



# TECHNOTE!

## Fanuc 10/11/12/15

Revised 3/9/2011 RHL

### **CNC Settings**

**Please note! The following information comes from our many years of experience in setting up RS-232 communications with this CNC. However, our experience also has taught us that many times same model CNC's differ from each other. So, please double-check this information in the Operator or Maintenance or Parameter manual that came with your machine.**

1. Put the CNC in MDI mode.
2. Select the Setting(Handy) screen by pressing the Setting button and/or the Setting soft key.

Set TV check to OFF.  
Set Punch code to ISO.

3. To change parameter values, in Setting screen, set Parameter PWE of data No. 8000 to 1. Then go to Parameter screen to input the following parameters.

***(Parameter bits not related to RS-232 communications are represented by an "x" and should not be changed.)***

0000=xxx01010 (ISO/TV check off)  
0020,21,22,23=1,2 or 3 (Depends upon which RS-232 interface is used 1,2 or 3)

If 0020,21,22,23=1 (Connect to RS-232-C interface 1)  
Set 5001=1 (Use parameters 5110, 5111 and 5112 to set interface 1)  
5110=3 (DC codes are used and no feed is punched)  
5111=2 (Number of stop bits)  
5112=11 (9600 baud)

If 0020,21,22,23=2 (Connect to RS-232-C interface 2)  
Set 5002=1 (Use parameters 5110, 5111 and 5112 to set interface 2)  
5110=3 (DC codes are used and no feed is punched)  
5111=2 (Number of stop bits)  
5112=11 (9600 baud)

If 0020,21,22,23=3 (Connect to RS-232-C interface 3)  
Set 5003=1 (Use parameters 5110, 5111 and 5112 to set interface 3)  
5110=3 (DC codes are used and no feed is punched)  
5111=2 (Number of stop bits)  
5112=11 (9600 baud)

**For more information call, Fax, email or visit our web site:**

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**Note! You can choose other values (1-6) for 5001, 5002 and 5003. For example, if you set 5002=2 then use parameters 5120, 5121 and 5122 to setup RS-232-C port 2. See your FANUC CNC manual for details. You can set other values for the other parameters also if you make changes to the DNC parameters to match.**

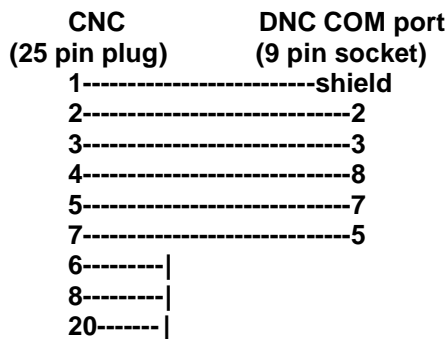
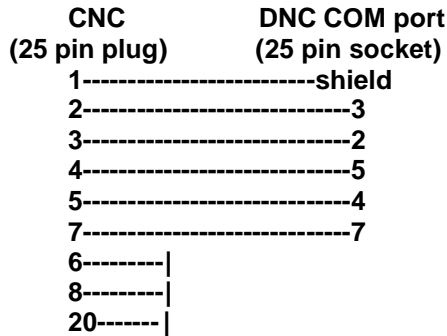
- Return to the Setting screen and set PWE of Data No. 8000 to 0.

### DNC Parameters

- Set the DNC machine properties as follows: The protocol is Generic RS-232, the Data Type is ASCII. Communication settings are 9600, Even, 7 bits, 2 stop bits, Both-No-Wait or Xon/Xoff Wait. If you use the remote command language for requesting files from your CNC control panel see Remote Command Technote.

### Wiring

Use 24 AWG stranded, low capacitance computer cable with an overall shield (foil is fine and easier to work with.)



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### ***Sending a file to the FANUC (DNC to CNC)***

If you are manually queuing files, then at a workstation running SuiteFactory, queue up the file you want to send to the CNC.

Put the CNC in EDIT mode. Turn the key switch to 1.

Use the left extend button below the CRT screen to find the (PROGRAM) soft key. Press (PROGRAM) so that the currently selected part program appears on the screen. Note: if you press (PROGRAM) again a DIRECTORY of part programs will appear.

Use the right extend button below the CRT screen to find the (READ) soft key. Press (READ). If you are going to use the O-number inside the part program you can then select (1-PRGRM) then (NEW). Some controls might require you to press (EXEC) also. READ flashes on the screen and the program will be sent to the CNC.

If you are using Remote Requests then first edit the “dummy” program (O1111 for example). It will have a single line: (GET filename) EOB, where filename is the name of the file stored in the DNC database. Punch that “dummy” file out. Wait about 5 seconds and then follow the instructions in the paragraph just before this one.

### ***Receiving a file from the FANUC (CNC to DNC)***

If you are manually queuing files then at a workstation running SuiteFactory, select or enter the filename you want and click Receive.

If you are using Remote Requests you can simply go to the CNC and punch out the program you want to save. If you have embedded a (SAVE filename) line in your program, the file will be saved with that filename. If there is not embedded SAVE command then the file will be saved and given a date/timestamp name which you can change latter.

Put the CNC in EDIT mode. Turn the key switch to 1.

Use the left extend button below the CRT screen to find the (PROGRAM) soft key. Press (PROGRAM) so that the currently selected part program appears on the screen. Note: if you press (PROGRAM) again a DIRECTORY of part programs will appear.

Use the right extend button below the CRT screen to find the (PUNCH) soft key.

If the program you want to save is the one showing on the screen then just press (PUNCH) (THIS). Some controls might require you to press (EXEC) also.

If you want to save a different program then enter the O-number then press (PUNCH). Some controls might require you to press (EXEC) also.

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