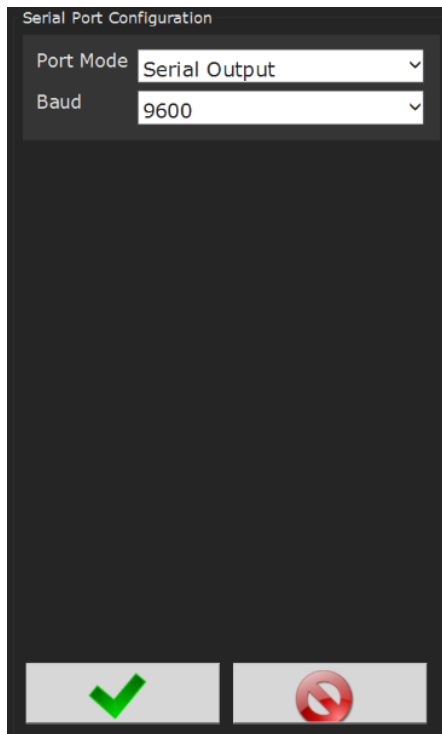




Using an AIMCO Gen IV Controller with Serial Port

Using the Touch Screen or System Port, navigate to Controller→Communication Interfaces→Serial

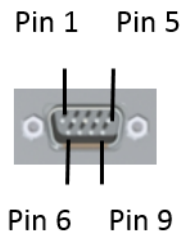
Serial



- **Port Mode:** The following modes are available.
 - **Serial Output:** A serial data string will be Output in the following format after each rundown:
 - # P 1 BB TTT.T AAAA 0000 0000 J
(Notice the decimal point next to the least significant T)
 - P: Parameter set ("1" – "9") for PSets 1-9, ("A" – "W") for PSets 10-32.
 - B: Job count
 - T: Torque result
 - A: Angle result
 - J: Judgment (@=overall pass, H=low torque, I (eye)=hi torque, J=low angle, K=hi angle)
 - **Barcode Reader:** (See Section 5.0 for Barcode setup)
 - **Serial Output and Barcode Reader.**
 - **Open Protocol:** (See 4.5.4.1 for details on Open Protocol)
- **Baud:** Serial ports can be configured for different baud rates available.

Gen IV Serial Port Pin-out

Pin	Signal
1	
2	RX
3	TX
4	DTR
5	GND
6	
7	
8	
9	



GEN4 CONTROLLER SYSREL 2R18_B1 SERIAL OUTPUT STRING FORMAT OPTIONS FEATURE SPECIFICATION

6/29/2018

App version 1.80 or later

OVERVIEW:

This feature provides the selection of the format for the information contained in the ASCII character string packet that is sent out of the controller. The format can be independently configured for the RS232 Serial Port and for Telnet Protocol.

In addition to choosing the string format, there is an option to send a null control character at the end of the string packet.

There is also an option to send an output string if the selected PSet changes. This string contains the previous PSet number and the newly selected PSet number.

USER INTERFACE ADDITIONS:

- New fields added to the following screens for this new feature:
 - Serial Port string format setup: Located on the Controller Configuration->Communication Interfaces->Serial Port Configuration screen.
 - Telnet Protocol string format setup: Located the Controller Configuration->Protocols->Telnet Configuration screen.
- A drop down menu in each of the above screens to provide the selection of the following formats:
 - Standard Output
 - Standard Output with Standard Output with Carriage Return, Line Feed and PSet
 - UEC Serial Modified
 - Profibus Output
 - UEC Serial
- A check box is included to allow the option to add a NULL character to the end of the string packed.
- A check box is included to enable the PSet has changed message to be sent.

STRING FORMAT OPTIONS:

- **Standard Output Format:**
 - O P HHHHH LLLLL TTTT P HHHHH LLLLL AAAAA CR CR NULL*
 - O: Overall Pass/Fail
 - 'P' = Pass, 'F' = Fail
 - P: Torque Pass/Fail
 - 'P' = Pass, 'F' = Fail
 - HHHHH: Torque High Limit
 - Units selected in the PSet X10
 - LLLLL: Torque Low Limit
 - Units selected in the PSet X10
 - TTTT: Torque Result
 - Units selected in the PSet X10
 - P: Angle Pass/Fail
 - 'P' = Pass, 'F' = Fail
 - HHHHH: Angle High Limit
 - Degrees
 - LLLLL: Angle Low Limit
 - Degrees
 - AAAAA: Angle Result
 - Degrees
 - CR: Carriage return control character
 - CR: Carriage return control character
 - NULL*: Null control character (*if option is selected)

- **Standard Output with Carriage Return, Line Feed and PSet Format:**
 - O P HHHHH LLLLL TTTT P HHHHH LLLLL AAAAA 1 CR LF NULL*
 - O: Overall Pass/Fail
 - 'P' = Pass, 'F' = Fail
 - P: Torque Pass/Fail
 - 'P' = Pass, 'F' = Fail
 - HHHHH: Torque High Limit
 - Units selected in the PSet X10
 - LLLLL: Torque Low Limit
 - Units selected in the PSet X10
 - TTTT: Torque Result
 - Units selected in the PSet X10
 - P: Angle Pass/Fail
 - 'P' = Pass, 'F' = Fail
 - HHHHH: Angle High Limit
 - Degrees
 - LLLLL: Angle Low Limit
 - Degrees
 - AAAAA: Angle Result
 - Degrees

- 1: PSet
 - PSet('1' – '9') for PSets 1-9, ('A' – 'Z') for PSets 10-35
 - CR: Carriage return control character
 - LF: Line feed control character
 - NULL*: Null control character (*if option is selected)

- UEC Serial Modified Format (matches some Gen4 earlier versions):
 - # P 1 BB TTT.T AAAA PPPP 0000 J CR NULL*
 - #: Message Start
 - P: PSet
 - PSet('1' – '9') for PSets 1-9, ('A' – 'Z') for PSets 10-35
 - 1: Spindle Number (Always 1)
 - BB: Job Bolt Count
 - Total number of accepts during the Job
 - TTT.T: Torque Result
 - Units selected in the PSet
 - AAAA: Angle Result
 - Degrees
 - PPPP: Pulse Count
 - 0000
 - J: Judgment
 - '@' = Overall Pass, 'H' = Low Torque, 'I' = High Torque, 'J' = Low Angle, 'K' = High Angle, 'G' = Fault During Fastening
 - CR: Carriage return control character
 - NULL*: Null control character (*if option is selected)

- Profibus Output Format:
 - %CAN 1 O P HHHHH LLLLL TTTT P HHHHH LLLLL AAAAA NAC% CR LF NULL*
 - %CAN: Message Start
 - 1: PSet
 - PSet('1' – '9') for PSets 1-9, ('A' – 'Z') for PSets 10-35
 - O: Overall Pass/Fail
 - 'P' = Pass, 'F' = Fail
 - P: Torque Pass/Fail
 - 'P' = Pass, 'F' = Fail
 - HHHHH: Torque High Limit
 - Units selected in the PSet X10
 - LLLLL: Torque Low Limit
 - Units selected in the PSet X10
 - TTTT: Torque Result
 - Units selected in the PSet X10
 - P: Angle Pass/Fail
 - 'P' = Pass, 'F' = Fail
 - HHHHH: Angle High Limit
 - Degrees
 - LLLLL: Angle Low Limit
 - Degrees

- AAAAA: Angle Result
 - Degrees
 - NAC%: Message End
 - CR: Carriage return control character
 - LF: Line feed control character
 - NULL*: Null control character (*if option is selected)

- UEC Serial Format (matches UEC 4800 and Gen3):
 - # 1 P BB TTT.T AAAA PPPP 0000 J CR NULL*
 - #: Message Start
 - 1: Spindle Number (Always 1)
 - P: PSet
 - PSet('1' – '9') for PSets 1-9, ('A' – 'Z') for PSets 10-35
 - BB: Job Bolt Count
 - Total number of accepts during the Job
 - TTT.T: Torque Result
 - Units selected in the PSet
 - AAAA: Angle Result
 - Degrees
 - PPPP: Pulse Count
 - 0000
 - J: Judgment
 - '@' = Overall Pass, 'H' = Low Torque, 'I' = High Torque, 'J' = Low Angle, 'K' = High Angle, 'G' = Fault During Fastening
 - CR: Carriage return control character
 - NULL*: Null control character (*if option is selected)

PSET CHANGED STRING FORMAT:

- PSet Changed String Format:
 - %CAN 8 A NAC% %CAN 4 B NAC% NULL*
 - %CAN: Message Start
 - 8
 - A: Previous PSet
 - PSet('1' – '9') for PSets 1-9, ('A' – 'Z') for PSets 10-35
 - NAC%
 - %CAN
 - 4
 - B: New PSet
 - PSet('1' – '9') for PSets 1-9, ('A' – 'Z') for PSets 10-35
 - NAC%: Message End
 - NULL*: Null control character (*if option is selected)