

CUSTOM MODIFICATION

INST 1L20 MOD 139A

PARTS LIST:

BRIEF DESCRIPTION: Band B (scales 2-5) deleted.

<u>Qty.</u>	<u>Part Number</u>	<u>Status</u>	<u>Description</u>
1	034-0134-00	E.C.	Front panel, film 3452, tooling 030-0468-02
1	119-0084-01		Oscillator
1	308-0395-00		Resistor, 300 ohm 10W WW
1	331-0171-00		Dial tape

REBATCH:

1	103-0057-00		Adapter, assy
1	103-0058-00		Adapter, assy
1	119-0063-00		Oscillator
1	119-0064-00		Crystal mixer
1	119-0066-00		Pad attenuator
1	175-0308-00		Cable assy 2"
1	175-0312-00		Cable assy 9"
1	175-0313-00		Cable, assy 3"
1	175-0358-00		Cable assy 1 9/16"
1	179-1047-00		Cable assy
1	262-0761-00		Switch, Band assy
1	331-0166-00		Dial tape
1	333-0924-00		Front panel
1	366-0351-00		Knob, charcoal

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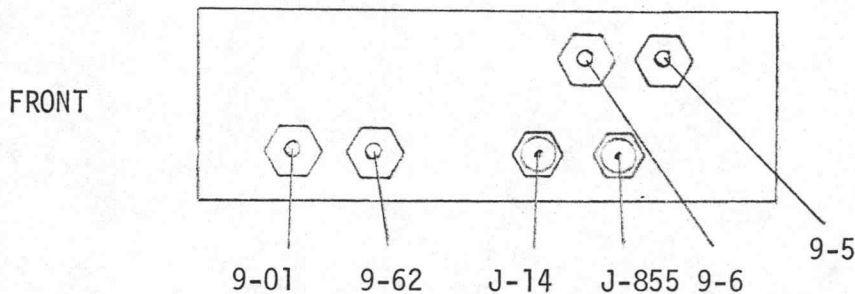
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BUILD PROCEDURE:

1. Remove the band switch and the 9-2 and 9-4 wires with the switch.
2. Remove the mixer peaking pot.
3. Remove the mixer assembly and coax cables.
4. Install the shortest coax cable assembly between J-80 and J-34.
5. Remove the oscillator and then remove the dial assembly from the oscillator and J-855.
6. Remove the oscillator and then remove the dial assembly and tape from the oscillator.
7. Install the dial assembly and the new tape on the new oscillator.
8. Install the oscillator and wire as follows:



9. Replace R49, a 267 ohm 10W resistor with a 300 ohm 10W resistor.
10. Install the new front panel and mod slot.

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This procedure is in reference to the 1L20 manual.

Recommended Equipment (p6,-1) - The Calibrated Frequency RF Generator (item 4) needs only a frequency range of 10MHz to 400MHz.

Calibration Record and Index (p. 6-1) - In Step 2, delete the 10MHz/CM check; In step 6, delete the 10MHz/CM check. In step 13, delete the checks for Bands 2 through 5.

2. Adjust Dispersion Accuracy (p.6-6) - In step a-3, connect the Harmonic Modulator to the RF INPUT connector. In step e, adjust C358 for 1 marker/2 centimeters over the middle eight centimeters of the display. Remove the 10MHz check in Table 6-1.

4. Adjust Resolution (p.6-8) - In step a, connect the Time-Mark Generator to the RF INPUT connector.

5. Adjust Center Frequency of Swept Frequency Oscillator (p.6-10) - In step a, connect the Time-Mark Generator to the RF INPUT connector.

6. Check Range of IF CENTER FREQ Controls (p.6-10) - In step b, connect the Time-Mark Generator to the RF INPUT connector. Delete steps e and f.

8. Check RF CENTER FREQ Calibration and Phase Lock Display (p.6-12) - In step a, connect the Signal Generator to the RF INPUT connector. Delete steps d through f.

9. Adjust Narrow-Band IF Amplifier Peaking (p.6-13) - In step a, connect the Time-Mark Generator to the RF INPUT connector.

10. Adjust Wide-Band Amplifier Circuit (p.6-15) - In step b, connect the Sweep Generator to the RF INPUT connector. In step d, set the Sweep Generator so that it sweeps from 175 MHz to 225 MHz. In step g, adjust L134 and C137 for the best flatness between 175 MHz and 225 MHz.

11. Check Lowpass and Bandpass Filters (p.6-14) - Delete steps b and c.

12. Adjust RF Mixers (p.6-15) - Delete steps d through g.

13. Check Sensitivity and RF Frequency Range (p.6-16) - In step a, connect the Signal Generator to the RF INPUT connector. In step g, check for 80 dBm or less. In Table 6-2, perform only the Band 1 checks.

14. Adjust and Check dynamic Ranges (p.6-17) - In step a, connect the Signal Generator to the RF INPUT connector.

15. Check Display Flatness (p.6-17) - In step a, connect the Signal Generator to the RF INPUT connector. Delete steps i through p.

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16. Check IF Attenuator Accuracy (p.6-18) - In step a, connect the Signal Generator to the RF INPUT connector.

17. Check TO RECORDER Output (p.6-19) - In step a, connect the 1 MHz CAL MARKERS OUT signal to the RF INPUT connector.

19. Check Frequency Response of VIDEO INPUT Circuit (p.6-20) - In step a, connect the Test Oscilloscope to the RF INPUT connector.

20. Check Incidental Frequency Modulation (p.6-21) - in step a, connect the Time-Mark Generator to the RF INPUT connector.

Dial Tracking Procedure (p.6-22) - Delete steps 6 and 7.

Bands 2-5 Local Oscillator Calibration procedure (p.6-23) - Delete

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