

SERVICE BULLETIN : HAN-L6/PCB-087.



SUBJECT : TROUBLE SHOOTING.

INTERFACE CABLE COLOUR DESIGNATIONS.

Pin Number	Colour	Designation
1	Red	+12VDC
2	White	Clock communications
3	Yellow	Data communications
4	Black	-12VDC

This trouble shooting guide is for the HAN-L6 series microprocessor controllers when used with PCB-087. The PCB-087 was introduced in 2005 and has additional features to the earlier PCB-058V2. The PCB-087 is identified by the model on the PCB base near the transformer.

Problem	Cause	Remedy
Wall control will not operate.	<ul style="list-style-type: none"> a) No power to relay board. b) Fuse on relay open circuit. c) Damaged interface cable. d) Bad connection of interface cable. e) Jumper missing from "CSD" pins on PCB-087. 	<ul style="list-style-type: none"> a) Check 240V power supply at relay board at terminals "L" & "N". Note:- The relay board is polarity sensitive. Active must be on "L". b) Check fuse for continuity & replace if open circuit. c) Check with multimeter across the red & black wires at the interface cable at wall control end. Reading should be approx. 12V DC. d) Check cable connection at both ends of cable to ensure a good connection to relay board & wall control. e) Fit jumper bridge to "CSD" pins.
Indoor fan will not run in heat.	<ul style="list-style-type: none"> a) Indoor coil sensor not fitted to plug "CT" on PCB-087 or sensor bulb incorrectly positioned. b) No indoor coil sensor installed. c) Indoor coil sensor plugged on wrong position on main board PCB-087. 	<ul style="list-style-type: none"> a) Fit indoor coil sensor & check for correct position. b) Sensor must be installed or fan will not operate. c) Sensor must be connected to plug "CT" not plug "DDC". Reposition sensor to plug "CT".
Compressor will not run.	<ul style="list-style-type: none"> a) Link Removed. b) Mode Selection is in fan only position. c) Mode selector or temperature adjustment changes have been instigated 4 min. safety delay. d) Delay timer in condenser unit . 	<ul style="list-style-type: none"> a) For 240V control system, the link must be between terminals "Line" & "line". b) Press mode selection tab to cool, auto or heat position. c) Set mode switch to required position, adjust temp. to start cooling or heating. Reset No. 1 dip switch on HAN main board to on. When commissioning of unit is complete, No. 1 dip switch must be set to off (down) for normal operation. d) Check for timer in condenser & wait for time delay period to complete.

Temperature display reads extremely high.	<p>a) Remote sensor connected to plug on wall control (HAN-L6).</p> <p>b) Warm air from wall cavity affecting control reading.</p>	<p>a) If using a remote sensor from the wall control, this sensor becomes the on board sensor (zone one). JP1 jumper must be relocated from the TH1 to the TH1-R position.</p> <p>b) Check temperature of wall cavity behind control. Cover cable hole with duct tape.</p>
Display reads “---” . In Room Temp Display Mode	<p>a) Room sensor on wall control jumper in wrong position.</p> <p>b) Remote sensor installation, damage to remote sensor cable.</p> <p>c) Damaged on board sensor.</p>	<p>a) Move JP1 jumper. Must be installed in the TH1 position.</p> <p>b) Check remote sensor for damage & replace if damaged.</p> <p>c) Check on board sensor for damage. Replace wall control if damaged.</p>
A/C unit will not turn off on heat.	<p>a) Wiring fault.</p>	<p>a) Check that compressor contactor is connected to terminal C1 & not RV N/C on PCB-087.</p>
Compressor will not run on heat	<p>a) Wiring fault.</p> <p>b) Location of remote sensor (if used).</p>	<p>a) Check that compressor contactor is connected to terminal C1 & not RV N/C on PCB-087.</p> <p>b) Check location of remote sensor.</p>
Time Clock programs not working.	<p>a) Incorrect setting of ON/OFF programs.</p> <p>b) Time not advancing.</p>	<p>a) Check that for every “ON” program there is an “OFF” program.</p> <p>b) Check interface cable connections especially data clock terminals. Physical damage may have been inflicted on PCB-087 componentry and may require replacement.</p>
Indoor fan runs continually on heat.	<p>a) Dip Switch SW4 on wall control turned on.</p>	<p>a) For auto fan operation on heat, the dip switch must be in the Off position.</p>
Erratic control function. No heat or no cool function. Fan speeds changing rapidly. Control functions will not work.		<p>Check interface cable between HAN-L6 wall control & PCB in a/c unit. If excess cable length is left in coil, unroll and spread out. Coiled cable will create an electro magnetic field which could corrupt control communications causing erratic operation.</p> <p>Also Do not install interface cable parallel with high voltage cables. Do not run & fasten interface cables to water or other copper pipes which could act as a conductor for electrical interference.</p>
Wall control will operate normally but no outputs operate on main board (PCB-087)	<p>a) No power connected to Line and Neut terminals for Fan & Compressor outputs.</p> <p>b) Bad connection on interface cable</p>	<p>a) Check power available to Line and Neut terminals for Fan & Compressor outputs.</p> <p>b) –12VDC,Data or Clock terminals may not be connected. Check both ends of interface cable.</p>
HAN-L6 wall control flashes “Defrost”	<p>a) Incorrect Dip switch setting on PCB-087 main board. Dip switch 4 in off position.</p>	<p>a) Dip switch 4 must be in the ON position. (UP).</p>
HAN-L6 wall control flashes “De-ice” in Cooling Mode	<p>a) Warm up sensor not fitted.</p> <p>b) Warm up sensor damage or open circuited.</p> <p>c) Correct Operation. This is normal if the sensor detects low suction temperatures in the cooling cycle and switches of the compressor.</p>	<p>a) Fit warm up sensor to “CT” plug</p> <p>b) Check if sensor is open circuit and repair or replace.</p> <p>c) Check unit operation. Return air filter blocked, no air flow, refrigerant charge.</p>