

Using the Device ID Feature

Actuators are shipped from the factory in the RS-232 mode, with the ID feature disabled. When an ID is set, the actuator responds only to commands which begin with the correct ID prefix, and its transmit output is disabled when not in use. This allows up to 10 actuators to be controlled from one computer RS-232 port. A single command can be broadcast to all actuators by using an asterisk (*) as the command prefix. NOTE: Any broadcast command which elicits a response from the serial port (such as *VR or *ID) will elicit a combined and unintelligible response.

For permanent multidrop applications, the RS-485 mode (page 6) is the preferred solution. However, just as RS-232 control requires the host to have an RS-232 serial port, the PC host or control system must have an RS-485 port to communicate with the actuator in the RS-485 mode. Plug-in PCI cards with RS-485 ports or adaptors that change an RS-232 signal to an RS-485 signal are available from several common electronic manufacturers. If your computer lacks a serial port, adaptors which convert USB ports to RS-232 or to RS-485 are also readily available.



Caution: When installing or replacing actuators on a shared serial port, make sure that no two devices have been set to the same ID number.

1. Remove all of the actuators from the serial daisy chain except the one for which you are setting the ID.
2. To *set* an ID, type **IDn**<enter>, where *n* is the new ID, from 0 to 9 or A to Z.
To *change* an ID, type **iIDn**<enter>, where *i* is the current ID and *n* is the new ID.
To *disable* the ID feature, type **iID***<enter>, where *i* is the current ID.

Setting the Operation Mode

This section employs some simple serial commands to complete a basic configuration of the valve/actuator combination. A more advanced discussion of serial control begins in the next section.

Mode 1: Two Position With Stops (factory default)

This is the proper mode for most two position applications. (*Note exceptions in the next section.*) In this mode, the actuator automatically finds the correct positions using a combination of the valve's mechanical stops and the actuator's quadrature encoder.

To set up the actuator in this mode:

1. Make sure that the valve is mounted on the actuator with the stop pin all the way against the Position A stop. You can check by loosening the clamp ring and turning the valve counterclockwise by hand, then tightening the clamp ring. (For orientation, refer to the **Figure 8** at the bottom of the next page.) If it will not move, it was already against the stop.
2. Type **AM1**<enter> to set the actuator to Mode 1, Two Position With Stops.
3. Type **LRN**<enter>. The actuator will search for the valve stops, "learning" and recording the locations. When the process is completed, the valve is set to position A.