

# **User Manual**

The Amplink PDM is built upon the strong reputation of the original PDM60 with added and improved features to make 12V power distribution even easier.



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## Package Contents

- ·1 Amplink Power Distribution Module
- $\cdot$  1 Ground bus kit with cover
- $\cdot$  6  $\frac{1}{4}$ " ring terminal for use on accessory ground wires connected to the ground bus
- ·1 6MM bolt & nut used for connecting all accessory ground wires to the main ground bus
- $\cdot$  6 Posi-Lock Connectors for easy and secure connections of 14 or 16ga wires
- $\cdot$  3 Posi-Tap Connector for easy connection to any 18ga wire for triggering

## Specifications

Operating Voltage: 6-20V for 12V systems Total Current Capacity: 60 Amp maximum continuous Outputs: 6 (20A Max) High side outputs Inputs (Triggers): 3, voltage or ground configurable inputs Operating Temperature: -40 to 185°F / -40 to 85°C Connections: Sealed 18 inch hardwire leads Water Protection: Fully encapsulated waterproof Weight: 10 oz / 284 g Dimensions: 3.0 x 2.0 x 0.9 in. / 76.2 x 50.8 x 22.9 mm





### **Device Overview**



#### Red 10 awg main +12V power wire

Connect directly to the positive pole of the vehicle battery. Always connect the + before connecting ground. For additional protection, a high amperage fuse (not included) can be added between the Amplink PDM and the battery. Please contact Rowe Electronics for wire gauge recommendations when extending this wire.

#### Black 18 awg internal ground wire

Connect directly to the battery ground or suitable ground point like the ground bus cable included. Connect the Amplink ground (black) wire after connecting the red + to the battery.

### Triggers 20 awg input wires (white-T1, purple-T2, yellow-T3)

Connect 1, 2 or 3 triggers to achieve desired functionality. At least one trigger is required to be activated in order to wake the Amplink device from sleep. These wires are stamped "TRIGGER1", "TRIGGER2", "TRIGGER3"

#### Outputs 14 awg (white, purple, yellow, pink, green, orange)

Connect these output wires to the +12V input wire of the accessory to be powered. Each output is stamped with "OUTPUT" and the corresponding circuit number.

### Always Live 14 awg wire (red with white stripe)

The always live output, stamped "ALWAYS LIVE", allows low amperage battery charging through the Amplink PDM. Please note: There is <u>no</u> monitoring or protection on this always live circuit. It should be capped or taped off if not being used.



## Installation Basics

- 1. Install the "Amplink PDM" App on a smartphone or tablet
- 2. Determine a suitable location to mount the Amplink PDM near the battery
- 3. Connect the Amplink to the battery, red (+) wire first then the black (ground) wire
- 4. Open the App, wait for it to pair to the Amplink, then set the configurate (See "App Connection Instructions")
- 5. The small green LED light on the Amplink means the Bluetooth signal is being broadcast. If the light is not on, it will not connect to a mobile device. It will time out after 1 minute if the unit is not triggered or currently connected to a Bluetooth device.
- 5. Connect the trigger wires and output wires using the Posi-connectors or other appropriate method
- 6. Activate the Amplink PDM using the appropriate trigger method

**Note:** Before completing a full installation of the Amplink, we recommend bench testing to ensure the setup functions as desired.



The app is designed to be simple and straight to the point. It is intended to be a tool for programming and monitoring the output status only. The app has three main pages:

**Outputs** – shows the status of each of the 6 outputs and access to the Output Configuration page **Output Configuration** – Allows for the configuration of outputs **Triggers** – access each of the 3 input triggers to setup the behavior

Never interact with the app while operating a vehicle.



## **App Connection Instructions**

**Note:** Pictures in this section are for reference only. Screen and connection steps may differ slightly based on the version of iOS or Android installed on the mobile device used for connecting.

1. Ensure the Amplink PDM is powered on as indicated by the green LED light.



2. Bluetooth on mobile device must be on for the app to operate. **DO NOT** connect to the Amplink from within the mobile device's settings, this will block the app from being able to pair with the Amplink device.







### <u>Android</u>



3. Open the Amplink app and tap "Connect to Amplink".



4. The Android app may ask for location permissions, click "Allow" or "While using the app". The iOS app may ask for Bluetooth permissions, click "Allow" or "OK". These permissions are needed to connect to the Amplink device.







5. Wait for the app to find nearby Amplink devices. If no Amplinks are found, make sure the Amplink is powered on and the green LED light is lit. From the list, select the Amplink device to connect to. The app will then begin trying to connect to the Amplink device. The iOS app will ask to pair to the Amplink device, click "Pair". The Android app could have a notification labeled "Pairing Request", click "Pair & Connect". This will display a pop-up labeled "Pair with Amplink", Click "Pair".



### <u>Android</u>





## App Connection Troubleshooting

- If a "Bluetooth Error" popup appears, to make sure the mobile device's Bluetooth is on. If the mobile device is running Android, makes sure the Amplink app has location permissions (Settings -> Apps & Notifications-> Amplink -> Permissions -> Location -> Allow). If the mobile device is running iOS, make sure Bluetooth permissions are enabled (Settings -> Scroll down to "Amplink" -> then enable Bluetooth permissions). Then repeat the pairing process.
- If connection is lost. Make sure the Amplink is powered on and the green LED light is lit. Then repeat the pairing process.
- If, upon pairing request, cancel is pressed or the pop-up is missed, click "Cancel" and repeat the pairing process.
- If the Amplink is connected in the Bluetooth settings but the app cannot find the device, forget the Amplink device. When using iOS go to Bluetooth settings click the blue "i" within the circle next to "Amplink" then select "Forget this device". When using Android go to Bluetooth settings and click the gear icon and select "Forget". Then open the app back up and try again.
- If the Amplink device has a serial number less or equal to 56027415 and the app is stuck on the "Connecting to Amplink" page and no pairing request has appeared. The Amplink device may have reached the max number of pairable mobile devices. To fix this the Amplink device will need to be sent in for reprogramming, after which there will no longer be a limit on the number of devices that can pair with Amplink device. There is no charge for this upgrade. Please give us a call or email us to make sure this is the issue. If this is found to be the problem an RMA will be issued along with shipping instructions.

Phone: 515-981-5504, Email: info@rowe-electronics.com

Note: Amplinks with a serial number greater than 56027415 will not have this issue.



### App Overview

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3	CPS	•
4	Phone	۲
5	Heated Gear	۲
•	Radio	۲
4		¥ *13941
= Trig	gers	1
Trigger 1	Volt	sge (+12V)
Trigger 2		

**Output** The output page allows for monitoring the current state of the outputs of Amplink device. The colored bars match the wire color of the corresponding output on Amplink PDM. The output status is indicated by either a green dot for ON, red dot for FAULT, or gray dot for OFF. By tapping an output, the Output Configuration page will appear.



**Triggers** Input triggers are configured from the triggers page. At least one trigger must be active and set to "Voltage (+12V)" or "Ground (GND)." If using multiple triggers, select the input signal it will respond to, choose either "Voltage (+12V)" or "Ground (GND)". Any unused triggers should be set to disabled. The triggers have three states "Activated" meaning the trigger has detected either Voltage or Ground, "Armed" meaning the trigger is waiting for the desired voltage, or "Disabled" meaning the trigger will never be activated.



**Output Configuration** The configuration page is used to configure output settings including: output name, amperage limit, time on, time off, trigger logic (and/or). Tap "Save" to save the configuration to the Amplink. Tapping the back button will discard changes and exit the configuration screen.

Name - tap the field to open the keyboard.

Amp limit - tap the field and enter the current limit.

AND Triggers - tap and select the triggers

OR Triggers - tap and select the triggers

Time On and Time Off - enter the time before the output turns on or off

Test – tap to turn Output on or off, exiting the screen will turn off the output.

### Trigger logic examples:

To setup all outputs to respond to an ignition trigger, select T1 in the "OR Triggers" and leave "And Triggers" set to None.

Other Examples:

AND Trigger set to T1,T2 – the output will turn on when both Trigger 1 and Trigger 2 are activated.

OR Trigger set to T1,T2 – the output will turn on when either Trigger 1 or Trigger 2 is activated.



## Wiring and App Setup Example 1

Ignition trigger only. Outputs 1-6 will turn on and off with ignition. Connect the Red (+) wire to the battery before the black ground.



### Configure the Amplink PDM using the App





Configure the trigger page as shown, then proceed to configure the outputs

In the Output Configuration page set the triggers as shown. The output name, amp limit and delay times can be set from this page. When finished tap the "Save" button and proceed to the next output. Set the triggers as shown on each output



## Wiring and App Setup Example 2

Ignition triggered outputs and Horn output. Outputs 2-6 will turn on and off with ignition, Output 1 will turn on when the ignition is on and the horn button is pressed.



### Configure the Amplink PDM using the App

≡ Triggers	ŧ	÷	Output 1			÷	÷	Output 2			
Trigger 1 Status: Activated	Voltage (+12V)		Oulpul Name Horn 		Amp Limit 20.0 A			Output Name Output 2		Amp Limit 5.0 A	
Trigger 2 Status: Activated	Voltage (+12V)		AND Triggers:		ТЗ			AND Triggers:	<b>T1</b> T2	тз	
Trigger 3	Disabled		OR Triggers:	T1 T2	тз			OR Triggers:	T1 T2	ТЗ	
THUS, DISTURCE			Time On: Time Off:	0 Min : 	0 Sec			Time On: Time Off:	0 Min : 	0 Sec	
			Time Off:	0 Min : 	0 Sec			Time Off:	0 Min : 	0 Sec	
			í.						Test Output		

Configure the trigger page as shown, then proceed to configure the outputs. In the Configuration page for output 1 (horn), set the triggers as shown. The output name and amp limit can also be set. When finished tap the "Save" button and proceed to the next output. In the Configuration page for outputs 2-6, set the triggers as shown. The output name, amp limit and delay times can also be set. When finished tap the "Save" button and proceed to the next output.



### Thank you for purchasing the Amplink PDM

For questions please contact us through the rowe-electronics.com website or call 515-981-5504.

#### WARRANTY POLICY

We warrant our products to be free from manufacturing and material defects for a period of one year from the date of purchase. Proof of purchase is required for warranty claims. This warranty covers parts and our labor for those parts to be replaced or repaired at a service facility we designate.

Please contact your dealer or Rowe Electronics, Inc. Specific directions will be provided. If we determine the problem is covered under warranty, we will either repair or replace the product. We are not responsible for, nor will we reimburse, any expense for labor to remove or reinstall any product. Shipping costs to the designated facility are not included in the warranty coverage. The warranty is voided by customer abuse, accidental damage, modifications, natural disasters or similar events



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