## Overview

This Quick Start guide is intended to help you with the basic installation and setup of your new DCX S 120V 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 power supply should be accessible for parameter changes or settings, and located in an area away from radiators or heating vents and positioned so it does not draw in dust, dirt or material via its cooling fan.

10.63 in (270 mm)

5.53 in (140.5 mm)

14.00 in (355.6 mm)
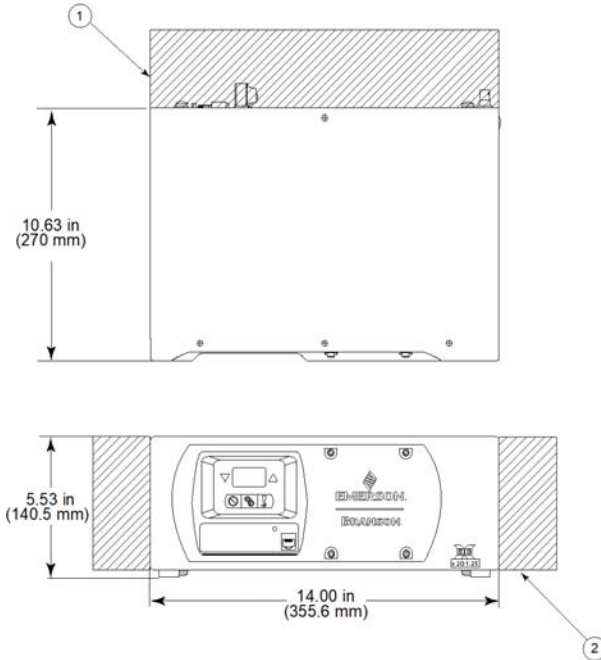
Note	Description
1	5.0 in (127 mm) recommended clearance for cables
2	3.0 in (76 mm) recommended fan clearance (both sides)

Weight	22 lb (10 kg)

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. Secure an 8 gage grounded conductor to the ground screw located next to the air outlet.
2. 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.
3. Ensure the power switch on the back of the unit is in the OFF position. Plug the line cord into the power supply. Tighten the two securing screws.
4. Connect the power supply to a single-phase, grounded, 3-wire, 50 or 60 Hz 100-130 V power source.

Item	Description	Item	Description
1	Ground Screw	4	Line Cord
2	RF Cable (Ferrite End)	5	RF Connector
3	Circuit Breaker (On/Off) Switch	6	User I/O Connector

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 Source from DCX S	+24 V, 250 mA max supplied from DCX S
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	Analog Signal Return	Analog 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.
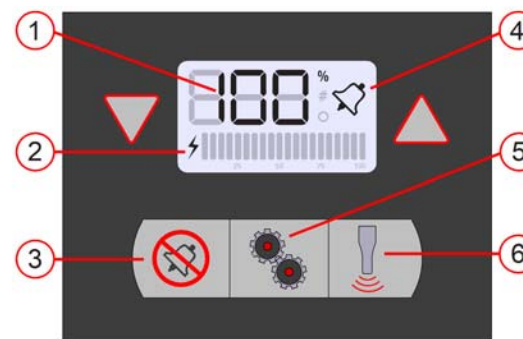
Typical Digital I/O Wiring Examples:

*25 mA Max. output current
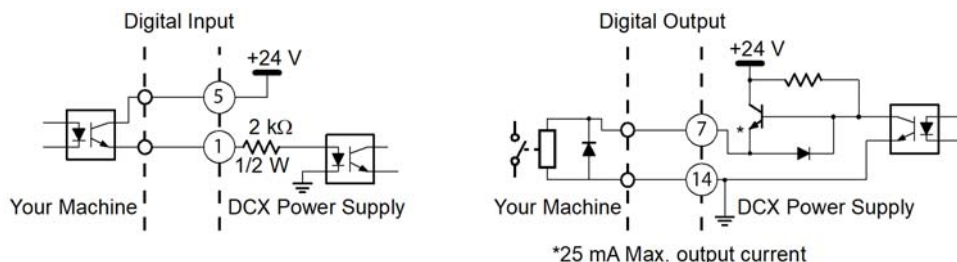
Typical Analog I/O Wiring Examples:

*1 mA Max. output current
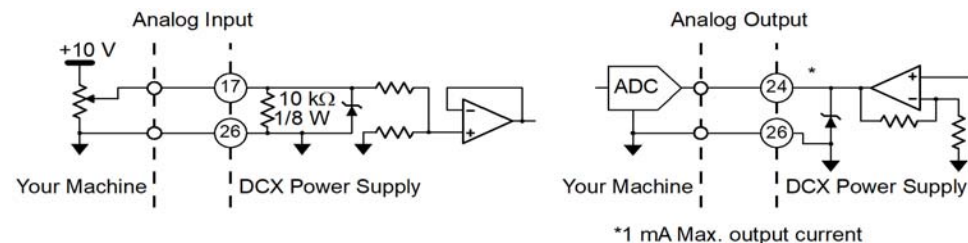
Front Panel Interface

Item	Description
1	Amplitude Setting
2	Sonics Active Indicator
3	Alarm Reset Key
4	Alarm Indicator Icon
5	Configuration Key
6	Ultrasonic Test Key

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. Turn on the power supply. The front panel Power LED and LCD turn on.
3. Press the Ultrasonic Test Key for 1-2 seconds, then release. The Sonics Active Indicator appears while the Ultrasonic Test Key is pressed.
4. If the Alarm Indicator Icon begins flashing, press the Alarm Reset Key and repeat step 3 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