

Engineering Division  
W/OS032:FLP

RADIOSONDE FREQUENCY RECORDER AND ACCESSORIES  
MODIFICATION NOTE 25  
(for Electronics Technicians)

SUBJECT : Improved Current Limiting of the Radiosonde Power Supply and Battery Tester

PURPOSE : Increase the output current capability of the radiosonde power supply and battery tester.

EQUIPMENT AFFECTED : J209 Radiosonde power supply and battery tester, model 1271-400 (single meter) and J208 model 1271-420 (dual meter)

PARTS REQUIRED : 

<u>Qty.</u>	<u>Description</u>
1	2.7-ohm, 5-percent, 1/2-watt resistor

MOD PROCUREMENT : Procure locally

SPECIAL TOOLS AND TEST EQUIPMENT REQUIRED : None

TIME REQUIRED : 1 work hour

EFFECT ON OTHER INSTRUCTIONS : This modification note supersedes Interim Modification Note 25.

CERTIFICATION STATEMENT : This modification was successfully tested by Space Data Corporation (SDC).

General

The 2.7-ohm, 1/2-watt resistor to be installed in the regulator circuit of the Radiosonde Power Supply and Battery Tester will increase the output current capability to 200 mA. This allows the testing of both SDC and VIZ radiosondes before upper air flights.

Procedure

A. Installation

To perform the modification, proceed as follows:

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7-17-89

1. Disconnect the power supply from the AC outlet.
2. Remove the four screws that retain the power supply cover and remove the cover by sliding it towards the back of the power supply. Set the cover aside.
3. Locate R5 a 3.9-ohm resistor (figure 1).
4. Carefully unsolder and remove the 3.9-ohm, 1/2-watt resistor.
5. Install and solder the new 2.7-ohm, 1/2-watt resistor in place.
6. Do not install the power supply cover at this time.

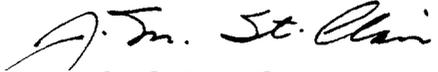
#### R. System Checkout

To verify proper operation, perform the following test:

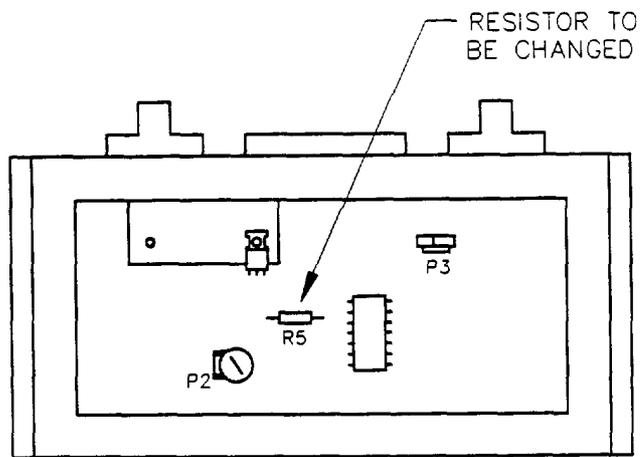
1. Connect the battery and radiosonde cables together.
2. Set the mode switch to TEST/ACTIVATE.
3. Set the meter select switch to BATTERY.
4. Connect a voltmeter to the RADIOSONDE output connector.
5. Connect the power supply to AC power and turn the power supply on.
6. If required, adjust potentiometer P2 for a voltmeter indication of 18.0 +/- 0.2 volts.
7. If required, adjust potentiometer P3 for a panel meter reading of 18.0 volts.
8. Observe the 18-volt panel meter for a test period of 5 minutes. There should be no noticeable decrease in the panel meter reading.
9. Turn AC power off to the power supply and disconnect the voltmeter connected in step 4.
10. Disconnect the power supply from the AC outlet and install the cover removed in step 2 of the installation procedure.
11. This completes the modification, checkout, and calibration of the power supply. The power supply should be connected to AC power and restored to normal operation.

Reporting Modification

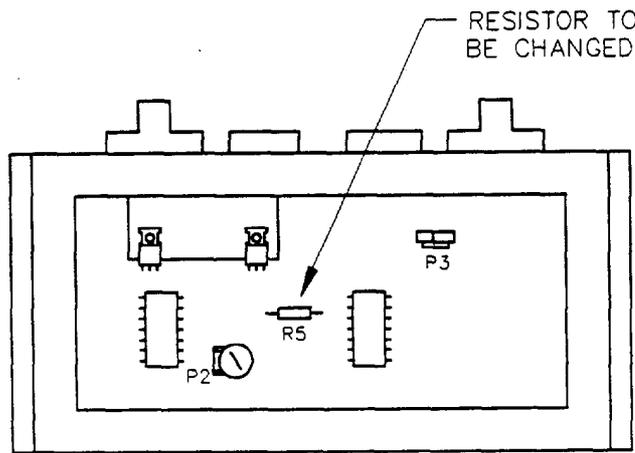
Target date for completion of this modification is 45 days after receipt of this note. Completed modifications shall be reported on WS Form H-28, Engineering Progress Report, according to instructions in EHB-4, part 2, using reporting code TEST.



J. Michael St. Clair  
Chief, Engineering Division



TOP  
MODEL 1271-400



TOP  
MODEL 1271-420

**FIGURE 1**

NOAA NATIONAL WEATHER SERVICE  
CHIEF, MAINT., LOGISTICS & FAC. BR.  
GRAMAX  
RM. 326  
W/OS032  
SILVER SPRING MD 20910