



# SERVICE BULLETIN

154 Bulletin 24-03

ELECTRICAL POWER - Modification - Model <sup>2000</sup>~~42-5~~ AMPS, Battery Charger, Incorporate  
Jumper Wire to Satisfy MOD 2 Requirements

## 1. Planning Information

### A. Effectivity:

- (1) Serial No. All
- (2) Spares Affected: All

### B. Reason:

To reduce battery pack temperature during aircraft operation.

### C. Description:

This service bulletin describes the modification required to incorporate a jumper wire from U5, Pin 13 to anode of CR-23.

### D. Compliance:

Compliance is recommended

This service bulletin can be incorporated by the operator or an authorized repair facility. Units returned to the factory will have this modification incorporated at No-Charge, but will be subject to a \$150.00 Test and Recertification fee.

Units returned to an authorized repair facility, other than the factory, will be subject to that facilities charges.



1. D. If the operator elects to incorporate this modification at their facility, warranty coverage on the unit will not be affected.

Units returned to the factory for incorporation of this modification, test and recertification only will have a turn-around time of 10 days or less.

A limited number of loaner units are available and will be provided to the operator at no charge.

- E. Approval: Not Applicable

- F. Manpower:

An additional 1 hour is required to accomplish this modification when accomplished at the factory level or at a repair facility.

- G. Material - Cost and Availability:

There are no new parts required to accomplish this modification.

- H. Tooling - Price and Availability:

There are no additional special tools required to accomplish this modification.

- I. Weight and Balance:

No Change

- J. Reference:

- (1) The following Operation and Maintenance Manual will need to be reviewed as result of this service bulletin. This will be scheduled during 1995.

Data Identification	Date	Type of Data
24-30-05	May 15/93	Component Maintenance Manual

- (2) Service Bulletins

None.



## 2. Accomplishment Instructions

**CAUTION:** ELECTROSTATIC DISCHARGE (EDS) SENSITIVE IS APPLIED TO LOW POWER SOLID STATE PARTS WHICH COULD BE DAMAGED OR DESTROYED WHEN EXPOSED TO DISCHARGES OF STATIC ELECTRICITY. MAINTENANCE PROCEDURES IDENTIFIED BY THE EDS SYMBOL SHALL HELP TO PREVENT DAMAGE TO OR DESTRUCTION OF EDS PART.

### A. Incorporate MOD 2 for Control Board Assembly P/N 154BS105-1

- (1) Gain access to control board assembly as follows.
  - (a) Remove attaching hardware and cover. Retain hardware for later installation.
  - (b) Disconnect P4 connector from J4 connector (battery pack).
  - (b) Remove attaching hardware and unplug control board assembly. Retain hardware for later installation.
  - (c) Remove control board assembly from the unit.
- (2) Incorporate MOD 2 on control board assembly as follows.
  - (a) Position control board assembly with solder-side up.
  - (b) Locate and cut the trace from U5-Pin 14 to the anode of Diode P/N JANIN4148 (CR23). See Figure 1.

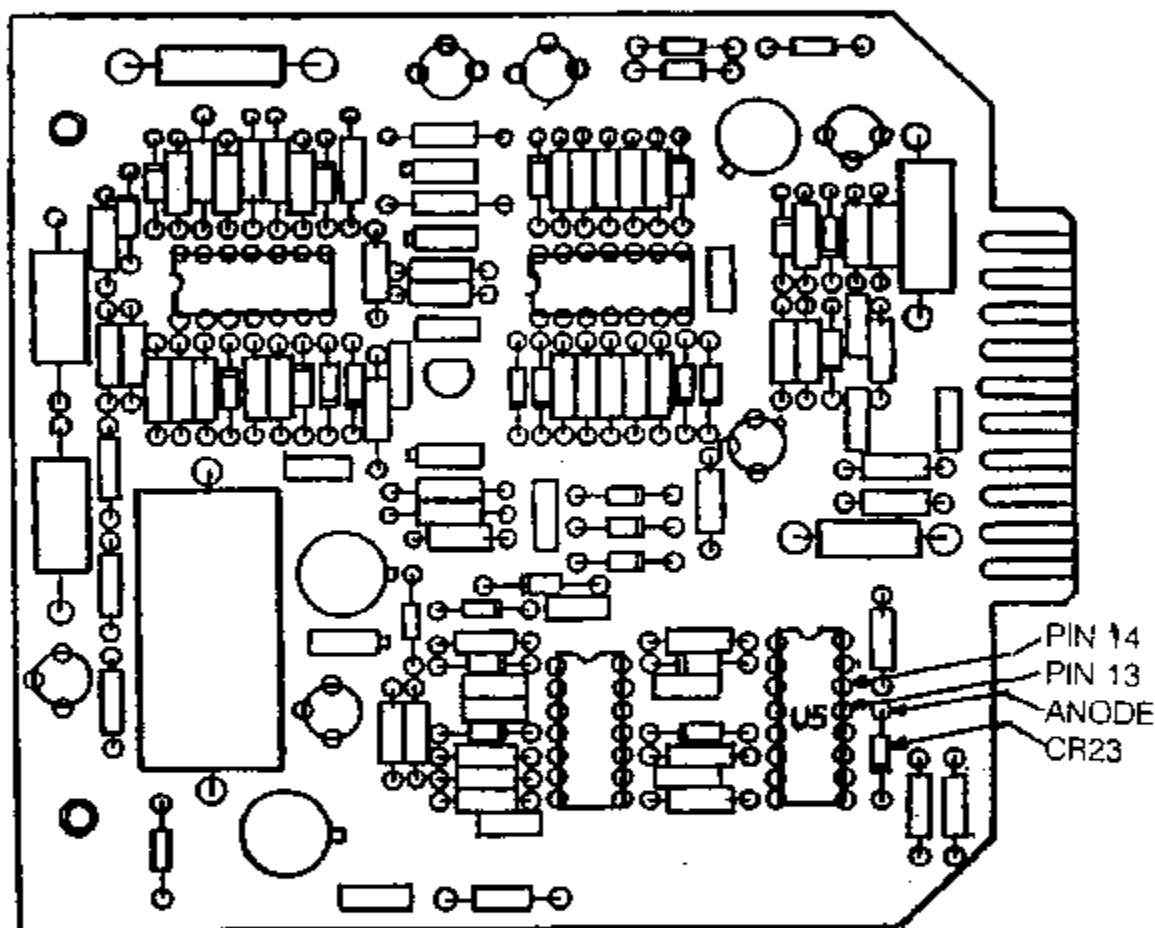
**CAUTION:** USE EXTREME CARE WHEN SOLDERING ON PCB TO PREVENT DAMAGING THE BOARD ASSEMBLY.

- (c) Solder a jumper wire (28 AWG bus wire) from IC (U5) Pin 13 to the anode of Diode (CR23) in accordance with standard shop practices using solder S/N60 and a soldering iron capable of  $750 \pm 100^\circ\text{F}$ .
  - (d) Touch-up conformal coating around reworked area in accordance with standard shop practices.
- (3) Assemble control board assembly as follows.
  - (a) Assemble control board assembly and secure with retain hardware.
  - (b) Install cover and secure with retained hardware.



## 2. B. Reidentify Unit

- (1) Locate MOD label on unit.
- (2) Reidentify unit by marking out MOD 2 on MOD label using indelible ink.



'ELECTROSTATIC DISCHARGE SENSITIVE DEVICE'

COMPONENT-SIDE

Figure 1. Incorporate MOD 3 in Control Board Assembly P/N  
154BS105-1



2. C. Test Unit after Incorporation of MOD 2

(1) Connect unit to a 28 VDC, 15 AMP power supply as follows.

- P1B-5 Positive
- P1B-6 Negative

(2) Turn ON power supply and measure current draw. Unit should draw  $9 \pm 1$  amps.

(3) Observe when current draw on power supply drops to 2 amps (approximately), begin timing.

(4) Allow unit to operate until current draw drops to zero amp (approximately). Stop timing.

(5) Observe measured time. Topping mode time shall be within  $45 \pm 10$  minutes.

D. Accomplish Recertification Test

Accomplish recertification test procedures as specified in the Component Maintenance Manual prior to returning the unit to service.

3. Material

There are no new parts required for this modification.