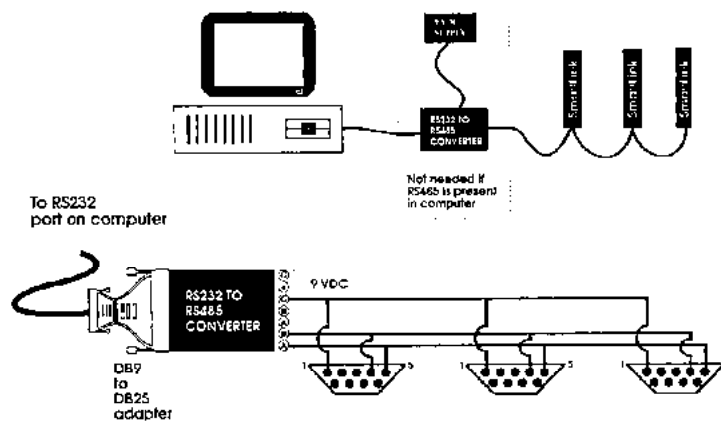# FAQ 7 — RS485 Overview

Configuring SmartLink™ Systems With RS485 Communication

The following figure shows how to create a network of individually-addressable SmartLink™ instruments.

Each SmartLink™ on an RS485 network must be configured by the user to have its own unique address. The default address (from the factory) of every SmartLink is 0. If any two or more SmartLink™ instruments on the network have the same address, they won't communicate properly! This situation might bring down the network. There are two ways to avoid this problem.

1. Configure each SmartLink as you add it to the network.

Connect the first SmartLink™ (power and communications) to the network and set its address to any printable ASCII character. Record the address so you won't duplicate it later. Connect the next SmartLink™, set its address to a different string. Continue adding instruments in this fashion until all are connect with unique addresses.

To set an address through the **RS485 port**, type the following command (choose appropriate values for your network):

(0):config:comm:rs485 9600 cr string

where: (0)=current address (0 is default),
9600 = Baud rate,
cr = EOL,
string = new address (any printable ASCII character)

2. Configure each SmartLink through the local port.

To configure an address through a local port, type the following command (choose appropriate values for your network).

:config:comm:rs485 9600 cr string

where: (0)=current address (0 is default),
9600 = Baud rate,
cr = EOL,
string = new address (any printable ASCII character)

Make sure to issue the *sav and the :system:posetup saved command, so that each SmartLink will use the new address the next time it is powered up (see *FAQ 8- Saving Configurations and Power-on Setups and FAQ9- Saving Communication Addresses*).