

## ISIS 3 CELL INSTALLATION INSTRUCTIONS

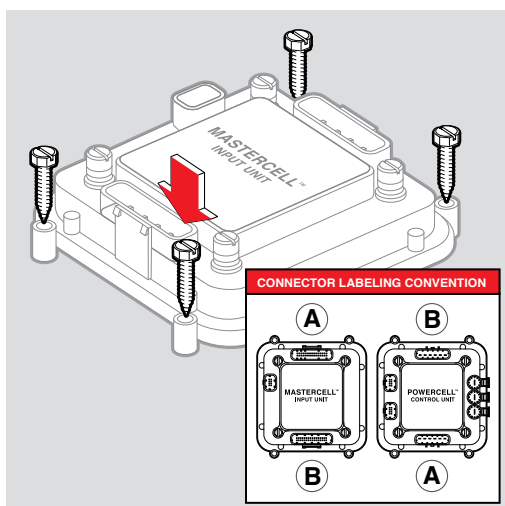
### STEP 1

#### MOUNT POWERCELL™ CONTROL UNITS AND MASTERCELL™ INPUT UNIT IN THE CAR.

Mount by putting ¼ inch screws through the four holes along the outer rim and attaching to vehicle.\*

\* The MASTERCELL™ is rated up to 85°C and is needed for system diagnostics. It is recommended that it be mounted under the Dashboard. The POWERCELL™ is rated to 125°C so it can be placed at the users convenience. Recommended locations are one in back and one in front of the vehicle.

Cells should be mounted on flat surfaces in areas with adequate air flow. We recommend mounting the POWERCELL™ Input Units vertically to optimize airflow.



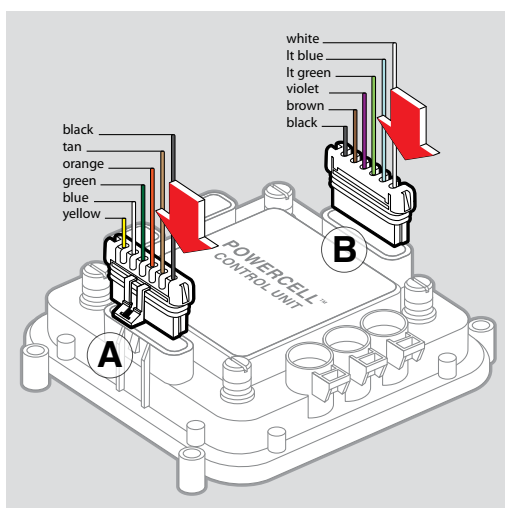
### STEP 2

#### CONNECT LOADS TO POWERCELL™ CONTROL UNIT USING APPROPRIATE POWERCELL™ CONTROL UNIT CONNECTOR WIRE.

Crimp output wires to appropriate loads.

Ground black wires. An isolated terminal block is recommended.

Heat shrink tubing is included in the ISIS™ kit and its use along with proper crimping is highly recommended.



### STEP 3

#### REMOVE POWERCELL™ CONTROL UNIT CLEAR COVER AND INSERT APPROPRIATE FUSES INTO FUSE HOLDERS.

(Use information sheet to determine appropriate fuse size for every output.)

Set address for POWERCELL™—Box 1 (front):



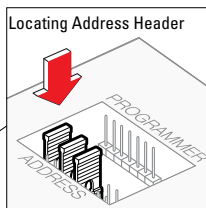
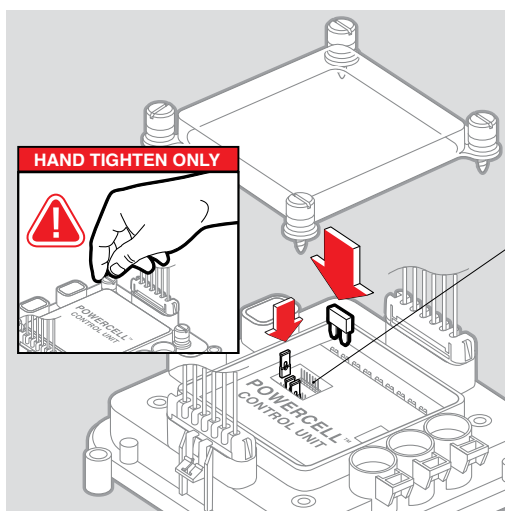
Set address for POWERCELL™—Box 2 (rear):



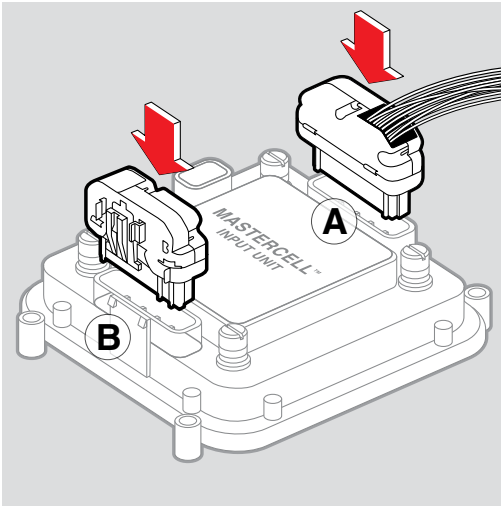
**NOTE:** Kits are shipped without fuses installed. We recommend connecting the system without fuses to verify the output assignments.



- Replace cover and hand tighten only.
- Do not use screw driver or mechanical tools.
- Over tightening can cause plastic casing to crack, voiding warranty.
- Always insert and remove fuses with the power disconnected from the system.



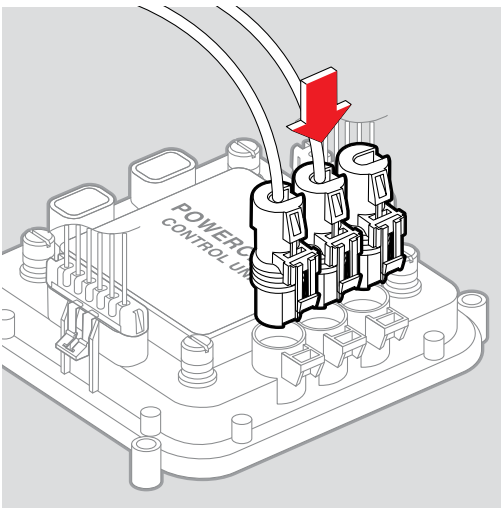
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### STEP 4

**CONNECT SWITCHES TO MASTERCELL™ INPUT UNIT USING THE “A” MASTERCELL™ INPUT UNIT SWITCH CONNECTOR AND GROUND BLACK WIRES.**  
*(See wiring connections table or see application instructions for load examples)*

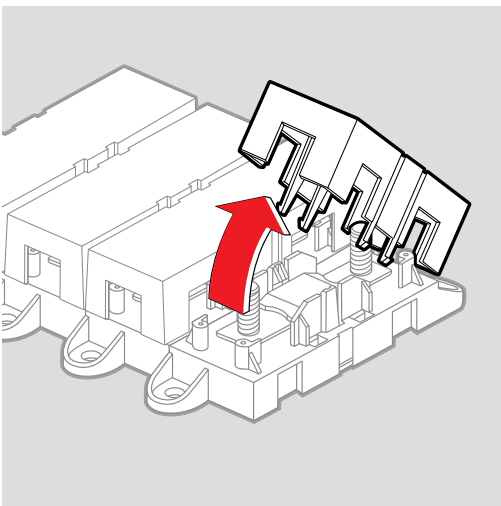
Fill in open connector with supplied sealing plug.



### STEP 5

**CONNECT POWER CONNECTOR CABLES TO ALL POWERCELL™ CONTROL UNITS.**

Use two power connector cables for every POWERCELL™. Fill in extra inputs where applicable with the supplied sealing plug.



### STEP 6

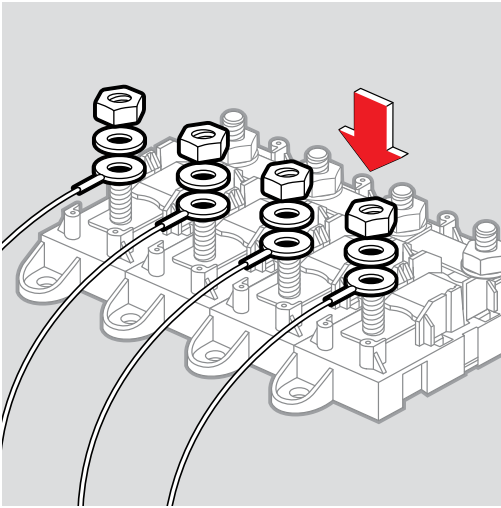
**REMOVE COVERS AND MOUNT TO CAR.**

Remove Covers of the MEGA™ Fuse Kit by lifting at specified end. Mount the kit at its four corners as close as possible to B+. Cut cables to length and crimp a ring terminal onto each one. It is recommended that this crimp is then soldered for higher reliability.

**Ring Terminals are applied as follows:**

- One 4-gauge 3/8 inch—Red B+ wire—B+ end
- One 4-gauge 5/16 inch—Red B+ wire—Fuse kit end
- Four 8-gauge 5/16 inch—Power connector cables

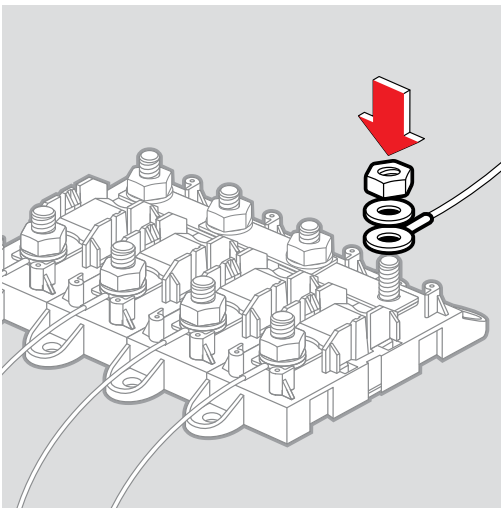
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### STEP 7

#### CONNECT POWER CONNECTOR CABLES.

Connect each power connector cable to its own screw on the Mega Kit keeping all cables on the side of the holder opposite the bus bar.



### STEP 8

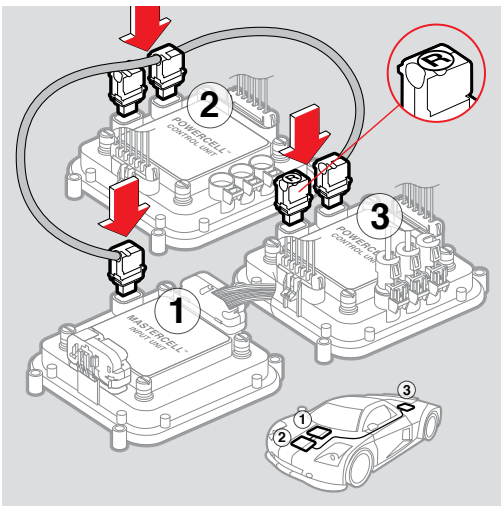
#### CONNECT B+ CABLE.

Use included cable to attach the B+ to the terminal of the MEGA™ Fuse Kit closest to B+ and on the side with bus bars.



**Important:** make this wire as short as possible.

Tighten the bolts between 12-18 Nm (106-159 In-Lbs) and replace covers of the MEGA™ Fuse Kit.



### STEP 9

#### CONNECT THE TWO POWERCELL™ CONTROL UNITS TO THE MASTERCELL™ INPUT UNIT USING THE CAN CABLE.

Plug first connector into MASTERCELL™.

Plug center connector into closest POWERCELL™ and fill open input with provided sealing plug.

Plug last connector into final POWERCELL™. Fill open input with supplied terminator resistor plug which is identified by an R printed on it. Make sure that the terminator resistor plug is used in the POWERCELL™ furthest from the MASTERCELL™.

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### Signs of Normal Operation

- No lights in the LEDS by connected fuses.
- Slowly blinking “heartbeat” blue light in center of POWERCELL™ as well as “heartbeat” in COM of MASTERCELL™.
- Insight reads displays uptime (UT) and shows 3 normal CAN bus shows ST, TX, and RX to be normal
- When switches are activated, LED’s by the output will turn on.

### Trouble Shooting

| FAULT   |   | PROBLEM   | SOLUTION  |
|---|---|---|---|
| System does not turn on   |   | Bad connection to battery or POWERCELL™ grounds not corrected properly. | Check power and ground connections  |
| Continuous dim light by select fuse(s) in POWERCELL™ Control Unit*  |   | Fault between the POWERCELL™ and the device or no connection            | 1. Check fuse<br>2. Check wire connections between output and POWERCELL™ unit<br>3. Check ground or electrical load |
| Blue “heartbeat” light of POWERCELL™ Control Unit or COM light on MASTERCELL™ Input Unit lit continuously |   | No connection between the POWERCELL™ and MASTERCELL™                    | Check CAN connection  |
| Devices are not responding to output commands   | inSIGHT™ Diagnostic Module reads “No Ack...!”                                       | CAN cable disconnect  | Check CAN cable connection and replace if necessary   |
|   | Light by selected output’s fuse does not change brightness when switch is activated | Switch is not properly connected to MASTERCELL™ Input Unit              | Check wiring from switch to MASTERCELL™ connector   |

### Safety Warnings

- All automobiles wired with the ISIS™ Intelligent Multiplex System™ must have a neutral safety switch. (See application instructions for more details)
- If the automobile’s battery does not have a charge between 10V and 14V ISIS™ Intelligent Multiplex System™ will not turn on. Also, if the alternator is fluctuating, ISIS™ Intelligent Multiplex System™ will turn off. This will turn off the car.
- If you apply battery power to ISIS™ and a switch is in the “on” position, ISIS™ Intelligent Multiplex System™ will block that function to prevent injuries. inSIGHT™ diagnostic module will read “Function in Abnormal Logical State. Function Blocked”. To unblock the function simply remove power, place the switch in the “off” position, and re-apply power.
- If the temperature of one of the boards exceeds 125°C, ISIS™ Intelligent Multiplex System™ will turn off to prevent damage. To turn the system back on, disconnect power at the battery, let the system cool down, and reconnect the battery.

\* Some electrical loads have high input impedances that do not draw enough current to extinguish the diagnostic LED on the POWERCELL™ unit. Examples include LED Tail lights. Placing a 85K Ohm resistor to ground in parallel to the load will turn off the diagnostic LED.