

## INSTALLATION MANUAL: CDI OPTIONS QUICK SHIFT SYSTEM – TPS – Power Jet

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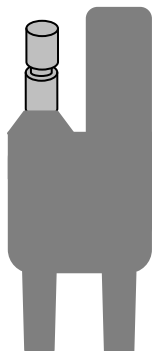
### Quick shift – shift delay:

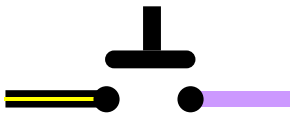
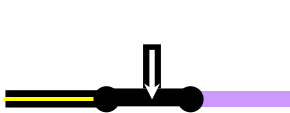
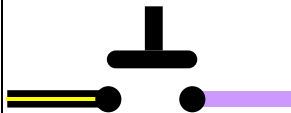
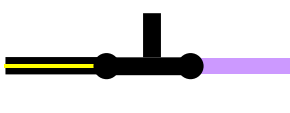
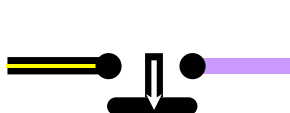
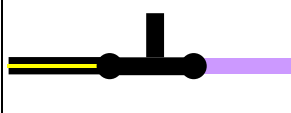
The HPI Shift Delay Function enables you to shift gears without clutching or throttling down.  
The flexibility of the system allows you to fully adapt it to your needs:

- The SD system can be programmed to work with every type of switch.
- The active period is settable from 0 to 1000 ms.
- The SD system can cut the ignition or delay the ignition by 60° during the active period.
- Included counter plug to wire up your switch.

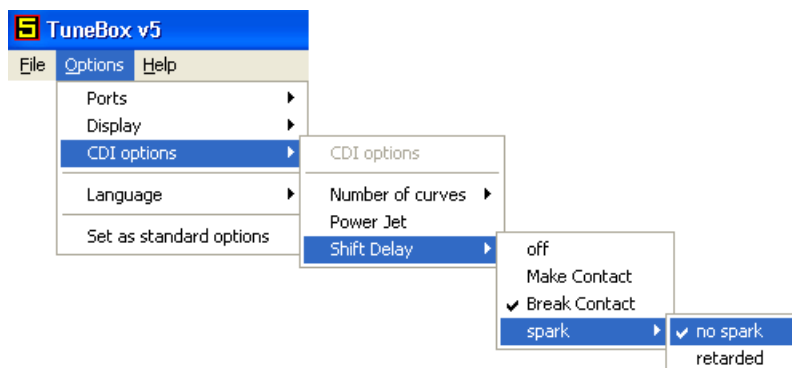
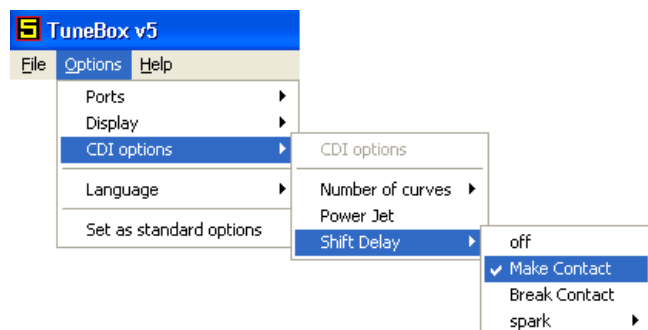
The table below shows all possible setups.  
Determine which switch type you are using, normally open or normally closed.

Usually a button or switch with a short lever is used, so that the button immediately picks up the movement of the gearing pedal. The longer the lever, the longer it takes before the button will react.  
The used button should not be sensitive to vibrations; these may cause to start the Shift Delay to start unwanted.

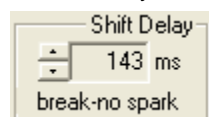


	1	2	3
<b>Normally open switch</b>			
<b>MAKE contact reaction</b>	Normal driving Contact is open	Hitting the button Contact closes – MAKE Shift Delay period starts	Releasing the button Contact opens SD period continues
<b>Normally closed switch</b>			
<b>Break contact reaction</b>	Normal driving Contact is closed	Hitting the button Contact opens – BREAK Shift Delay period starts	Releasing the button Contact closes SD period continues

Use the TuneBox software to change the settings of the SD system.  
Choose the make or break contact reaction in the dropdown menu.  
Here you can also choose to delay or to cut the ignition.

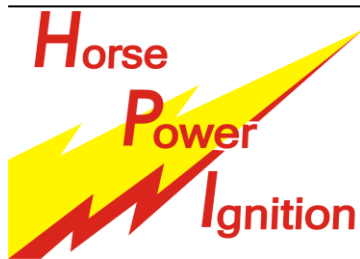


In TuneBox you can also determine the length of the period that the Shift Delay effect will take place.



Use the arrow to set the period of the Shift Delay.  
You can enter any value between 0 and 1000 ms.  
In most cases a value about 200 ms is sufficient.

If you don't have a shift sensor or if you don't want to use the shift system, you should turn off the Shift delay system in TuneBox.  
This will prevent the system to start the Shift Delay unwanted. Go to the TuneBox Options menu => CDI options => Shift Delay => and select "off", or you can set a period of 0 ms.



# INSTALLATION MANUAL: CDI OPTIONS

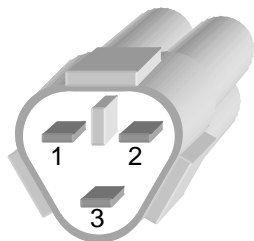
## QUICK SHIFT SYSTEM – TPS – Power Jet

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### TPS:

The HPI Throttle Position Sensor system allows you to fine-tune your engine even further.

The HPI CDI can take 5 curves, automatically selected by the TPS position.



If your bike is already equipped with a TPS, the HPI CDI equipped with this feature will use the same connectors or pins as the OEM CDI. So you don't have to worry about rewiring your bike.

If the OEM bike does not have a TPS, HPI will equip the CDI with a 3 pole connector and counter part, this connector is widely used as connector for TPS.

1	yellow	TPS signal
2	blue	5V power
3	black	GND

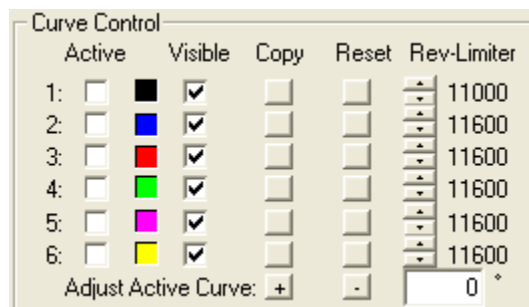
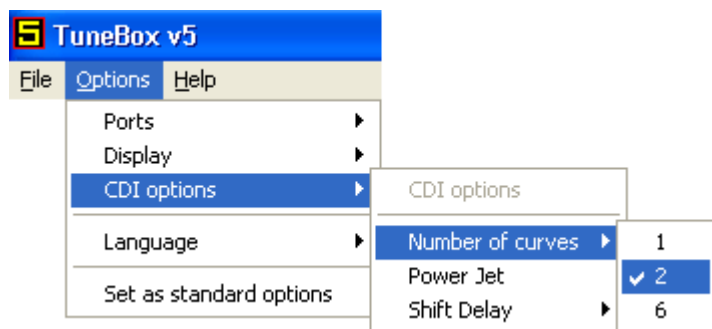
A HPI CDI with TPS always comes with a handle bar button. Switch the button to turn the TPS function on and off while driving.

When the handle bar switch selects MAP 1, the CDI will always select the curve 1, black curve in TuneBox.

Use this curve for sound, emission or rpm controls.

When the handle bar switch selects MAP 2, the CDI will select curve 2-3-4-5-6 according to the TPS position.

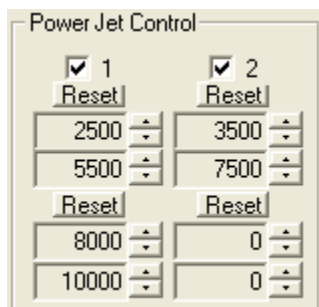
If you don't have a TPS on your bike, disable the TPS system in TuneBox by selecting 1 or 2 curves.



### Power Jet

The HPI Power Jet function allows you to drive a Power Jet, exhaust valve, air box, light... related to the engine's rpm.

If your bike is equipped with a Power Jet, the HPI CDI will use the same connectors or pins as the OEM CDI. So you don't have to worry about rewiring your bike.



A HPI CDI can carry 2 Power Jet exits, both independently settable with TuneBox.

Each Power Jet exit can be activated twice over the RPM range.

There is only 1 set of PJ settings, the PJ will be activated at the same rpm in all curves.

In the defined rpm range, the power jet exit will be driven to GND with a maximum load of 1.7 Amps.