Technical Note TN-648

TOP Eclipse Charging in Vehicle Kit

23 November 2000

Applicability

This technical note applies to a recently discovered fault where an Eclipse radio when placed into a Vehicle Kit will not get charged unless radio is turned on.

This Technical Note only applies to Tait Orca Eclipse Radios

Explanation

The Vehicle kit charger software monitors the radio while it is in the kit and checks for PTT activation. If this is sensed the software will disable charge for the duration of the PTT. To do this the charger software monitors the following lines:
7.5V-ACC: If this line is high, the vehicle kit determines the radio is switched on.
EXT PTT: If this line is low, the vehicle kit determines the radio is in transmit mode.

Up until recently, the Eclipse was manufactured with a BC848 in the location of Q3. With this transistor the 7.5V-ACC line was always high, no matter if the radio was on or off.

In this configuration, and the radio turned off, the vehicle kit will see the 7.5V-ACC line high and EXT PTT line low. This would be recognised as a transmitting radio and charge would be disabled.

This is no longer a problem as a change note was implemented to change Q3 from a BC848 to a BT47K. This transistor changes the 7.5V-ACC line from always being high to only going high when radio is turned on.

All Eclipses manufactured after serial number **14050292** will be fitted with the BT47K.

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Retrofitting Q3

Q3 is located on the top side of the PCB (side closest to chassie) beside the RX-IF shield. It does not require any shield removal to replace so changing it to a BT47K is quite easy.

The IPN for the BT47K is **000-11472-20**.

NB

This Technical Note does not apply to Elans or Excels as the 7.5V-ACC line is controlled by the On/Off rotary switch.

Note to CSOs

Please pass this information to all internal sales and technical staff, and to all dealers.

Issuing authority

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