



PWM Alternator Harness
Part Numbers 558-475 & 558-476

This document explains how to control either a GM or Ford alternator that was factory ECU controlled with a PWM (*Pulse Width Modulation*) signal. This includes most 2007+ GM engines and most 2005+ Ford engines.



Wiring:

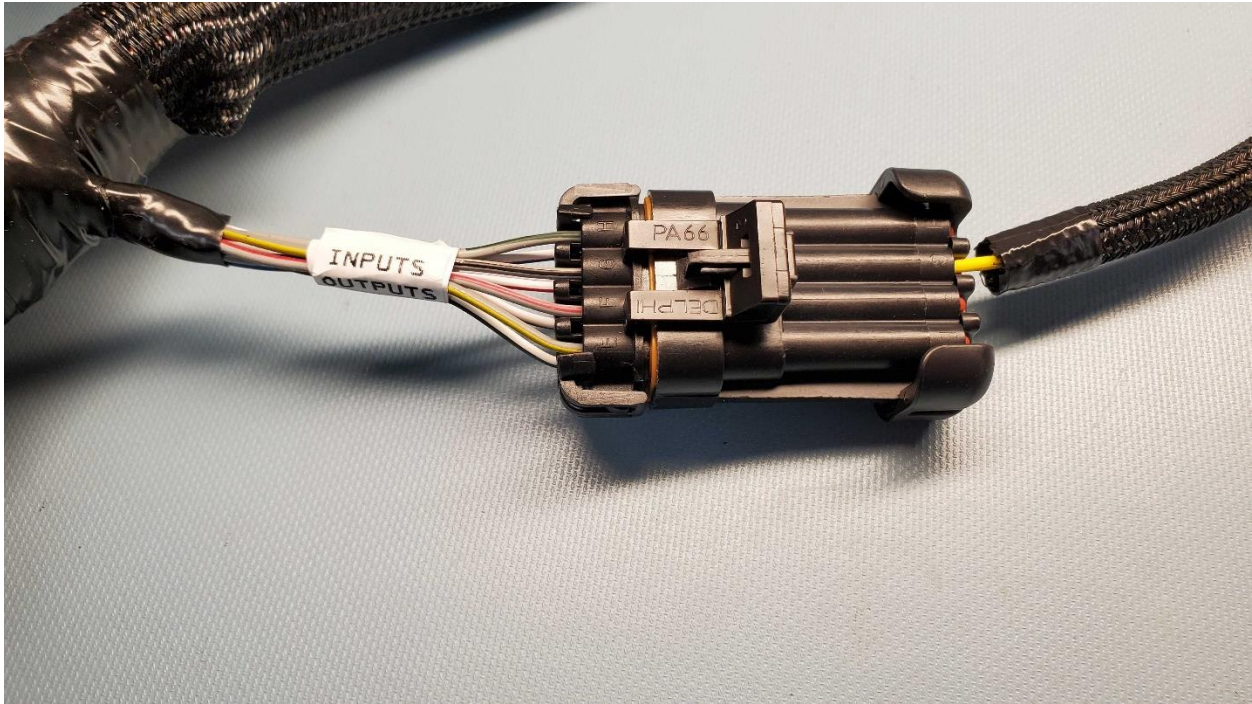
The PWM Alternator harnesses are designed to be used with a **(P-) "PWM -"** output from the I/O (8 Pin Connector), and **"5 Volt (Pin C)"** from the Power Tap (4 Pin Connector). Both located in most Holley/TerminatorX EFI harnesses.

(P-) "PWM -" – Used for ground Pulse Width Modulated Outputs

I/O (8 Pin Connector):

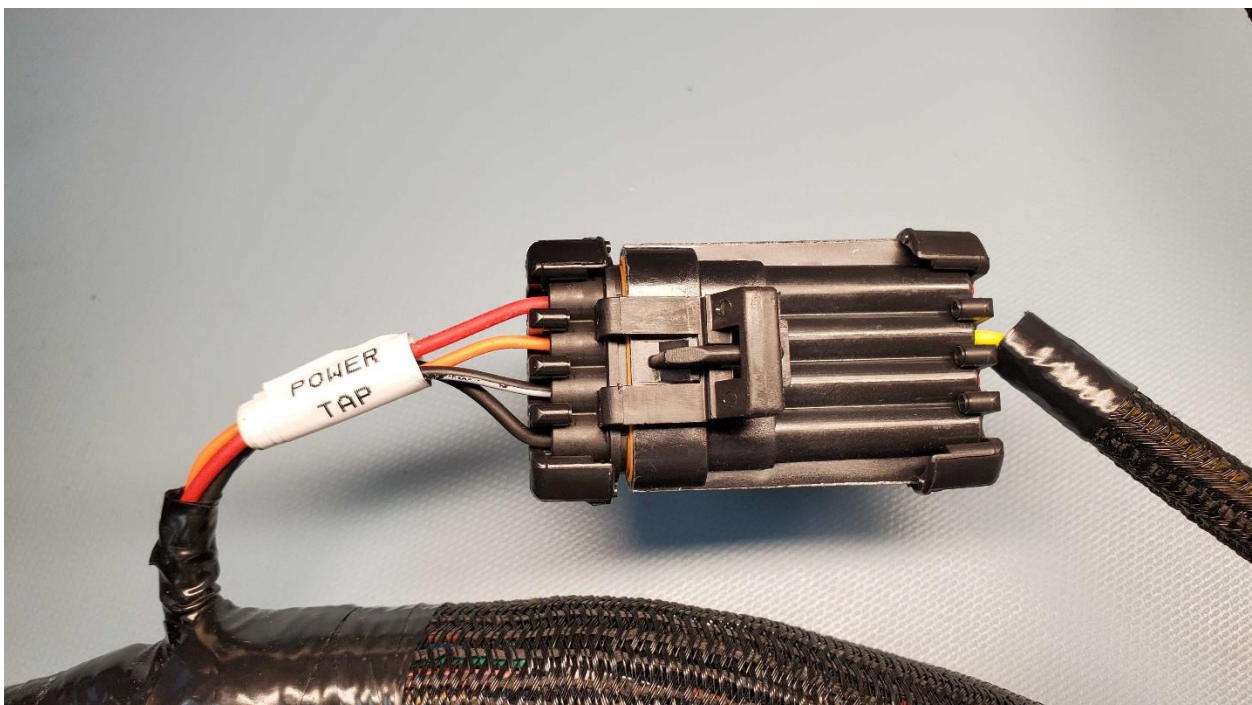
The I/O connector comes prepopulated to Pin G, (*ECU Pin J1-B10, Output #3*).

If this output Pin is already being used (e.g., *SRV actuator for Hemi*) the PWM Alternator pin can be moved to a different output pin that is configurable as a **(P-) "PWM -"** in the software Pin Map.



Power Tap (4 Pin Connector):

The Power Tap connector populated to (Pin C) **5 Volt**.



Alternator (2 Pin Connector):

GM PWM Alternator Harness (558-475, 271R1305a) has Pin Location (1) populated in that alternator connector.

Ford PWM Alternator Harness (558-476, 271R1306a) has Pin Location (2) populated in that alternator connector.



Software Setup:



If the I/O ICF icon is not shown in the tool bar:

1. Go to "Toolbox".
2. Select "Add Individual Config".
3. Select the "IO" folder.
4. Double-click "Default.io" to add the I/O ICF to the tool bar.

In the Laptop Software (Terminator X / Holley EFI), in the I/O ICF enable an Output. Name this Output "Alternator" and set Type to: "PWM -"

	NAME	TYPE	ECU PIN	ENABLE		
#1	Alternator	PWM-	NOT DEFINED	<input checked="" type="checkbox"/> Enable	Configure	Where Used
#2		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#3		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#4		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#5		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#6		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#7		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#8		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#9		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#10		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#11		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#12		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#13		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#14		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#15		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#16		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#17		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#18		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#19		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used
#20		GROUND	NOT DEFINED	<input type="checkbox"/> Enable	Configure	Where Used

Select "Configure" and set "Sensor Input Triggers" to active when engine is running, as shown below:

Alternator Back **Input Triggers** Linked Outputs Timer PWM Setup

SWITCHED INPUT TRIGGERS

Number

SENSOR INPUT TRIGGERS

AND

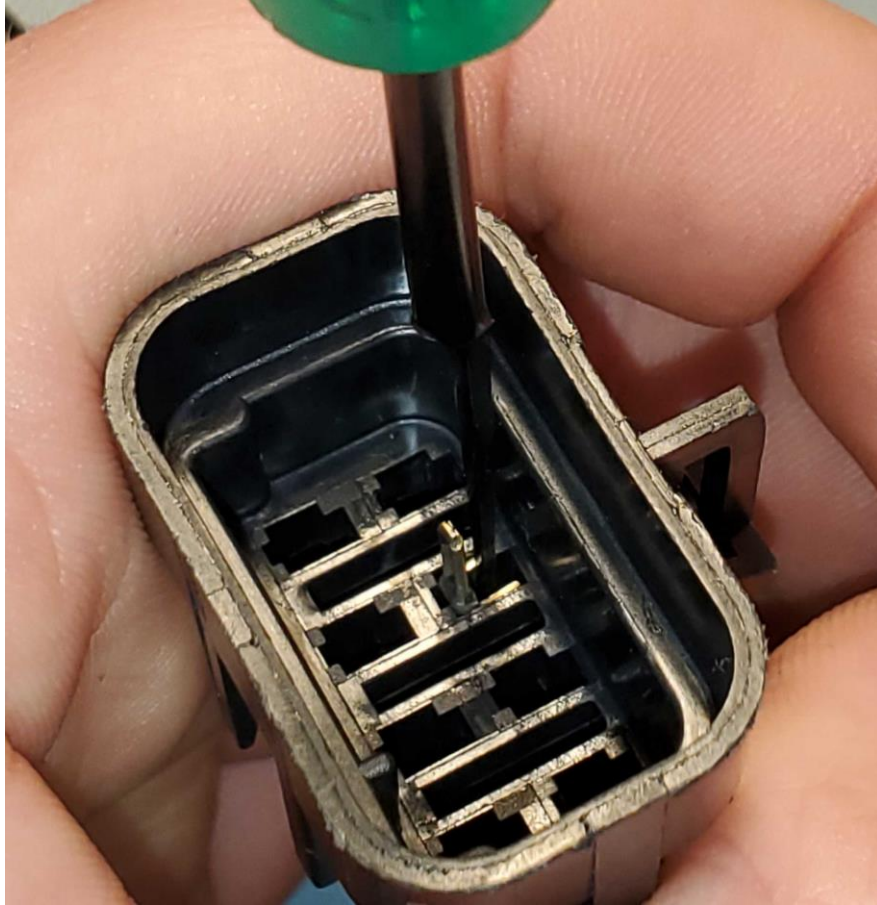
Number

This output will activate when is

Enable Secondary Deactivation and deactivate at **Hysteresis Mode**

Note for De-Pinning METRI-PACK 150 Connectors:

The De-Pinning Tool for METRI-PACK 150 style connectors, like the I/O connector is available through Holley: Part Number (567-101)



Instructional Video on De-Pinning and Crimping can be found here: "HOW TO IDENTIFY, CRIMP, AND DE-PIN CONNECTORS ON A FORD COYOTE WIRING HARNESS"

https://www.holley.com/blog/post/how_to_identify_crimp_and_de-pin_connectors_on_a_ford_coyote_wiring_harness/

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