## SERVICE BULLETIN

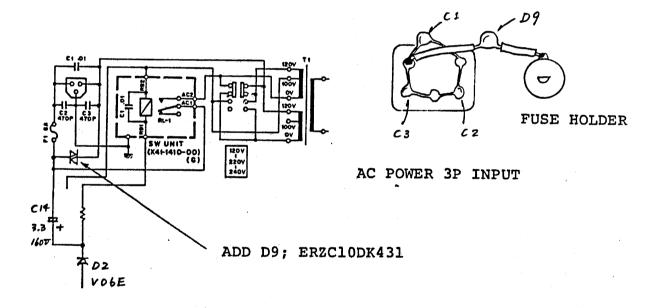
## **AMATEUR RADIO**

SUBJECT
TS-930S POWER SUPPLY SURGE PROTECTION
DATE
10-27-83

A line surge (exceeding approximately 4.5KV) due to static electricity or nearby lightning discharge may short power relay diode, D2 (VØ6E), and cause electrolytic capacitor C14 (3.3 uf) to break down. This results in relay chatter and the relay contacts may finally weld.

Addition of the surge absorber to the primary power supply input circuit, as shown below, should help avoid this type of failure.

NOTE: This symptom has occasionally occurred in those limited areas subject to frequent and violent lightning discharges. A good earth ground and antenna system lightning protection is still strongly recommended.



Note: This change applies to units before S/N 3080301.

CLM/cm