Hypertherm Serial Communication

The general setup procedure to establish communication with a Hypertherm power source is as follows:

1) Communication between the myCNC controller and the Hypertherm power source is established through the channel reserved for the operator panel, therefore the connection parameters must be set in the *Panel / Pendant* \rightarrow *Operator Panel* tab:

l 🖈	(12:35:17) myCNC control software. Ver:1.88.4167- [/home/sk/DNC/LIBS/lib-shape-012.nc]	~ (
SYS PLC Repo	rt Info Support Cutchart Config	
CNC Settings	Serial communication	
DXF import settings Macro List	Fnable 💴	
Macro Wizard		
Probing Wizard		
Preferences	_ Serial Speed ↓ 115200 ▼	
Screen		
Work Offsets	Serial Debug	
Parking Coordinates	Load Default Keys #2	
Technology	Load Eco Keys	
 Plasma Cutting 	Send Send	
Plasma Settings		
Iube Cutting	Re-Onen: OK	
Hypertherm Communication	Re-Open: 0K	
Gas/Oxyfuel	Re-Open: OK	
Cutcharts	Import Keys from file	
THC		
Mill/Lathe		
Multi Head		
Laser control		
Tangential Knife		
 Special Purpose 		
Camera	Kay Number Pressed Deleased Shift Slot Darameters	
5 axes RTCP	regranice rescu recused since side	
Wireless Dendent (VUC		
Gamenad		
Hotkeys		
Hardkeys		
Hardware		

2) To establish communication, you must set the check marks for *Hypertherm Serial Interface* and *Host PC to Hypertherm Interface* to ON:

L ×	(12:37:14) myCNC control software. Ver:1.88.4167- [/home/sk/DNC/LIBS/lib-shape-012.nc]	
SYS PLC Report	Info Support Cutchart Config	
CNC Settings	Arcs Cutting Speed (Cutcharts)	
Macro List	Process Current control	
Probing Wizard	Control through DAC	
Preferences Screen	DAC ratio	
Work Offsets Parking Coordinates	Control through PWM	
Perhology Plasma Cutting	PWM ratio	
Plasma Settings	Modbus control	
Hypertherm Diagnostics	Modbus Address 0x25	
Hypertherm Communication	Modbus Register 0x914	
Cutcharts	Modbus Value ON 0	
THC Mill/Lathe	Modbus Value OFF 0	
Multi Head	Modbus ratio 1.0	
Laser control Tangential Knife	Power Source connected to Main Controller	
Special Purpose Camera	Hypertherm Serial Interface 🗾	
5 axes RTCP Panel/Pendant	Host PC to Hypertherm Interface	
Wireless Pendant/XHC	Process Current, Amps 260	
Gamepad	Kerf Compensation method #2	
Hardkeys	Auto Gas Console	
Hardware	Enabled	

- 3) Save your settings and reload the software for the changes to take effect
- 4) At this point, you can check the connection in the Hypertherm Diagnostics window:

When this window is opened, the system requests information from the power source several times per second and, when receiving a response, will display this information in the corresponding fields:

SYS PLC Report	(12:38:37) myCNC control software. Ver:1	.88.4167- [/home/sk/DNC/LIBS/lib-shape-012.	nc] V
CNC Settings DXF import settings Macro Uist Macro Wizard	Power Supply Status Line Voltage Current Setpoint 0 Corner Current Chopper A Chopper B PWM A	Temperatures Chopper A Chopper B Coolant Transformer	Gas Types Plasma Inlet Gas Shield Inlet Gas
Iecnnology Plasma Cutting Plasma Settings Tube Cutting Hypertherm Diagnostics Hypertherm Communication Gas/Oxyfuel Cutcharte	PWM B WorkLead Coolant Flow PS State Code Last Error Codes	Software Revisions Power Supply Rev Gas Console Rev	Gas Pressures (Manual) Plasma Cutflow Plasma Preflow Shield Cutflow Shield Preflow
THC Mill/Lathe Multi Head Laser control Tangential Knife > Special Purpose Camera 5 aves PTCP	Power Supply Statistics Arc On Time System On Time Total Starts Counter Total Start Errors Total Ramp Errors		Gas Pressures (Auto) Plasma Cutflow (Cut Gas #1) Plasma Preflow (Cut Gas #2) Shield Cutflow (Mixed Gas #1) Shield Preflow (Mixed Gas #2)
Panel/Pendant Wireless Pendant/XHC Operator Panel Gamepad Hotkeys Hardkeys Hardkeys Advanced	Test Cutflow ON Test Preflow ON Hypertherm Reply Log	Test Cutflow OFF Test Preflow OFF	

Other test commands can be sent using buttons from the Hypertherm Communication window, with the responses from the power source being printed in the Log window:



In addition, you can manually send commands for test switching on and off gases using the following buttons in the Hypertherm Diagnostics tab:

SYS PLC Rep	ort Info Support Cutchart Confi	a	
CNC Settings DXF Import settings Macro List • Macro Wizard • Probing Wizard • Preferences • Screen Work Offsets Parking Coordinates	Power Supply Status Line Voltage Current Setpoint 0 Corner Current Chopper A Chopper B PWM A	Temperatures Chopper A Chopper B Coolant Transformer	Gas Types Plasma Inlet Gas Shield Inlet Gas
Technology PWN - Plasma Cutting Wor Blasma Settings Coo Tube Cutting Coo Hypertherm Diagnostics Ps s Hypertherm Communication Last Cutcharts Cutcharts THC Pow Mill/Lathe Arc (Multi Head Syst Laser control Syst 5 Special Purpose Tota Camera Tota	PWM B WorkLead Coolant Flow PS State Code Last Error Codes	Software Revisions Power Supply Rev Gas Console Rev	Gas Pressures (Manual) Plasma Cutflow Plasma Preflow Shield Cutflow Shield Preflow
	Power Supply Statistics Arc On Time System On Time Total Starts Counter Total Start Errors Total Dane Force		Gas Pressures (Auto) Plasma Cutflow (Cut Gas #1) Plasma Preflow (Cut Gas #2) Shield Cutflow (Mixed Gas #1) Shield Preflow (Mixed Gas #2)
5 axes RTCP - Panel/Pendant Wireless Pendant/XHC Operator Panel Gamepad Hotkeys Hardkeys - Hardware	Total Ramp Errors	Test Cutflow OFF Test Preflow OFF	

At this point, the Hypertherm setup within myCNC should be complete.

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