

## **Power Tool Brake / Custom Control Panel**

### Owner's Manual Supplement

Dear Customer,

You have ordered a customized braking panel. While the overall operation of your new panel is very similar to our standard product, there are some key differences. These differences are described in the following pages. Please review them along with our standard manual before installation.

If you have any questions, please don't hesitate to contact me.

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P.S. Please include the attached supplemental information w/ your operators manual.

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# Specifications

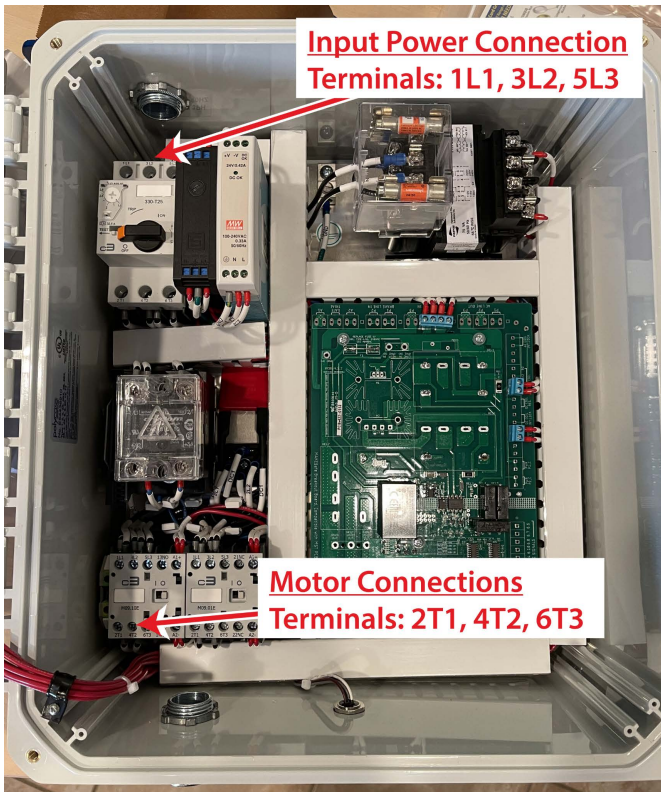
Review the included schematic for all specifications.

# Control Panel Setup

Review all the existing steps in the user manual. In addition to those steps, perform the following:

1. Before installing the control panel, open it to remove any shipping materials or filler.
2. Once shipping materials have been removed, visually inspect the control panel interior for parts, wires, or connections that may have been damaged during shipping.
3. Ensure that the installation site has adequate circuit protection for the control panel supply cable.
4. Verify that the ratings of the control panel match the machine the panel is being installed on.
5. Plan the physical mounting of the control panel. Additional mounting hardware and mounting flanges have been provided.
6. Connect the panel according to the diagram below. Do not remove any existing wires from terminals.

## Connection Diagram



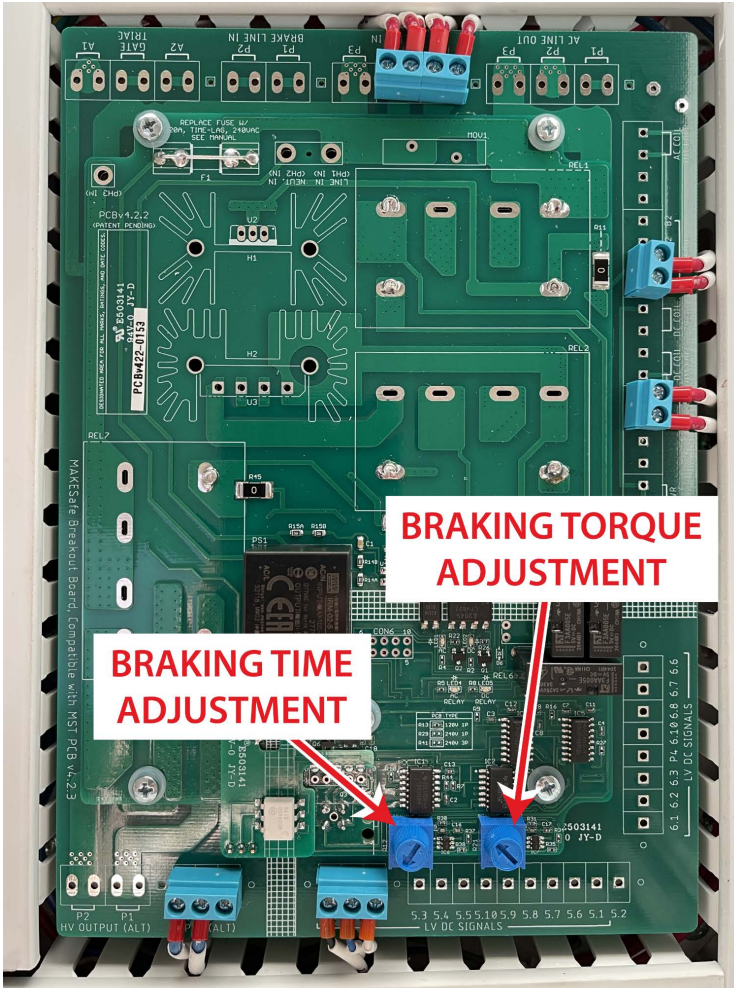
**Input Power Connection**  
**Terminals: 1L1, 3L2, 5L3**

**Motor Connections**  
**Terminals: 2T1, 4T2, 6T3**

**Note: This panel replaces ALL EXISTING CONTROLS on the machine. If any other controls are present on the machine, contact us for assistance.**

# Calibration

The calibration process is described in detail in the user manual. The braking torque and braking time adjustments on your custom control panel are not externally accessible. They are accessible on the printed circuit board inside your control panel, as shown on the image below.



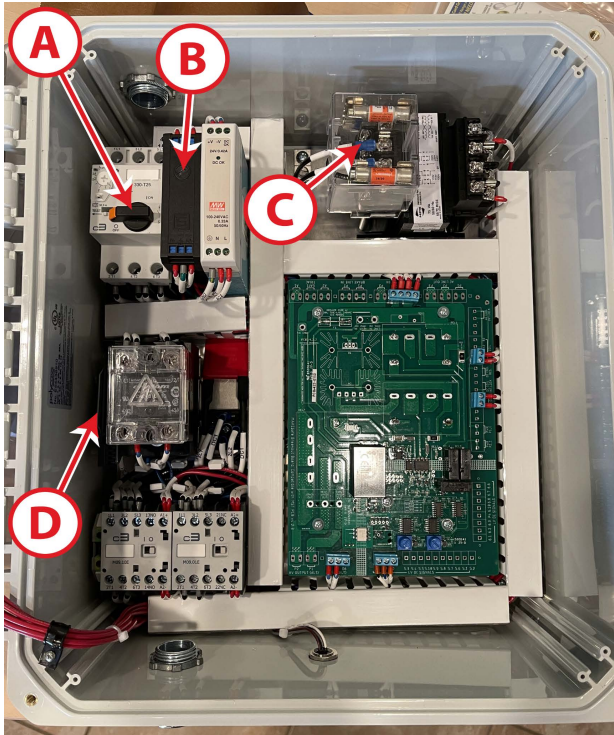
**Warning: Remove power from the entire control panel before making any adjustments.**

# Circuit Protection

Your control panel contains multiple levels of circuit protection. Refer to the table below for more information.

Schematic Reference	Description	Location	Reset / Replacement
CB1	Motor Protection Circuit Breaker (short circuit & overload protection)	A	Reset manually by rotating handle CCW to the 'OFF' position then CW back to the 'ON' position.
F8	Braking Fuse	D	Exact replacement only: _____
F7	Transformer Primary Fuses (2 fuses)	C	Replace with 2x UL Class CC fuses. Ratings: 600V, 0.5A, Time-Delay
F5	AC Filter Fuse	B	Replace with equivalent fuse. Ratings: 250V, 1.0A, 5 x 20 mm

**Circuit Protection Locations**



# Troubleshooting

Problem	Potential Solution(s)
Your machine will not start.	<p>Solution 1: Reset the emergency stop by pressing it down then twisting it gently clockwise until you feel it pop out. The machine will not start while the e-stop is engaged.</p> <p>Solution 2: Remove power from the control panel and check the circuit protection elements. See previous section for locations. If any elements have tripped, identify the fault before resetting.</p>
The circuit breaker or motor overload trips often.	<p>Solution 1: Check the motor and identify faults.</p> <p>Solution 2: Adjust the motor overload setting.</p> <p>Solution 3: Reduce the braking torque.</p>

# Service & Support

If you have any questions or your device needs service, please contact us.

[service@makesafetools.com](mailto:service@makesafetools.com)

(415) 937-1808

[www.makesafetools.com](http://www.makesafetools.com)