

e-Node Basic Troubleshooter

Category of Problem

MANUAL PROCEDURE

RESULT

SYMPTOMS OR CAUSES OF TROUBLE

REMEDY

The technician performs these operations in sequence. Follow the arrows

Look for these results, if OK, take next step. If faulty, see Col. 3 & 4

This column lists probable symptoms or causes of trouble

Many problems can be overcome by checking these items

Power Issues

Plug in AC adapter with both ethernet cable and CS-Bus cable unplugged

Observe >>>
<<<If Flashing Green or Yellow

Does on-board PCB LED next to the 2-pin power connector illuminate?

If OFF?

No power to unit or faulty unit

Check power supply, check polarity. Verify 12v dc is found on + terminal on e-Node (if using a 12v wall wart or similar)

Computer to e-Node Communication Issues (Pilot or File Manager cannot see e-Node)

Plug in Ethernet cable (along with external DC power connected)

Observe >>>

If Right LED indicator shows GREEN, you have Link activity. If LED is blinking, you have communication

Does built-in LEDs on RJ-45 silver connector (jack) on e-Node illuminate?

No link or activity LEDs (no green or flashing yellow jack LEDs)

Bad network cable, bad network switch, bad network switch port

Unit may have static IP address assigned out of subnet (i.e. 192.168.0.1 address on a 192.168.10.x network)

Substitute known good network cable to known good network port. Make sure network port and cable are good by connecting pair to another device and verify operation.

Reset e-Node by carefully removing shroud right of power connector with your fingernail then depress DISC button and hold for 3 sets of on-board LED flashing cycles (off & on) to complete reset, then release

e-Node is discoverable from within Pilot but not all parameters are accessible

Try to rediscover using Pilot application and wait a few more seconds for all data to be accumulated and displayed

Connect laptop running Pilot to network switch using wired connection

Observe>>>

Are you using a wireless connection to your computer where Pilot is running?

If yes

Pilot warns to use a wired connection while commissioning devices. Pilot uses UDP which favors a wired connection to accurately capture all transmitted data.

Connect computer via hardwired connection to same switch to which e-Node is connected and try again

Data connection problems on longer runs of CS-BUS cabling

The CS-BUS is a modified IEE-485 type communication bus. Sometimes when there are external electrical interferences, poor crimps or other factors present which might be causing sporadic bus communication problems, it is advised to provide an EOL termination

Wire a 120ohm resistor to pins 3 and 4 on the very end of the CS-Bus typically at the opposite end from where the e-Node is located (opposite end of bus from e-Node)

Cannot set static IP address

Launch embedded web-page of e-Node (web Pilot). Select Ethernet tab and set Static_IP address, Gateway_ADD (address) and select DHCP Disable

Select Restart button and observe

e-Node should be re-discoverable using uPnP within Windows File Explorer (See Network Tab/Other Devices) or Pilot application to Discover

Unit did not adopt static IP addresses programmed

Static IP selected may be already reserved for alternative device

Select Restart within Pilot application or e-Node webpage to allow unit to reboot

Perform a network scan without e-Node powered on to see if address is available

Firmware Upgrade Issues

Launch Web application for e-Node and discover devices using uPnP (Network Discovery) and select Menu/Version_FW tab select Upgrade icon

Observe>>>

Does Firmware Update Notification box indicate "Authentic failed"

e-Node may not have Gateway Address set correctly, or 3rd party automation system may be polling device

Correct Gateway Address, disable 3rd party automation system that might be polling device

Problems not identified above or for more troubleshooting

Consult Firmware Release Notes

e-Node MKIII

http://www.convergencesystems.com/software/enode/release_notes.php