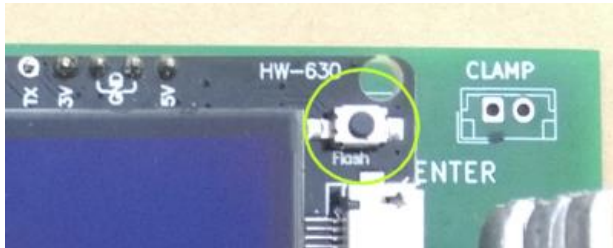# CDI TESTER V4 AND SCOPE

Start-up Configuration

Connect 12Vdc power to the board.

CDI Simulator/Analyser (top display)

Use the top Potentiometer to change settings of the CDI Tester.
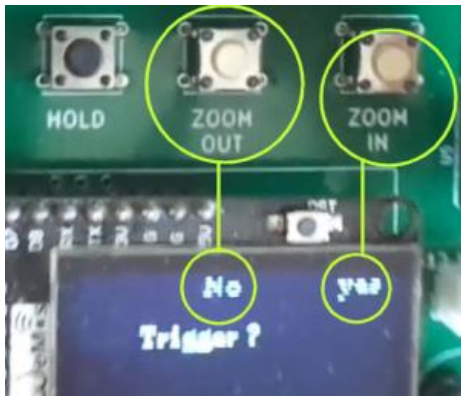The top button on the display unit is the ENTER key.

Oscilloscope (bottom display)

The unit will scroll through some options on the screen. Yes or No answers are asked.
Press ZOOM OUT button to select the value on the left of the screen.
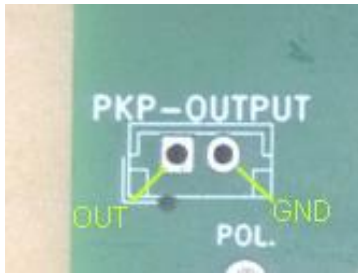Press ZOOM IN button to select the value on the right of the screen.

Adjust the POL trim potentiometer to adjust the centreline of the scope to the centre of the screen

Simulated RPM output
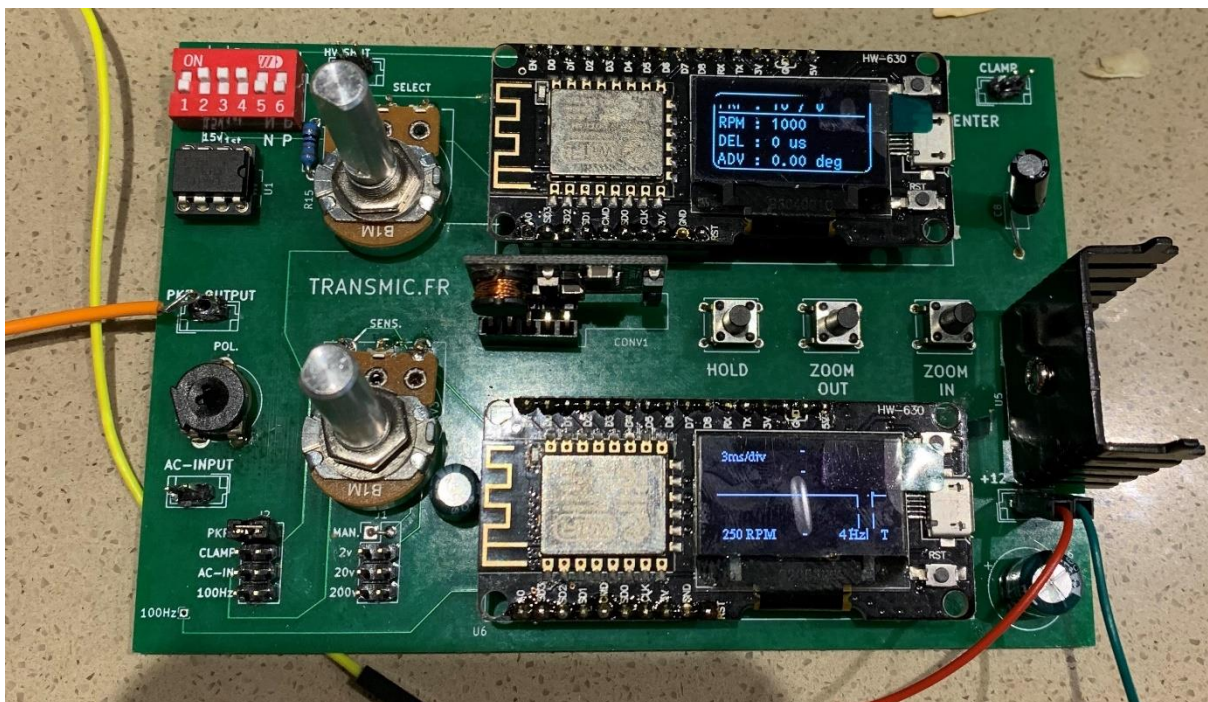
The RPM output is available at the PKP-OUTPUT connector.

Set the jumper

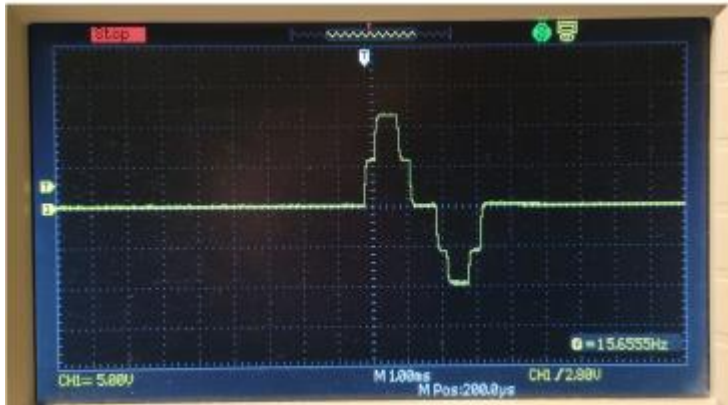| PKP	On
Clamp	Off
AC-IN	Off
100 Hz	Off

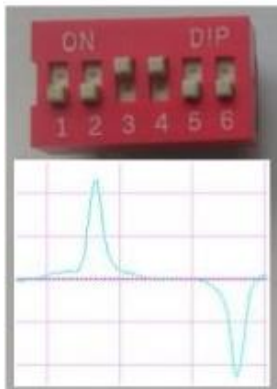Adjusting the top potentiometer will change the rpm output quantity

Measure Advance Timing

The pickup type needs to be set on the tester to match your CDI. There are 2 types.

Positive/Negative (PN)

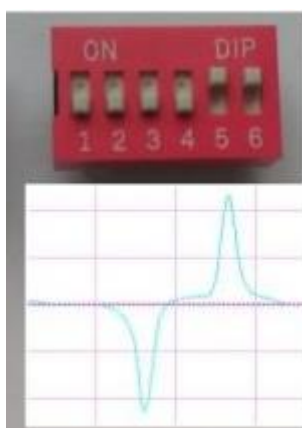Set Dip switches on the top left of the board

1	Load On/Off	Off
2	15v / 6v	Off
3	P	**On**
4	N	**On**
5	N	Off
6	P	Off

Negative/ Positive (NP)

Set Dip switches on the top left of the board

Dip Switches

1	Load On/Off	Off
2	15v / 6v	Off
3	P	Off
4	N	Off
5	N	**On**
6	P	**On**

PICKUP VOLTAGE.

The simulated pickup signal is 30Vpp (+15v and -15v) or can be reduced to 12Vpp (+6v -6v) with Dip Switch N°2.

Dip Switches

1	Load On/Off	Off
2	15v / 6v	On
3	P	Off
4	N	Off
5	N	Off
6	P	Off

Highly Capacitive CDI/TCI

If the CDI/TCI pickup input is highly capacitive, use Dip Switch jumper N°1 to connect a pull down resistor on the circuit. (L for Load)

Dip Switches

| 1	Load On/Off	On
2	15v / 6v	Off
3	P	Off
4	N	Off
5	N	Off
6	P	Off

Measure Advance Timing DCTCI/DCCDI

With the help of a Capacitive Probe hooked to the sparkplug wire, this tester can measure the time that goes by between transmitted pickup and received spark and display the advance timing of the DCTCI/DCCDI under test.

Connect the 12v power as outlined above. The flywheel pickup input of the CDI unit to the PKP output. The jumper on the bottom left to PKP. The CDI coil output to clamp positive input on the top right of the PCB. Better accuracy is reached when width is set to "0".

select pickup position (60°btdc)
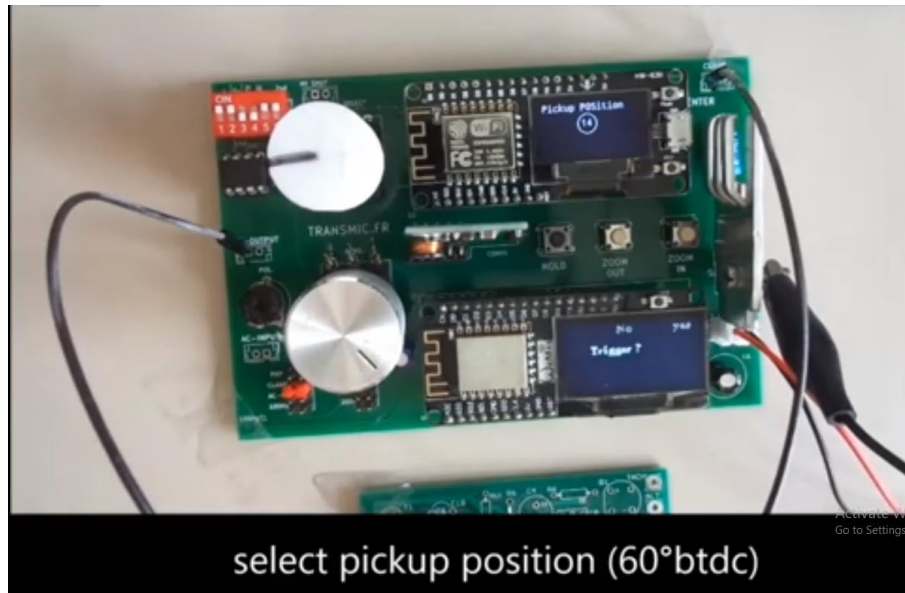
Set the pickup position at 60 degree btdc by turning the top potentiometer and pressing the top right button (enter) of the CDI Simulator/Analyser (top display)

select pickup width (0deg)
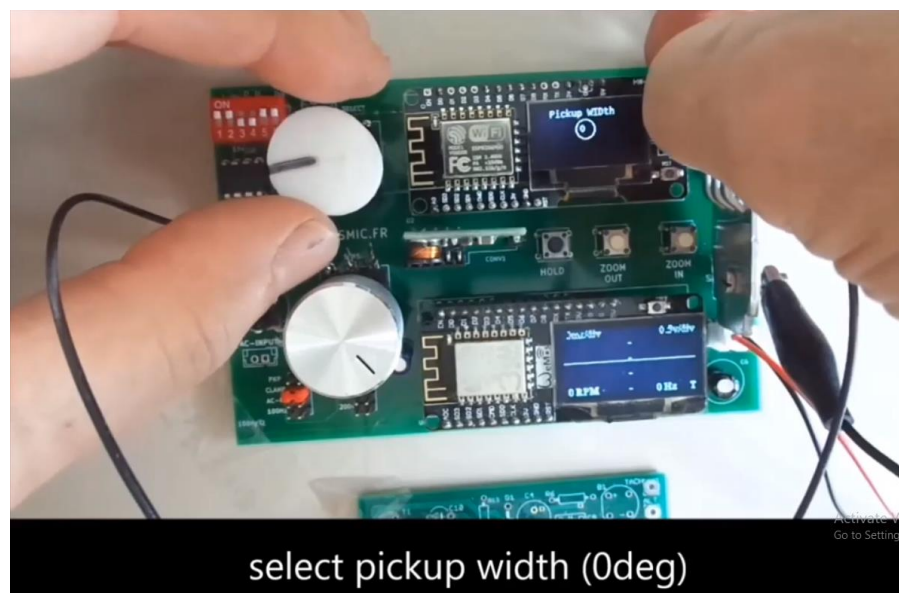
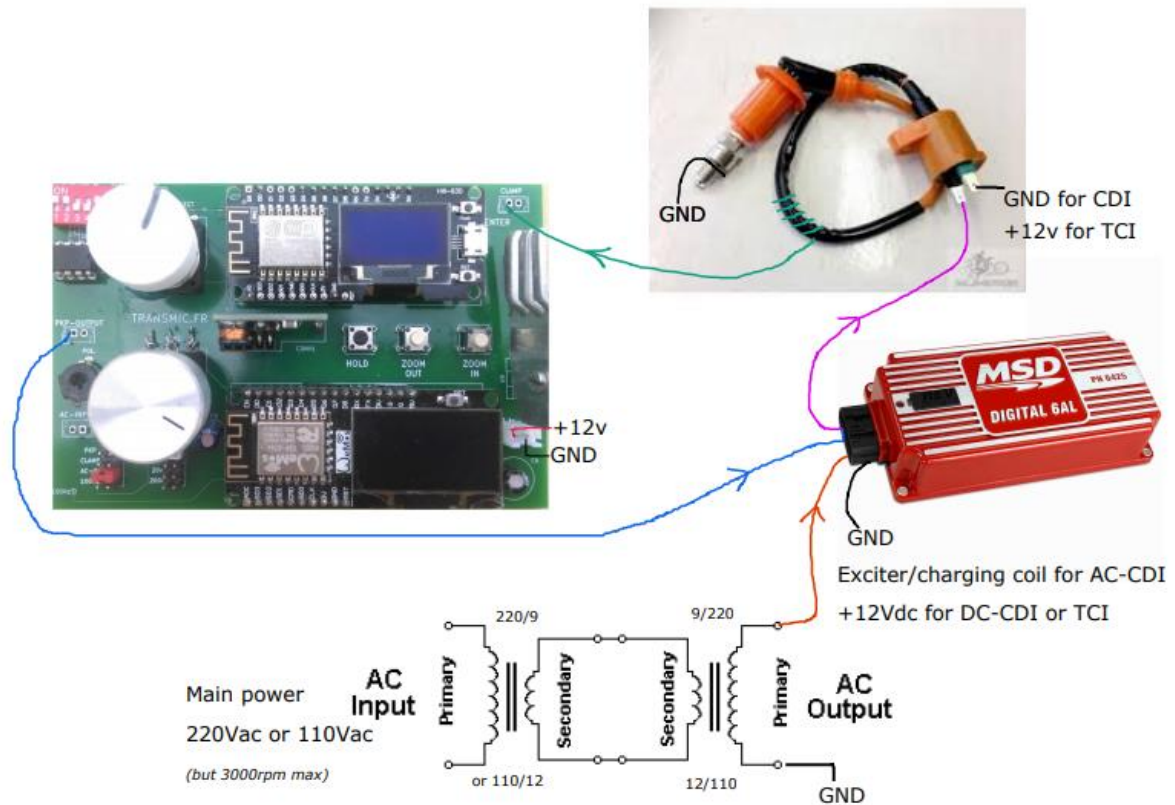Now set the pickup width to 0 degrees.
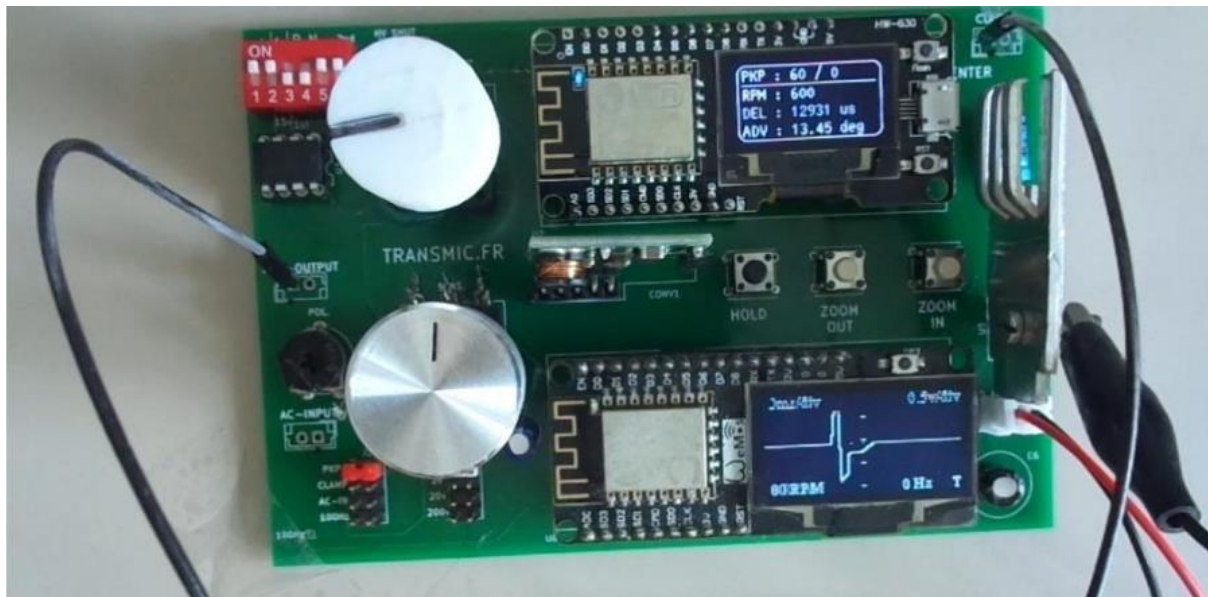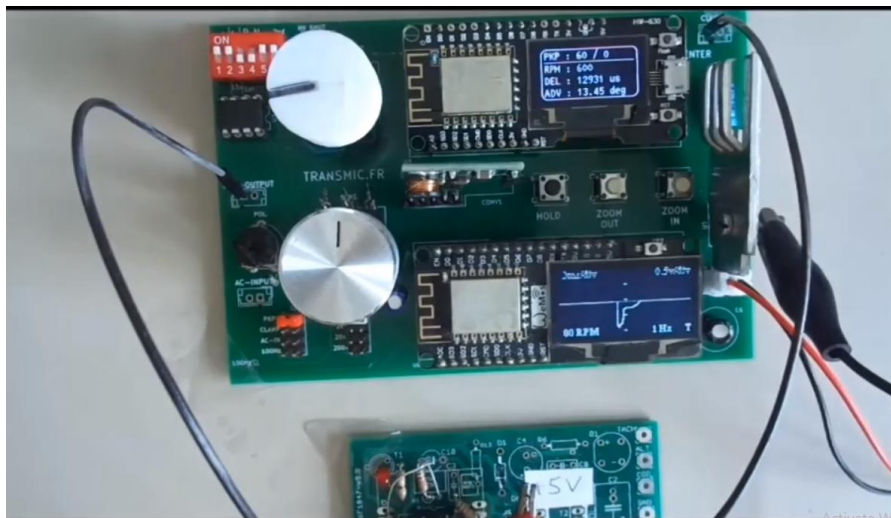
Measure Advance Timing ACCDI

To test ACCDI you will need an external High Voltage power supply (not provided).

AC-CDIs need a charging coil that provides 100 to 300Volts.
No HV source is provided with this Analyser.

You can use the main power toward an isolation transformer

But keep in mind the main frequency will limit the RPM reachable by the ACCDI.

(50Hz = 3000rpm max, 60Hz = 3600rpm max)

Please Note

You cannot test simple analogue CDI like GY6 (They only use resistors and capacitors and the advance timing comes mainly from the voltage of the VR, not from inside those CDI.)

Exporting to CSV File

During extraction, Advance timing is exported in CSV format on live via Serial USB at 115200-N-8-1