The PDM60 is a fully solid-state electronic device, with no repairable/replaceable parts on the unit. This fact contributes to the superior longevity and performance of the device, and makes it simple to connect and troubleshoot.

Over 99% of PDM operation/installation trouble issues are related to wiring errors.

The most common errors are:
1) Having circuit output wires conne**cted to positive voltage sources... WILL CAUSE FAULTY OPERATION**
2) **Reversing power & Ground polarity** at the battery…. WILL CAUSE FAULTY OPERATION
3) Mixing up trigger wires … WILL CAUSE FAULTY OPERATION i.e. Having the GROUND TRIGGER (Blue Wire) to a positive (hot) voltage source, or having the IGNITION TRIGGER (Gray Wire) to ground (negative)
4) Not connecting to a viable voltage or ground trigger source. Check you triggering connections
5) Not fully reading the instruction manual (Who needs a silly manual, right?)

- **Power and Ground – Wiring Connections-** As stated above, if you are experiencing difficulty with your PDM60 unit during installation or standard operation, the greatest potential contributor is the system wiring. First, verify the battery voltage on your vehicle. Use a voltage meter to verify that the unit is getting the proper power/ground signals required for activation. Secondly, check all of your PDM60 wiring for loose connections, shorts, and incorrect routing. Fully review your instruction manual to ensure that you have properly connected all of the wiring, especially with regard to the two input trigger wires. The wires are hot stamped. Double check the trigger wires, and your power/ground connections.

- **Ignition Trigger wire - Gray –** The PDM60 needs to sense a positive voltage source on the ignition trigger wire in order to activate. (the stock unit will activate after a 7 second delay) -- To verify this feature is functioning properly, connect the PDM60 power and ground (red +/ black -) wires directly to your battery. Then, connect the Gray wire to the **positive** battery terminal. After any delay period you have set, the IGNITION TRIGGER circuits will go live and their LEDs will illuminate.

- **Ground Trigger wire – Blue** – The blue trigger wire activates\deactivates Ground Triggered circuits on the PDM60. In some configurations, the PDM60 unit must first be activated via the ignition trigger wire (gray) before this feature can be used/tested. Check your settings via the dashboard software. When a GROUND signal is present on the blue trigger wire Ground Triggered circuits will be activated\go live. (an on/off switch leading to ground is the best method of controlling such circuits) To verify this feature is functioning properly, program a circuit to be Ground Triggered. Connect the PDM60 power and ground (red +/ black -) wires directly to your battery. Touch the blue trigger wire to the **negative** battery terminal. Your GROUND TRIGGERED circuits will go live while the blue wire is grounded. Removing the blue wire from the negative battery terminal (ground source), will deactivate the circuits.

- **Grounding Aftermarket Applications –** The best place to ground your electronics/electrical devices is directly to the battery via the included battery ground bus cable. Chassis ground points are acceptable for most applications, but for best results, especially with audio and communications equipment, ground to the battery. If the PDM60 unit is powering up, but any circuit has issues, check for fault interruptions, and verify the ground connections for the device on that circuit. Poor chassis grounding will cause performance issues.

Other Helpful Tips:
A bright red LED is an indicator that some type of fault condition exists; a circuit overload, short circuit, shorted wire, failed device, etc. If an intermittent or temporary fault\short\overload occurs, the circuit will interrupt and the LED will go red. The LED will switch to an color once the short\overload condition is no longer present. When the electrical problem is corrected, and the unit is reset, the circuit will resume normal functioning.

An orange LED indicates the circuit has been interrupted, but no fault condition is present. This can occur in three situations: 1) the circuit is externally switched off 2) the circuit has been programmed as permanently "inactive" in the unit's software configuration 3) as mentioned above, an intermittent fault\short\overload condition occurred, but is no longer present.

Standard circuits can be reset by simply powering the unit down, and powering the unit back up. When a fault interruption occurs on a circuit with an extended time out\delayed off setting, the circuit needs to "time out" before it can be reset.

Make sure your application is not exceeding the programmed circuit capacity. You won't damage the PDM60 unit (it protects itself), but the circuit will consistently interrupt whenever overloaded.

To drive a high amperage item that requires over 15Amps, run either the #5 circuit (20A max) or run two or more circuits of equal value (i.e. 15A & 15A) together to power the device. (Attn: the load will split evenly across the circuits used.

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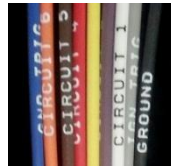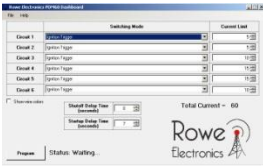
Dashboard Programming Troubleshooting

If you are having difficulty getting your unit to program effectively, taking the following measures should allow you to proceed with successful programming. Programming is a fairly simple process, and validating that all of the potential issues listed here are ruled out, should solve your problems. The most common problems are:

1) Incorrect COM port assignment
2) Poor electrical connections
3) Failure to have either .NET 4 Framework or the required FTDI drivers for the programming cable installed

Check these factors

1) Verify the programming connector is being inserted into the PDM60 with the proper orientation (see above)
2) Verify connections at <u>both</u> ends of the programming cable.
3) Verify the pins in the programming plug are making solid connections inside of the PDM60 programming header? Occasionally, it may help to put a slight amount of lateral pressure to the side of the programming cable connector while trying to program.
4) Verify that the appropriate COM port been selected in the dashboard "Options" menu. Incorrect COM port assignment will cause programming failure. An easy way to check this is to remove the cable from your computer USB port. Open the dashboard software and note what COM options are present. Close the dashboard program. Insert the programming cable into the USB port, and open the dashboard program again. See what new COM port appears. A newly appearing COM port is your programming cable port. If no new COM ports appear, you'll want to make sure the cable, and drivers have been installed. Some computers, when an incorrect COM port is designated, will cause false "programming successful" messages to appear during programming. If your unit is not operating as you programmed it, chances are, this is the problem.
5) Is the PDM60 disconnected from Power/Vehicle battery? (you should always disconnect power to reprogram)
6) Is .Net framework 4 installed on your PC/Laptop?
7) Do you have the appropriate FTDI drivers installed?

If you have ruled out all of the factors above, and still are in need of additional assistance, contact your dealer for additional support. If you are unable to obtain appropriate service from your dealer, feel free send an e-mail to us at techsupport@rowe-electronics.com and we will provide answers to your questions as quickly as possible. You may also be able to get direct, immediate support by calling the dealer that sold the unit to you, or by calling our office during normal business hours. We'll always do whatever we can to make your installation and ownership experience a favorable one.

We've designed the PDM unit to be versatile, user friendly, and most importantly, highly dependable. It's simple to program, simple to install. It makes the old methods of powering accessories and protecting a vehicle look like antiquated technology…and that's because it is. One you've solved any installation issues, and have completed final programming and installation, we offer our congratulations…………..

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You have Evolved.

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