# Instruction Manual

*DIGITAL SPEED & RPM METER* **Cube** #80920

SPEED RPM ODO TRIP VOLT E-MARKED

DAYTONA
https://daytona-europe.com
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Thank you for choosing a high-quality DAYTONA 'Cube' display instrument. With proper installation and connection, you will have long-lasting pleasure with this high-quality product when used as intended.

When installing, please make sure that the speed indicator is located in the immediate view of the driver. Attach the housing securely to the enclosed bracket or mount with an at least equivalent holder permanently to the bike. Do not use longer screws to connect the holder to the housing, as longer screws can damage the instrument's internal components. Attach the instrument in a way that no part obstructs or restricts the steering. Route the wiring in such a way, that the full steering angle works in both directions without hindrance and no cables are pinched or under tension when the steering moves. Protect the cabling, also in the long term, against chafing and damage during the constantly occurring steering movements.

Read this assembly and installation manual before installing and operating the display instrument. Proper installation and electric connection requires technical expertise, special tools and skilled craftsmanship. If you are unsure about the installation, have it done, for your own safety, by a trained mechanic.

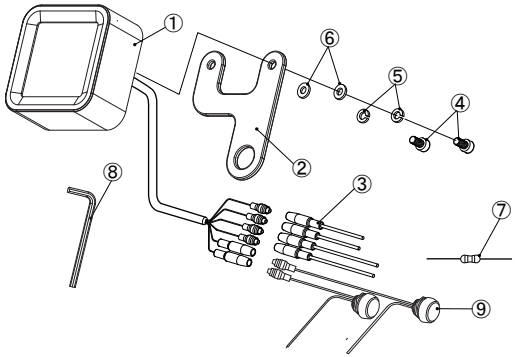
## ⚠CAUTION

- Read all instructions before use.
- Needs to purchase the optional speed sensor if the vehicle does NOT come with an electrical speed sensor. Or use a converter (sold separately) that turns mechanical movement into electrical pulse, if the vehicle comes with a mechanical speedometer cable. (See the optional parts section in this manual.)
- If replaced with a 'Cube' gauge, the original speedometer indicator light must be replaced with an appropriate external indicator light. (neutral, high beam, direction indicator)
- Designed for a 12V system vehicle. 'Cube' gauges do NOT work with a 6V system or a battery-less system.
- 'Cube' gauges might not work normally when used together with other device that emits much noise.
- Use 'Cube' gauges for the intended purpose of use.
- 'Cube' gauges is for universal use, so it needs wiring for installation. Do the wiring referring to the vehicle owner's manual. (If you are not sure about installation, consult an experienced dealer.)
- Do NOT disassemble 'Cube' gauges. It may be damaged and water may come in.
- Do NOT leave 'Cube' gauges in hight heat when not used for a long time.
- Do NOT hit, drop or give a shock on 'Cube' gauges. It may be damaged.
- Avoid contact with gasoline, brake fluid or other chemicals. It may be damaged.
- After installation, check to see if all the parts are correctly installed, and to see if all the screws are properly tightened.
- Inspect all installed parts after 100km driving. Periodical inspection is required every 500km(300mile). If anything unusual found while driving, pull over at a safe place to check.

## PRODUCT FEATURES

- Digital speedometer and rpm-meter
- Odometer (NOT Resettable) : 0-99,999km (mile)
- Dual Trip Meter (Resettable) : 0.0-9,999.9km (mile)
- RPM Meter : 10,000 or 20,000rpm selectable
- 50mm×50mm×25mm(1.97"×1.97"×0.98")
- Voltmeter : DC8.0-18.0V
- KM/H or MPH selectable
- Power DC8-18V (regular 12V)
- Ability to connect to OEM speed sensor, if the vehicle is equipped with an electrical speed sensor.

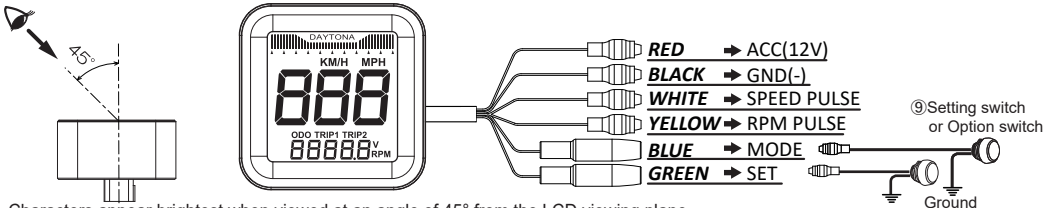
## COMPONENTS




| NO. | DESCRIPTION | REMARKS | Q'TY |
|---|---|---|---|
| ① | Gauge Unit | | 1 |
| ② | Bracket | | 1 |
| ③ | Extension Wire Set | 9 pcs | 1set |
| ④ | Cap Screw | M3x7 | 2 |
| ⑤ | Spring Washer | M3 | 2 |
| ⑥ | Washer | M3 | 2 |
| ⑦ | Resistor 1M ohm | 1/4W | 1 |
| ⑧ | HEX wrench | | 1 |
| ⑨ | Setting switch | 2 pcs | 1set |

## INSTALLATION

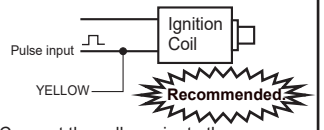
**⚠ Wrong wiring may cause malfunction of the gauge. Make sure to have correct wiring.**
**⚠ Disconnect the ground wire from the negative post of vehicle's battery before installation.**
**⚠ The Red wire is to be connected to the wire that gives current when the main switch is turned on.**
**⚠ Any original indicator lights in the standard speedometer must be retained or replaced by suitable external indicator lights.**




Characters appear brightest when viewed at an angle of 45° from the LCD viewing plane.

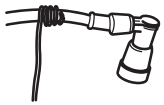
■ RPM pulse detection <Three options>

**From ignition coil**



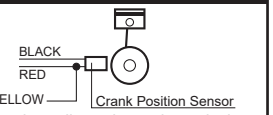

Connect the yellow wire to the positive terminal/wire of the ignition coil

**From spark plug code**



Wind the yellow wire 5-6 times on the spark plug code,and then tape to fix it.

**For 2000&up Harley-Davidson only**




Connect the yellow wire to the red wire of the vehicle's crank position sensor

⚠ Connect RPM pulse correctly. Wrong wiring causes malfunction of the gauge.
If the RPM is unstable, insert the included "⑦ Resistance 1M ohm" into the RPM Pulse line.

***ATTENTION!*** **Wiring alone will not make 'Cube' display correct speed or RPM values. To calibrate and test your 'Cube' , please see the next page for instructions.**

## FAQ

**●Speedometer does not work correctly.**
- ·Speed calibration has to be completed before testing the speedometer. Check if calibrated correctly.
- ·Check the white wire of the 'Cube' if speed sensor wire is connected correctly.

**●How can I check if speedometer is working or not?**
- ·Go to the speed calibration settings. Choose Auto-Calibration mode (displayed as CAL-AU). Touch the speed sensor wire from the 'Cube' to the negative terminal of the battery.
- ·Check if the number on the display increases or not. If increases, speedometer is functional.

**●Speedometer stops working while riding the motorcycle.**
- ·The meter cable may get affected by the noise from the motorcycle. Keep the meter cable away from the high voltage components such as plug chords and ignition coils.

**●The Speedometer moves while engine is idling.**
- ·Check if battery is drained or not.
- ·Keep the meter cable away from high voltage components such as plug chords and ignition coils.
- ·If the speedometer malfunctions due to noise, add a capacitor (2.2uF/50V) between 12V and GND wires.

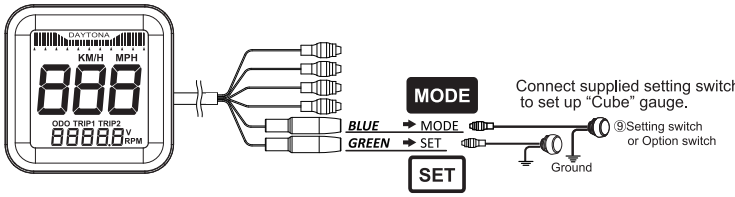
**●RPM is not displayed correctly.**
- ·Try changing the RPM pulse detection to one of the other methods. Connecting to the primary terminal of the ignition coil is recommended.
- ·Add a 1 MΩ resistor to the RPM signal line.

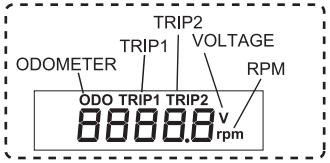
## OPTION

●For the detailed information on optional parts, please kindly visit our website by scanning the QR code →

# BUTTON OPERATION AND SETUP

⚠ Read all instructions before setting.
Especially for "speed calibration", initially decide which way you will do from 3 types.




## NORMAL MODE

[ ODOMETER ] ODO 0 → MODE → [ TRIPMETER 1 ] TRIP1 185.3 → MODE → [ TRIPMETER 2 ] TRIP2 14 13.6 → MODE → [ VOLTMETER ] 13.6 V → MODE → [ RPM ] 0 rpm → MODE

[ TRIPMETER 1 ]: SET 2sec → reset → TRIP1 0.0
[ TRIPMETER 2 ]: SET 2sec → reset → TRIP2 0.0
[ ODOMETER ] and [ RPM ]: MODE + SET 2sec

## UNIT SETUP (KM/H or MPH)

[KM/H] km/h ⇔ MODE ⇔ [MPH] MPH

To switch between "KM/H" and "MPH", press MODE.
Hold down SET for 2 seconds to set the next speed calibration.

SET 2sec

SET 5sec

## RPM SETUP

PPr rpm → MODE → SCALE rpm → MODE → bAr rpm → MODE

### PPR (Pulse Per Rotation) SETUP

SET 2sec — Choose 'PPr ' and hold down SET for 2 seconds.

**Select PPR from the following.**
- 1P-1r : 1pulse per 1revolution
- 1P-2r : 1pulse per 2revolutions
- 2P-1r : 2pulses per 1revolution
- 30P1r : For 2000up Harley-Davidson only.

Select one which makes 1000-1500rpm when idling.

1P- 1r rpm → MODE → 1P-2r rpm → MODE → 2P- 1r rpm → MODE → 30P 1r rpm → MODE

To switch between engine types, press MODE.

SET 2sec — Hold down SET for 2 seconds at the intended type to set.

The display goes back to NORMAL MODE.

### BAR-GRAPH SETUP

SET 2sec — Choose 'SCALE ' and hold down SET for 2 seconds.

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

10000 rpm ⇕ MODE ⇕ 20000 rpm

'10000' and '20000' every time MODE button is pressed.

SET 2sec — Select a scale and hold down SET button for 2 seconds.

The display goes back to NORMAL MODE.

### SHIFT UP WARNING SETUP

SET 2sec — Choose 'bAr ' and hold down SET for 2 seconds.

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 SET to modify the flashing number. (Input number 0 or 1 only)
03000 rpm — SET

Press MODE to fix and go to the next digit setting. — MODE — alternate

Press SET to modify the flashing number. (Input number 0 to 9)
07800 rpm — SET

MODE

Continue this operation until the hundred digit is input. (Input number 0 or 5 only)
07500 rpm — SET

SET 2sec — Hold down SET for 2 seconds.

The display goes back to NORMAL MODE.

## SPEED CALIBRATION

You can choose one way from 3 types of calibration.

CALAU → MODE → CALSA → MODE → CALMU → MODE

### AUTO CALIBRATION MODE

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

SET 2sec → 9o → MODE → 0

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




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

MODE → 18 133

※18133 is sample.

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

SET 2sec

### SPEED ADJUST MODE

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

SET 2sec → 9o

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




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

MODE

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 Ⓐ÷Ⓑ

**Ⓐ 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.

**Ⓑ tyre circumference (km)**
Measure your tyre circumference in 'mm' and divide by 1,000,000 to be 'km'.

**Ⓐ ÷ Ⓑ = pulses per km**
Then enter MANUAL MODE and input this value as follows.

Hold down SET for 2 seconds.

SET 2sec → 00000 → MODE → 00000

Flashing digit is changeable.
To modify the number, press SET.

MODE → 10000 — SET

Press MODE to fix and go to the next digit setting. — MODE

Continue this operation until the last digit is input.

18 133 ※18133 is sample.

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

SET 2sec

### EASY CALCULATOR

You can access the easy calculator for 'Cube' Manual mode input calculation by scanning the QR code.

## ODO VALUE SETUP

This function is only available when the mileage is 100 km or less after installing 'Cube' gauge.
Once you set a value to ODO, this function will be locked, and will not be accessible again.
If you drive and accumulate mileage with the 'Cube' gauge, a value lesser than the current mileage cannot be set.

km/h odo 00000 → MODE

The current ODO value appears. Press MODE button.

Press SET to modify the flashing number.
20000 — SET

Press MODE to fix and go to the next digit setting. — MODE

Continue this operation until the last digit is input.

MODE → 27896 — SET

※27896 is sample.

Hold down SET button for 2 seconds to finish the input. The lower display shows the new ODO value and the middle display appears as "SEt".

SET 2sec

km/h SEt 27896

Confirm the ODO value to be set and hold down SET again for 2 seconds.

SET 2sec

The display automatically saves value and goes back to NORMAL MODE.

※If no user input is detected for 30 seconds, the input values are not saved and the returns to NORMAL MODE.