MSD #8000 Pro 600 CDI to Holley EFI

Minimum Software/Firmware: V5 Build 120 is required to use the Pro 600 with Holley EFI

Overview:

The MSD Pro 600 has several unique features available when used with Holley EFI. The first is that the power output of the Pro 600 is adjustable via a table in the Holley EFI software. The second is that diagnostic data from the Pro 600 can be recorded in the Holley EFI for review. The only thing required to use these features is the CAN to be connected between the Holley EFI and MSD Pro 600.

Installation:

To enable the use of the Holley EFI features of the Pro 600 you will need to connect the Pro 600 to the Holley CAN using the supplied harnesses or with the addition of a CAN extension harness.

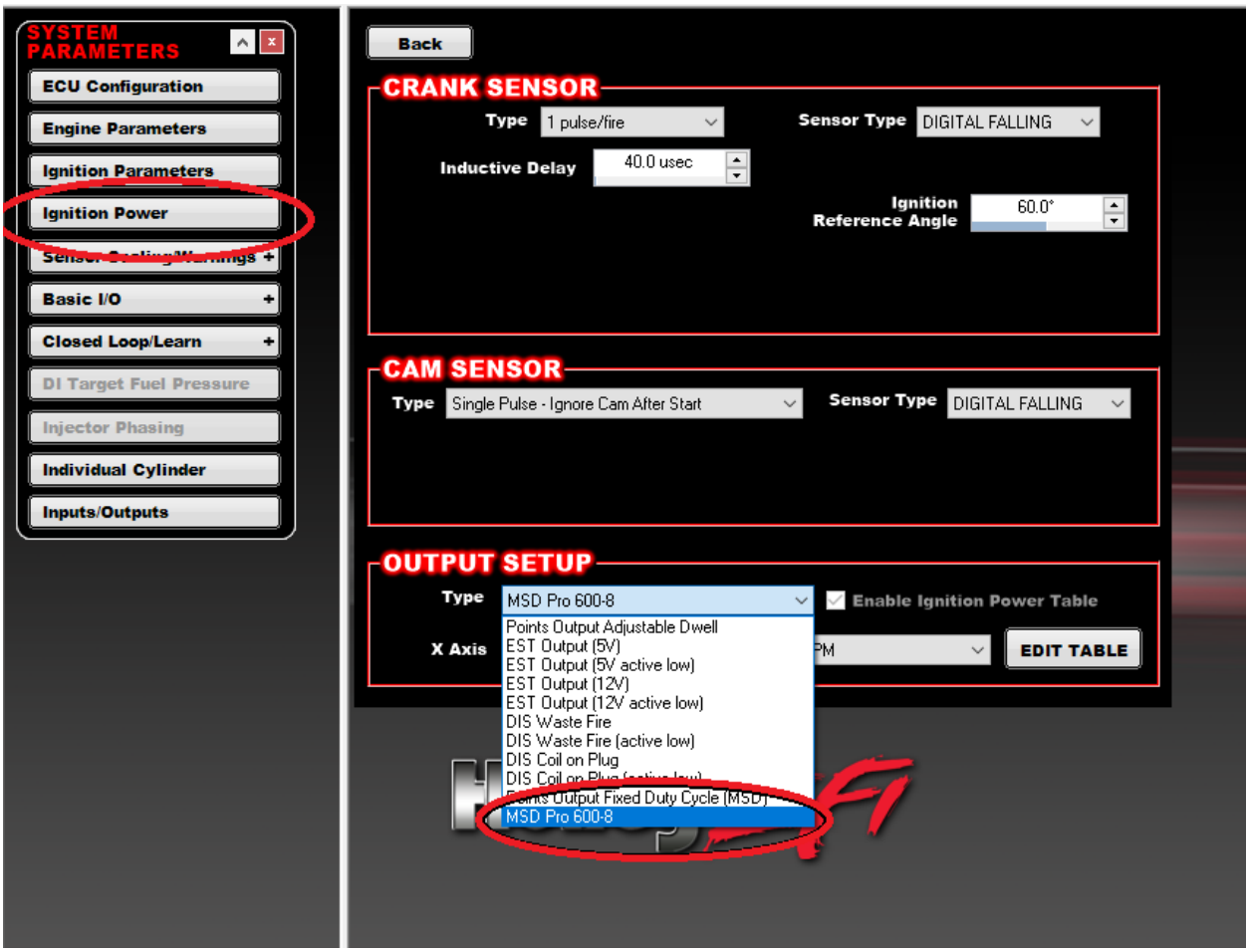
HOLLEY PART NUMBER	LENGTH
558-428	9 inches
558-424	4 feet
558-425	8 feet
558-426	12 feet

Software Setup:

The MSD Pro 600 has the ability to adjust its power level via the Holley EFI software when the CAN harness is connected between the Holley EFI and the MSD Pro 600. To setup the Holley EFI software for use with the Pro 600, start by configuring a Custom Ignition type with your Crank and Cam sensors.

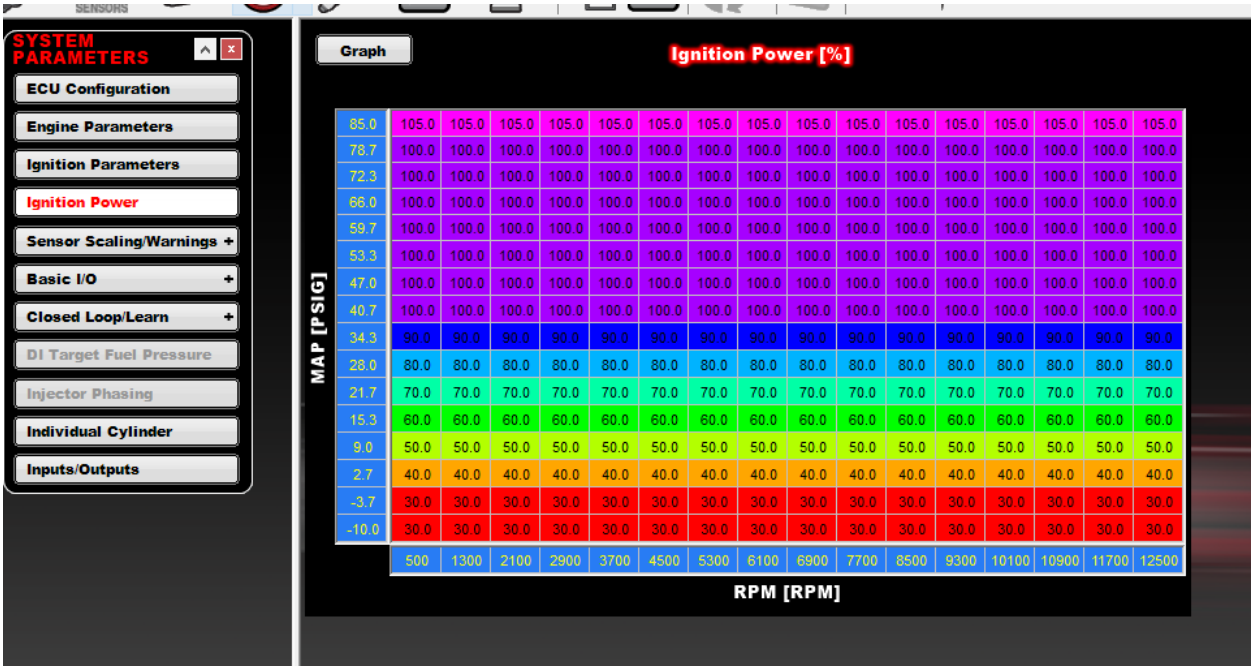
Power Table:

Select the ignition output type “MSD Pro-600-8”. You will then be able to select your axis for the ignition power table available on the left side selection pane.



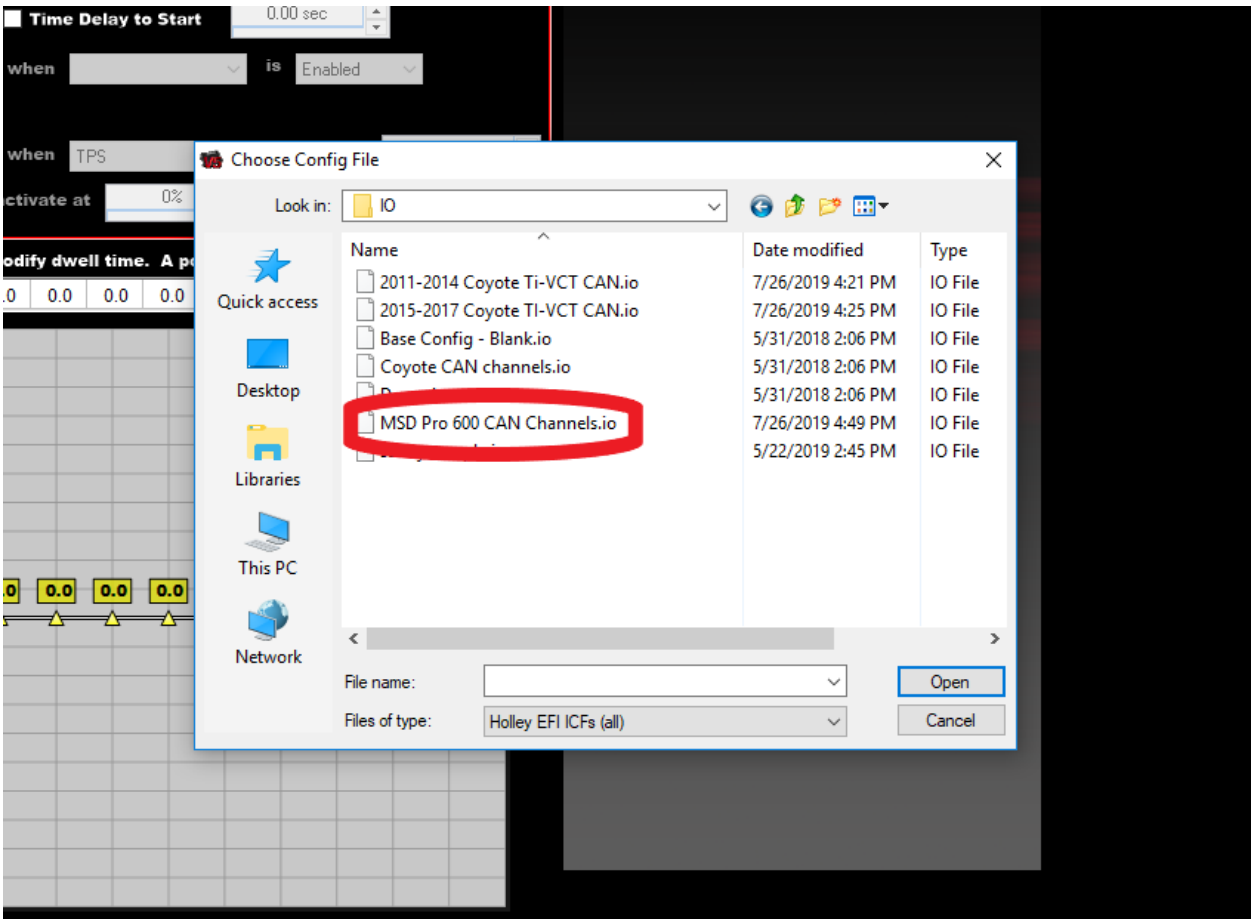
The Ignition power table has selectable axis to adjust the power output of the Pro 600. The table has a range of 30% to 105%. 100% is equivalent to 600mj and is the maximum recommended value for sustained use.

NOTE: The Pro 600 will accept a power level between 24% and 113% from Holley EFI. This is important to keep in mind if you are using advanced tables to modify the power output. The Pro 600 will use the last valid power level input sent to it.



Telemetry:

There is an IO ICF included in the software with each of the channels already set up. It is recommended to load this ICF either directly or via the comparison function to import the desired channels. Users can also directly setup channels in the IO ICF if desired.



CAN Channel name	**Description**
Current Temp	Internal temperature of the Pro 600
Battery	Battery voltage measured at the Pro 600
Converter Volt	This is the voltage measured at the capacitor and will be a function of the desired power level and available battery voltage
Converter Energy	This is the millijoule energy measured at the capacitor and will be a function of the desired power level and available battery voltage
Miss Counter 1-8	The miss counter looks for an open load condition and will increment each time the ignition detects an open load condition. An Open-Load condition occurs when the secondary voltage is unable to break the gap, and no secondary current occurs. This can usually be seen by a spark period that is greater than 200usec.
Spark Period 1-8	The spark period is the length of time for the first ignition oscillation. This oscillation will vary based on the coil and overall ignition load. A deviation from the typical period (frequency) can indicate an issue with that channel. For example, a shorted coil causes the period to shorten (higher frequency) while an open load causes the period to increase (lower frequency).
Efficiency 1-8	The efficiency is the ratio of energy at the ignition capacitor before and after the first ignition cycle. Typically, this ratio is around 60%, but it is dependent on the ignition coil used and spark load.

Fault Mask

The fault mask parameter is a decimal number representation of a series of bits that can be either 1 or 0. The easiest way to use this parameter is to use a decimal to binary conversion application, such as windows calculator.

Bit 0	Open Load 1
Bit 1	Open Load 2
Bit 2	Open Load 3
Bit 3	Open Load 4
Bit 4	Open Load 5
Bit 5	Open Load 6
Bit 6	Open Load 7
Bit 7	Open Load 8
Bit 8	Open Coil 1
Bit 9	Open Coil 2
Bit 10	Open Coil 3
Bit 11	Open Coil 4
Bit 12	Open Coil 5
Bit 13	Open Coil 6
Bit 14	Open Coil 7
Bit 15	Open Coil 8
Bit 16	Coil Shorted 1
Bit 17	Coil Shorted 2
Bit 18	Coil Shorted 3
Bit 19	Coil Shorted 4
Bit 20	Coil Shorted 5
Bit 21	Coil Shorted 6
Bit 22	Coil Shorted 7
Bit 23	Coil Shorted 8
Bit 24	Converter Shorted
Bit 25	Over Temperature
Bit 26	15V Supply

Other Considerations:

The dwell table offset in the advanced ICF will become the ignition power offset when switching to the MSD Pro-600-8 and vice versa when switching from the MSD Pro-600-8 to other styles of ignition output. There are several safeties in the software to prevent errors when switching between output types. However, it is still very important to check the advanced tables when changing ignition output types to avoid unwanted modifiers being applied.