CNC Technical Service

Entot

Serial Communications on Series 0 CNC *M5 20p MHE 5*

I   CNC PARAMETER SETTINGS

- Set the following parameters in the Series 0 for the desired CNC port.
- On the SETTINGS screen, set the following:

TVON   =   0
ISO   =   1
I/O   =   0 (if using port 1), I/O = 2 (if using port 2)
PWE   =   1
TAPEF   =   0

CNC Parameter	Port 1 (M5)	Port 2 (M74)
0002	1xxxxxx1	- -
0050	- - -	1xxxxxx1
0038	01xxxxxx	xx01xxxx
0552	10	- -
0253	- -	10

- - means that this parameter has no effect for this port.

X means that this bit is a "don't care" setting. Either 1 or 0 is OK.

Note: Settings in this table correspond to computer settings of 4800, E, 7, 2
(4800 baud, Even parity, 7 data bits and 2 stop bits)

Hint: Trace the RS-232 cable from the serial port connector back to the CNC
MASTER PCB (0-B) or MEMORY PCB (0-C) to determine if you are connected
to Port 1 or Port 2. Then, label the serial port connection so it is visible from the outside!.

II   PUNCHING CNC PARAMETERS (CNC --> PC)

- Connect the cable to the computer and the serial port on the CNC.
- Set up the computer in accordance with "Using Procomm with GE Fanuc Controls".
- Set up the CNC parameters in accordance with section I.
- Perform the following steps on the PC and CNC as follows:

PC   Power up the computer and type CD\PROC242\DLFILES.
PC   Type ProComm

	Type ....
PC	Press ESC, Alt-C to clear the screen.
PC	With NUMLOCK turned off, press the PgDn key.
PC	Select ASCII for the protocol (no. 7).
PC	Type in the filename you want for CNC Parameters followed by RETURN (With ProComm 2.4.2, you must use a filename that does not exist).
CNC	Go into EDIT mode.
CNC	Press the DGNOS/PARAM, [PARAM], OUTPUT/START keys. (The CNC will flash OUTPUT in the lower right corner of the CRT) (The PC will display the text and count lines until finished.) (In order to also output 900 series parameters, press and hold the EOB key while pressing OUTPUT/START.)
PC	Press ESC to end this procedure. The CNC Parameter file exists in the \PROC242\DLFILES directory with the filename you specified.

III   READING CNC PARAMETERS (PC --> CNC)

- Connect the cable to the computer and the serial port on the CNC.
- Set up the computer in accordance with "Using Procomm with GE Fanuc Controls".
- Set up the CNC parameters in accordance with section I.
- Perform the following steps on the PC and CNC as follows:

PC	Power up computer and type CD\PROC242\DLFILES.
PC	Type ProComm.
CNC	Go into MDI mode (may need to press E-Stop).
CNC	Press the DGNOS/PARAM, [PARAM], INPUT keys. (LSK will flash in the lower right corner of the CRT.)
PC	Press ESC, Alt-C to clear the screen.
PC	With NUMLOCK turned off, press the PgUp key.
PC	Select ASCII for the protocol (no. 7).
PC	Type in the filename that contains the CNC Parameters. (The CNC will flash INPUT in the lower right corner of the CRT.) (The PC will display the text and count lines until finished.)
CNC	Power the CNC off and then on to have the new parameters take effect.

IV   PUNCHING CNC PART PROGRAMS (CNC --> PC)

- Connect the cable to the computer and the serial port on the CNC.
- Set up the computer in accordance with "Using Procomm with GE Fanuc Controls".
- Set up the CNC parameters in accordance with section I.
- Perform the following steps on the PC and CNC as follows:

PC	Power up computer and type CD\PROC242\DLFILES.
PC	Type ProComm.
PC	Press ESC, Alt-C to clear the screen.
PC	With NUMLOCK turned off, press the PgDn key.
PC	Select ASCII for the protocol (no. 7).
PC	Type in the filename you want for Part Programs followed by RETURN. (With ProComm 2.4.2, you must use a filename that does not exist).
CNC	Press CANCEL and RESET simultaneously to eliminate P/S 100 alarm.
CNC	Go into EDIT mode.
CNC	Press the PRGRM, [LIB], Oxxxx, OUTPUT/START. { where xxxx is the desired pgm no.}. (The CNC will flash OUTPUT on the lower portion of the CRT.) (The PC will display the text and count lines until finished.)
PC	Press ESC to end this procedure. The CNC Part Program file exists in the

PC PRESS ESC TO END THIS PROCEDURE. THE CNC PART

PROGRAM FILE EXISTS IN THE

CONT.

~~Press ESC to end this procedure. The CNC Part Program file exists in the~~
\PROC242\DLFILES directory with the filename you input.

V   READING CNC PART PROGRAMS (PC --> CNC)

- Connect the cable to the computer and the serial port on the CNC.
- Set up the computer in accordance with "Using Procomm with GE Fanuc Controls".
- Set up the CNC parameters in accordance with section I.
- Perform the following steps on the PC and CNC as follows:

PC	Power up computer and type CD\PROC242\DLFILES.
PC	Type PROCOMM.
CNC	Press CANCEL and RESET simultaneously to eliminate P/S 100 alarm.
CNC	Go into EDIT mode.
CNC	Press one of the following sequences (based on options): PRGRM, [PRGRM], [I/O], [READ] keys. PRGRM, [PRGRM], [FLOPPY], [READ], 1, INPUT, [EXEC] keys. (LSK will flash in the lower right corner of the CRT).
PC	Press ESC, Alt-C to clear the screen.
PC	With NUMLOCK turned off, press the PgUp key.
PC	Select ASCII for the protocol (no. 7).
PC	Type in a filename that contains the Part Program followed by RETURN. (The CNC will flash READ in the lower portion of the CRT.) (The PC will display the text and count lines until finished.)

VI   PUNCHING PMC PARAMETERS (CNC --> PC)

- Connect the cable to the computer and the serial port on the CNC.
- Set up the computer in accordance with "Using Procomm with GE Fanuc Controls".
- Set up the CNC parameters in accordance with section I.
- Perform the following steps on the PC and CNC as follows:

PC	Power up the computer and type CD\PROC242\DLFILES.
PC	Type PROCOMM.
PC	Press ESC, Alt-C to clear the screen.
PC	With NUMLOCK turned off, press the PgDn key.
PC	Select ASCII for the protocol (no. 7).
PC	Type in the filename you want for PMC Parameters then press RETURN. (With ProComm 2.4.2, you must use a filename that does not exist).
CNC	Go into EDIT mode.
CNC	Press the DGNOS/PARAM, [DGNOS], OUTPUT/START keys. (The CNC will flash OUTPUT on the lower right corner of the CRT.) (The PC will display the text and count lines until finished.)
PC	Press ESC to end this procedure. The PMC Parameter file exists in the \PROC242\DLFILES directory with the filename you specified.

VII   READING PMC PARAMETERS (PC --> CNC)

- Connect the cable to the computer and the serial port on the CNC.
- Set up the computer in accordance with "Using Procomm with GE Fanuc Controls".
- Set up the CNC parameters in accordance with section I.
- Perform the following steps on the PC and CNC as follows:

PC	Power up computer and type CD\PROC242\DLFILES.
PC	Type ProComm.
CNC	Go into EDIT mode.
CNC	Press the DGNOS/PARAM, [DGNOS], INPUT keys. (LSK will flash in the lower right corner of the CRT.)
PC	Press ESC, Alt-C to clear the screen.
PC	With NUMLOCK turned off, press the PgUp key.
PC	Select ASCII for the protocol (no. 7).
PC	Type in the filename that contains the PMC Parameters. (The CNC will flash INPUT in the right corner of the CRT.) (The PC will display the text and count lines until finished.)

VIII   LOADING PARAMETERS AFTER CLEARING MEMORY

After memory clear or memory dump has been performed on the 0 controls, the Option parameters (900 series) must be reloaded by hand in order to enable serial communications. To accomplish this, use the following procedure:

- Depress the ESTOP button.
- Power on, set PWE=1
- Parameter 38.3 =1(full keypad), 38.3=0(standard keypad), Power OFF-ON
- Manually input Parameters 900-919.
- Manually set all I/O parameters according to section I.
- Power OFF-ON
- Select Parameter screen
- Depress EOB & INPUT simultaneously. LSK should flash on bottom right corner of monitor.
- Send parameters from input device per section III.

NOTE: The order of loading files should be: NC Parameters, PMC Parameters and then part programs etc.