

Autoblipper - Yamaha R6 from 2017 Manual



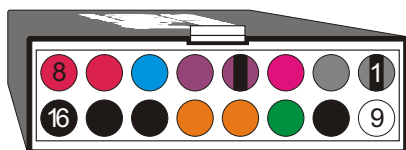
Autoblipper control unit "Shifting ContRoll Autoblipper" (hereinafter referred to as AB) is used for clutchless shifting by downward. Upwards shifting is controlled by stock ECU

For setting of AB unit use software *AB-ContRoll* and cable with USB-micro connector. For download go to www.QS.vyrobce.cz/AB_EN.htm.

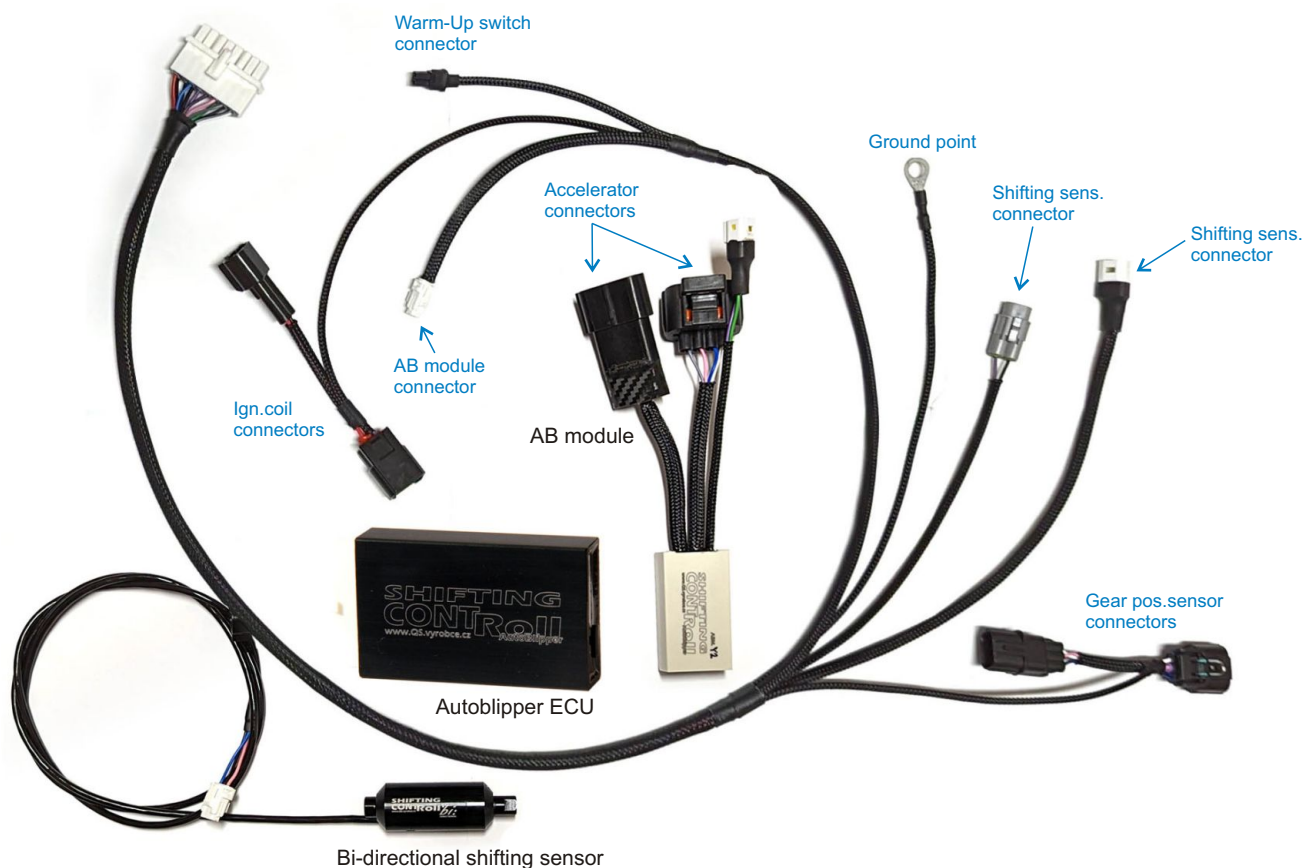
QS unit can be used on closed road only. Incorrect use or connection may result damage of motorcycle parts or cause an injury.

Kit contains:

- AB unit
- Bi-directional shifting sensor
- AB module
- wiring harness Plug&Play
- fasteners, ties
- manual



1	Input 2
2	Input 1
3	Input from gear pos. sensor
4	Output 2 (max 500mA)
5	Output 1 (max 500mA)
6	RPM input
7	+ 12V out (max 1A)
8	Supply +12V
9	Input 3
10, 14, 15	Sense ground
11	Accelerometer input
12, 13	Output 3A + 3B (max 200mA)
16	Supply GND

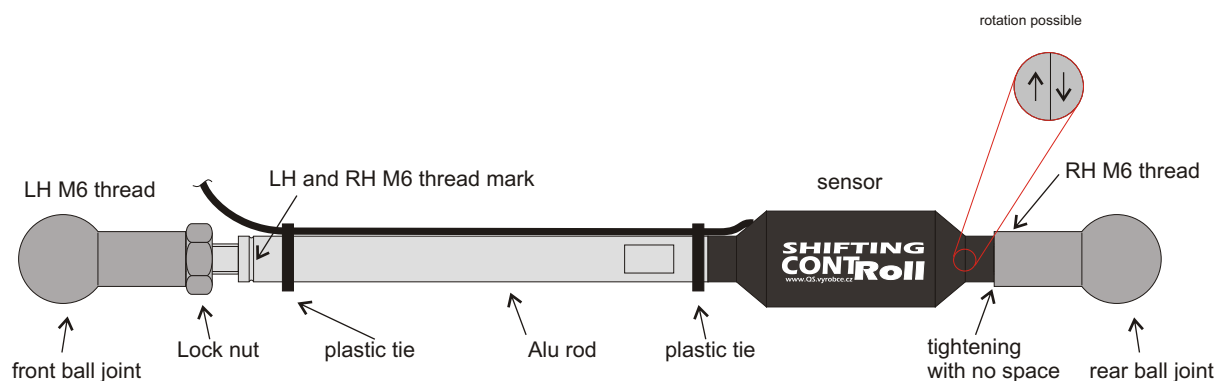


Sensor installation

Remove original shifting rod and replace with new shifting rod with Bi-directional sensor. Using Original Ball joints. Right side of sensor fully tighten the ball-joint (use lock agent). Rotation of sensor against tightened ball-joint is possible. Attach the left hand ball joint to the shifting arm (the angle between shifting arm and shifting rod should be $90^\circ \pm 10^\circ$), adjust to the ball joint and lock in place with nut.

Use cable ties to secure the shifter cable, Cable have to be free by shifting

Check settings in software before first run. Go to bookmark "Monitor", section pedal move to lower gear (from N to 1st), "Blipper" is light on. When the shifting pedal move to higher gear (from N to 2nd), "Shifter" is light on. More in section "Software, page 4.

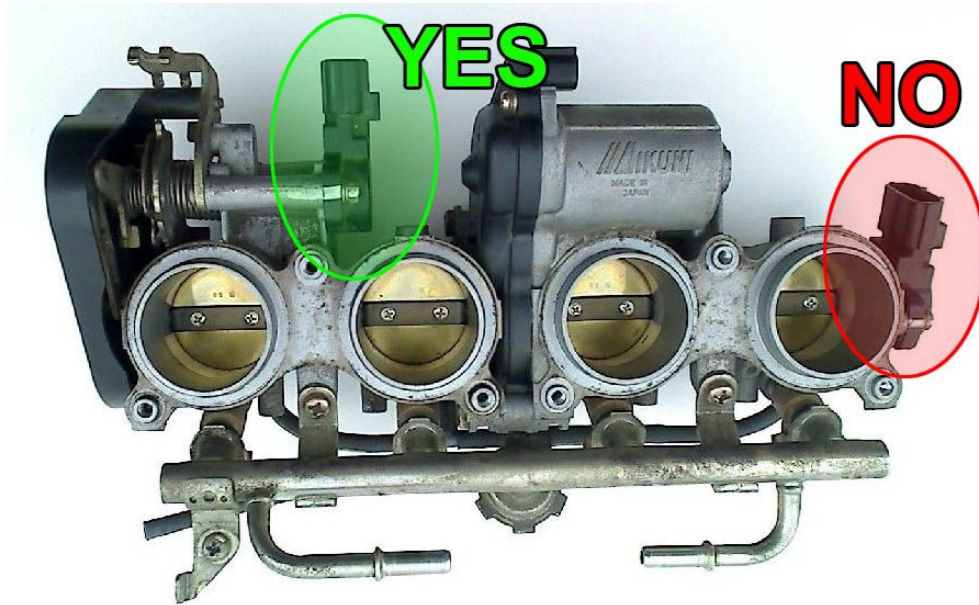


AB unit connection

- 1) Remove fuel tank and airbox. Wiring harness can be found along the right side of frame (see photo).
- 2) Unplug ignition coil connector and insert connectors on AB wiring harness (female to ignition coil and male to motorcycle wiring harness)

- 3) Disconnect accelerator connector on throttle body and insert AB module. Attention: on throttle body are 2 same connectors - look on picture below.

Connect AB module to AB wiring harness by 2way white connector.



- 4) Disconnect connector of Gear position sensor (blue 3way female Sumitomo with wires: BI/R; G; W) and insert connectors on AB wiring harness.

Connect grey 2way Sumitomo connector from AB wiring harness instead of OEM shifting sensor.

Connect 3way white connector from Bi-directional shifting sensor to AB wiring harness.



AB unit setting

Download software Autoblipper and driver from web page www.QS.vyrobce.cz/ab_en.html

NEW

OPEN

SAVE

READ from ECU

WRITE to ECU

CONNECTION

values are illustrative - not for your bike

Green= connected
Red= not connected

Monitor

RPM - display current RPM

TPS - display current accelerator position (%) and voltage (V).

Gear - display current gear and voltages (V) from gear position sensor.

If is not right, go to bookmark "Inputs"

Inputs - voltage on each inputs

Outputs -

grey = output is not activated

green= output is activated



web page Autoblipper

AB unit setting

Inputs

In 1, 2, 3 - input setting

None = input is off

Blipper = AB module is activated by switch

Shifter = QS in stocj ECU is activated by switch

Shifter/Blipper = input for sensor with analog output

WarmUp = engine will be faster warm-up by activation. Gearbox in neutral position is necessary.

NO = sensor is closed by force (Normal Open)

NC = sensor is open by force (Normal Close)

values are illustrative - not for your bike

Tachometer - amount of pulses on RPM input (pin 6) for 2 rev of crankshaft.

Analog input - setting for sensor with analog output

Blipper threshold = voltage for Blipper activation

Shifter threshold = voltage for Shifter activation

Gear position - voltages for each gear. Switch ignition On, don't run the engine. Shift 1st gear and push button "GET" for 1st gear. Do it again for other gears.

Autoblipper (downward shifting) is not activated on 1st gear.

Quickshifter (upward shifting) is not activated on 6th gear.

Outputs

Out 1, 2, 3 - output setting

None = output is off

Blipper = output for AB module activation

Shifter = output for QS activation

Shift Light = output is grounded when it reaches setting RPM. You can use it for shifting light.

Configuration

Shift Light RPM = rev value for activate Shift Light

Delay = minimum time between two upward shiftings

Throttle position min. = minimum voltage from accelerator sensor

Switch ignition ON, don't touch on throttle and press "Get"

Throttle position max. = maximum voltage from accelerator sensor

Switch ignition ON, full throttle and press "Get"

Throttle position limit = maximum accelerator position for blipper activation (works below this value)

Min blipper RPM = minimum engine rev for blipper activation (works above this value)

Delay = minimum time between two downward shiftings

Active time = time of rev rising by WarmUp function

Inactive time = time of rev falling by WarmUp functionp

Monitor	Inputs	Outputs	Configuration
Quick Shifter			
Shift light RPM			10000
Delay [ms]			100
Auto Blipper			
Throttle position min. [mV]	950	Get	
Throttle position max. [mV]	4500	Get	
Throttle position limit [%]	10	Get	
Min blipper RPM			3066
Delay [ms]			200
Warm-up			
Active time [ms]			200
Inactive time [ms]			1300

values are illustrative - not for your bike

Maps

Blipper map - time of rev rising by blipper activation depend on RPM (rows) and Gear (columns).
When is no signal on GEAR input detected, values in column "2" will be used.

too short time = hard shifting or shift to bad neutral between gears

too long time = motorcycle jerk forward by shifting

You can use Copy (Ctrl+C) and Paste (Ctrl+V) for values in table.

Monitor	Inputs	Outputs	Configuration	Maps	
Autoblipper opening time [ms]					
RPM	2	3	4	5	6
2000	80	80	80	80	80
3000	80	80	80	80	80
4000	80	80	80	80	80
5000	80	80	80	80	80
6000	80	80	80	80	80
7000	80	80	80	80	80
8000	80	80	80	80	80
9000	80	80	80	80	80
10000	80	80	80	80	80
11000	80	80	80	80	80
12000	80	80	80	80	80
13000	80	80	80	80	80
14000	80	80	80	80	80
15000	80	80	80	80	80
16000	80	80	80	80	80

values are illustrative - not for your bike