04.11.2019

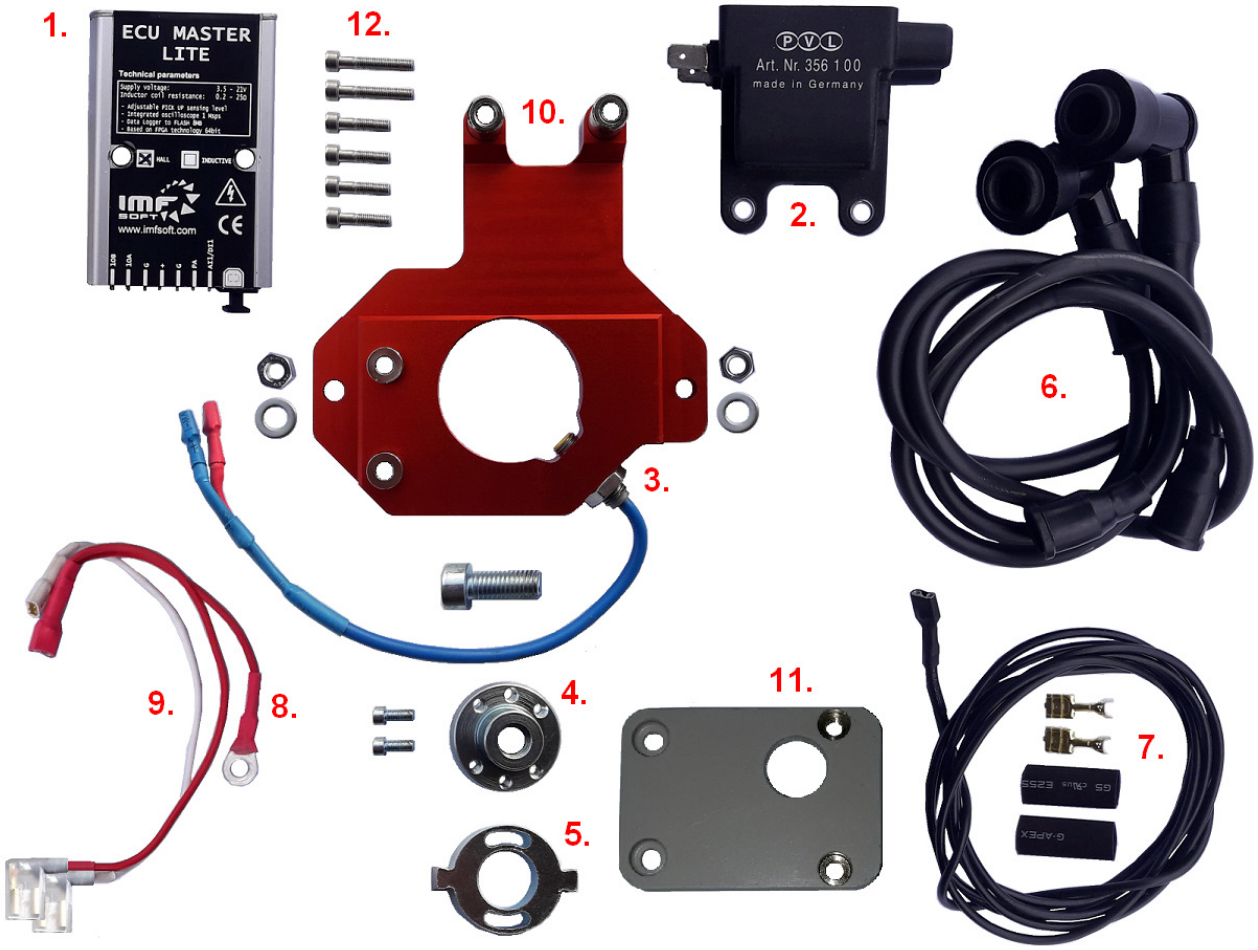
ideas make future

BMW R50/2 - R69S
(11/55-09/69)

ENGINE CONTROL UNIT
PLUG and PLAY – KIT

ENGLISH

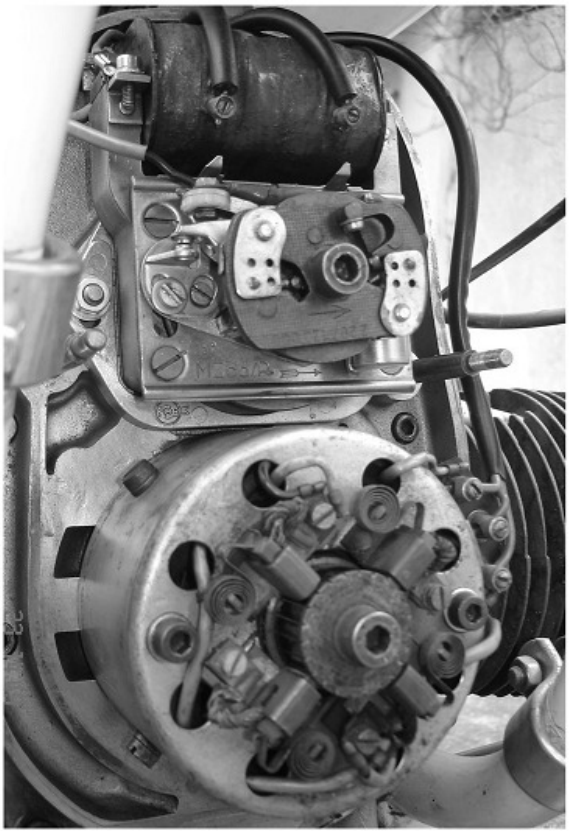
Ignition Kit Mounting Instruction Manual
BMW R50 to R69S made between 11/1955 to 09/1969



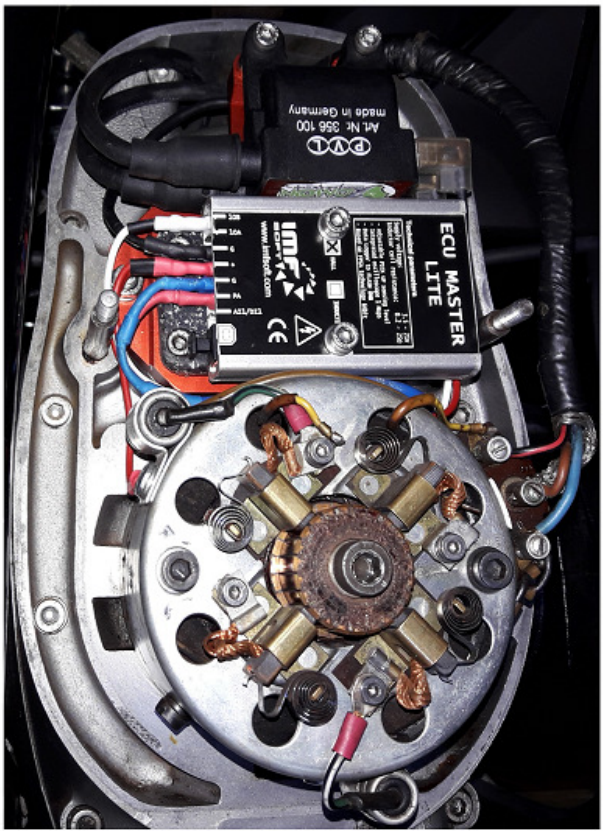
Picture 1 – Ignition Kit Parts

1x	ECU MASTER LITE 80x55x16 mm (Anodized Aluminum)
1x	PVL INDUCTIVE COIL 76x60x40 mm (PVL 356 100)
2x	PVL IGNITION CABLE 600 mm (Plastic + Copper)
1x	Ignition base 116x112x12mm (Red Anodized Aluminum)
1x	Industrial Pick up Sensor M8x23 (Stainless Steel)
2x	Two parts of Trigger-Wheel 30 mm (Stainless Steel)
1x	Ignition Holder (Insulating Polypropylene)
15x	Screws, Nuts and Washers (Stainless Steel)
3x	Connection wires (Red, White, Black)
1x	CD with PC application

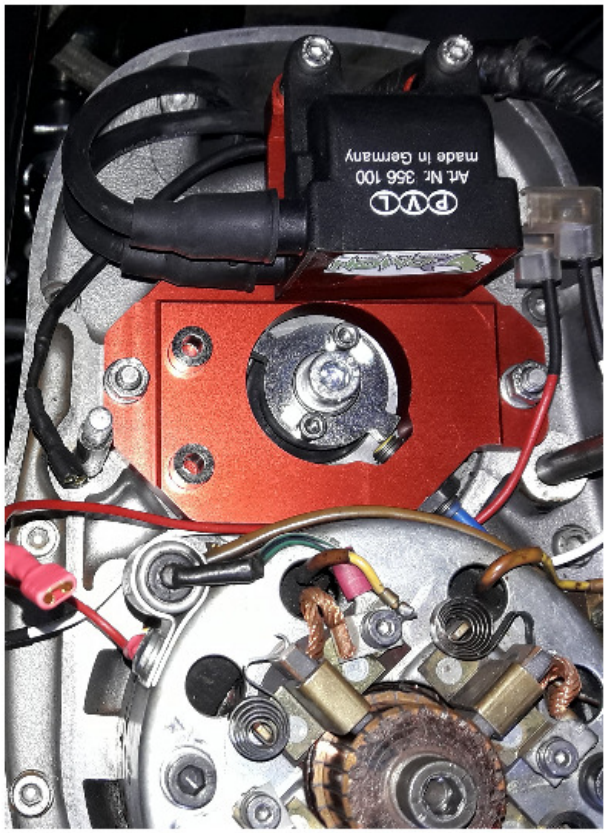
Picture 2 – old hammer ignition



Picture 3 – new KIT installation



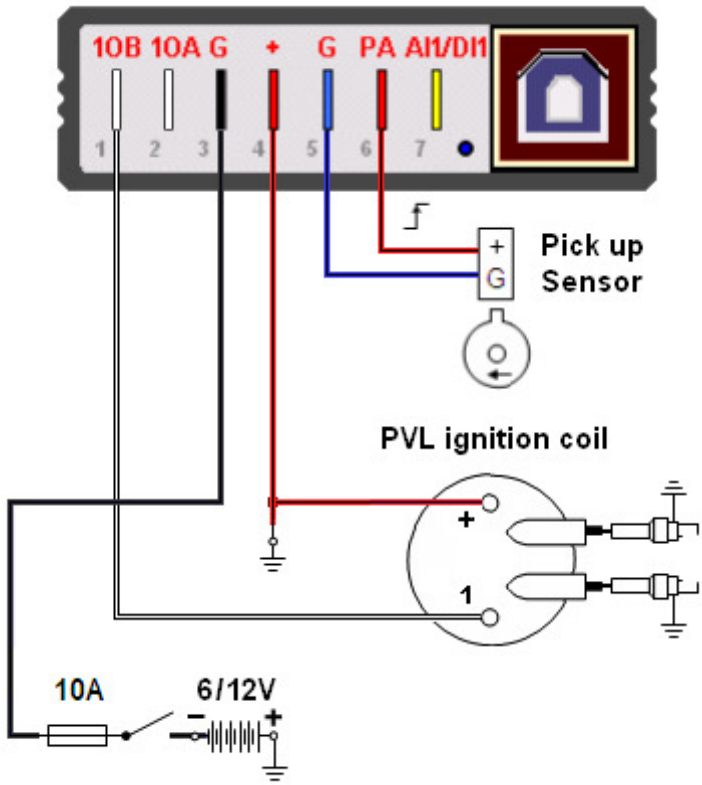
Picture 4 – Setting the Advance of ignition spark by setting the Trigger tooth position



INSTRUCTIONS for variant „+“ on a motorcycle frame

1. Turn the ignition off or disconnect battery
2. Remove old hammer board, hammer cam and its cabeling see Picture.*2*
3. Mount IGNITION BASE with PVL IGNITION COIL (part *2,10,12*)
4. Mount PVL IGNITION CABLE (part *6) to PVL IGNITION COIL (part 2)* and spark plugs
5. Mount Trigger-Wheel Holder (part *4*) to the original camshaft position - use Screw M8
6. Mount Trigger-Wheel (part *5*) directly on Trigger-Wheel Holder (part *4*)
7. Mount Pick up Sensor (part *3*) to IGNITION BASE (part *10)*
8. Tune space between Pick up sensor (part *3)* and Trigger tooth (part *5*) around 0,5mm ***Pick up Sensor Tightening torque up to 2 Nm!***
9. Tune Trigger tooth angle (part *5)*, picture 4 shows the cylinders position at the TDC
10. Mount IGNITION HOLDER and MASTER LITE (part *1,11,12*)
11. Connect Pick up Sensor (part *3)* to unit MASTER LITE – pin **PA** and **G**, picture 3 and 5
12. Connect Red wire (part *8*) to ECU MASTER LITE – pin „+“ and PVL COIL „+“ pole to alternator case („+“ pole on a motorcycle frame).
13. Connect Black wire (part *7*) to ECU MASTER LITE : pin **G** to original Switchbox („+“ pole on a motorcycle frame).
14. Connect White wire (part *9*) from ECU MASTER LITE : pin **1OB** or **1OA** to PVL COIL „-“
15. Turn the ignition ON or reconnect battery, turn the fuel ON
16. Software loaded in the unit is set to default, you can adjust the ignition maps if you wish. Now you can enjoy new power of IMFsoft electronic ignition.

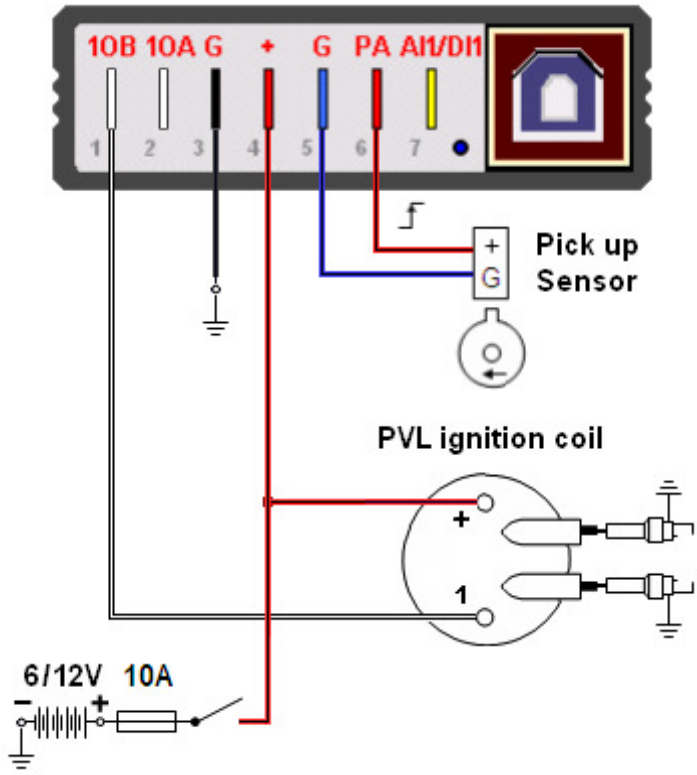
Picture 5 – ECU MASTER connection scheme „+“ on a motorcycle frame



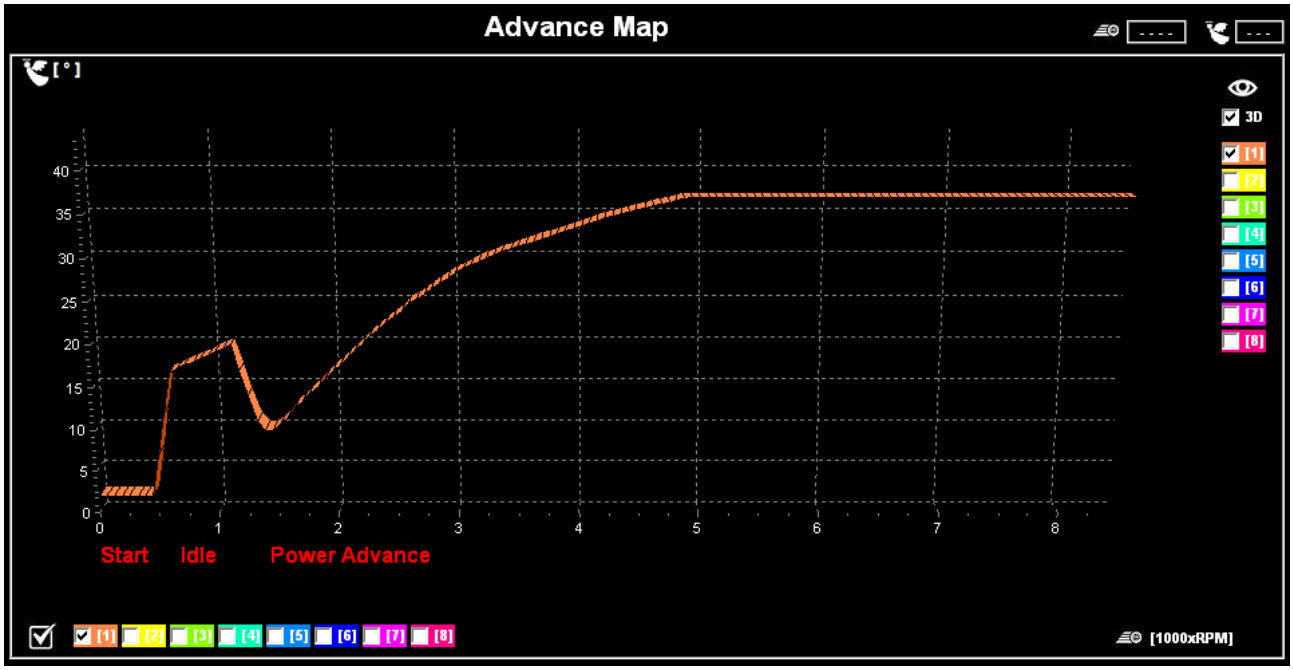
INSTRUCTIONS for variant „-“ on a motorcycle frame

1. Turn the ignition off or disconnect battery
2. Remove old hammer board, hammer cam and its cabeling see Picture.*2*
3. Mount IGNITION BASE with PVL IGNITION COIL (part *2,10,12*)
4. Mount PVL IGNITION CABLE (part *6) to PVL IGNITION COIL (part 2)* and spark plugs
5. Mount Trigger-Wheel Holder (part *4*) to the original camshaft position - use Screw M8
6. Mount Trigger-Wheel (part *5*) directly on Trigger-Wheel Holder (part *4*)
7. Mount Pick up Sensor (part *3*) to IGNITION BASE (part *10)*
   Pick up Sensor Tightening torque up to 2 Nm!
8. Tune space between Pick up sensor (part *3)* and Trigger tooth (part *5*) around 0,5mm
9. Tune Trigger tooth angle (part *5)*, picture 4 shows the cylinders position at the TDC
10. Mount IGNITION HOLDER and MASTER LITE (part *1,11,12*)
11. Connect Pick up Sensor (part *3)* to unit MASTER LITE – pin **PA** and **G**, picture 3 and 6
12. Connect Red wire (part *8*) to ECU MASTER LITE – pin „+“ and PVL COIL „+“ pole to original Switchbox („-“ pole on a motorcycle frame).
13. Connect Black wire (part *7*) to ECU MASTER LITE : pin **G** to alternator case („-“ pole on a motorcycle frame).
14. Connect White wire (part *9*) from ECU MASTER LITE : pin **1OB** or **1OA** to PVL COIL „-“
15. Turn the ignition ON or reconnect battery, turn the fuel ON
16. Software loaded in the unit is set to default, you can adjust the ignition maps if you wish. Now you can enjoy new power of IMFsoft electronic ignition.

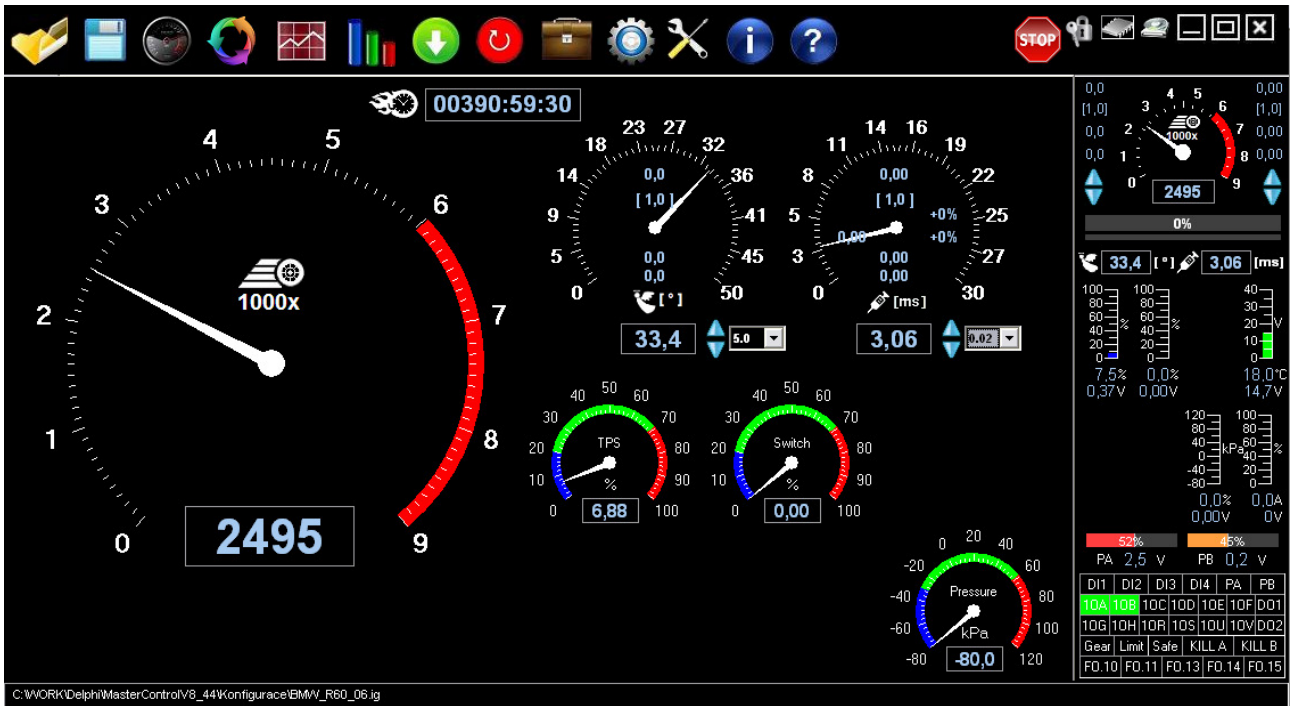
Picture 6 – ECU MASTER connection scheme „-“ on a motorcycle frame



Picture 7 – ECU MASTER LITE – default advance curve



Picture 8 – ECU MASTER LITE – user configuration and diagnostics



Picture 9 – ECU MASTER LITE – integrate oscilloscope screen