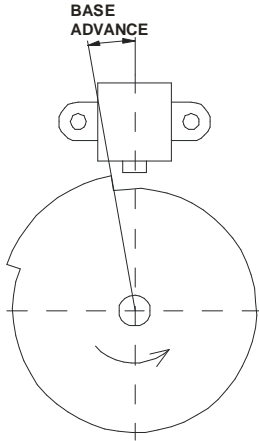


SPARKER DC-CDI-P

- capacitive ignition for bikes - detailed description

SPARKER DC-CDI-P is programmable capacitive ignition. It is designed for pick-up system, that is on next figure (drawing in TOP position). It can also be used by motorbike XT600 older model, KLR600 older model and CBF250.



1. Hardware

Ignition is suffused by PU plastic into plastic box. The ignition is terminated with harness of wires with connectors (2 + 3 + 4 pins connectors 2,8).

yellow	inlet for crankshaft position sensor (CKPS)
blue	ground (for CKPS)
green	input 1 (INPUT 1)
black	input 2 (INPUT 2)
violet	output for Gear shift light (GEAR SHIFT LIGHT)
rot	supply +12 V
blue	ground
orange	output to inductive coil IC
yellow/green	output to tachometer TACHO

Crankshaft position sensor CKPS.

An input is ready for standard pickup sensors used on motorbikes as CKPS.

Input 1 (green)

It possible to choose one of the following functions:

- 1) OFF – no function.
- 2) KILL SWITCH – If the input is connected to ground, the ignition is blocked.
- 3) CLUTCH MASTER - If the input is connected to ground, the ignition is blocked for by software-preset time.
- 4) RETARD - If the input is connected to ground, the advance is decreased by preset value.
- 5) START LIMITER - If the input is connected to ground, the limiter is working with value of start limiter.

Input 2 (black)

- 1) OFF - no function.
- 2) BLOCKING - If the input is not connected to ground, the ignition is blocked.
- 3) CLUTCH MASTER - If the input is connected to ground, the ignition is blocked for by software-preset time.
- 4) RETARD - If the input is connected to ground, the advance is decreased by preset value.
- 5) START LIMITER - If the input is connected to ground, the limiter is working with value of starting limiter.

State of inputs is displayed by software DCCDIP.EXE.

File - includes items

New	- default settings
Open	- opens data file
Save	- saves data into file
Print	- prints the current settings
Exit	- exits the program

Port - includes items **Com1 to Com10** - selection of communication line

Device - includes items

Read	- reads data from the unit
Verify	- compares data in PC with data in the unit
Program	- sends data to the unit and conducts verification

Tools – include items of collective settings

Language – language settings: **English, Czech, and German**

Help – includes items

Help	- opens assembly guide (this file)
About the program	- data on the software (version, date)

Icons menus



- Default settings

Warning!!! Clicking this icon results in automatic default settings of all parameters



- opens data file



- saves data file



- prints the current settings



- see pull down menu **Device**

Setting element

15 adjustable options for revolution/advance

Collective adjustment of the whole advance curve can be done by collective change tool (+ and – buttons with selection **All**)
 When the motor is running current segment is highlighted in the advance curve. Use of collective change tool + and – button without selection **All** - just the current segment will be changed.

Number of items - here is it possible to set number points of advance curve

Base advance - here is necessary inscribe value of base advance (by figure 1)

Setting of pick up system - standard, Kawasaki KLR 600 older model or Yamaha XT 600 older model

Ignitions per revolution - setting of engine configuration
 One cylinder, parallel two cylinder, engine with opposed cylinders=1
 Two cylinder 2x 180° =2
 Three cylinder 3x 120° =3

Limiter - setting of maximal revolution.

Start limiter - setting of maximal revolution for start limiter

Retard - setting of value for reduction advance by retard.

Clutch master time - setting of clutch master time

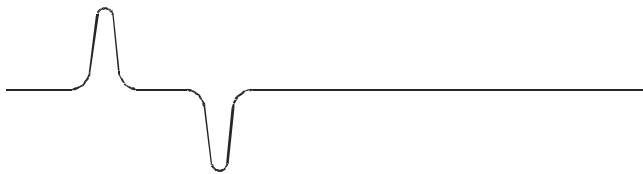
Clutch master pause - setting of clutch master off time.

Programming after a change - automatic programming settings (after every change)

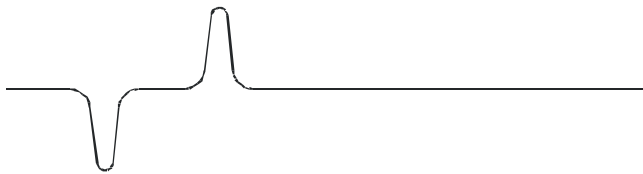
Option for CKPS polarity.

Ignition can work with both polarities of CKPS (**Positive** or **Negative**). Appropriate polarity can be set by software DCCDIP.EXE.

Positive polarity of CKPS:



Negative polarity of CKPS:



If it is impossible to determine polarity, third option **Self search** can be used. This option can bring some problems, especially for engines without starter.

Number of programming: - number of times the unit has been reprogrammed
File: - full path of using file

Monitor

Monitor is located on the right and lower side of the screen – sensor values and motor operational characteristics can be observed here. If there is **No connection with PC** displayed in the upper right corner, the unit is not connected or the Com is not properly set.

RPM	- engine revolution [1/min]
Advance	- ignition advance [°]
Pick up	- displaying whether pick up is running or stopped
U	- supply voltage [V]
Kill switch	- displaying whether kill switch is on or off
Retard	- displaying whether retard is on or off
Blocking	- displaying whether blocking is on or off
Start limiter	- displaying whether start limiter is on or off
Clutch master	- displaying whether clutch master is on or off
Polarity of CKPS	- displaying polarity CKPS