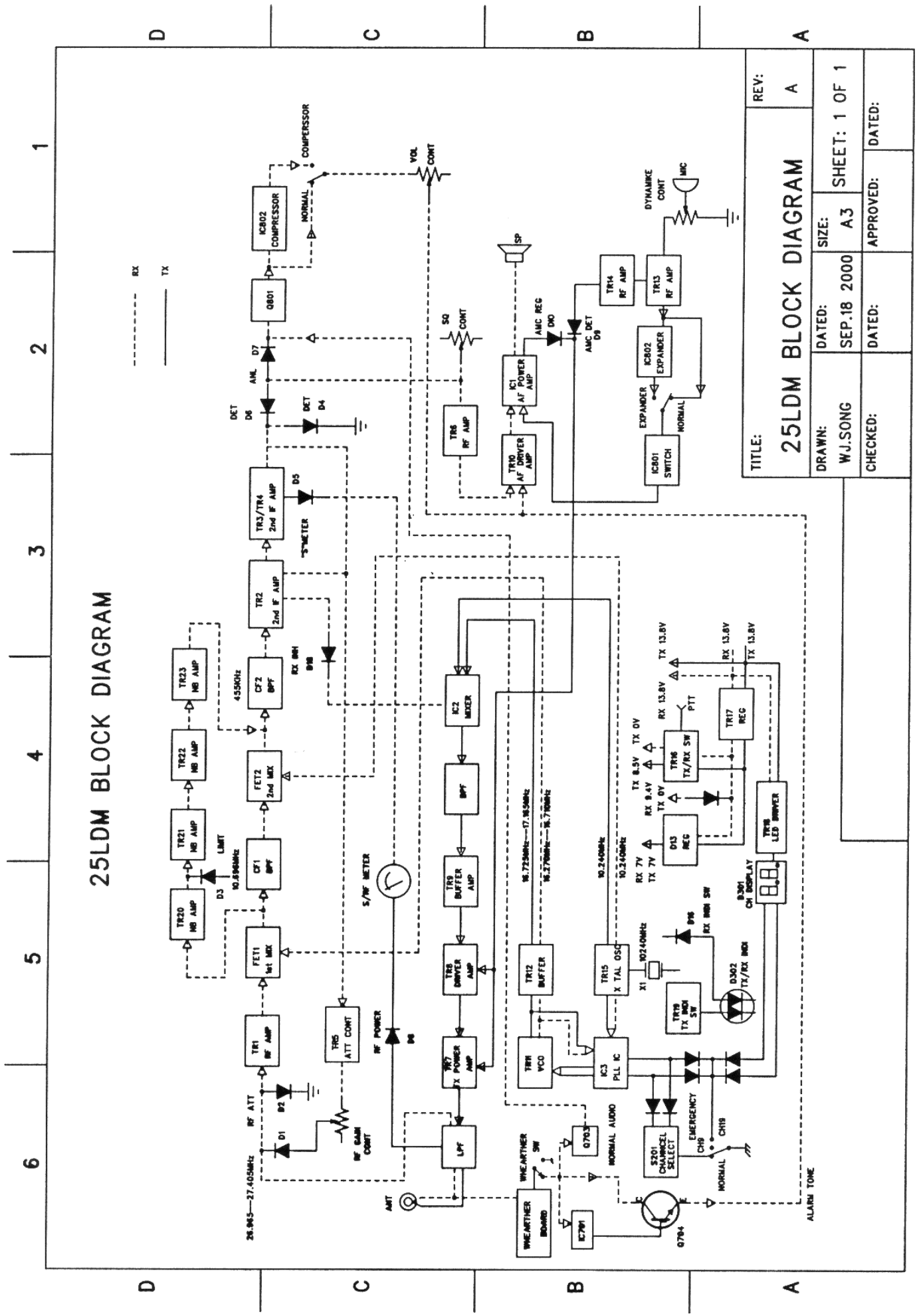
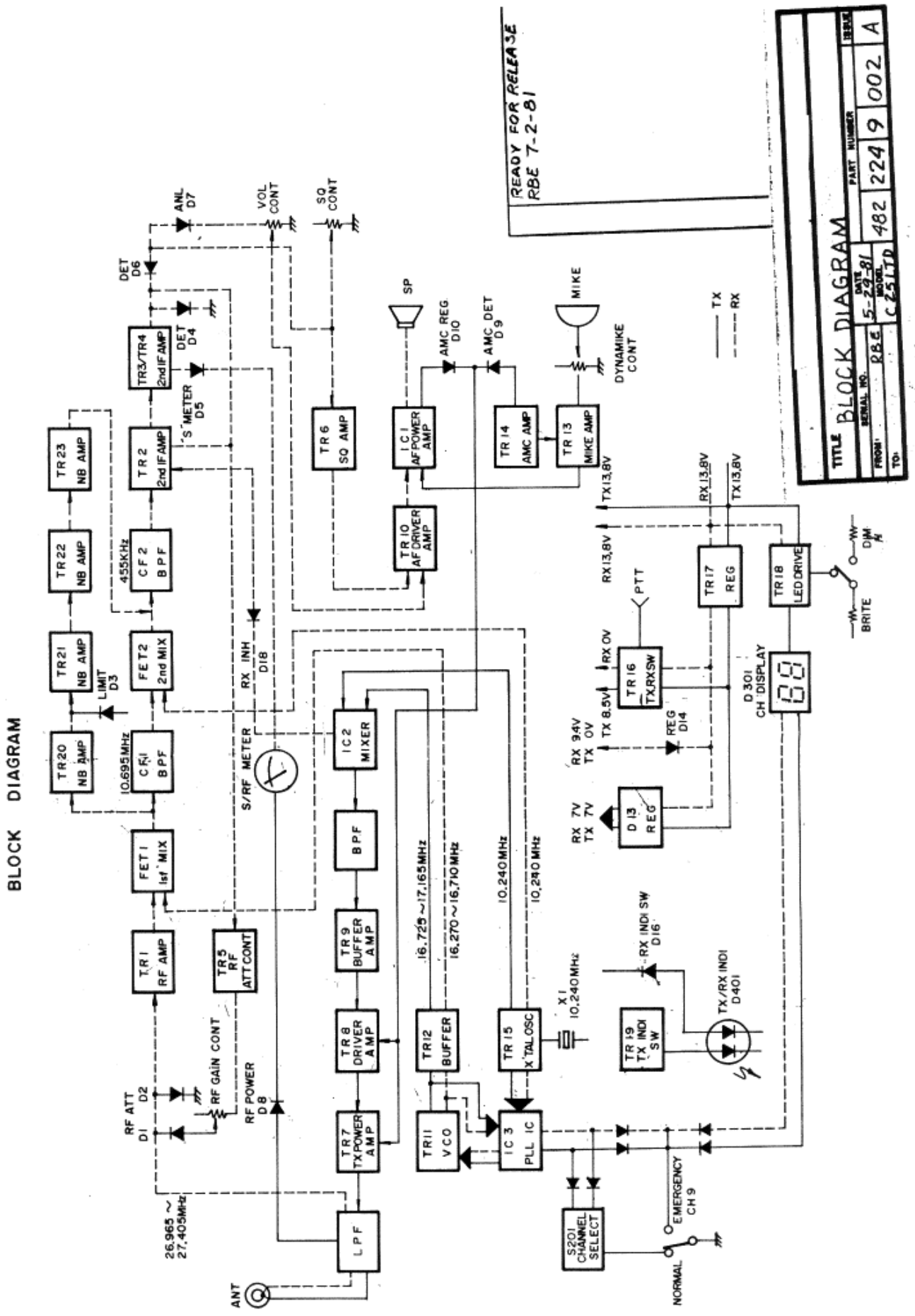


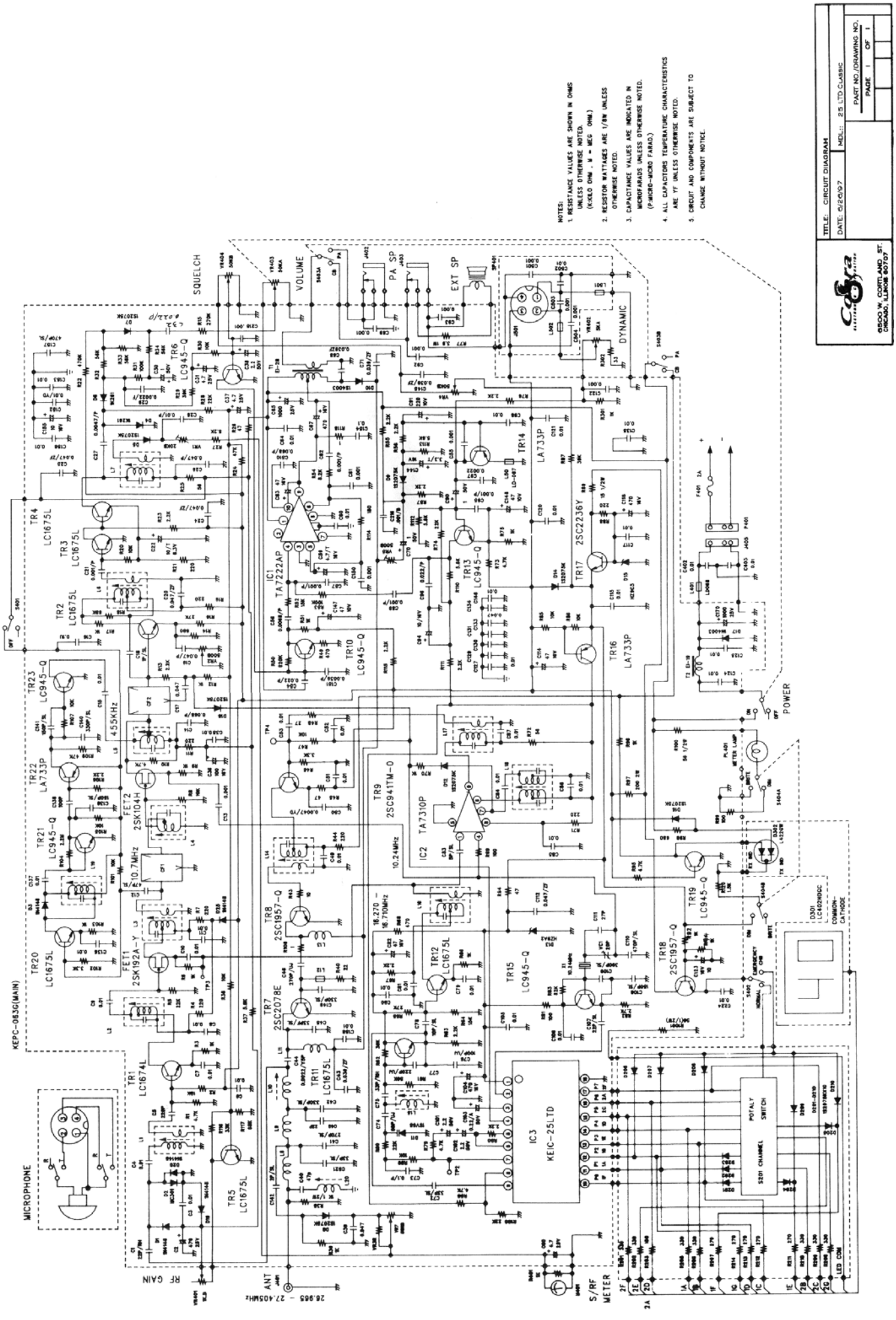
MODEL: 25LDM EXPLODE DRAWING

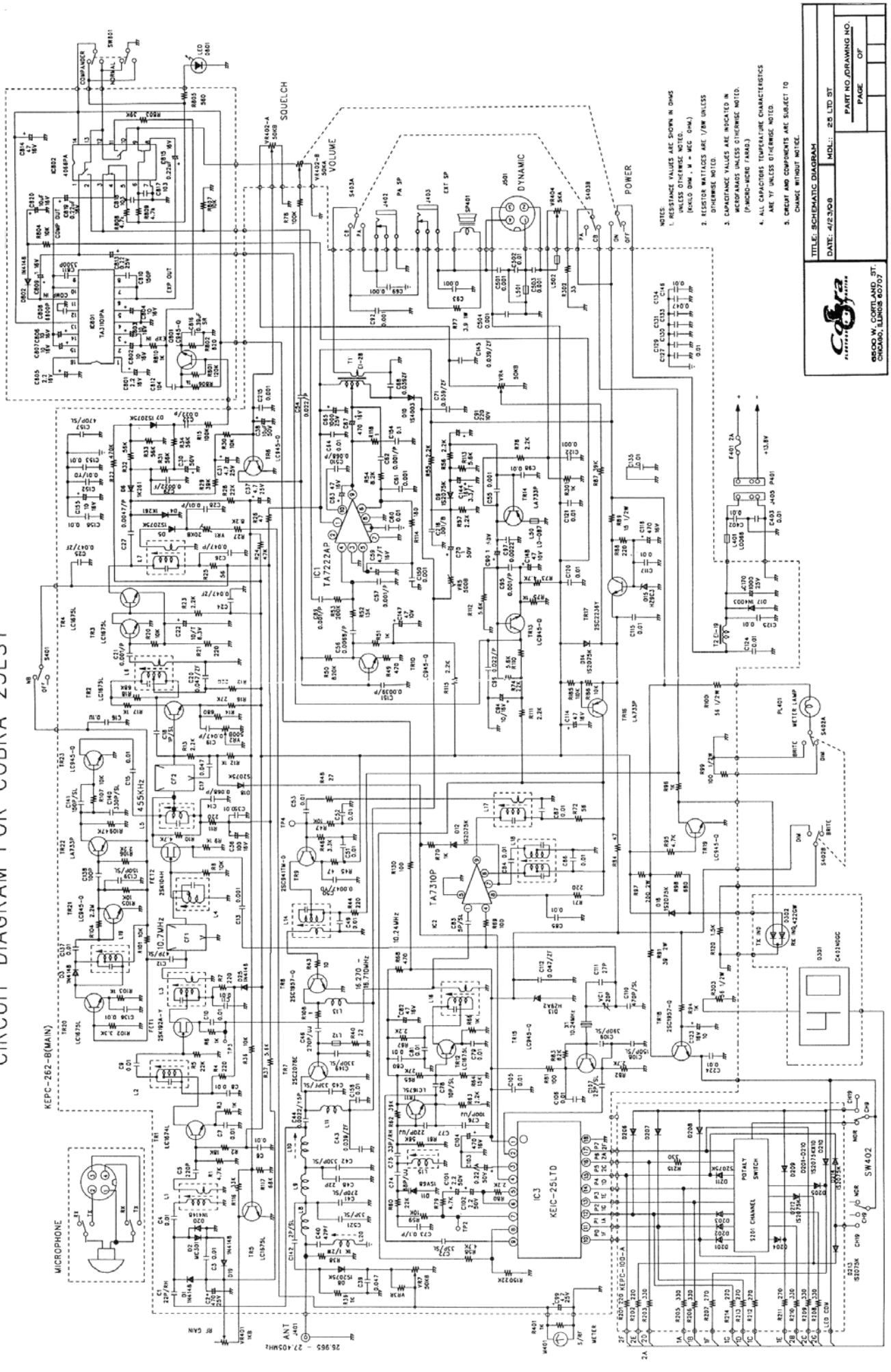


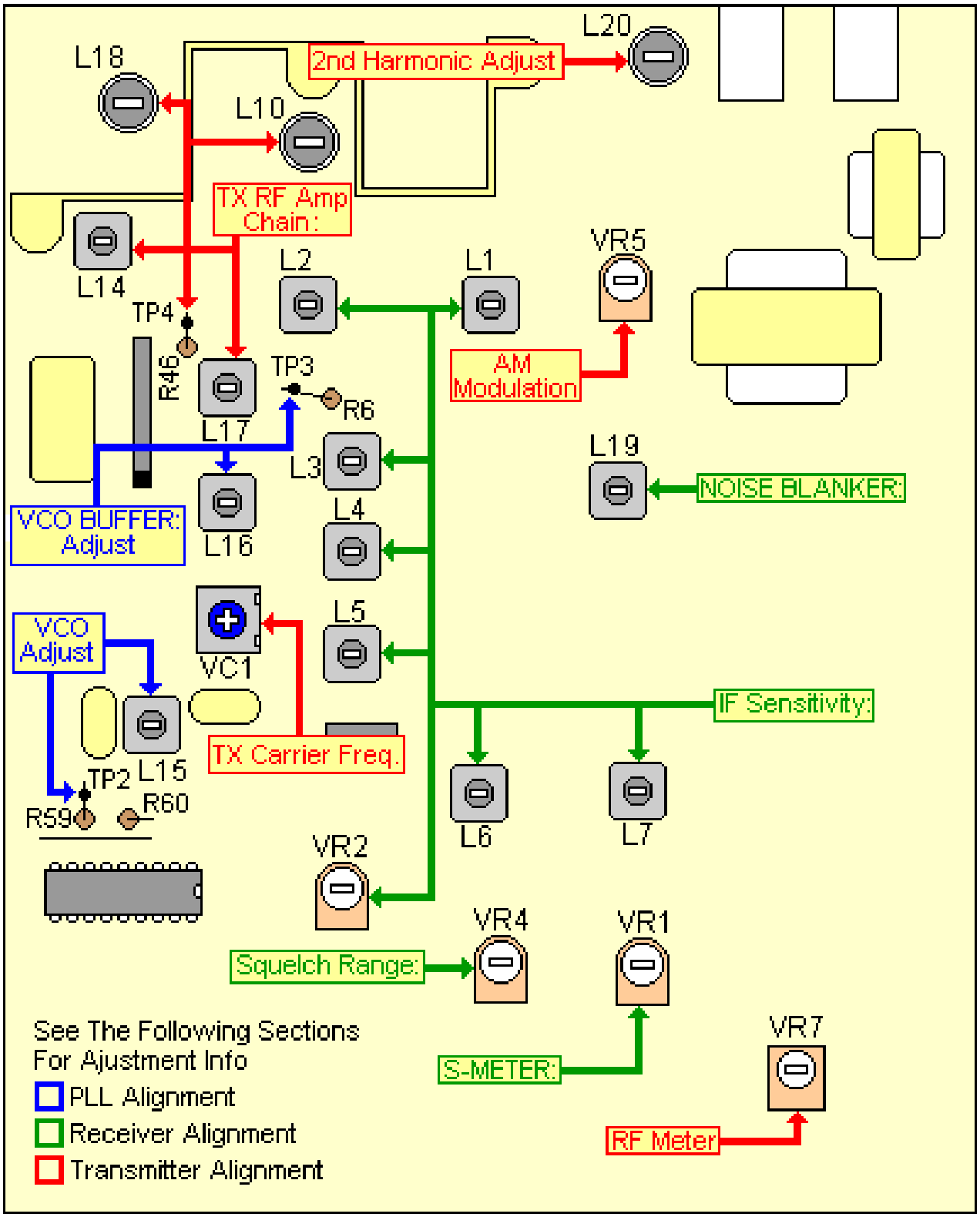
MODEL: 25LTD ST


25LDM BLOCK DIAGRAM
TITLE: 25LDM BLOCK DIAGRAM
REV: A
DRAWN: W.J.SONG
DATED: SEP.18 2000
SIZE: A3
SHEET: 1 OF 1
CHECKED:
DATED:
APPROVED:
DATED:
RX
TX
IC802 COMPRESSOR
COMPERSSOR
NORMAL
VOL CONT
Q801
D7
AM
DET D6
DET D4
TR3/TR4 2nd IF AMP
D5
S-METER
TR2 2nd IF AMP
CF2 BPF
455KHz
RX 8th
D8
TR23 NB AMP
TR22 NB AMP
FET2 2nd MIX
TR21 NB AMP
LIMIT
D3
CF1 BPF
TR20 NB AMP
FET1 1st MIX
TR1 RF AMP
D2
D1
RF ATT
RF GAIN CONT
TR5 ATT CONT
S/RF METER
RF POWER
D6
TR7 TX POWER AMP
TR8 DRIVER AMP
TR9 BUFFER AMP
BPF
IC2 MIXER
TR11 VCO
TR12 BUFFER
TR15 X TAL OSC
X1
10.240MHz
IC3 PLL IC
D16
RX 8th SW
D302 TX/RX 8th
TR19 TX 8th SW
D301 CH DISPLAY
TR18 LED DRIVER
TR17 REG
D13 REG
TR16 TX/RX SW
PTT
TX 13.8V
RX 13.8V
TX 8.5V
RX 8.4V
TX 0V
RX 7V
TX 7V
TR14 RF AMP
TR13 RF AMP
DYNAMIKE CONT
MIC
SP
AMC REG
D10
AMC DET D9
IC802 EXPANDER
EXPANDER
NORMAL
IC801 SWITCH
IC1 POWER AF AMP
TR10 AF DRIVER AMP
TR6 RF AMP
SQ CONT
S201 CHANNEL SELECT
EMERGENCY CH9
CH19
NORMAL
NORMAL AUDIO
ALARM TONE
WHEATHER SW
WHEATHER BOARD
Q703
IC701
Q704
ANT
26.965—27.405MHz


BLOCK DIAGRAM
READY FOR RELEASE
RBE 7-2-81
TITLE BLOCK DIAGRAM
PART NUMBER 224 9 002 A
SERIAL NO. RBE
DATE 5-22-81
MODEL C2511D
482
FROM:
TO:
ANT
LPF
TR1 RF AMP
TR5 RF ATT CONT
FET1 1st MIX
CF1 BPF
TR20 NB AMP
TR21 NB AMP
TR22 NB AMP
TR23 NB AMP
FET2 2nd MIX
CF2 BPF
TR2 2nd IF AMP
TR3/TR4 2nd IF AMP
IC2 MIXER
BPF
TR9 BUFFER AMP
TR8 DRIVER AMP
TR7 TX POWER AMP
TR11 VCO
TR12 BUFFER
TR15 X'TAL OSC
IC3 PLL IC
X1 10.240MHz
TR6 SQ AMP
IC1 AF POWER AMP
TR10 AF DRIVER AMP
TR14 AMC AMP
TR13 MIKE AMP
TR16 TX/RX SW
TR17 REG
TR18 LED DRIVE
TR19 TX INDI SW
D13 REG
S201 CHANNEL SELECT
D301 CH DISPLAY
RF ATT D1 D2
RF GAIN CONT
RF POWER D8
S/RF METER
RX INH D18
LIMIT D3
ANL D7
DET D6
DET D4
S METER D5
VOL CONT
SQ CONT
SP
AMC REG D10
AMC DET D9
MIKE
DYNAMIKE CONT
PTT
RX INDI SW D16
TX/RX INDI D401
EMERGENCY CH 9
NORMAL
BRITE
DIM
TX
RX
26.965 ~ 27.405MHz
10.695MHz
455KHz
16.725 ~ 17.165MHz
16.270 ~ 16.710MHz
10.240MHz
RX 13.8V
TX 13.8V
RX 9.4V
TX 8.5V
RX 7V
TX 7V


CIRCUIT DIAGRAM FOR COBRA 25LTD
NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED. (K=KILO OHM , M = MEG OHM.)
2. RESISTOR WATTAGES ARE 1/8W UNLESS OTHERWISE NOTED.
3. CAPACITANCE VALUES ARE INDICATED IN MICROFARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARAD.)
4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE YF UNLESS OTHERWISE NOTED.
5. CIRCUIT AND COMPONENTS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
TITLE: CIRCUIT DIAGRAM
DATE: 02/20/97
MDL.: 25 LTD CLASSIC
PART NO./DRAWING NO.
PAGE 1 OF 1
COBRA ELECTRONICS CORP.
6500 W. CORTLAND ST.
CHICAGO, ILLINOIS 60707
KEPC-083G(MAIN)
SQUELCH
VOLUME
PA SP
EXT SP
DYNAMIC
POWER
MICROPHONE
RF GAIN
ANT
S/RF METER
26.965 - 27.405MHz
455KHz
10.7MHz
10.24MHz
16.270 - 16.710MHz
IC1 TA7222AP
IC2 TA7310P
IC3 KEIC-25LTD
TR1 LC1674L
TR2 LC1675L
TR3 LC1675L
TR4 LC1675L
TR5 LC1675L
TR6 LC945-Q
TR7 2SC2078E
TR8 2SC1957-Q
TR9 2SC941TM-O
TR10 LC945-Q
TR11 LC1675L
TR12 LC1675L
TR13 LC945-Q
TR14 LA733P
TR15 LC945-Q
TR16 LA733P
TR17 2SC2236Y
TR18 2SC1957-Q
TR19 LC945-Q
TR20 LC1675L
TR21 LC945-Q
TR22 LA733P
TR23 LC945-Q
FET1 2SK192A-Y
FET2 2SK104H
POTALY SWITCH
S201 CHANNEL
COMMON-CATHODE
EMERGENCY
NORMAL


CIRCUIT DIAGRAM FOR COBRA 25LST
KEPC-262-B(MAIN)
TITLE: SCHEMATIC DIAGRAM
DATE: 4/23/08
MDL#: 25 LTD ST
PART NO./DRAWING NO.
PAGE
OF
6500 W. CORTLAND ST.
CHICAGO, ILLINOIS 60707
NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED. (K=KILO OHM , M = MEG OHM.)
2. RESISTOR WATTAGES ARE 1/8W UNLESS OTHERWISE NOTED.
3. CAPACITANCE VALUES ARE INDICATED IN MICROFARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARADS)
4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE YF UNLESS OTHERWISE NOTED.
5. CIRCUIT AND COMPONENTS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
SQUELCH
VOLUME
DYNAMIC
POWER
MICROPHONE
IC1 TA7222AP
IC2 TA7310P
IC3 KEIC-25LTD
KEPC-100-A
POTALT SWITCH
S101 CHANNEL
26.965 - 27.405MHz
ANT
RF GAIN
S/RF METER
TX IND
RX IND
METER LAMP
DIM
BRITE


L18
L10
L20
2nd Harmonic Adjust
TX RF Amp Chain:
L14
TP4
R46
L17
TP3
R6
L2
L1
VR5
AM Modulation
L3
L19
NOISE BLANKER:
VCO BUFFER: Adjust
L16
L4
L5
VCO Adjust
VC1
TX Carrier Freq.
IF Sensitivity:
L15
TP2
R59
R60
L6
L7
VR2
VR4
VR1
Squelch Range:
S-METER:
VR7
RF Meter
See The Following Sections For Ajustment Info
PLL Alignment
Receiver Alignment
Transmitter Alignment

TX Alignment
Equipment Required:
A: VTVM (full scale: 1 V DC with RF probe).
B: RF power meter.
C: Spectrum analyzers.
D: Frequency counter.
E: DC power supply.
F: 50 ohm load and attenuator.
G: Oscilloscope.
H: AF generator.

STEP	SETTINGS	CONNECTION	ADJUST	ADJUST FOR
1.	**TP4 Output** Connect the)scilloscope to the TP4(R46 & 47). Set TX mode, Channel 19.	See TX connection Diagram	**L18, L17**	Adjust for maximum output on the oscilloscope.
3.	**TX Power** Set TX Channel 19.		**L18,L17 L14**	Adjust for maximum output on the RF power meter.
			L10	Turn to obtain 4.0W on the RF meter reading.
4.	**TX Carrier Frequency** Set TX Channel 19.		**VC1**	Adjust to obtain 27.185MHz on the frequency counter.
	Second Harmonic Set TX Channel 19.		**L20**	Adjust for a min. 2nd harmonic 54MHz output on the Spectrum anal.
	"P4" Indicator Set TX Channel 19.		**VR7**	Adjust for " P4" display at the TX Signal meter of the analogue meter.
5.	**Modulation** Set TX Channel 19. AF GEN. Output 30mV.		**VR5**	Adjust for 90% on the modulation Meter.

RX Alignment
3.1 Equipment required:
A: Signal generator
B: AC voltmeter.
C: Oscilloscope.
D: Dummy load (8 ohm, 5 watts, resistive.)
E: DC power supply (13.8 v. 2Amp.)

STEP	SETTINGS	CONNECTION	ADJUST	ADJUST FOR
1.	**Audio Output** Set channel 19. Set the S.G. on 27.185MHz with 1KHz, 30% mod. and 1mV output level. Set NB/OFF SW to OFF, Squelch to min. (CCW), PA-CB TO CB, ANL SW to CB/ANL, RF GAIN to max. Volume approximately center.		**L1,L2 L 3,L4 L5 L6 L 7**	Adjust for maximum audio output & minimum distortion on the distortion meter.
3.	**RX Sensitivity** Same as above step 1 and 3. **(a)** Set the S.G. on 27.185MHz with 1KHz, 30% mod. RF output level 1.0uV.		**L1,L2 L 3,L4 L5 L6 L 7**	Adjust for more than 12dB on Sinad meter. Repeat as needed.
	(b) Set RF S.G. output level 0.4uV		**VR2**	Adjust to 2V on the AC voltmeter.
4.	**NB** Set NB/OFF SW to NB. Set the level of S.G. to LOW. Noise generator to on. Adjusted then revert item 1 setup.		**L19**	Turn the volume to obtain 2V reading on AC voltmeter.Adjust for minimum reading on AC voltmeter.
5.	**Squelch** Set Squelch volume to maximum (CW). Set the level of S.G. to 1500uV. Adjusted then revert item 1 setup.		**VR4**	Slowly turn to a position that the audio output waveform at the scope just appears from no output.
6.	**RX Signal Meter Cal** Set the level of S.G. to 100uV. Adjusted then revert item 1 setup.		**VR1**	Adjust for "S-9" reading on signal meter.

PLL Alignment
Equipment required:
A: Oscilloscope (0 - 50MHz)
B: DC voltage meter.

STEP	SETTINGS	CONNECTION	ADJUST	ADJUST FOR
1.	**TX VCO voltage** @ CH40	Connect the DC volt. Meter to the junction point of R59 (lead side) and R60. (TP2)	L15	Adjust to obtain approximely 3.5V ±0.2V reading.
3.	**TP3 OUTPUT** @ TX mode	Connect the oscilloscope to the junction point of R6 (lead side) and JP14. (TP3)	L16	Adjust for maximum output on the oscilloscope.

The Uniden PC68XL which has become the de facto standard for Bare-Rife work has apparently not had the schematics made easily available.
The Cobra 25LTD is basically the identical radio. Some nomenclature is slightly different, but overall layout is almost identical.
In lieu of available Uniden released documentation, the Cobra technical docs here should provide sufficient resources for any troubleshooting and repair needs