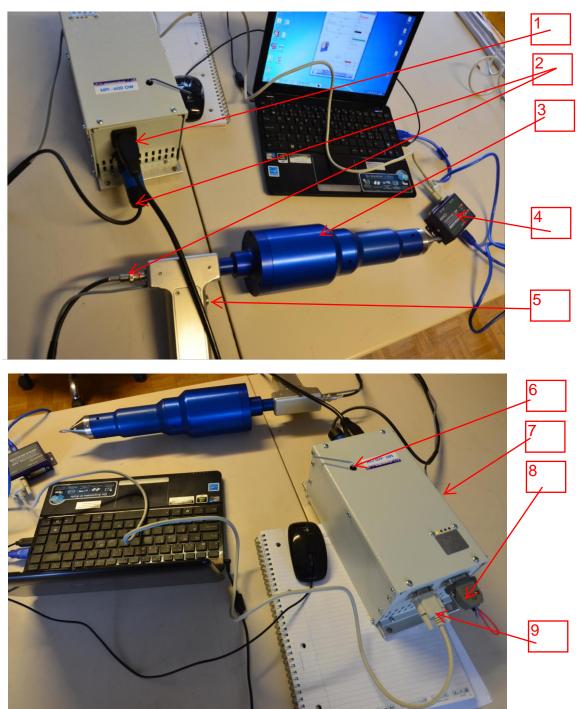
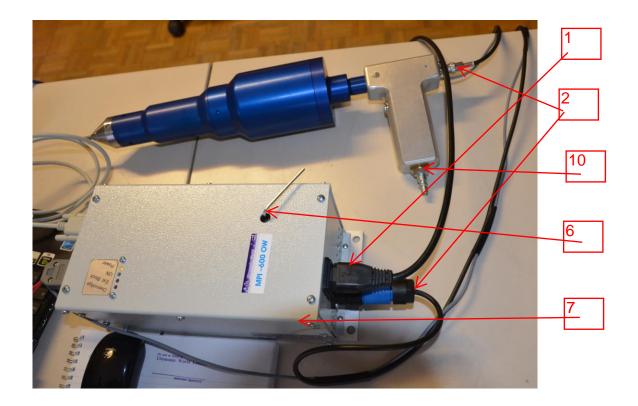
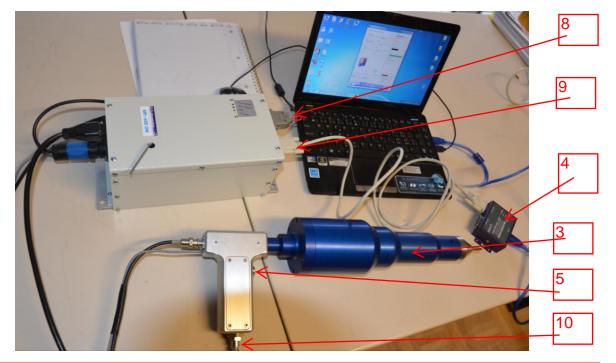
## PEENING TOOL CONNECTIONS AND SETTINGS



- 1 (=) Main supply input 230 Vac, 50/60 Hz and main ON-OFF switch.
- 2 (=) High frequency, high voltage ultrasonic signal output
- 3 (=) Ultrasonic peening tool
- 4 (=) RS485-USB interface
- 5 (=) Manual switch for ultrasonic output, ON OFF control 6 (=) Inductive compensation (mechanical regulation)





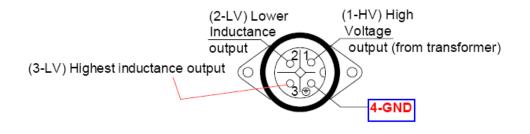
- 7 (=) Ultrasonic generator
  8 (=) Connector for external analog controls (read manual)
  9 (=) Serial Input-Output for RS485 communications
- 10 (=) Air flow inlet for cooling (only for long operating regimes)

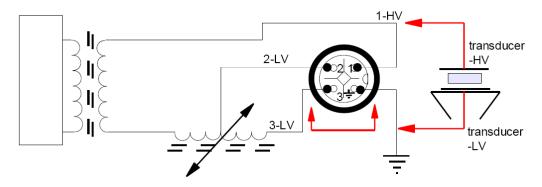
Second State	×		
Control Sweeping Connectors	Phase	KEEP	
		SOFTWARE	
Frequency	510	SETTINGS	
min max		SIMILAR AS ON	
Ultrasonic power	468	THE PICTURES	
2193	Tracking	ON THIS PAGE	
min max Power	15		
65 %	Poti		
min max		In this case best	
	0utput voltage	operating	
		frequency is	
	452	closer to 19 kHz	
THE		Do not increase	
		power to	
Version SR011	on	maximum. Not	
,	Write	necessary	
	Start Read	(acceptable	
COM81 Connect	Stop Exit	between 50% and	
	Municipality of	70%).	
MPIntercon	sulting		
ULTRASONICS - SON	CHEMISTRY -INNOVATION		
S Open frame generator XXXOW	×	Keep fast	
S Open frame generator XXXOW	Phase	sweeping low or	
Control Sweeping Connectors		sweeping low or in the middle	
Control Sweeping Connectors	Phase	sweeping low or in the middle position.	
Control Sweeping Connectors	Phase 511 Curent	sweeping low or in the middle position. Keep Sweeping	
Control Sweeping Connectors	Phase	sweeping low or in the middle position. Keep Sweeping between 10 and	
Control Sweeping Connectors	Phase 511 Curent 265 Tracking	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz.	
Control Sweeping Connectors Fast sweeping Tomman max Sweeping Tomm	Phase 511 Curent 265	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period	
Control Sweeping Connectors	Phase 511 Curent 265 Tracking	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz.	
Control Sweeping Connectors	Phase 511 Curent 265 Tracking 15 Poti	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period always on minimum.	
Control Sweeping Connectors	Phase 511 Curent 265 Tracking 15 Poli	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period always on minimum. Keep PWM ratio	
Control     Sweeping       Fast sweeping     100       min     max       Sweeping     40       min     max       Tracking range     15	Phase 511 Curent 265 Tracking 15 Poti	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period always on minimum. Keep PWM ratio always on 100%.	
Control     Sweeping       Fast sweeping     100	Phase 511 Curent 265 Tracking 15 Poli	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period always on minimum. Keep PWM ratio always on 100%. First, select	
Control       Sweeping         Fast sweeping       100         min       max         Sweeping       40         min       max         Tracking range       15         min       max         PWM period       10 ms         min       max	Phase 511 Curent 265 Tracking 15 Poli	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period always on minimum. Keep PWM ratio always on 100%.	
Control       Sweeping         Fast sweeping       100         min       max         Sweeping       40	Phase 511 Curent 265 Tracking 15 Poti 100 Output voltage	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period always on minimum. Keep PWM ratio always on 100%. First, select	
Control       Sweeping       Connectors         Fast sweeping       100	Phase 511 Curent 265 Tracking 15 Poli	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period always on minimum. Keep PWM ratio always on 100%. First, select proper COM port.	
Control       Sweeping       Connectors         Fast sweeping       100         ''min       max         Sweeping       40         ''min       max         Tracking range       15         ''min       max         PWM period       10 ms         ''min       max         PWM ratio       100 %         ''min       max	Phase 511 Curent 265 Tracking 15 Poli 100 Output voltage 453	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period always on minimum. Keep PWM ratio always on 100%. First, select proper COM port.	
Control Sweeping       Connectors         Fast sweeping       100         min       max         Sweeping       40         min       max         Tracking range       15         min       max         PWM period       10 ms         min       max         PWM ratio       100 %	Phase	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period always on minimum. Keep PWM ratio always on 100%. First, select proper COM port.	
Control Sweeping       Connectors         Fast sweeping       100         min       max         Sweeping       40         min       max         Tracking range       15         min       max         PWM period       10 ms         min       max         PWM ratio       100 %         min       max	Phase 511 Curent 265 Tracking 15 Poti 100 Output voltage 453 on Vrite Start Read Stop Exit	sweeping low or in the middle position. Keep Sweeping between 10 and 50 Hz. Keep PWM period always on minimum. Keep PWM ratio always on 100%. First, select proper COM port.	



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## MPI.600.OW: Output HF connector





Connector Terminal 1-HV is the high voltage ultrasonic signal output from the power ferrite transformer of the generator and must be connected to the Isolated (high voltage) terminal of the transducer (central wire of the coaxial cable).

Connector Terminal 2-LV is the lowest regulating range of inductive compensating coil (first output of inductive compensation).

Connector Terminal 3-LV is the highest (maximal) inductance of inductive compensating coil.

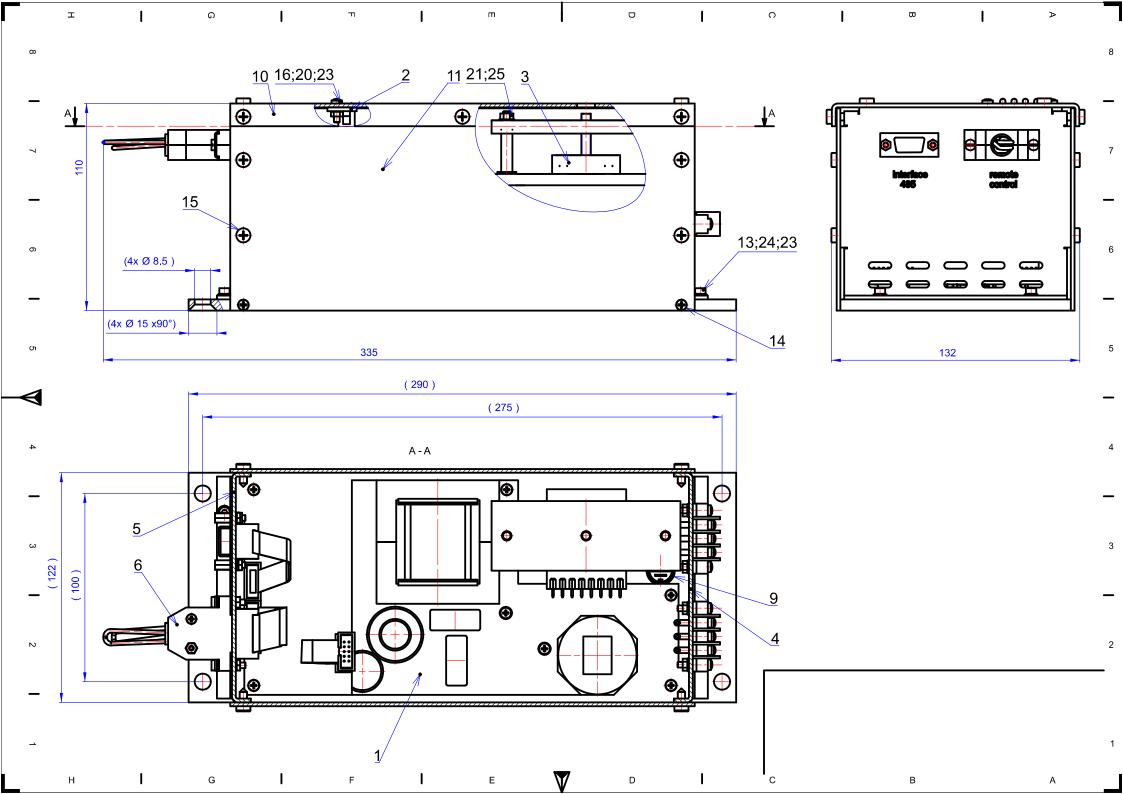
Either Connector Terminal 2-LV or Terminal 3-LV (depending how high compensating inductance is necessary to compensate capacitance of applied ultrasonic transducer) must be connected to the grounding pin of the output connector (pin number 4 = GND), which is in the same time the acoustic system ground (equal to the low voltage potential of the transducer mass and housing). Converter mass/ground, generator box, acoustic load mass, and external shielding wire of the coaxial cable are all connected to the system ground pin 4-GND.

Do not connect terminal 2 and terminal 3 to each other. One of them will, in any loading situation, stay open/hanging, and only one of them (2 or 3) will be connected to pin 4-GND and to system mass or system ground. Connection between 2-LV and 4-GND or between 3-LV and 4-GND must be made internally (inside of the generator box).

Ultrasonic converter (coaxial cable) will always be connected to pins 1 (1-HV) and 4 (GND). Pin 1 is always the highest voltage, connected to the isolated input of the converter.

Terminal 4-GND must be always connected to EARTH/Ground/Mass of the transducer.

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## **MMM Generator Installation Note**

Installation Power Control for MSG.X00.OW models:

See section 2.2 (Page 12) of the MSG.X00.OW System Operation Manual (See also pages 24 - 28).

2.2. Factory Settings and Initial Generator Start Up.

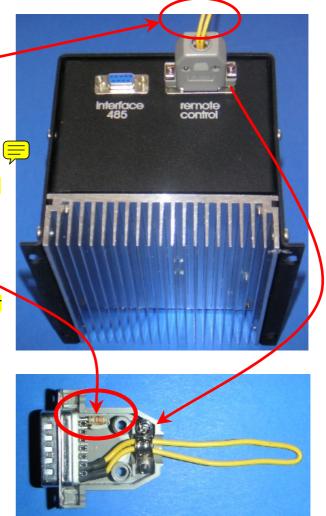
The MasterSonic MSG.X00.OW generator includes an optional external power on safety circuit control that may be implemented through relay control of terminals 1 and 2. These terminals may be connected to a temperature control circuit, door panel switches, operator proximity safety switches, etc. To operate the generator module these terminals must be normally closed. An open circuit will stop all generator operations. If the installation does not require such external control these terminals 1 and 2 should be short circuited with a hard wire connection.

The MSG.X00.OW is delivered from the factory with a short circuit wire between terminals 1 and 2 to allow immediate operation.

For initial start up and testing safety the MSG.X00.OW is also delivered from the factory with a 330 Ohm resistor connected between terminals 7 and 8 to limit the generator power output to 30%. Upon initial connection of the generator to the acoustic load start the generator with this resistor in place to check operation in a low power mode.

If the system operates properly turn the generator off, disconnect the mains power supply, and remove this resistor from terminals 7 and 8. Use diagonal cutters to clip the resistor leads.

After removal of this resistor the MSG.X00.OW power output may be controlled from 0% to 100% via the Remote Control Panel.



Generator manual and instructions are here: http://www.mastersonics.com/documents/mmm\_basics/mmm\_power\_supplies/msg-owgenerators/latest/