

DC-3 Power Supply Instructions

The R. L. Drake model DC-3 power supply is a self contained power converter which transforms 12 VDC to the voltage necessary to operate our model TR-3 transceiver.

The converter changes the DC input power to square wave A. C. and applies it to a transformer, T1. The transformer output is rectified and filtered to provide 650 volts at 300 ma average, 500 ma peak, 250 volts at 175 ma, and -45 to -65 volts adjustable bias into a 33 K ohm load.

The DC-3 is normally supplied for use in cars with negative ground systems. Do not attempt to use it with positive ground systems or serious damage may result.

CAUTION: THE TRANSISTOR CASES ON THE BOTTOM OF THE POWER SUPPLY DO NOT OPERATE AT GROUND POTENTIAL. CARE SHOULD BE TAKEN THAT THESE TRANSISTORS DO NOT SHORT TO THE CAR FRAME OR DAMAGE TO THE POWER SUPPLY MAY RESULT.

We recommend that the DC-3 be mounted on the passenger side of the firewall. We do not recommend that it be placed in the trunk due to excessive primary lead length or in the engine compartment unless it is protected from water and engine heat.

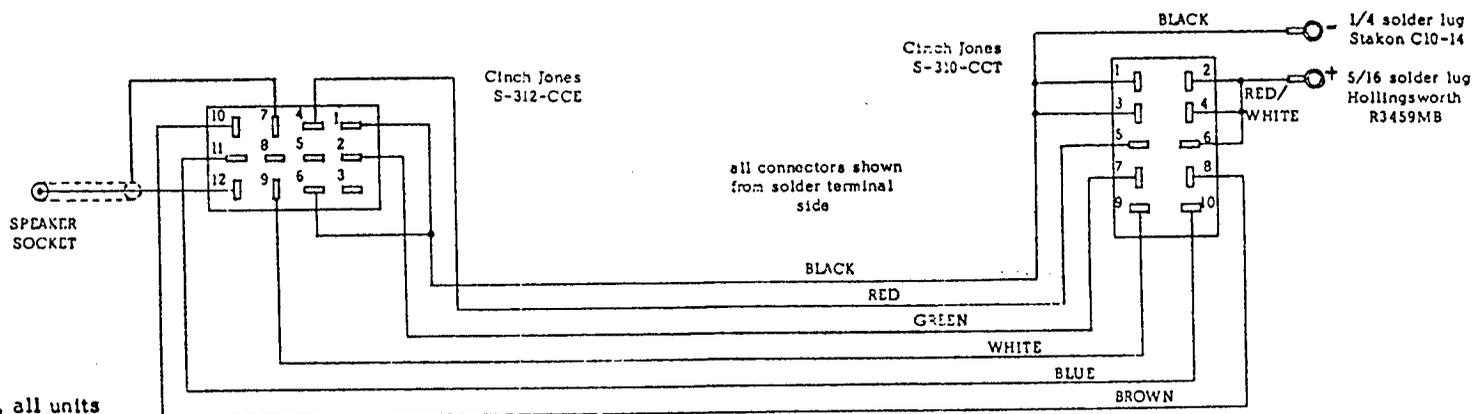
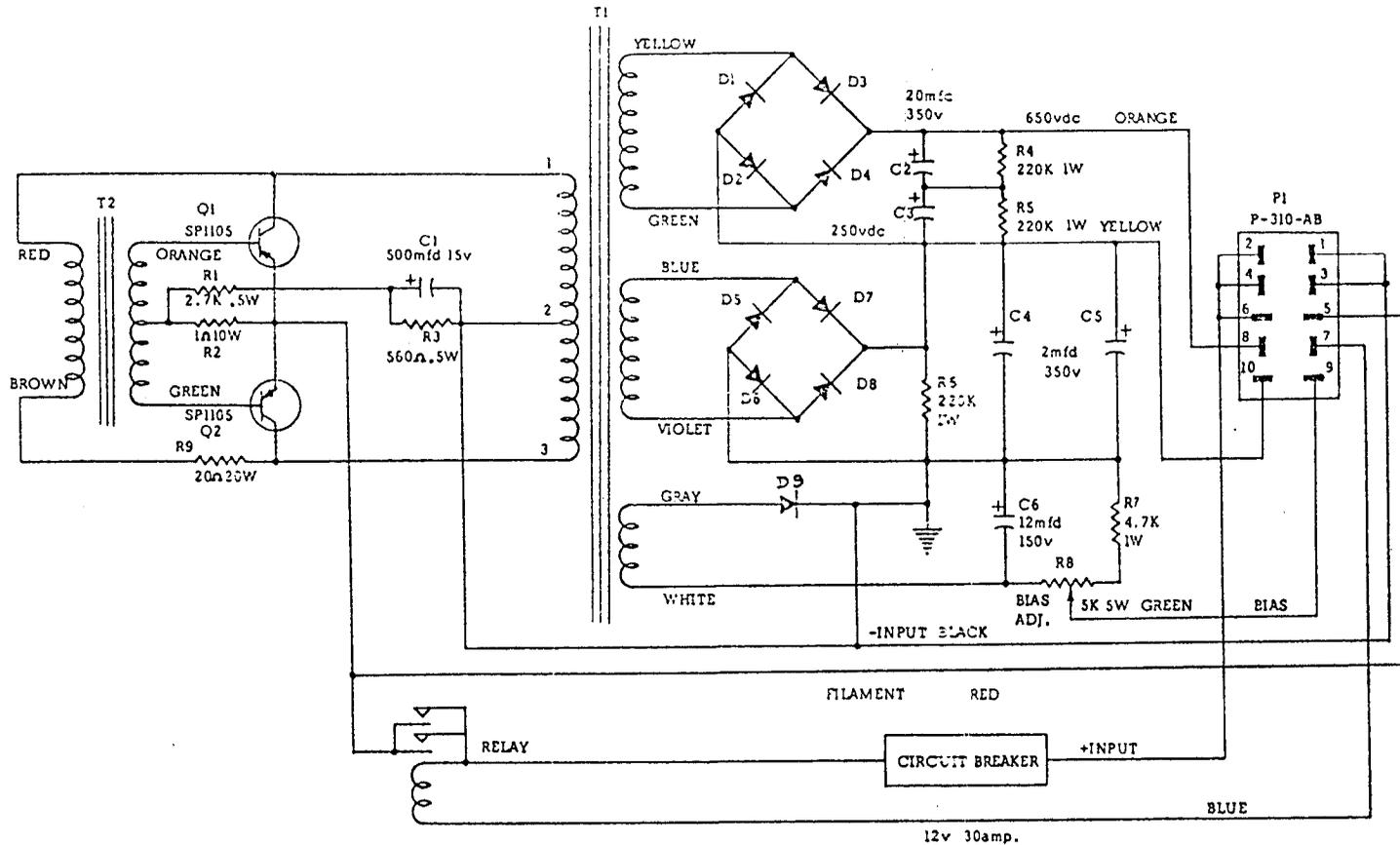
To connect the DC-3, attach the short black wire of the cable assembly to the nearest convenient ground and run the red wire through the firewall to the ungrounded terminal of the battery, or to the "hot" terminal of the starter solenoid. Attach the 10 conductor female connector to the DC-3.

The 12 conductor female connector is then mated to the male socket on the rear of the TR-3 and a speaker is attached to the phone plug on the end of the six inch lead protruding from this connector.

Coil up any excess power cable and tape it in a convenient location. You may need it when you trade cars. The large red and black battery wires should be cut as short as possible to avoid unnecessary voltage drop.

The BIAS ADJ. control, located on the end of the unit just above the cable entrance, should be adjusted as described in the TR-3 instructions under "TUNING PROCEDURE".

The DC-3 is protected with an automatic circuit breaker. In case of overload it will reset automatically after a brief off period. Continuous cycling indicates a short circuit somewhere in the system.



NOTE:
When shipped from our factory, all units
are connected for negative ground systems.

8 feet 6 conductor cable
Belden 3446

Fig. 13

SCHEMATIC DIAGRAM MODEL DC-3 POWER SUPPLY