



Hemi Smart Coil P/N 556-162 & 556-163

This coil is designed for use with Holley® HP and Dominator ECU's, as well other EFI systems that can drive "smart" ignition coils. Although it is designed for high powered race applications, it can be used on street driven vehicles as well.

Specifications:

Peak Voltage – 32,000 Volts

Peak Output – 150 mJ

Maximum Battery Voltage – 20.0 Volts

Mating Connector – Delphi P/N 12162825 "Pull to Seat"

Connector Pin – Delphi P/N 12124075 "Pull to Seat"

NOTE: The wire must be fed through the back of the housing, out the front, and then the pin crimped. Pull the wire back in to seat it.

Wiring:

The following refers to Holley® HP and Dominator EFI systems:

Pin A – Coil Trigger. Connect to individual ECU EST Outputs. EST A should go to cylinder #1, EST B to cylinder #2, etc. Any gauge wire is acceptable. A 5V signal triggers this coil.

Pin B – Coil Trigger Ground. These can all be tied together and go to Pin B14 (EST Ground Output). Any gauge wire is acceptable.

Pin C – Ground to Cylinder Head. This ground **MUST** go to the cylinder head that the coil is discharging to. It is recommended to tie each cylinder bank together. Do **NOT** connect any other grounds to this point. This **MUST** be the only ground in this location. It is recommended to use an 18-20 gauge wire for each coil, and then tie them to a single 10-12 gauge wire.

Pin D – Battery Ground. This high current ground should go to the battery or to a ground stud that is directly connected to the battery. Don't ground on sheet metal, etc. It is recommended to use 18-20 gauge wire, and then tie to a single 10-12 gauge wire.

Pin E – High current switched +12V Power. Do **NOT** connect directly to the battery. It is recommended to install to a 40A relay source. Use 18-20 gauge wire for each coil, and then tie to a single 10-12 gauge wire.

Graphs showing energy output vs. dwell for 12V and 16V batteries are shown on the next page.

NOTE: They assume use of an alternator and are shown for 14V and 18V accordingly.

Holley EFI ECU recommended dwell: Use the 14V graph below when referencing dwell settings for Holley EFI products. Holley ECU's have a background battery voltage compensation for ignition dwell. It is based off a nominal 13.8/14.0 volts and adds/reduces dwell for voltages above and below. Use a maximum of 4.5 milliseconds for full coil output and lower levels under idle/cruise conditions (when using a dwell table).

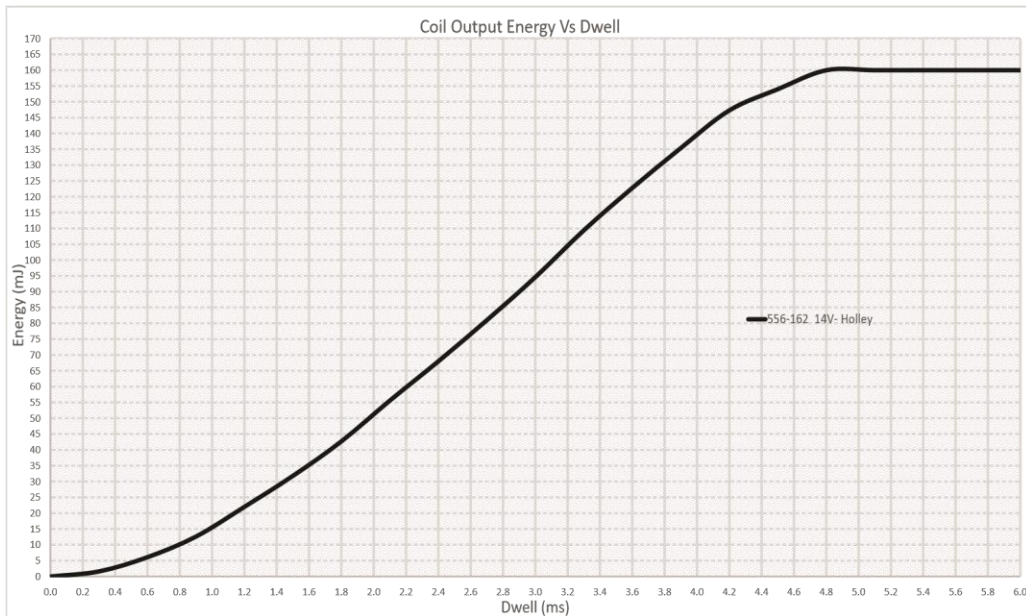


Figure 1 – 14V Energy Output Graph

On 12 Volt systems, the optimal dwell setting is 4.5 milliseconds for peak power.

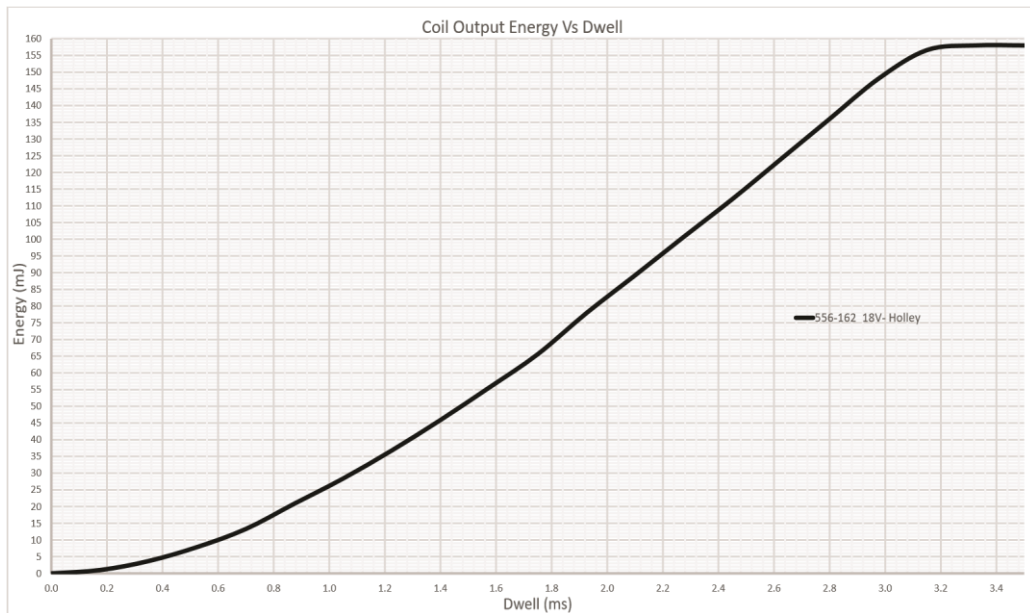


Figure 2 – 18V Energy Output Graph

On 16 Volt systems, the optimal dwell setting is 3.0 milliseconds for peak power.