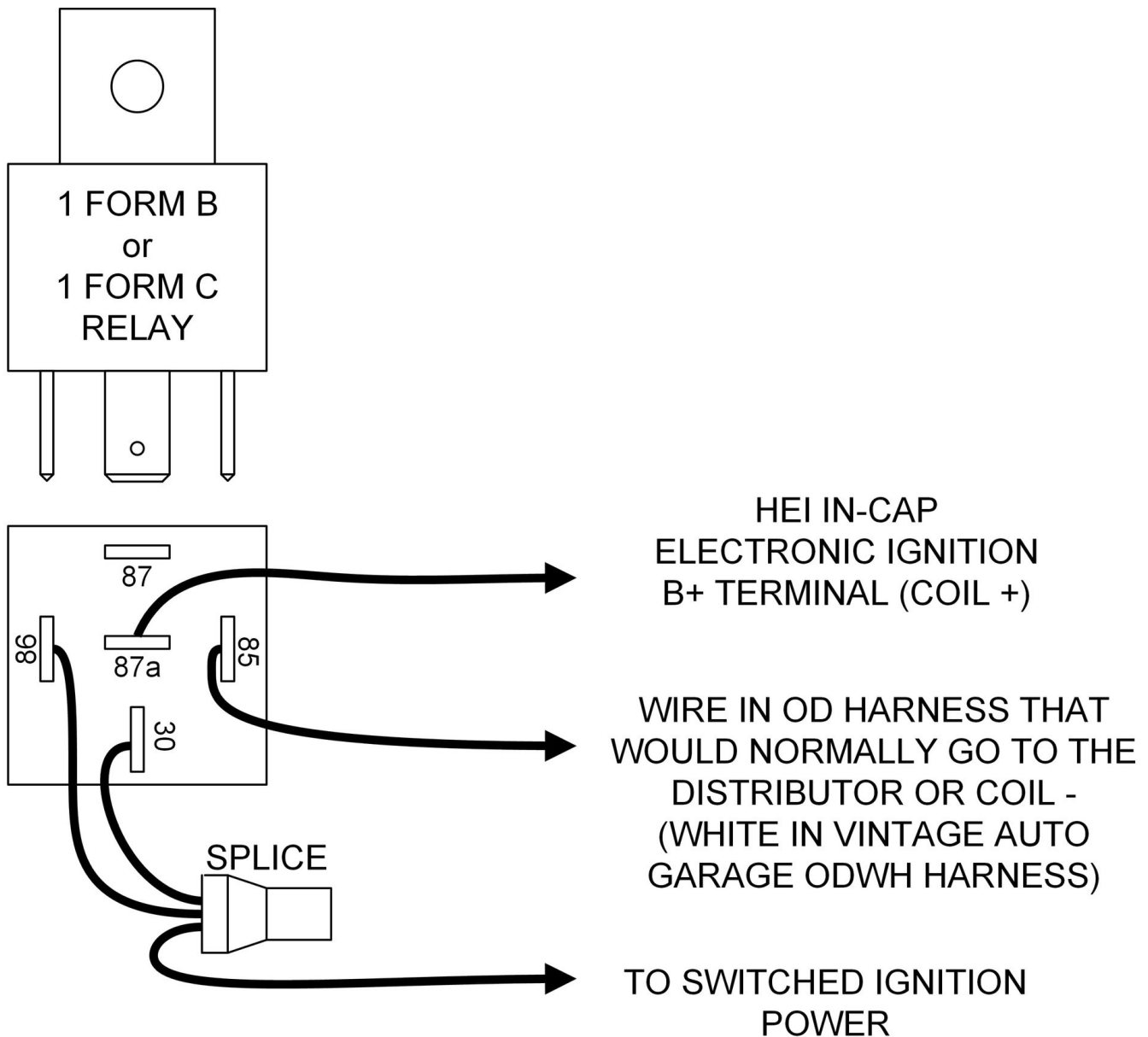


How to connect HEI or Pertronix Ign with Borg Warner R10-R11



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Posted by Jay Johnson / Nathan Grohn on Dec 19th 2021

We have received several requests regarding how to connect HEI, electronic distributors and or

Pertronix ignitors when operating Borg Warner R10 or R11 overdrives.

Let's refresh how the Borg Warner OD interacts with the ignition systems. When in overdrive and the gas pedal is depressed all the way, this opens a set of contacts and closes another set in the kick down switch, this places a momentary ground on the negative side of the coil (in a negative ground vehicle). This action stops the engine for a moment and takes the torque off the transmission much like depressing the clutch, this allows the pawl to release in the OD and "kick out of overdrive". And all this happens very fast, Then when the gas pedal is released the OD will re-engage.

Now introduce electronic and HEI distributors where grounding out the coil or distributor will damage the electronic modules by introducing a voltage spike and the engine will be dead and more than likely need to replace the modules.

The best way to create the ignition interrupt is to remove the current going to the ignition module. This can be accomplished with a simple relay that is connected to the white wire in the Vintage Auto Garage OD wiring diagram and connecting the relay to switched 12 volts,

OD wiring diagram Link: <https://vintageautogarage.com/content/resources/ODWH-Diagram-v1.01b.pdf>

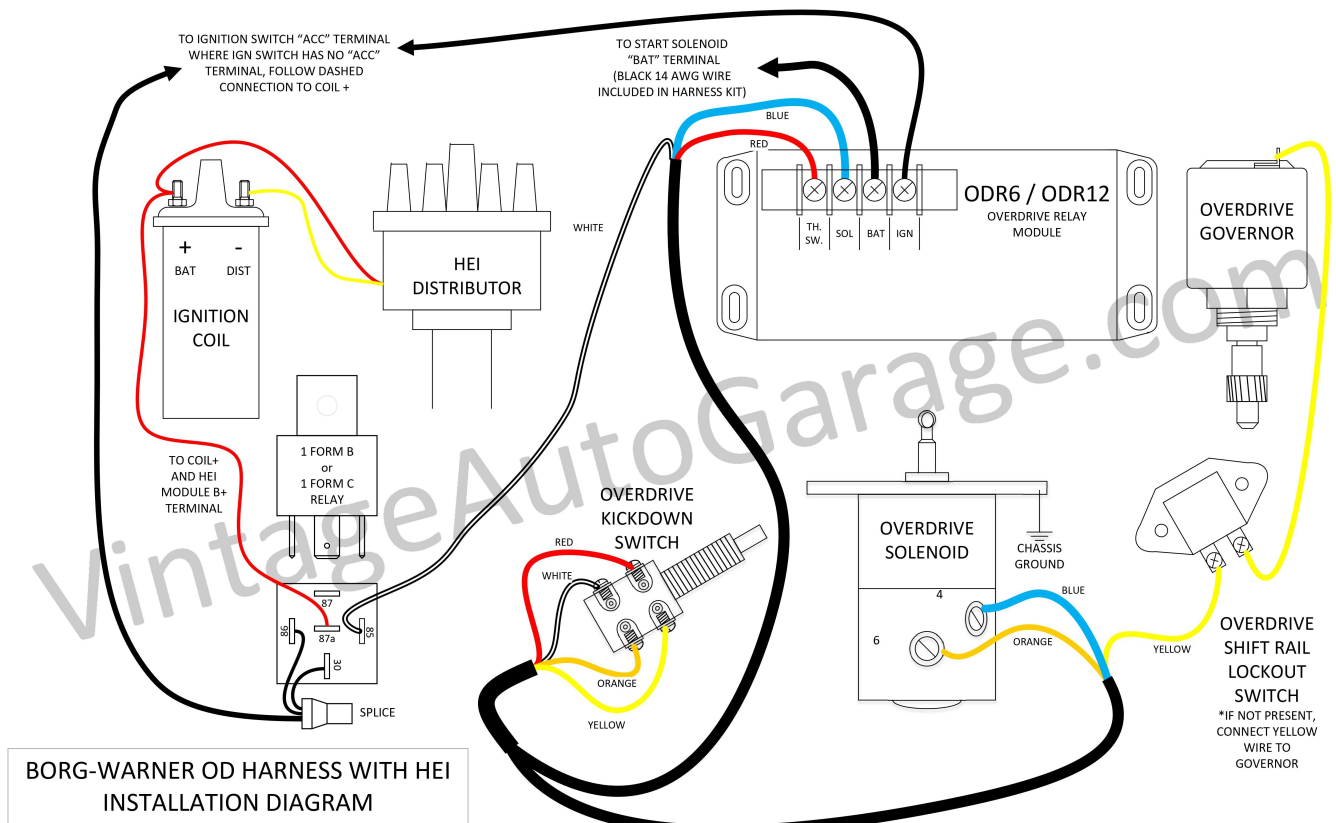
When looking at the OD diagram and reference the relay below, instead of connecting the white wire to the distributor or negative side of coil connect the white wire to the relay as shown.

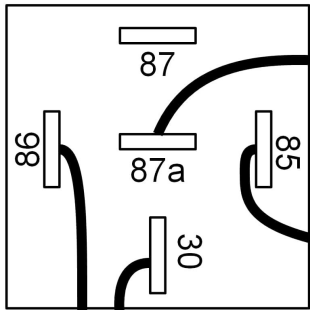
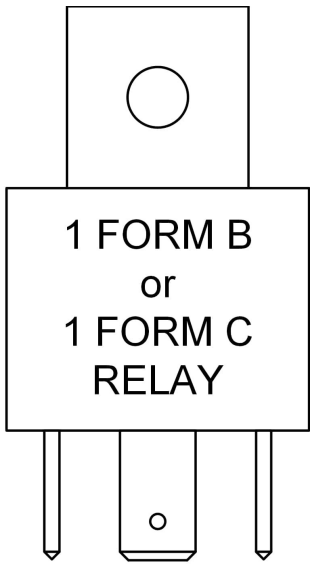
When the kick down switch is depressed this action will momentarily remove the voltage from

the HEI or electronic distributor, stop the engine and will kick out of overdrive.

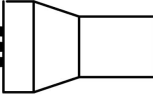
Hope this helps clear-up any confusion.

12 volt relays can be found at most local auto parts store.





SPLICE



HEI IN-CAP
ELECTRONIC IGNITION
B+ TERMINAL (COIL +)

WIRE IN OD HARNESS THAT
WOULD NORMALLY GO TO THE
DISTRIBUTOR OR COIL -
(WHITE IN VINTAGE AUTO
GARAGE ODWH HARNESS)

TO SWITCHED IGNITION
POWER