

TROUBLE SHOOTING

Speed is displayed when the vehicle is standing.
Speed calibration might have failed. Try again.

Speed is NOT displayed
Wire connection of the speed sensor may be incorrect. Check service manual of the vehicle to see if the wires are connected correctly. By detaching the vehicle's original equipped speedometer, the power-supply to the speed sensor may be cut-off on some vehicles. In that case, connect + 12V to the plus (+) wire of the speed sensor and connect Ground to the minus (-) of the speed sensor in order to activate it.

Be sure the speed calibration is correctly done before use.

Unstable SPEED/RPM display
Be sure the black wire (to ground) is firmly connected to the vehicle's frame. Painting is to be removed from the area where the ground terminal is attached.

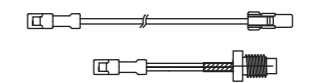
RPM is NOT displayed
Try the other way of detection.

RPM is not displayed correctly.
If the RPM is unstable, insert the included "Resistor 1M ohm" into the RPM Pulse line.

Frozen Display
In case the display is frozen, disconnect the red and brown wire of the main unit for a few seconds and connect it again to restart. Or disconnect the negative wire of the battery to cut the power supply for a seconds, and then connect it again to restart.

The Others
For further help, go to the local dealer where you purchased DEVA01 from.

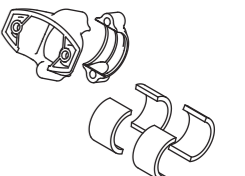
OPTIONAL PARTS



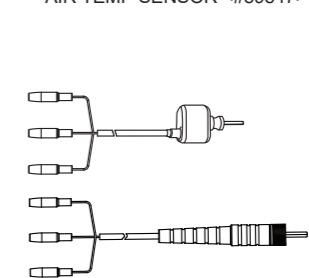
PT1/8 OIL TEMP SENSOR & EXTENTION WIRE <#89846>



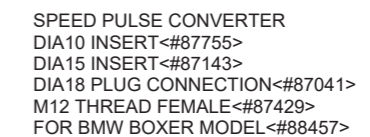
AIR TEMP SENSOR <#89847>



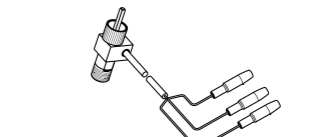
HANDLE-BAR BRACKET & SCREW SET <#89845>



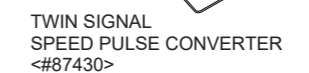
RPM INDUCTION WIRE SET <#87170>



SPEED PULSE CONVERTER
DIA10 INSERT<#87755>
DIA15 INSERT<#87143>
DIA18 PLUG CONNECTION<#87041>
M12 THREAD FEMALE<#87429>
FOR BMW BOXER MODEL<#88457>



RPM PULSE RECTIFIER <#92333>



TWIN SIGNAL SPEED PULSE CONVERTER <#87430>



PROXIMITY SPEED SENSOR <#87038>

GEAR POSITION SETUP MODE

Attention

- Before gear setting, both SPEED & RPM SETUP must be done first.
- Either front wheel or rear wheel from which speed pulse is detected must rotate. Set each gear while driving in a safe place.
- During setting each gear, keep 2,500 ~ 5,000rpm with connecting clutch.
- For resetting of each gear, turn the main key off and try again from the start.

| type of vehicle | necessary supplied/optional part |
|--|---|
| equipped with an electrical speed sensor | sensor on rear wheel sensor on engine sensor on front wheel |
| Without an electrical speed sensor | with mechanical speed cable without any speed sensor/cable |
| | nothing needed magnetic/proximity sensor or speed pulse converter magnetic/proximity sensor |

TOP GEAR & GEAR POSITION SETTING

Select TOP GEAR according to your bike.

[4 SPEED] [5 SPEED] [6 SPEED]

↓ **SET** < 2 sec >

Next, set each gear.

When the digit "1" flashes. Shift in 1st gear and keep 2,500~5,000rpm. (Steady rpm amount makes quick/correct setting.)

When 1st gear is recognized, "-" flashes shortly then move to next digit "2" automatically.

Shift in 2nd gear and keep 2,500~5,000rpm until "-" flashes then move to next digit "3" automatically. Continue this operation until the last digit (top gear) is set.

When the last digit is set and "-" flashes shortly, then the display automatically goes back to NORMAL MODE.

TEMPERATURE 1/2/3 SETUP MODE

Select temperature(s) to be displayed.
TEMPERATURE1 ▶ OIL / TEMPERATURE2 ▶ WATER / TEMPERATURE3 ▶ AIR

[TEMPERATURE1] [TEMPERATURE2] [TEMPERATURE3]

↓ **SET** < 2 sec >

Select ON / OFF

ON OFF

↓ **SET** < 2 sec >

Next, select unit, °C(Celsius) or °F(Fahrenheit)

↓ **SET** < 2 sec >

Next, set the warning temperature.

For TEMPERATURE1(OIL) & TEMPERATURE2(WATER), "OVERHEAT" warning can be set.
For TEMPERATURE3(AIR), "COLD" warning can be set.
When the temperature exceeds/falls the set value, the value will flash.

OVER HEAT WARNING

The programmable warning range is between 0°C (32°F) and 180°C(356°F).

↓ **SET** < 2 sec >

Press (UP) or (DOWN) to modify the flashing number.

Press **SET** (SET) to fix and go to the next digit setting.

Press (UP) or (DOWN) to modify the flashing number.

Press **SET** (SET) to fix and go to the next digit setting.

Continue this operation until the last digit is input.

Press (UP) or (DOWN) to modify the flashing number.

Press **SET** < 2 sec >

NORMAL MODE

COLD WARNING

The programmable warning range is between -10°C(14°F) and 10°C(41°F).

↓ **SET** < 2 sec >

Press (UP) or (DOWN) to modify the flashing number.

Press **SET** (SET) to fix and go to the next digit setting.

Press (UP) or (DOWN) to modify the flashing number.

Press **SET** (SET) to fix and go to the next digit setting.

Continue this operation until the last digit is input.

Press (UP) or (DOWN) to modify the flashing number.

Press **SET** < 2 sec >

NORMAL MODE

RPM SETUP MODE

[PPR SETUP]

PPR RPM

↓ **SET** < 2 sec >

[BAR GRAPH & SHIFT UP WARNING SETUP]

bAR RPM

↓ **SET** < 2 sec >

PPR (Pulse Per Rotation) SETTING

Select PPR from the following.

- 1P-1r: 1pulse per 1revolution
- 1P-2r: 1pulse per 2revolutions
- 2P-1r: 2pulses per 1revolution
- 30P1r: For '00up Harley-Davidson only.

Select one which makes 1000-1500rpm when idling.

↓ **SET** < 2 sec >

BAR GRAPH & SHIFT UP WARNING SETTING

Choose the Max scale of RPM bar graph from 10000/20000.

↓ **SET** < 2 sec >

Next, set the warning of shift up timing.

[Bar graph MAX range]
10000rpm: upto 9500
20000rpm: upto 19500
Default: 3000
500 units(Input number 0 or 5 only)

Press (UP) or (DOWN) to modify the flashing number.

Press **SET** (SET) to fix and go to the next digit setting.

Press (UP) or (DOWN) to modify the flashing number. Continue this operation until the hundred digit is input.

Press **SET** (SET) to fix and go to the next digit setting.

Hold down SET for 2 seconds at the intended type to set. The display goes back to NORMAL MODE

CLOCK SETUP MODE

CLK

↓ **SET** < 2 sec >

To cycle between "12H" and "24H", press (UP) or (DOWN).

If "12H" format is selected, "AM" or "PM" is displayed.

↓ **SET** < 2 sec >

Next, set the current time.

Press (UP) or (DOWN) to modify the flashing hour.

Press **SET** (SET) to fix and go to the minute setting.

Press (UP) or (DOWN) to modify the flashing minute.

Press **SET** < 2 sec >

NORMAL MODE

FUEL SETUP MODE

Choose "ON" or "OFF". If OFF is selected, the FUEL icon is not displayed in NORMAL MODE.

OFF ON

↓ **SET** < 2 sec >

To cycle between "ON" and "OFF", press (UP) or (DOWN).

↓ **SET** < 2 sec >

Select one from the following three to display fuel level correctly.

↓ **SET** < 2 sec >

※You have to choose a suitable one for your bike.

(1) 100 : 100 ohm
(2) 250 : 250 ohm
(3) 510 : 510 ohm

Press **SET** < 2 sec >

NORMAL MODE

MANUAL MODE

Calculate the value of "pulse per km" by A + B

A + B = pulses per km
105 + 0.00212 = 49528
ex) Input value is 49528

At MANUAL MODE, hold down (SET) for 2 seconds. Input the calculated value as follows:

↓ **SET** < 2 sec >

Press (UP) or (DOWN) to modify the flashing number.

Press **SET** (SET) to fix and go to the next digit setting.

Press (UP) or (DOWN) to modify the flashing number.

Press **SET** < 2 sec >

NORMAL MODE

Attention

Check to see where the speed sensor is installed on the vehicle.
If the sensor is installed on the front wheel, measure the circumference of the front wheel. And if the sensor is installed either on the rear wheel, transmission or on the drive sprocket, measure the circumference of the rear wheel.

tyre circumference (km)

Measure your tyre circumference in "cm" and divide by 100,000 to be "km".

212.0cm
67.5cm x 3.14 = 212.0cm
212.0cm ÷ 100,000 = 0.00212km

※0.00212km is sample.

Find the circumference by either measuring the wheel diameter or by rotate the wheel and measuring it.
The circumference is obtained from the wheel diameter by the following formula.
Wheel Diameter(in centimeter) x 3.14 = Circumference (in centimeter)
Wheel Diameter(in inch) x 3.14 x 25.4 = Circumference (in centimeter)

SETUP MODE

(UP) Button (DOWN) Button (SET) Button

Icon instructions

- Press (UP) button
- Hold down (UP) button for 2 seconds.
- Press (DOWN) button
- Hold down (DOWN) button for 2 seconds.
- Press (SET) button
- Hold down (SET) button for 2 seconds.

To enter setup mode from normal mode, hold down (UP) + (SET) (SET) for two seconds.
※If you want to force termination during the setting, turn off the main key the bike.

NOMAL MODE SETUP MODE

↓ **SET** < 2 sec >

To cycle between setting items, press (UP) or (DOWN).

GEAR POSITION SPEED RPM CLOCK

TEMPERATURE 3 TEMPERATURE 2 TEMPERATURE 1 FUEL

Select what you want to change and hold down (SET) (SET) for 2 seconds. See each section in this manual for details.

SPEED SETUP MODE

[UNIT SETUP] [SPEED CALIBRATION] [SENSOR SETUP]

UN1 SPD SEN

↓ **SET** < 2 sec >

UNIT SETTING

To cycle between "KM/H" and "MPH", press (UP) or (DOWN).

↓ **SET** < 2 sec >

Hold down SET for 2 seconds. The display goes back to NORMAL MODE.

SENSOR SETTING

※Normally select "HALL". If the speed display is unstable when driving at high speed, select "GEAR".

To cycle between "HALL" and "GEAR", press (UP) or (DOWN).

↓ **SET** < 2 sec >

Hold down SET for 2 seconds. The display goes back to NORMAL MODE.

You can choose one way from 3 types of calibration.

SPEED CALIBRATION

[AUTO CALIBRATION MODE] [SPEED ADJUST MODE] [MANUAL MODE]

CAL-NU SPD CAL-SA SPD CAL-NU SPD

When ready to drive, hold down SET for 2 seconds.

↓ **SET** < 2 sec >

AUTO CALIBRATION MODE

Press (SET).

Drive exactly one(1) kilometer/mile. (When driving, the display counts number of pulse obtained from sensor.)

↓ **SET** < 2 sec >

1km(mile)

After driving one(1) kilometer/mile, stop the vehicle and press SET to finish the setting.

↓ **SET** < 2 sec >

NORMAL MODE

SPEED ADJUST MODE

Start driving following another vehicle running at constant speed of 40km/h(MPH).

40km/h(MPH)

Press (SET) in driving at actual speed 40km/h(MPH) to finish the setting.

↓ **SET** < 2 sec >

The display will start indicating the current speed after a while and automatically goes back to NORMAL MODE.

MANUAL MODE

Calculate the value of "pulse per km" by A + B

A pulses per revolution
Enter the AUTO CALIBRATION MODE, turn the wheel exactly 10 revolutions. The display shows the pulses per 10 revolutions. Divide this value by 10.

1050 ÷ 10 = 105
※105 is sample.

Check to see where the speed sensor is installed on the vehicle.
If the sensor is installed on the front wheel, measure the circumference of the front wheel. And if the sensor is installed either on the rear wheel, transmission or on the drive sprocket, measure the circumference of the rear wheel.

B tyre circumference (km)
Measure your tyre circumference in "cm" and divide by 100,000 to be "km".

212.0cm
67.5cm x 3.14 = 212.0cm
212.0cm ÷ 100,000 = 0.00212km

※0.00212km is sample.

Find the circumference by either measuring the wheel diameter or by rotate the wheel and measuring it.
The circumference is obtained from the wheel diameter by the following formula.
Wheel Diameter(in centimeter) x 3.14 = Circumference (in centimeter)
Wheel Diameter(in inch) x 3.14 x 25.4 = Circumference (in centimeter)