

Local HI Communications Loss - IntelliPak 20-130

Issue:

Local HI Communications Loss - IntelliPak 20-130

Resolution:

UNIT HI COMMUNICATIONS FAILURE CHECK INTERPROCESSOR COMM LINK

This diagnostic means that the unit mounted Human Interface (HI, 1U65) is not communicating with RoofTop Module (RTM, 1U48).

The cause for this can be as follows:

1. Wiring error such as shorted comm link
2. Excessive noise on the comm link
3. Defective HI
4. Defective module other than HI
5. RTM power supply shorted out (VAV unit transducer)

All the modules share a comm link using twisted wire. The J1 connector on each module is the connection point for this comm link. They all connect to a common point on the 1TB9 terminal strip mounted over the RTM. The comm link is polarity sensitive.

Here are the steps for Intellipak Rooftop

Step #1 Wiring Error

Verify proper wiring between HI to 1TB9 and RTM to 1TB9. Refer to unit wiring diagram control box door for wire numbers and connection points. Check for good connections and proper polarity. If no errors are found, proceed to Step 2.

Step #2 Excessive Noise on Comm Link

Electrical noise from Variable Frequency Drives (VFDs) or unit high voltage wiring can cause communication problems.

Turn power off to the unit. Separate the comm link wires from high voltage power wiring (especially VFD wiring) as much as possible. Restore power to unit. If communications are not restored, proceed to Step 3.

Step #3 Defective Human Interface

There is no way to check the Human Interface other than take it to a known good unit and test it. If the HI does not function in a known good unit, replace it. As a note, a defective HI will not prevent the unit from functioning normally in other aspects. So, if the unit is heating and cooling normally, it is a good indication that the HI is defective. If the HI functions in another unit or the unit is not functioning, proceed to Step 4.

Step #4 Module Problems

If the RTM (1U48) does not have 24 VAC, this diagnostic will be generated. Check for 24 VAC at J2 on the RTM. If 24 VAC is not present, check wiring. Refer to unit schematics on the control box door. If 24 VAC is present at J2, continue below.

Module other than RTM issue:

Disconnect unit power. Unplug the J1 and J2 connectors from all modules except the HI and the RTM. Restore power to the unit. If communications are restored, one of the modules has a problem. Plug them back up, one at a time, to find which one is pulling the comm link down. Check that module for wiring errors per the unit schematics. If none are found replace that module. If communications are not restored, continue below.

RTM issue:

Disconnect unit power. Unplug all connectors except J1 and J2 on the RTM. If communications are restored, check module wiring per unit schematics. If the supply pressure transducer wire connected to J5-6 is shorted to ground, the RTM power supply will cause a communication failure. Unplug J5 to see if this is the case. If communications are not restored, replace RTM. If possible verify defective RTM by exchanging with an RTM from another unit. A failed RTM is very unusual.

Notes:

Changes:

Other Question/Problem/Cause Statements:

- Human Interface Communication Loss - IntelliPak 20-130
- Unit HI Communications Failure - IntelliPak 20-130
- Local HI Communications Loss - IntelliPak 20-130
- HI Comm loss - IntelliPak 20-130

Facts:

- Intellipak Rooftop 20-130
- Intellipak I - 20-130 Ton Packaged Rooftop R-22 (S_HF, S_HG)
- Intellipak I - 20-130 Ton Packaged Rooftop R-410A (S_HL, S_HK)

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