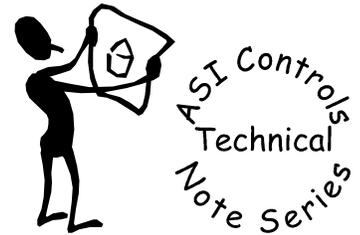


# Troubleshooting ASIC/1 Communications

Affects: ASIC/1 controllers

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Note No. TE020

Problems communicating with ASIC/1 controllers can usually be attributed to one (or more) of five areas:

1. Software not configured to use the correct serial port
2. Incorrect RS-232 cable attached to the serial port
3. Trouble with the RS-485 bus
4. Blown Pico-fuse
5. Blown RS-485 Chip

## Software and RS-232 Cable

One way to test the software and cable is to connect the PC to a SINC/1-1030 with a serial cable. It is not necessary to connect the SINC/1-1030 to an ASIC/1 controller for this test. Start ASI Expert and click Find It. The Local LED should turn off and the red Tx LED should blink as ASI Expert attempts to find a controller. If the SINC/1-1030 is running on battery power, then the Test button must be pressed to see the LEDs blink.

If the red Tx LED does not blink, then either the software is not configured to use the correct serial port, or an improper serial cable is attached to the serial COM port. A straight-through serial cable is required to connect the PC to the SINC/1-1030.

## Check the Software

You should first then check your software to make sure that the software is set with the correct COM port, baud rate and stop bits settings. These settings can be found by clicking Options | System Options in ASI Expert. Typical settings are COM1 or COM2, 9600 or 19200 baud, and 2 stop bits. When directly connected to an ASIC/1 controller, 2 stop bits must always be used. The software generates a warning message if another application is using the designated COM port. The Multi-baud Enable box may be checked if baud rate is not known. If the red Tx LED does blink, then the software and serial cable are working correctly.

## Check the Cable

The RS-232 cable can be tested with a multi-meter by testing for continuity (or resistance) between pin 2 at each end of the cable (see drawing).



If the multi-meter shows that the pins are linked, then the cable should be fine. If the pins are not linked then you may have a NULL Modem cable. Try another cable

### ***Communicate with ASIC/1***

To communicate with the ASIC/1 controller connect the SINC/1-1030 to the wall sensor of the ASIC/1 controller. Make sure that the end of the curly cable with the jumper is plugged into the wall sensor. This jumper provides an interlock to specifically identify the controller.

In ASI Expert Software Click on Options | System Options and check the Multi-baud Enable and 2 Stop Bits boxes, if they are not already checked. In the ASI Expert Find It dialog select ASIC/1, then click Find It, leaving the address field blank. ASI Expert will then search all baud rates for an ASIC/1 controller. The LED on the SINC/1-1030 will blink as it tries.

If the controller is not found at any baud rate, remove the RS-485 remote network connector, TB4, located below the wall sensor connector and click Find It again. If the controller is found with the connector removed, then either there is another controller on the network that is causing the problem, or there are problems with the network wiring.

### ***Check Pico-fuses***

If the controller is still not found, then check the pico-fuses, identified as R5 and R6 for continuity. They are located at the edge of the board near the 24Vac power terminals. Replace any blown fuse with a 1/8 amp fast blow pico-fuse (ASI Part Number PFK-125). Another way to check the pico-fuses is to disconnect the SINC/1-1030 from the wall sensor, remove the RS-485 remote network connector, TB4, and then measure DC voltage at the + and – communication terminals, referenced to ground. If there is 0 VDC between ground and +, then R5 is blown; 0 VDC between ground and – indicates that R6 is blown.

### ***RS-485 Chip***

If the pico-fuses are not damaged, then replace the RS-485 communications chip, identified as U2 above the wall sensor connector, with one from a controller that is known to communicate properly. Be sure to turn off power to the controller when removing or installing this chip. Also be sure to install the chip at U2 correctly so that the circle identifying pin 1 is in the upper left hand corner when the controller is viewed with the transformer at the top. If replacing U2 fixes the communication problem, contact ASI Controls for a replacement chip.

### ***For Further Assistance***

If you still are unable to communicate with the ASIC/1 controller after following the above instructions, contact ASI Controls for further assistance.