Applying New System Interface Devices

Affects: SINC/3-3000 and ASI-C/R Date: August 30, 1999



Note No. TE017

We have introduced two new System Interface devices, the ASI Converter/Repeater (ASI-C/R) and SINC/3-3000 Multiport System Interface that replace the functionality of the SINC/2-2000 and add new features. This note describes the proper methods of applying each device into your ASI Controls network.

DO's of the ASI Converter/Repeater

The ASI-C/R is a simple device that performs 2 major functions:

- 1. Converts the computer's serial RS-232 standard to the ASI Controls' RS-485 network standard.
- 2. Repeats and amplifies the ASI Controls' RS-485 network standard to allow for an additional 32 devices to be connected on the same communication bus.

The ASI C/R requires no setup. The ASI-C/R simply reads the incoming data and sends it out. As a converter, data entering the RS-232 side at 19200 baud and 2 stop bits will leave as RS-485 19200 baud and 2 stop bits. As a repeater, data entering the RS-485 Repeater side is reproduced on the RS-485 Field side at the same baud rate.

DONT's of the ASI Converter/Repeater

The ASI-C/R is a simple device which does not perform high level functions such as: Time Keeping and Data Buffering.

- 1. The ASI-C/R does not have a clock on board. Therefore it cannot be a time keeper. Use an ASIC/2 or SINC/3-3000 for time related needs.
- 2. The ASI-C/R does not allow for data buffering. Data comes in and goes out at the same baud rate and stop-bit configuration. For example, you cannot connect a 9600 modem to a 19200 network. The baud rates are different and the ASI-C/R cannot restore the stripped stop bit that occurs with modem connections.

The DO's of the SINC/3-3000

Our SINC/3-3000 is being released in phases. On its final release it will act much like an ASIC/2 without I/O. When configuring your system, all the same communication rules that apply to an ASIC/2 apply to the SINC/3-3000.

The SINC/3-3000 in its first release can:

1. Convert the computer's serial RS-232 standard to the ASI Controls' RS-485 network standard.

- 2. Be a master time keeper using its on board battery backed real time clock.
- 3. Buffer messages allowing for baud rate buffering and modem access.
- 4. Allow for simultaneous computer (direct) and modem connection to the network. The SINC/3-3000 has 2 DB-9 connectors for both Modem DTE and Direct DCE connection.
- 5. Only the system bus is active

The SINC/3-3000 in its **second** release can:

- 1. Dial out alarms.
- 2. Poll and broadcast on either of two local busses.
- 3. Pass-thru messages from the RS-232 Modem or Direct ports to the system or local busses.
- 4. Participate in remote point sharing.
- 5. Perform other functions such as calculation, logic, and calendar, to name a few.

The SINC/3-3000 in its third release can:

- 1. Perform Notification of events on the ASI Network.
- 2. Dial-out on any new Notification.

The DONT's of the SINC/3-3000

The SINC/3-3000 buffers all messages between busses. Therefore it cannot be used as a simple RS-485 repeater.

Below are two drawings of typical system installations with the two different devices.







Fig. 2 - Uses SINC/3-3000 to allow for simultaneous Direct and Modem connection. SINC/3 is also used to poll/broadcast from/to local bus devices and perform time keeping. ASI-C/R is used to increase number of devices on local bus.