

# E.D.I. System Pro

ELECTRICAL . DIAGNOSTIC . INTERFACE . SYSTEM

## Overview

The Electrical Diagnostic Interface (E.D.I.) System is a revolutionary device that replaces the role of conventional power switches. It serves as a single interface from which to operate the machine and its various electrical components. More importantly, the E.D.I. System is capable of monitoring the machine's performance and health and then providing feedback that will allow the user to work more efficiently and to quickly identify problems.

## Operation

### POWER SWITCH

The power switch is conveniently located on the E.D.I. System. Protected by a weatherproof rubber boot and a metal shield, the toggle switch is designed to cope with harsh handling.

#### Using the power switch

- Flip the power toggle switch up, to power on the saw.
- Flip the power toggle switch down, to power off the saw.

### CIRCUIT BREAKER

The E.D.I. System features an integrated circuit breaker that prevents the motor from overheating and protects the saw against power surges.

#### Using the circuit breaker

When overloaded, the circuit breaker automatically cuts off power to the saw. To restore operation, correct the source of the overload, turn off the power switch and reset the circuit breaker by pressing the circuit breaker button located on the side of the E.D.I. System.

### STATUS INDICATORS

Once plugged in, the E.D.I. System automatically tests key electrical components for integrity. The operational status of each component is shown on the corresponding status indicator. The indicators also allow malfunctions to be quickly identified.

-  **Circuit Breaker Status**
-  **Work Light Status**
-  **Water Pump Status**
-  **Power Status**



### Using the status indicators

-  **Lit:** circuit breaker is functional.  
**Flashing:** circuit breaker has tripped or is malfunctioning.
-  **Not Lit:** work light is turned off.  
**Lit:** work light is turned on.
-  **Not Lit:** water pump is turned off.  
**Lit Green:** water pump is running under F-1 mode (manual).  
**Flashing Green:** water pump is turned off under F-1 mode (manual).  
**Lit Red:** water pump is running under F-2 mode (automatic).  
**Flashing Red:** water pump is on standby under F-2 mode (automatic).
-  **Not Lit:** power is turned off.  
**Lit:** power is turned on.

### DIGITAL GAUGE

The E.D.I. System performs a variety of functions and provides feedback on the digital gauge.

#### AMMETER

The E.D.I. System monitors the amperage drawn by the saw and warns the user if excessive amperage is used.

#### Using the ammeter

While the motor is running, the amperage drawn is displayed on both the digital gauge and digital display.

### DIGITAL DISPLAY

The E.D.I. System performs a variety of functions and provides feedback on the digital display.

#### VOLTMETER

To ensure that proper voltage is used, the E.D.I. System monitors the power source and warns the user if the supplied voltage exceeds specifications.

#### Using the voltmeter

When the saw is plugged into a power source, its voltage is shown on the digital display. A flashing value indicates improper voltage.

### WATER PUMP

The water pump can be set to operate either manually or automatically.

### F-1 MODE (MANUAL)

In F-1 mode, the user must toggle the water pump on/off.

#### Using the F-1 mode

With the saw turned on, click the mode button to manually turn the water pump on/off.

### F-2 MODE (AUTOMATIC)

Upon detecting a cut, the water pump will automatically turn on.

#### Using the F-2 mode

With the saw turned on, press and hold the mode button to switch the water pump between F-1 & F-2 modes. Once in F-2 mode, the water pump will automatically activate when a cut is detected, and automatically turn off after 3 seconds of non use.

### LED WORK LIGHT

A built-in cluster of LED lights provide convenient lighting when working in poorly lit areas.

#### Using the LED work light

- Click the light button to turn the work light on/off.
- Press and hold the light button down to adjust the brightness of the work light. The brightness is temporarily shown on the digital gauge.

### ONBOARD MEMORY BANK

To improve trouble shooting, the E.D.I. System memory bank (M.B.) stores information needed to understand how certain electrical devices connected to the system were used.

#### Using the memory bank

- To access the memory bank press the mode button while the motor is turned off. To cycle between codes, continue to press the mode button.

Understanding the M.B. codes:

- T-1:** Motor running time (Minutes)
- T-2:** Motor running under load (Minutes)
- C-1:** Motor overload time (Minutes)
- C-2:** Motor/thermal overload\*, power shutoff via thermal sensitive device (Count)
- C-3:** Motor overloaded\*\*, pass set amp and time threshold (Count)
- C-4:** Motor running with incorrect voltage (Seconds)
- C-5:** Last overloaded amperage reading (Amp)

\*This counter records the number of instances the motor has overheated or the system has detected an extreme overload, resulting in an automated motor shutdown.

\*\*This counter records the number of instances the system has tried to visually warn the user to reduce load, yet load was not reduced, resulting in an automated motor shutdown.

SawMaster offers a complete line of saws to suit the needs of professionals and consumers in the tile, stone, and masonry industries. Unique, innovative ideas and patented technologies make our products stand out above the competition, providing you with the tools you need to get the job done quickly, effectively, and flawlessly. Our saws are manufactured at exacting specifications and undergo a stringent QA process to ensure that they perform optimally at the high standards we set for them.

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**Lit Green:** water pump is running.  
**Flashing Green:** water pump is on standby.
-  **Not Lit:** power is turned off.  
**Lit:** power is turned on.

### WATER PUMP

The water pump can be manually operated to conserve water.

#### Using the manual water pump

With the saw turned on, click the pump button to manually turn the water pump on/off.

### LED WORK LIGHT

A built-in cluster of LED lights provide convenient lighting when working in poorly lit areas.

#### Using the LED work light

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## SAFETY PRECAUTIONS

Always abide by all manual safety warnings!



- Be sure to read the ENTIRE manual before operating this device.
- Always remain alert when using this device. Failure to pay attention can result in serious injury.
- Be sure to plug to a properly grounded receptacle to reduce the risk of electric shock.
- Use proper extension cord length and gauge.
- Do not submerge device in liquid.
- In the case of malfunction, stop and fix immediately.
- Before switching on any machine, make sure everyone is clear of any danger from the machine.
- Do not operate this device beyond what it is intended.
- Always plug as close as possible to the power source.
- Before servicing the E.D.I. System housing, unplug the system. While unplugged, flip the toggle switch to the ON position for five seconds and then to the OFF position; this will drain any possible residual power left in the system.

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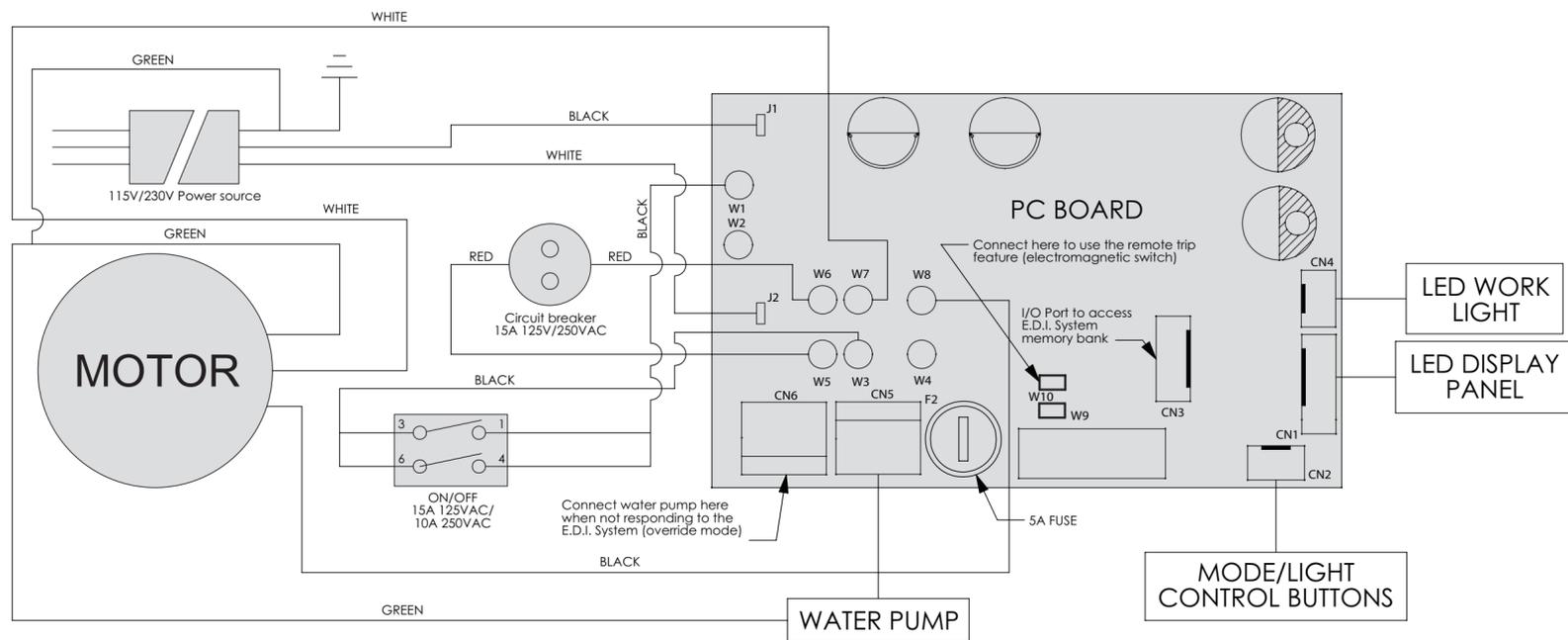
# SPECIFICATIONS

Research & development...

## Comparison Chart

Features	E.D.I. Pro	E.D.I. Basic	E.D.I. System
Self-Diagnostic Test	•	•	Voltage Range: 85-265 VAC
LED Dashboard	•	•	Current Range: 0-45 A
Status Indicators	•	•	Dimensions: 4-1/3 in x 4-1/3 in x 4-1/3 in (110mm x 110mm x 110mm)
Voltmeter	•		Weight: 2.2 lbs (1 kg)
Ammeter	•		Operating Temperature: 32°F - 185°F (0°C - 85°C)
Manual Water Pump Control	•	•	Relative Humidity: 0 - 80%
Automatic Water Pump Control	•		Power Supply: 50 - 60 Hz
Work Light	•	•	Safety and Agency Certification: ECC, UL, FCC
Logs Usage Data	•		I/O: USB (converter required)
Circuit Breaker	•	•	Hardware Warranty: 1 year limited warranty or 300 hour (PC Board only) powered on time

## Technical Data



# TROUBLESHOOTING

Need assistance?

Problem	Possible Cause	Solution
Digital display keeps flashing <i>(E.D.I. System Pro version only)</i>	Incoming voltage not within acceptable range	Use a reliable power source that has an acceptable voltage supply
	Power supply is not stable	
	Extension cable not acceptable length and/or gauge	Use an acceptable extension cable
	E.D.I. System has failed	Service is required by a certified SawMaster technician
Saw does not turn on	Power cable is not fully plugged in	Make sure the power cable is plugged in
	Circuit breaker has kicked off and needs to be reset	Correct the source of the overload and reset the circuit breaker
	If saw is equipped with an induction motor, a capacitor may have failed	Replace capacitor
	Switch or circuit breaker failed	Replace switch or circuit breaker

Problem	Possible Cause	Solution
Inaccurate digital display readings <i>(E.D.I. System Pro version only)</i>	Power supply is not stable	Use a reliable power source that has an acceptable voltage supply
	E.D.I. System needs to be adjusted	Press and hold down both the blue and yellow buttons til the letters "ADJ" appear on the digital display
Water pump working improperly	E.D.I. System needs to be adjusted <i>(E.D.I. System Pro version only)</i>	Press and hold down both the blue and yellow buttons til the letters "ADJ" appear on the digital display
	Water pump is malfunctioning	Service is required by a certified SawMaster technician

**Adjusting the E.D.I. System** - In some instances the E.D.I. System will need to be re-adjusted. If the E.D.I. System is showing inaccurate readings (such as wrong voltage supply or wrong amp reading) or the water pump is turning on and off improperly, simply press and hold down both the blue and yellow buttons til the letters "ADJ" appear on the digital display. This procedure will adjust the E.D.I. System to your specific work settings.

# CONTACT US

We pride ourselves on our customer service!

SawMaster Diamond Tools, your complete source of quality diamond tools... We provide every means for the industry professional to get the job done. Our comprehensive line of tile, stone and masonry saws in addition to our large selection of diamond blades serve to achieve this end. We feel that it is our responsibility to not only look out for our customers, but also look out for their investments. Our products are manufactured with exacting standards and are guaranteed to work at optimal levels. This is SawMaster's commitment to customer service excellence.

If you have any questions regarding our products, whether it may be product inquiry or troubleshooting, please don't hesitate to contact us. We will do our best to answer your questions. In some cases we may even refer you to a local sales representative that can better service you. You can call us at the contact information listed below:

## CUSTOMER SERVICE

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