



SERVICE BULLETIN

22 February 1974

FROM: Amateur Products Management, Cedar Rapids, Iowa 52406

516E-2 24/28-VDC POWER SUPPLY (522-0984-005)

SERVICE BULLETIN NO 1

SUBJECT: Add bleeder resistor to +260-Vdc line to improve safety features of power supply.

This modification is applicable to all 516E-2 24/28-VDC Power Supply units, Collins part number 522-0984-005, with serial number 355 and below. Production cut-in is serial number 356 and above.

The bleeder resistor is added to the +260-Vdc line to improve the safety features of the 516E-2 power supply.

The addition of a 100-kilohm, 2-watt bleeder resistor, R29, in parallel with capacitor C13, will eliminate the danger of a residual charge on the capacitor after the equipment has been turned off. Estimated time to perform this modification is .25 man-hour.

Modification component, carbon resistor, Collins part number 745-5736-000, is available for shipment 30 days after receipt of order at a price of \$0.11 each (price subject to change without notice; minimum order charge is \$25.00). The resistor may be obtained from Collins Radio Company, Service Parts Department, Cedar Rapids, Iowa 52406. All orders should specify the resistor part number and reference the 516E-2 Service Bulletin No 1.

No special tools or equipment are required for this modification.

The operation of the power supply is described in the 516E-2 28-volt Dc POWER SUPPLY Instruction Sheet (523-0704000).

MODIFICATION PROCEDURE

NOTE: Refer to figure 1 for component location and figure 2 for before and after modification schematic diagrams.

- a. Remove two screws on each end of unit holding top shelf in place. Lift top shelf up and fold back on connecting wires.
- b. Locate connection points E16 and E13 (figure 1) on underside of top shelf.



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c. Connect 100-kilohm resistor (745-5736-000) R29 between connection points E13 and E16 on underside of top shelf.

WARNING: High voltage may exist across C13. Take necessary precautions when measuring voltage at connection E16.

d. Testing procedure:

- (1) Turn power supply on and allow it to warm up to normal operating condition.
- (2) Turn power supply off.
- (3) Measure voltage at connection E16 for 0 volt.

e. Mark SB 1 on information chart (280-3778-010) and affix it to convenient location on chassis of the power supply.

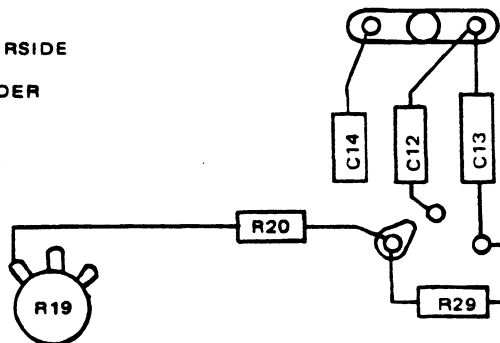
MATERIAL INFORMATION

The part required to modify one 516E-2 24/28-VDC Power Supply is listed below.

<u>NEW COLLINS PART NUMBER</u>	<u>QTY</u>	<u>UNIT PRICE</u>	<u>DESCRIPTION</u>	<u>REPLACED COLLINS PART NUMBER</u>	<u>INSTRUCTIONS -DISPOSITION</u>
745-5736-000	1	\$0.11	Resistor, carbon 100-kilohm $\pm 10\%$, R29		
*280-3778-010	1	\$0.06	Chart, information		

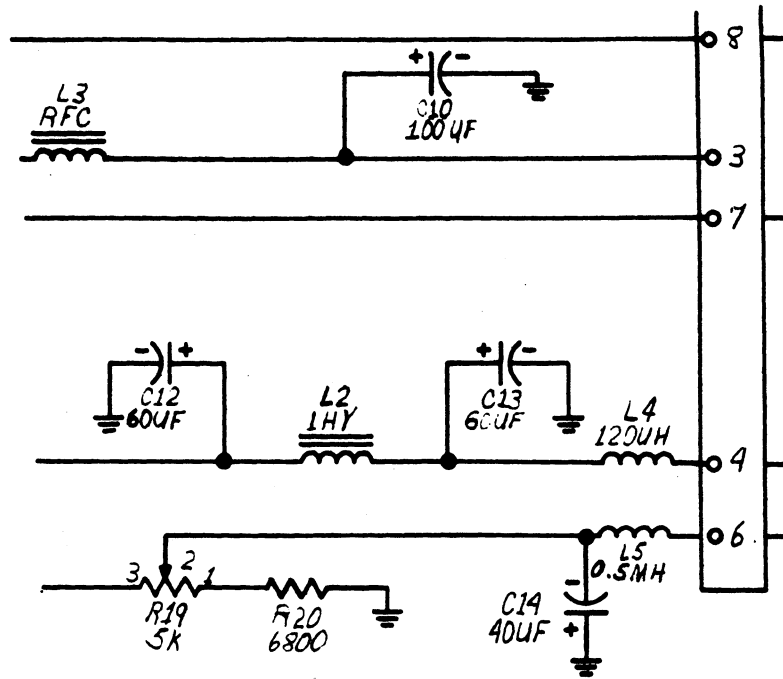
*Not part of kit. To be ordered if desired.

FIGURE 1. PARTIAL VIEW OF UNDERSIDE OF 516E-2 TOP SHELF SHOWING LOCATION FOR ADDITION OF BLEEDER RESISTOR R29.

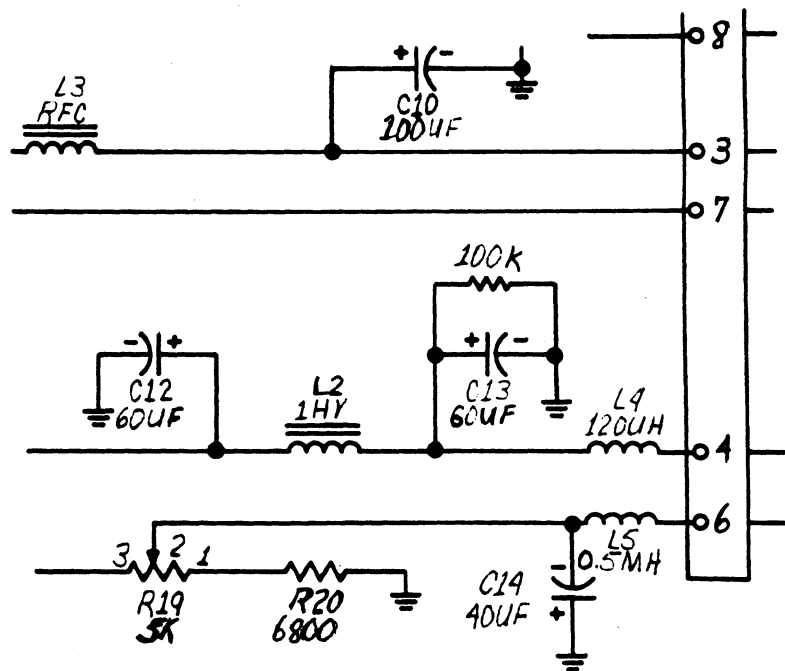




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A. BEFORE MODIFICATION



B. AFTER MODIFICATION