

This is MB8734/MB8719 PLL SSB Chassis Trouble-Shooting Chart
Use in correllation with appropriate SAMS, Reference: Radio Shack TRC-450

General: Unit will not turn on: Broken power cable, blown fuse (check cause),
bad pwr sw., defective wires/poor soldering.
No Rx: Defective-RF, Noise Blanker, AGC, PLL ckts. Ant. conn.
No Audio: Bad-mike/conn., Rx pwr source, Rx audio ckt., PLL ckt.,
Ch. Sel. sw., Sq. ckt., PA/CB/MON sw., Ext/Both/Int sw.,
Ext Spkr jack.
No Tx: Bad-mike/conn., Ant. conn., Tx power source, PLL/Carrier
Osc ckts (bad or out of alignment), mike amp/bal. mod in
SSB mode, Tx Amp-(between mixer and final stage).
No Modu: Bad mike/conn., TR20, IC4, mike amp.

Amplification:

No Rx Sound: 1. IC4 pin 9 should be 6VDC approx.
2. Sq. always on-TR14, TR15.
3. Meter deflects - thru IF stages O.K.
No AM-D21, D22, D24, TR13, VR403, TR36, IC4
No SSB, AM-O.K.; ck F ϕ and level TP3-none, ck Xtals,
TR22, TR21, TR20.
No SSB-check Detector, TR13; AF stage, VR403, TR36, IC4.
4. Meter doesn't deflect-TR9, TR10, TR17, TR18, TR42, TR16,
FET1, TR8, D13, D14. Check TP1 F ϕ
for possible PLL being bad.

Noise Blanker In-op: TR1 thru TR8, D1, D2; mis-alignment L1 and L2.

Ch. LED doesn't light: Bad LED segment or contact, all segments TR23.

No Tx: Ck IC5-13.8VDC on Rx, 0VDC on Tx; if not TR37, mike/conn.

Ck IC5-8VDC on Tx; if not Tx B+ line shorted or bad IC.

Ck F ϕ at TP3 for carrier oscillation; if not ck TR22, TR21, TR20,
D26 thru D31, X1 and X2.

Carrier OK, No Tx; ck F ϕ at TP1 against F ϕ Table. If not
the same PLL Ckt defective. OK-ck IC3, IC6,
TR38, TR39, and TR41.

No Tx-SSB mode and no mod. AM mode; Mike amp, ALC/AMC ckts bad,
ck TR31, TR33, TR29, TR28.

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PLL Chip Trouble-shooting:

Should be RF at TP1; if not—check IC1 Pin 1 for 8VDC, if there ck
IC2, L13 open/poor soldering. If not,
ck IC5, L16 open/poor soldering.

Should be 2-5VDC at TP1; if not—1. TP10 should be 1-2V P/P RF,
if not-ck emitter TR24 for 11.3258MHz
(F ϕ depends on Xtal in unit) if there
ck for bad TR23, TR14, L18 or poor
soldering. If not ck for bad Xtal,
Sw. Ckts, TR24.

2. If 1-2V P/P RF at TP10, ck Pins
11-16 of IC2 program logic. If not
ck the Ch. Sw./cable-Program OK-
then chip bad.

Check each Ch's F ϕ at TP1 per Logic Chart: If good, check TP9 for 3.5VDC
when Ch. Selector at Ch. 40. If not
readjust L13...If this all checks out
then PLL Chip is GOOD...