

TouchTek 4.0

Technician Manual



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Precautions and Warnings

Please read this section carefully before using this product.

All operators **MUST** read and understand the warnings and precautions prior to using this product. Riverside MFG LLC is not responsible for injuries, damages, or issues resulting from the failure to observe the precautions, warnings, and instructions in this manual. This product is safe if used in accordance with the guidelines set forth in this manual.

Store this guide where it will be accessible at all times.

- This product is not a substitute for your driving knowledge or your personal judgment.
- When your vehicle is moving, keep your eyes on the road, **NOT** on the panel. If you need to look at the screen for a prolonged time, always park the vehicle in a safe manner and in accordance with all traffic regulations.
- Do not change settings or otherwise manually operate this system while the vehicle is moving.
- Immediately stop using the system if a problem arises. Report all problems to your designated dealer.
- It is your responsibility to always comply with all traffic regulations.
- Stop the vehicle before performing any system operation that could interfere with driving.
- Take proper ESD precautions when handling circuit boards.

General Specifications:

Operating Voltage	- 9 to16VDC
Operating Temperature	- -40 to +80 C
Current Draw Ignition Off	- Less than10 mA
Max Relay Current Output	- Six 20Amp
Max Total System Current	- 120Amp

Key features of the TouchTek Control System:

- * Compact size
- * Adjustable LED backlighting and sunlight readable status indicator
- * Switch backlight changes from blue for off to red for on conditions
- * Dimmable switch panel
- * Audible alert for switch press and faults
- * Latching or momentary switch functions
- * Individual circuit protection for each of the 6, 20 Amp relays
- * Diagnostic fault detection
- * Built in Gun Lock Timer function
- * Replaceable fuses, mini-ATO 3-20 Amp
- * Selectable stealth panel brightness control
- * Rugged weather resistant distribution center

Basic Included System Components:

Description	Part#
Power Distribution Center	TT4.0PDC
6 Button Switch Panel	TT4.0SP
Base Insert Sheet	270-8700
Part Kit	

TT4.KIT will include additional insert sheets and the PDC to Panel connection cable (15 ft).

Additional Components Needed:

- 7/28 Non-shielded Cable (included in kit)
- Power Cable (6 ga)
- Wire for Outputs (14-16 ga)

Optional Components:

Description	Part#	
Ram Mount and Plate	15767	
Har-flexicon Screw Driver	14990000001	*used for extracting wires
Second Switch Panel	TT4.0SP2	

Suggested wire for 20 amp relay and ground circuits:

Alpha Wire 1859/19

Suggested wire for inter-lock circuit:

Alpha Wire 6824 Hook-up Stranded 20AWG (7 strands of 28 GA)

Suggested cable for PDC to Panel connection:

General Cable/Carol Brand C6353A.41.10, 4-conductor cable (7 strands of 28 GA) 20 AWG Gray Jacket

Power Distribution Center Installation

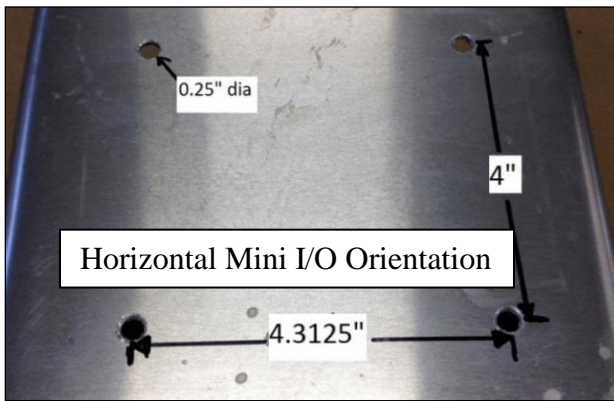


Figure 1

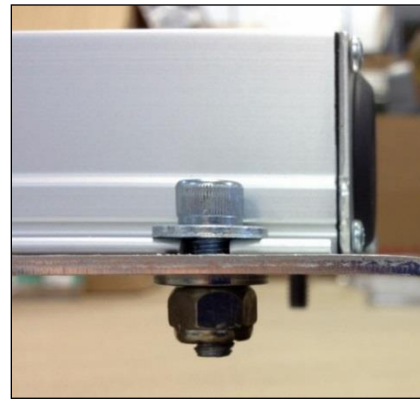


Figure 2

The Power Distribution Center is built with a rugged, weather resistant enclosure. It should be mounted using zinc plated 1/4-20 bolts and washers (not included) through each of the four notches in the flanges of the extruded enclosure. Lock washers or lock nuts are recommended (not included).

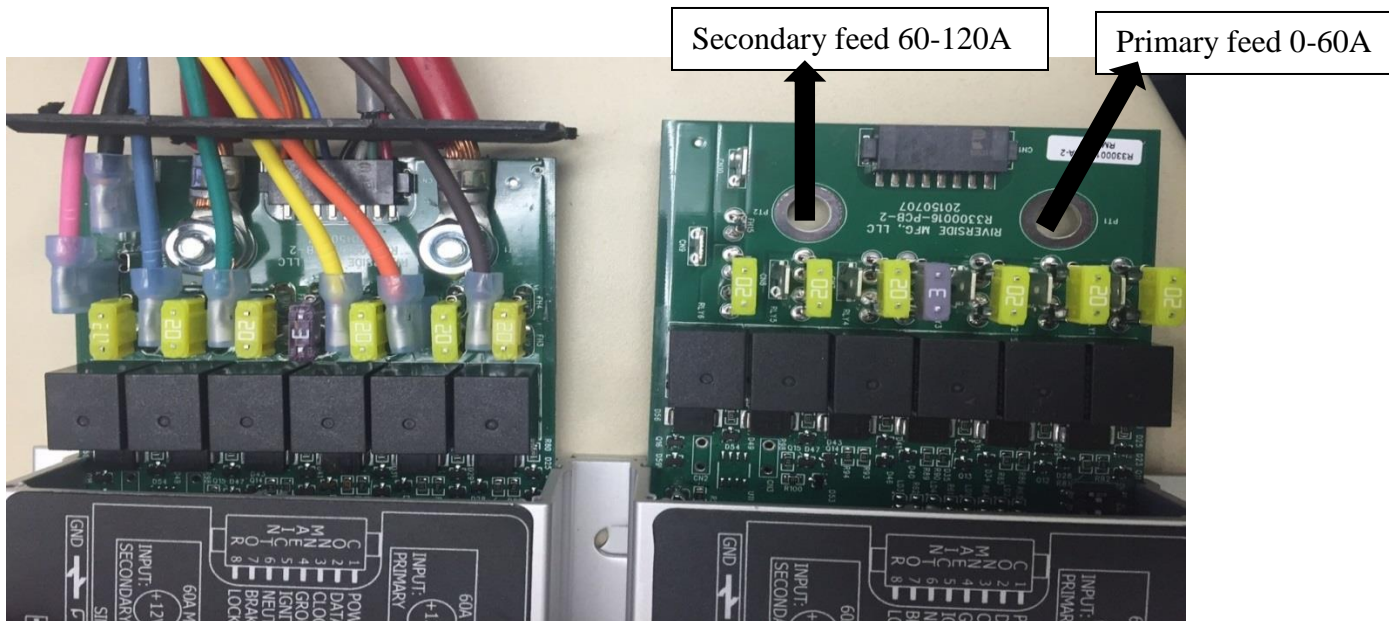


Figure 3

The included tool kit will include seven 14-16 gauge flag terminals, TE part number 3-520133-2. **It is important to remember to run the wire through the end cap before installing the terminals.** Position CN10 will be the ground for the power distribution center. 6 ga wires are recommended for the power supplies. If the total draw is less than 60 amps a single source can be used, for current greater than 60 amps both will need to be utilized. Torque between 65-100 in-lb.

** Take ESD precautions when handling circuit boards

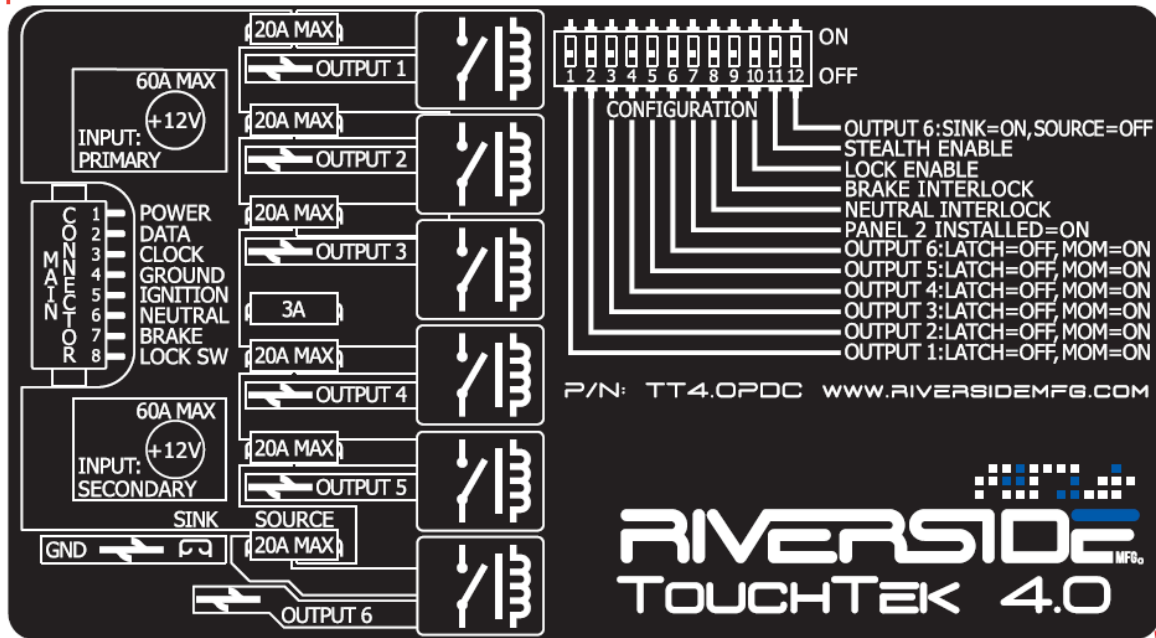


Figure 4

The overlay on the power distribution center shows a circuit diagram to aid with install and configuration. All outputs are set to a default of latching, to change to momentary flip the dip switch for desired output to on position.

Switch 7: Second switch panel. Coming soon (TT4.0SP2 part required)

Switch 8: Neutral interlock. Controlled by the second button and in enabled through the ground

Switch 9: Brake interlock. Controlled by the third button (Figure 5)

Switch 10: Gun lock timer. Controlled through output four

Switch 11: Stealth, will work without ignition. Controlled through button five (Figure 5)

Switch 12: Sink or source. The fuse for FH13-FH14 will need to be moved to FH13-FH15

Power, ignition and ground are required for the system to operate properly.

Recommend supplying an appropriate fusing to the PDC supply

**See installation video on Youtube for assistance:

<https://www.youtube.com/watch?v=YgKXfsdT0HA>

6 Button Switch Panel Installation



Figure 5

The panel is recommended to be installed with 3/8" #6 Phillips head sheet metal screws or machine screws with nuts and washers (not included). Securely fasten but do not over torque. The end cap can then be installed with the #4 black machine screws. The end brackets seal up against a foam gasket but *the 6 Button Switch Panel is not waterproof.*



Figure 6

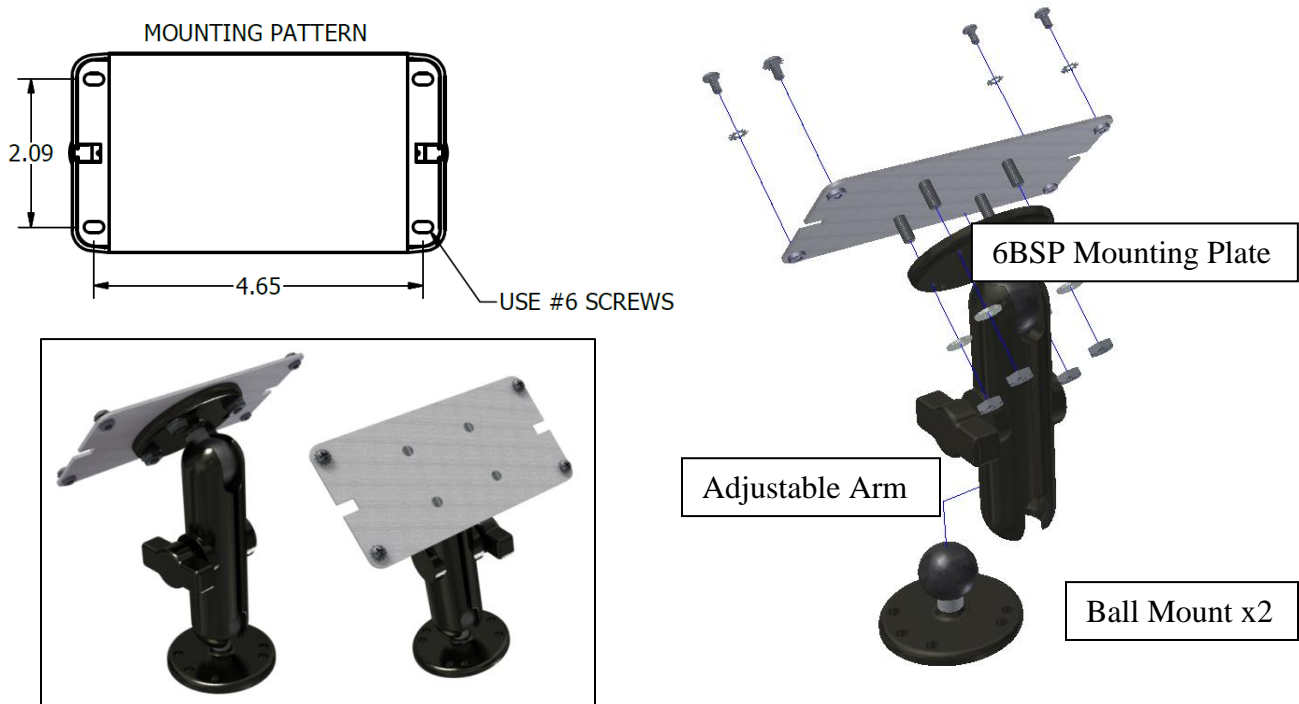
It is important to remember to run the 7/28 Non-shielded Cable through the mounting bracket before installing wire. A har-flexicon screw driver can be used to eject the wire by inserting the screw head into the rectangular slot above the wire to be ejected. The recommended

strip length is 6mm. Pair like numbered connector circuits from the switch panel and power distribution box. For example the red wire links both the position ones.

** Take ESD precautions when handling circuit boards

Optional Mounting

The 6 Button Switch Panel can also be mounted via a RAM mount installation. This allows flexibility in the positioning of the unit along with easier connecting and disconnecting. The assembly (**Part Number: 15767**) can be ordered from Riverside Manufacturing and includes mounting hardware, two ball mounts, a short 4" adjustable arm, and an anodized aluminum back plate specifically for the 6 Button Switch Panel.



6 Button Switch Panel RAM mount (15767).

Interlocks

The TT4.0 has two interlocks, neutral and brake.

The neutral interlock is enabled with switch #8. Switch number #8 is located on the 12-station DIP switch located on the PDC circuit board. The neutral governs output #2. When enabled by switch #8 the output #2 (controlled by button #2) will only function if the neutral input is held low (less than 4 volts).

This interlock does not need to be used with the neutral circuit, it can be utilized with ground active signal. All that is required is to set switch #8 and supply the interlock signal to pin 6 on connector CN4.

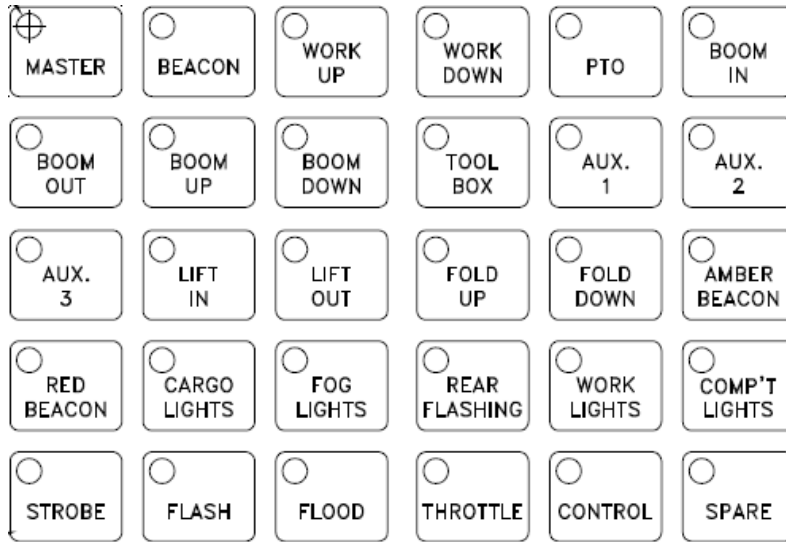
The back light for button #2 is on when the neutral interlock is enabled and the signal is present. The back light is off when the signal is absent. The status button blinks if the button is pressed when the interlock signal is not present.

The brake interlock is enabled with switch #9. Switch number #9 is located on the 12-station DIP switch located on the PDC circuit board. The brake governs output #3. When enabled by switch #9 the output #3 (controlled by button #3) will only function if the brake input is held high (greater than 8 volts).

This interlock does not need to be used with the brake circuit, it can be utilized with any positive active signal. All that is required is to set switch #9 and supply the interlock signal to pin 7 on connector CN4.

The back light for button #3 is on when the brake interlock is enabled and the signal is present. The back light is off when the signal is absent. The status button blinks if the button is pressed when the interlock signal is not present.

Insert sheet 270-8700



**Additional options available upon request