

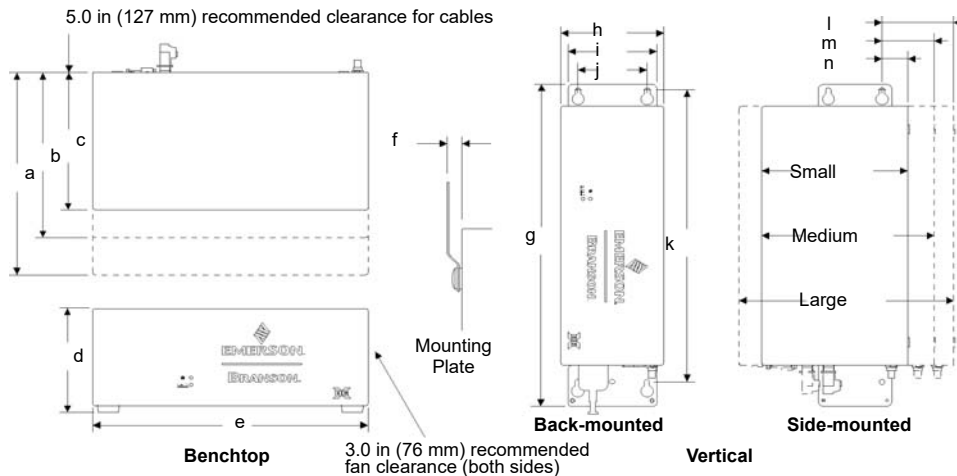
Overview

This Quick Start guide is intended to help you with the basic installation and setup of your new DCX V Power Supply.

Consult your power supply manual for detailed information on ventilation, environmental requirements, operating the power supply, accessing the web page interface, maintenance, and troubleshooting.

Location

The DCX V Power Supply is available in three different sizes. Two different form factors allow for operating the power supply on a benchtop or mounted vertically:



Dim.	Inch	mm	Dim.	Inch	mm
a	10.37	263	h	5.22	132.6
b	8.37	212.6	i	4.5	114.3
c	7.12	180.8	j	3.5	89
d	5.53	140.5	k	15.75	400
e	14.00	355.6	l	3.62	91.9
f	0.31	7.9	m	2.62	66.5
g	17.38	441.5	n	1.31	33.3

Size	Small	Medium	Large
Weight	15 lb (6.8 kg)	17 lb (7.7 kg)	21 lb (9.5 kg)

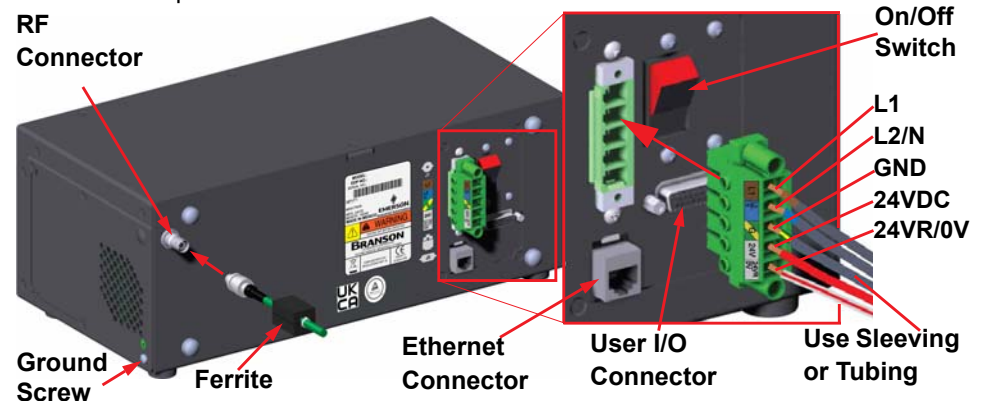
Use the keyhole mounting bracket to mount the unit in the needed position. Use M6 (6mm) screws to mount the unit.

Connect the Power Supply

WARNING

- Ensure the power source is disconnected before working on line connections
- Ensure the power switch on the back of the unit is in the OFF position before making any electrical connections
- Always connect the power supply into a grounded power source
- Ground the power supply by securing an 8 gage grounded conductor to the ground screw located next to the air outlet
- The power supply installation should only be performed by qualified personnel and in accordance with local standards and regulations

1. Detach the connector block on the back of the power supply.
2. Use two properly sized wires (according to local standards) to connect a 24 VDC 2.5 A safety certified and agency approved power supply as shown.
3. Use three properly sized wires (No. 12 gage, 2.5 mm or according to local standards) to connect line 1, line 2, and ground to the connector block as shown. Choose wires according to the current rating as specified on the label located on the back of the unit. Be sure to use agency approved wiring and use sleeving or tubing on each wire for double insulation.
4. Secure an 8 gage grounded conductor to the ground screw located next to the air outlet.
5. Connect the converter-booster-horn stack to the power supply using the RF cable. Ensure the end with the ferrite is connected to the power supply.
6. Ensure the power switch on the back of the unit is in the OFF position. Plug the connector block back into the power supply. Tighten the two securing screws.
7. Connect the power supply to a single-phase, grounded, 3-wire, 50 or 60 Hz 200-240 V power source.



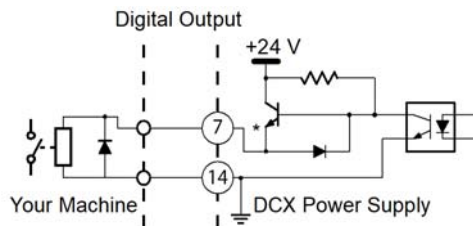
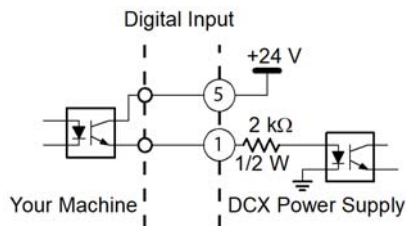
I/O Connections (26-pin HD D-Sub Connector)

User I/O Connector Pin Assignments*

PIN	I/O Type	Function	Values
1	Input Digital	External Start	Apply +24 VDC to run cycle
2	Input Digital	External Seek	Apply +24 VDC to perform a seek
3	Input Digital	External Reset	Apply +24 VDC to reset alarm
4	Input Digital	Memory Clear	Apply +24 VDC to clear memory
5	I/O Signal Source	+24 VDC (Customer Supplied)	+24 V (internally fused to 1.8 A)
6			
7	Output Digital	Ready	+24 V indicates the system is ready
8	Output Digital	Sonics Active	+24 V indicates ultrasonics are active
9	Output Digital	General Alarm	+24 V indicates an alarm occurred
10	Output Digital	Seek/Scan Out	+24 V indicates Seek/Scan in progress
14	I/O Signal Return	+24 VDC Return and I/O Return	Return for all pins except pins 17, 18, 24, and 25
15			
17	Input Analog	Amplitude In	1 V to + 10 V (10 % to 100 %) **
18	Input Analog	Frequency Offset	1 V to + 9 V (5 V is zero offset) **
24	Output Analog	Power Out	0 V to + 10 V (0 % to 100 %)
25	Output Analog	Amplitude Out	0 V to + 10 V (0 % to 100 %)
26	Analogue Signal Return	Analogue Signal Return	Return for pins 17, 18, 24, and 25

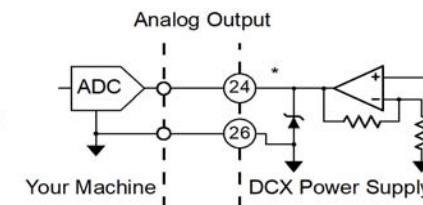
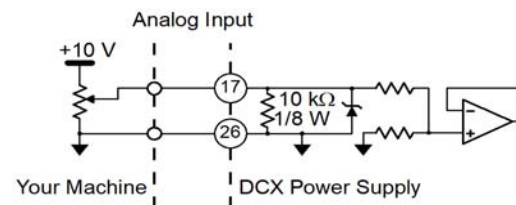
* This table shows the default pin assignments. Pins 1-4, and 7-10 can be configured using the DCX web page interface. Consult your power supply manual for details on configuring digital I/O functions.
 ** If the input signals are not within their valid range, or if left unconnected, the power supply will use 50 % amplitude and zero frequency offset, respectively.

Typical Digital I/O Wiring Examples:



*25 mA Max. output current

Typical Analog I/O Wiring Examples:



*1 mA Max. output current

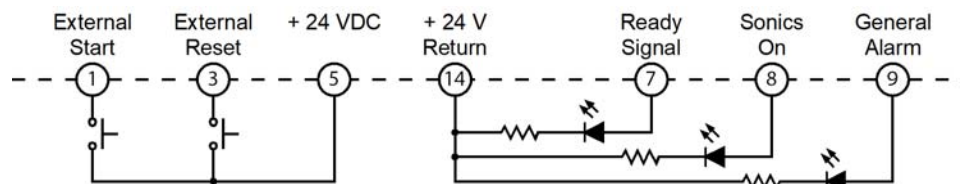
Test the Equipment

To test the power supply for proper operation, follow the steps listed below:

WARNING

- Ensure that no one is in contact with the horn when testing the power supply
- Do not cycle the welding system if either the RF cable or converter is disconnected

1. Ensure the power supply is properly connected, as indicated in Section “Connect the Power Supply” on page 1.
2. Wire the necessary I/O signals as shown or similar to the following diagram:



3. Turn on the power supply. The front panel Power and 24 V LEDs should turn on. Ready Signal should become active. To avoid a power-on alarm, ensure 230VAC are present for at least 1 second before supplying the 24VDC.
4. Send an External Start signal for 1-2 seconds. The Sonics Active output will become active while the External Start signal is present. If the General Alarm output does not become active, the test procedure is finished.
5. If the General Alarm output becomes active, send an External Reset signal and repeat step 2 one time only. If the alarm persists consult your power supply manual.

DCX Web Page Interface Default IP Address:

IP address: 192.168.10.100

Subnet Mask: 255.255.255.0