TD-3 MICROWAVE RADIO
J68386G AND J68386H TRANSMITTER-RECEIVER BAY
COMMON EQUIPMENT TESTS
J87279A —19 VOLT REGULATOR

Chart 1 contains the procedures for adjusting the high- and low-voltage alarms for the J87279A —19 volt regulator. The procedures in Chart 1 are also used to check the performance of the —19 volt regulator when trouble is experienced in the unit. The unit must satisfy the requirements in Chart 1 to function properly. This section is reissued to add a caution to be observed when working in Hot Standby/Space Diversity bays and to delete the ripple test.

This reissue does not affect the Equipment Test List.

CHART **PAGE**

Caution 1: These tests are performed on an out-of-service basis. Obtain a release from the designated control office and remove the channel from service as directed by local practice.

Caution 2: ▶On Hot Standby/Space Diversity equipped bays, consult Section 411-600-500 for forced switching procedures to remove service from BOTH the transmitter and receiver. Exercise extra caution during the tests since service will be present in some waveguide and IF cabling within this bay.◀

CHART 1

ADJUSTMENT OF HIGH-LOW VOLTAGE ALARM AND —19 VOLTS

APPARATUS:

1—KS-14510 Volt-Ohm-Milliammeter (VOM)

STEP **PROCEDURE**

When adjusting the high-low voltage alarm for a —19 volt regulator, use the HLV alarm identifying lamp as an alarm indicator. The location of these lamps is shown in Fig. 1.

CHART 1 (Cont)

STEP	PROCEDURE

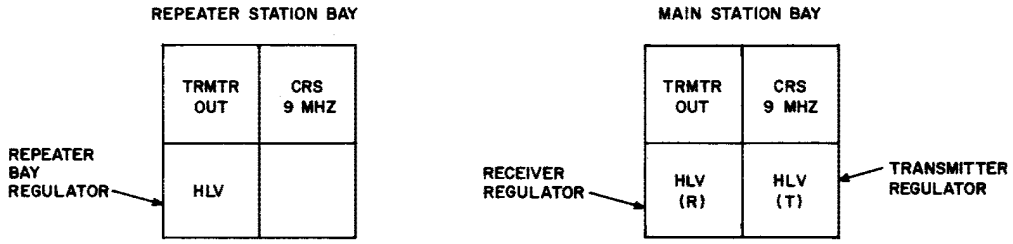

Fig. 1—Alarm Panel Alarm Identifying Lamps

Note: If not already lighted by other bay alarms, the RPTR lamp on a repeater station bay or the RCVR or TRMTR alarm lamps on a main station bay should light when the high-low voltage alarms are activated. If an audible alarm results, disable the alarm by pressing the ACO switch.

1 Observing the proper polarity, connect the VOM, with the range set for 0 to 60 volts dc, to the DC OUTPUT jacks of the voltage regulator.

2 Press the appropriate −19V pushbutton and verify that the panel meter pointer is exactly on 70 (red mark).

3 If the pointer is not on 70, turn the ADJ VOLTS control on the regulator to accomplish this. Turning the ADJ VOLTS control clockwise raises the output voltage; turning the control counterclockwise lowers the output voltage.

4 With the panel meter pointer on the red mark and the VOM connected to the DC OUTPUT jacks, verify that the VOM indicates 19.0 volts. If the VOM does not indicate 19.0 volts, adjust the VOM to 19.0 volts by turning the zero set control located directly below the meter face of the VOM.

5 Slowly turn the ADJ VOLTS control counterclockwise until the appropriate HLV alarm lamp lights. Note the voltage indication on the test meter.

Requirement: The low-voltage alarm shall be energized between 17.6 and 18.2 volts.

6 If this requirement is not met, turn the LV ALM ADJ control on the front of the regulator fully clockwise. Turn the ADJ VOLTS control to obtain an indication of 17.9 volts on the VOM. Slowly turn the LV ADJ control counterclockwise until the HLV alarm lamp lights. The low-voltage alarm is now properly adjusted.

CHART 1 (Cont)

STEP	PROCEDURE
7	Slowly turn the ADJ VOLTS control clockwise until the HLV alarm lamp lights. Note the voltage indication on the test meter. ***Requirement:*** The high-voltage alarm shall be energized between 19.8 and 20.4 volts.
8	If this requirement is not met, turn the HV ALM ADJ control on the front of the regulator fully clockwise. Turn the ADJ VOLTS control to obtain an indication of 20.1 volts on the VOM. Slowly turn the HV ALM ADJ control counterclockwise until the HLV alarm lamp lights. The high-voltage alarm is now properly adjusted.
9	Readjust the ADJ VOLTS control for an indication of −19 volts on the VOM. The panel meter pointer shall be at 70 (red mark) when the −19V pushbutton is operated.
10	Tighten the locknut on the ADJ VOLTS control and check the −19V meter indication again to verify that the adjustment has not been disturbed.
11	If the controls cannot be adjusted to produce the preceding requirements, the −19 volt regulator shall be considered defective and should be replaced with a spare unit.
12	Remove the VOM leads from the DC OUTPUT jacks.