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RELATED DOCUMENTS:
 C/R 25315
 17-00175

Transceiver fails to power up normally

1. Scope

This Service Bulletin refers to front control transceivers and control heads dispatched since December 1997. This is the second issue of this Service Bulletin in which the range of acceptable regulators has been extended.

The tables below identify the range of equipment and serial numbers likely to be affected.

Table 1: Range of affected transceiver serial numbers

Transceiver type	From Serial Number	To Serial Number
9360F	E1426	E1634
9360-VF	A0269	A0270
9390F	E0274	E0296
9680	E0300	E0349
9780F	B0556	B0632

Table 2: Range of affected control head serial numbers

Control head type	From Serial Number	To Serial Number
9330	D1284	D1312
9366	D1464	D1654
9391	D0155	D0158
9782	A0334	A0395

Any transceiver or control head modified in accordance with Service Bulletin 17-00175 may also be affected.

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2. Symptoms

Previously observed symptoms include:

- transceiver display back lights are on but there are no characters on the display and no functionality
 - transceiver functions normally but takes significantly longer than usual to power up
- Symptoms may only occur under certain conditions such as extremes of temperature.

3. Cause

The problems are caused by the use of non brand-name, generic voltage regulators.

A recent change to the microprocessor reset circuit (refer Service Bulletin 17-00175), has made the use of non brand-name generic regulator types unacceptable.

4. Corrective action

If the symptoms exist in equipment identified in Tables 1 and 2, or in equipment that has been modified retrospectively in accordance with Service Bulletin 17-00175, the voltage regulator should be suspected and changed if necessary.

4.1 Procedure

- Remove the transceiver/control head from the installation.
- If you want to modify a front panel, continue at *Procedure: front panel*.
Otherwise, continue at *Procedure: control head*.

Procedure: front panel

- Remove the two screws securing the bottom cover and remove the cover.
- Disconnect the cable connecting the front panel to the Microprocessor and Audio PCB.
- Remove the four screws securing the front panel to the chassis.
- Withdraw the entire front panel from the chassis.
- Remove the two screws securing the shield covering the front panel PCB.
- Remove the shield.
- Continue at *Procedure: identifying the regulator*.

Procedure: control head

- Remove the two screws securing the back panel and remove the panel.
- Carefully disconnect the control interface cable (P4) and the extension speaker plug (if fitted).

Procedure: identifying the regulator

- ❑ Locate IC11. Refer to Figure 1.

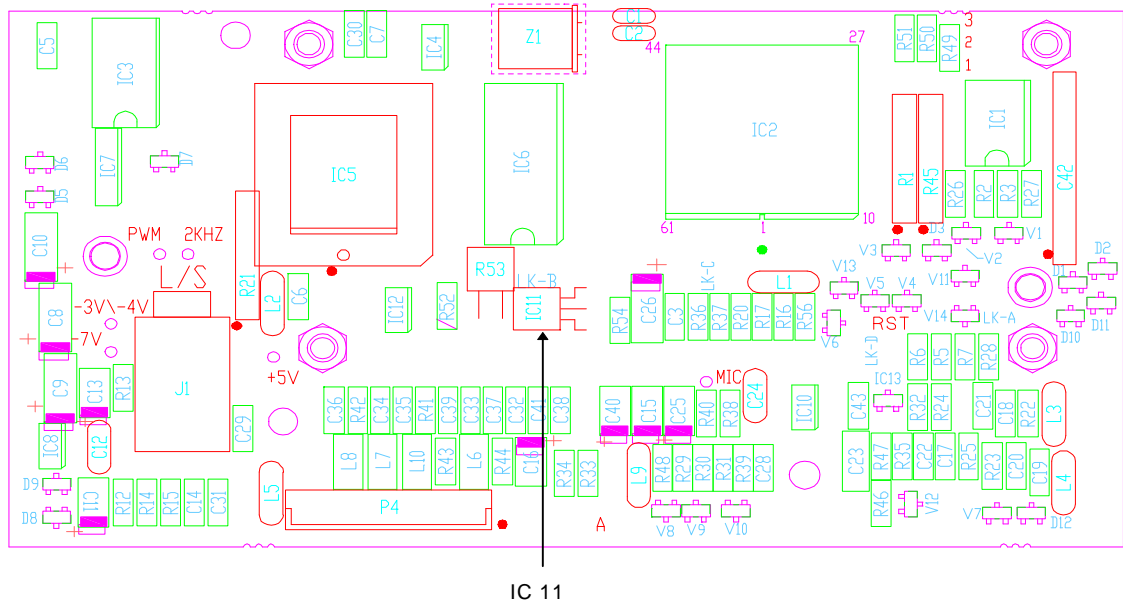


Figure 1: Location of IC11

- ❑ Carefully lift IC11 up off the board so that the identifying markings on its flat side may be read.
- ❑ Check that the regulator has a manufacturer's marking such as a **trademark** or a **name**.
- ❑ If IC11 does not have a manufacturer's trademark or name it will need replacing. Continue at *Procedure: changing the regulator*.
Otherwise, continue at *Reassembly*.

Procedure: changing the regulator

Parts required

- 1 x LM340LAZ-5.0 voltage regulator, Codan part number XB-07805-501

Tools required

- Desoldering tool (or desoldering wick)
- 60/40 Tin/Lead resin core solder
- Soldering iron
- Side cutters
- Small pliers

Note. Since the display module prevents access to Side 1 of the display board, the regulator must be removed and reinstalled from Side 2. This is the uppermost side. It is therefore not necessary to remove the display board from the front panel/control head.



Warning. During the following steps, take great care not to damage the through hole plating.

- ❑ Cut each of the three leads of the regulator as close as possible to the body of the regulator.
- ❑ Using the soldering iron and the pliers, heat each joint and remove the leads from the board.
- ❑ Using the desoldering tool or the desoldering wick, clear the solder from the three holes.
- ❑ Form and trim the leads of the replacement regulator. Refer to Figure 2.

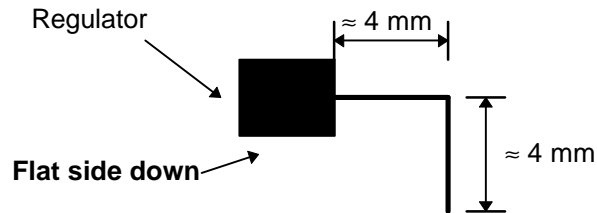


Figure 2: Formation of regulator leads

- ❑ Insert the regulator into the three holes. *Flat side down*. Refer to Figure 1.
- ❑ Solder the three leads into the display board.

Reassembly

- ❑ Reassembly of the front panel is the reverse of the steps in *Procedure: front panel*.
- ❑ Reassembly of the control head is the reverse of the steps in *Procedure: control head*.
- ❑ Reinstall the transceiver/control head to the installation.