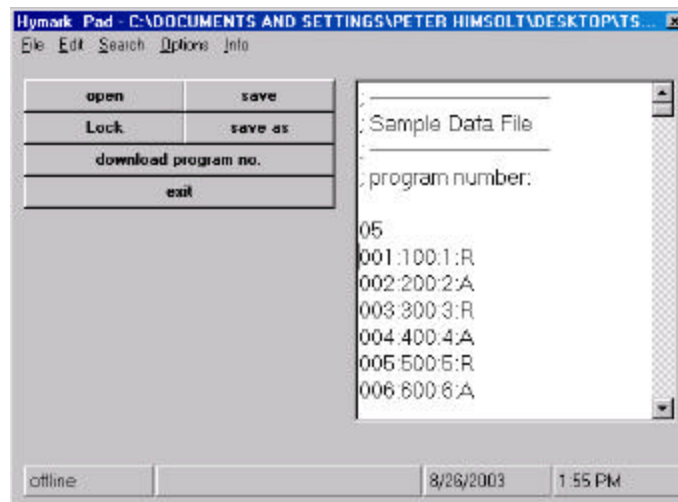




TS312

PC Terminal Software

for Windows 98, ME, 2000 and XP



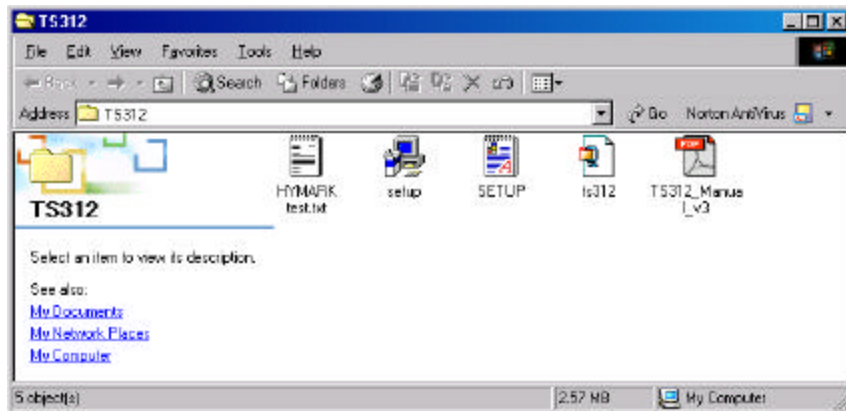
INSTRUCTION MANUAL


Hymark Ltd. – 427 Bark Cove – Owensboro, KY 42303
(270) 683-3500 – Fax (270) 683-2500
www.kentuckygauge.com

1. Getting installed

To install Hymark TS312 terminal software

- Insert Hymark TS312 compact disk into your CD-ROM drive
- Select your CD-Rom drive
- The Hymark TS312 CD contains the following files:

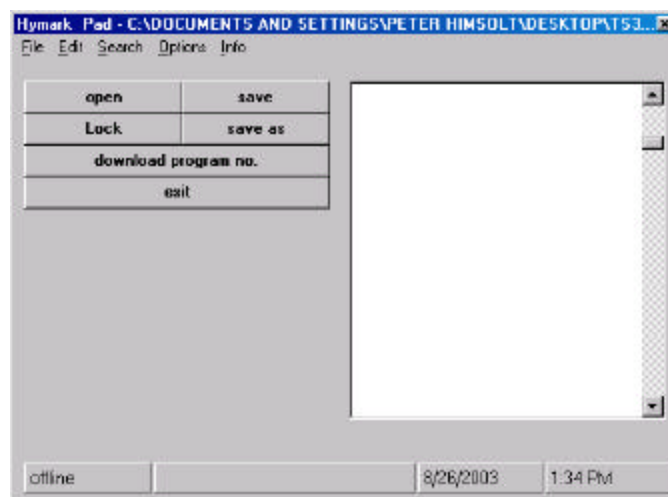


- Double click  and follow the Setup Wizard instructions on your screen
Setup.exe

2. Getting started

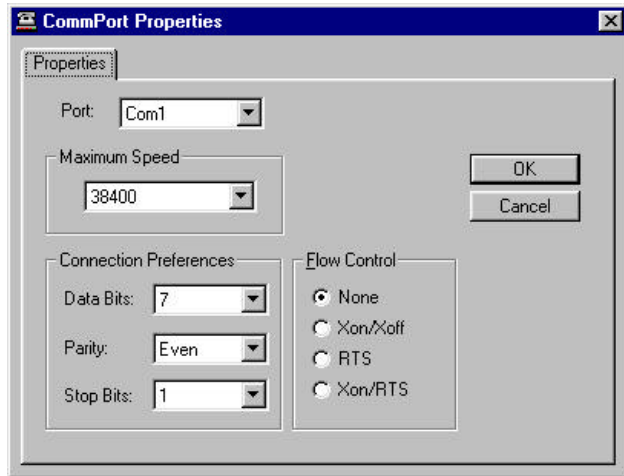
To start Hymark TS312 terminal software

- Click Start, point to **Programs** (or **All Programs**, depending on your operating system), click **hymark ts312** and then click **hymark ts312**
- You should now see the following window:



3. Select port and enter baud rate

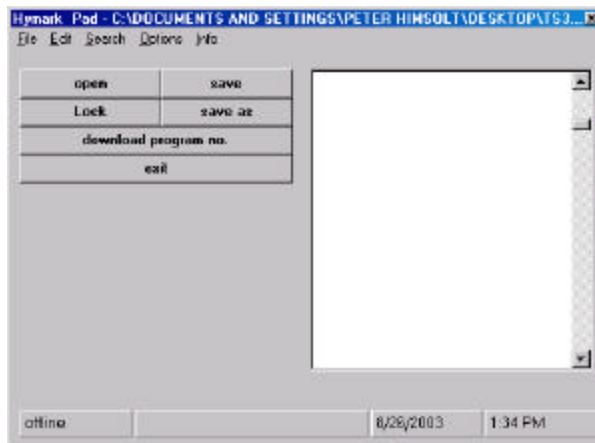
- Click **Options** and point to **Select CommPort:**



- Select your serial port
- Enter baud rate to "Maximum Speed" window
- Available baud rates are: 4800, 9600, 19200, 38400

Note: Baud rate entered here must match Baud rate entered into the parameter AII/P91 of the Hymark position controller (see controller manual)

4. Connect your computer and the Hymark position controller via RS232 cable



The TS312 terminal software is checking every 5 seconds for the serial communication with the position controller. The status of the left window will change to "online" if the serial communication works properly. The next window to the right will then show the "max. program number" to be downloaded as entered in parameter AII/P60 of the positioning controller (see controller manual)

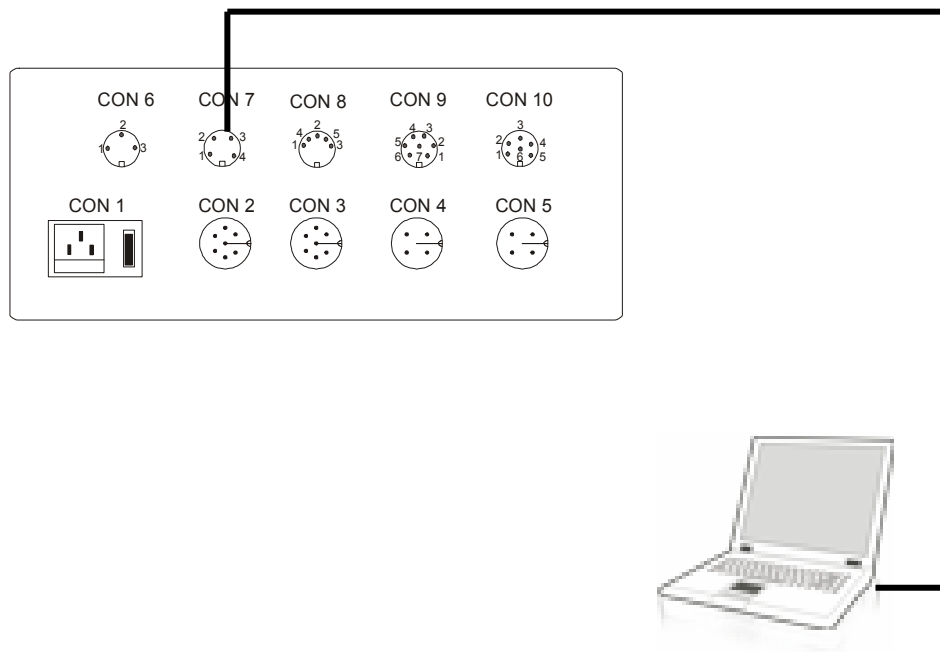
Using a USB to Serial adapter (requires version ts312_V3-5 or later):

If using a USB to Serial adapter, locate the correct comm port. Depending upon your operating system, location of ports may be done in varying manners.

Hints for XP systems:

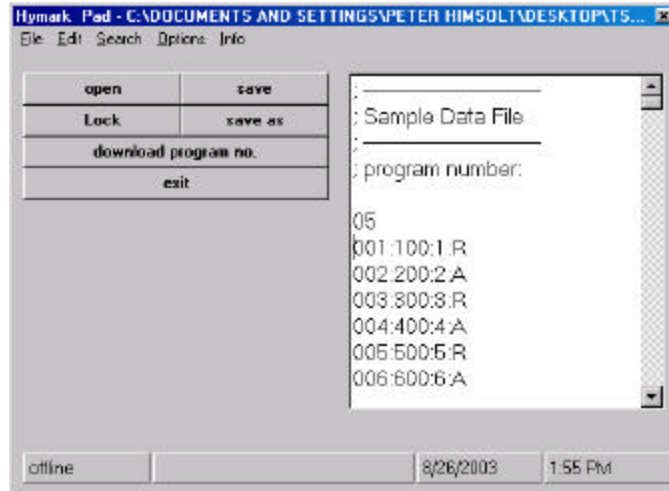
- (Start) Open "Control Panel"
- Open "System Properties"
- Open "Hardware" tab
- Click "Device Manager"
- Expand Ports table (COM & LPT) to view port details

Important for use with version ts312_V3-5: In order to be "online," connectivity must be present between PC / Laptop and the PS312 controller. The PS312 controller must be "on" prior to opening the TS312 software. If changing the comm port, you must close the software after changing the port and then reopen. Again, the PS312 controller must be "on" (and connected to PC / Laptop) prior opening the TS312 software.

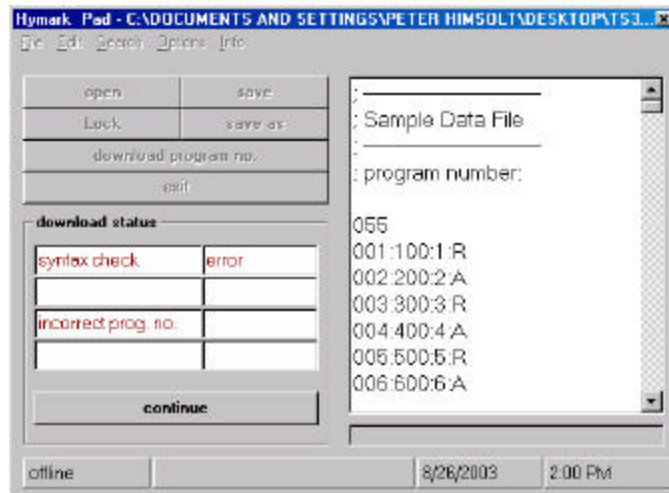


5. Get a text file (*.txt) for download

- Click **unlock** and enter your program into the textbox
- OR
- Click **open** to search and upload an existing text file (*.txt)



- Click **download program no.** to submit the text file to the position controller
- If the syntax of the text file is correct and the serial communication via RS232 is working properly you will get the download status message: "download successful"
- If there is any problem with wrong syntax etc you will get a detailed error message about address line and kind of syntax error



Note: The PS312P Position controller must be in "Single Positioning Mode" to accept program download. Downloading in Program Mode or Manual Mode is not allowed

6. Example Program:

The following is a sample program named "XYZ" and a program number of "25". This program will perform three moves. The first is an absolute move to 100.000 inches. The second is 5 inch relative or incremental move with a quantity of 10. The third is a relative move of 10 inches with a quantity of 2, no tool outputs used.

Program Text file:

```
;Program name : XYZ

; Program number:

25

001:100000:1:A:0 (line 1, 100.000in absolute position, no tool output)
002:5000:10:R:0 (line 2, 5.000in incremental move, 10 times, no tool output)
003:10000:2:R:0 (line 3, 10.000in incremental move, 2 times, no tool output)
004:0:0:A:0 (indicates end of program at address line 003, no tool output)
```

7. Syntax:

a) maximum allowable characters for each address line type:

Program number:	01 to 99	(always 2 digits)
Address line :	001 to 999	(always 3 digits)
Demand value :	0 to 9999999	(1 to 7 digits)
Qty	1 to 999	(1 to 3 digits)
	0 only to indicate end of program	
Status	A (= absolute position); R (= incremental/relative position)	
Tool output:	0 to 15	

b) Programming rules:

- Program number and address line values have to stand alone within text line
- Program number and address line number have to start left aligned
- Program number always has 2 characters starting with 01, 02, 03,...99
- Address line number always has 3 characters starting with 001, 002, 003...999
- Min Qty is "1", Qty = "0" indicates end of program and program will stop at address line before
- Only allowed separator in address line is ":"
- End of program has to be indicated by additional address line with demand value and qty = 0 (zero) and with A status character
- Any text information has to start with left aligned ";" symbol in separate text line
- Blank lines between text, program number and address lines are allowed
- Address line must end with a tool output value (0 to 15), 0 = no tool output

c) Syntax error list and description:

;Program name : XYZ (";" not left aligned)
;Program number: 25 ("25" must stand in separate line, left aligned)
1:100000:1:A:0 ("1" is incorrect address line, correct: "001")
002-5000-10-R:1 ("- " is invalid separator, only ":" is allowed)
003:10000:2000:R:0 ("2000" are 4 characters for qty, ma x. qty = "999")
004:3000:50:0 ("A" or "R" status is missing to define demand value)
004:3000:50:R (":0" is missing at the end to indicate tool output value, correct: 004:3000:50:R:0)
005:0:0 (":A:0" is missing at the end to indicate end of program line 004, correct: 005:0:0:A:0)