

ENGINEERING PUBLICATION
MOTION CONTROL DIVISION

PRODUCT: JUSP-NS600

**SUBJECT: PARAMETER
INITIALIZATION USING CN7 (W-
PROTOCOL)**

CATEGORY: Apps. Note
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DISTRIBUTION: MCD

Summary: This document describes how to initialize all JUSP-NS600 Indexer and SGDH- servo amplifier parameters to factory settings via port CN7 (W-protocol). This procedure may be necessary in the situation that serial communications via port CN6 (ASCII protocol) are “locked out.” Serial communications with the Indexer via port CN6 can be “locked out” if the serial communication protocol parameter Pn800 setting is invalid. The default setting for the serial communication parameter Pn800 is 1 (RS422 + Echo Back). With this default setting, either a RS232 or RS422 serial communication interface would work, typical on most personal computers. If Pn800 is set to 2 (RS485 Delimiter CR), then only a RS485 device can communicate with the Indexer via port CN6. A digital operator can be used to change parameters; however, if a digital operator is not available, then the following procedure can be used to reset parameters to factory settings.

To perform a parameter initialization:

1. Connect the YS-12 serial communication cable to port CN7 on the JUSP-NS600 Indexer and to a COM port on the PC.
2. Set the axis address to 0 on the rotary switch of the JUSP-NS600 Indexer.
3. Open Hyperterminal:
 - a. Click on Start-Programs-Accessories-Communications-HyperTerminal.
 - b. Choose a name and click OK.
 - c. Choose the appropriate COM port from the Connection menu and click OK.
 - d. Choose 9600 Bits per Second in the Hyperterminal settings.
 - e. Choose 7 Data Bits in the Hyperterminal settings.
 - f. Choose Even Parity in the Hyperterminal settings.
 - g. Choose 1 Stop Bit in the Hyperterminal settings.
 - h. Choose None for Hardware Control in the Hyperterminal settings and click OK.
4. Enter the following command to set the Indexer into a parameter initialization-operation mode. Initialization cannot be performed during Servo ON.

- Note: 1. Use all capitals.
2. There is no echo back.
3. Answer is returned with a successful command transmission.

Command: W0120001005CA <enter>

Answer: W0120001005CA

5. Enter the following command to start parameter initialization. This will set all parameters in the JUSP-NS600 Indexer and SGDh- servo amplifier to factory settings.
Command: W0120010001DD <enter>
Answer: W0120010001DD
6. Wait 10 seconds for completion of parameter initialization.
7. Enter the following command to set the Indexer into a software reset operation mode:
Command: W0120002005BA <enter>
Answer: W0120002005BA
8. Enter the following command to start the software reset.
Command: W0120010001DD <enter>
Answer: W0120010001DD
9. Wait 8 seconds for completion of the software reset.
10. Verify that the Indexer is in normal operation mode with the following command. Otherwise, cycle control power to the SGDh- servo amplifier.
Command: W0020000000E0 <enter>
Answer: W0020000000E0

All parameters should be reset to factory settings. Reestablish communications with the Indexer via port CN6 (ASCII protocol). The factory serial communication settings are 9600 baud (Pn801=0) and RS422 + Echo Back (Pn800=1).

Additional Information:

To check the setting of parameter Pn800, serial communication protocol:

Command: W0208000000F6 <enter>
Answer: W0208000002F4000x0000

If $x=0$, then Pn800=0=RS422
If $x=1$, then Pn800=1=RS422+Echo Back
If $x=2$, then Pn800=2=RS485 Delimiter CR
If $x=3$, then Pn800=3=RS485 Delimiter CR+Echo Back per Character
If $x=4$, then Pn800=4=RS485 Delimiter CR+Echo Back per Command
If $x=5$, then Pn800=5=RS485 Delimiter CRLF
If $x=6$, then Pn800=6=RS485 Delimiter CRLF+Echo Back per Character
If $x=7$, then Pn800=7=RS485 Delimiter CRLF+Echo Back per Command

To change the setting of parameter Pn800, serial communication protocol:

Command: W0308000000F5 <enter>
Answer: W0308000002F3

Command: 000x0000 <enter> where x is as defined above.

To check the setting of parameter Pn801, baud rate:

Command: W0208010000F5 <enter>
Answer: W0208010002F3000y0000

If $y=0$, then Pn801=0=9600 baud
If $y=1$, then Pn801=1=19200 baud
If $y=2$, then Pn801=2=38400 baud

To change the setting of parameter Pn801, baud rate:

Command: W0308010000F4 <enter>

Answer: W0308010002F2

Command: 000y0000 <enter> where y is as defined above.

Perform a software reset as defined in the procedure above to enable new settings, or cycle control power to the SGDh- servo amplifier.