



• Thank you for purchasing KOSO's TNT-04 meter. Please read the instructions carefully and retain them for future reference.

Notice

- To avoid a short circuit from occurring do not pull or modify the wires during installation.
- Any damages caused by faulty installation shall be imputed to the users.
- Opening and disassembling this unit will void any warranty.
- Maintenance and repairs should be executed by our professionals only.

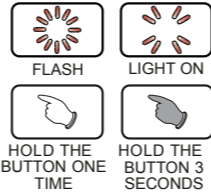
© Symbol description:

NOTE

△ Some procedures must be followed in order to avoid faulty installation

⚠ **Warning!** Some procedures must be followed in order to avoid damages from occurring to yourself and others.

⚠ **Caution!** Some procedures must be followed in order to avoid damages from occurring to the vehicle.



1-1 Accessories

1 LCD Meter X1	2 TH-01_PT 1/8 Temperature sensor X1	3 RPM wire (TYPE A) X1	4 RPM wire (TYPE B) X1
5 Sensor wire set X1	6 Active speed sensor X1	7 M8 / S type speed sensor bracket X1	8 M10 / S type speed sensor bracket X1
9 M5X5Lmm Hexagon screw X2	10 2.5 mm Allen key X1	11 Meter bracket X1	12 Handle bar clamp X1
13 Rubber X1	14 M6X18L screw X1	15 M5XP0.8 nut X3	16 M6XP1.0 nut X1
17 M5 washer X3	18 M6 washer X1	19 External button X1	

NOTE Contact your local distributor if the items received are not the same as the items listed above.

1-2 Optional accessories

1 L TYPE speed sensor basket	2 Temperature sensor adapter
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M12 X P1.5 X 15L
M14 X P1.25 X 15L
M14 X P1.5 X 15L
M16 X P1.5 X 15L
M18 X P1.5 X 15L
M20 X P1.0 X 15L
M20 X P1.5 X 15L

NOTE Some of the optional accessories may not be available in your area. Contact your local distributor to obtain more information.

2-1 Wiring installation instructions

Orange - L turn signal light (+12V)
Blue - R turn signal light (+12V)
Yellow - High beam light (+12V)
White - Neutral light (-)
Green - Fuel
Purple - Engine light (-)

Red - Positive pole (Connect to the battery DC 12V)
Mid-way connector

Brown - Positive wire should be connected to main power switch
Black - Ground wire connects directly to the negative pole of the battery.

Sensor wire set (Accessories 5)
TH-01_PT 1/8 Temperature sensor (Accessories 2)
Yellow / White - Temperature sensor terminals

Brown / Red - RPM wire please connect it to the suitable position according to the models

Orange / White - Pushbutton switch terminal
External button (Accessories 19)

Connect to speed sensor
Active speed sensor (Accessories 6)

RPM wire (TYPE B) (Accessories 4)
RPM wire (TYPE A) (Accessories 3)

Ignition coil positive
EMS CDI
Flywheel
Ignition pulse
Tachometer
Pick up
RPM wire (TYPE B) (Accessories 4)
Coil
Spark plug wire
Spark plug
Spark plug cap

	Power	Key on	Ground
YAMAHA	Red	Brown	Black
HONDA	Red	Red / Black	Green
SUZUKI		Black	Green
KAWASAKI	White	Brown	Black / Yellow
KYMCO	Red	Black	Green
SYM	Red	Black	Green
PGO	Red / White	Orange	Black

NOTE The color listed above may differ depending on the model and year.

	Power	Key on	Ground
YAMAHA	Yellow / Black	BUELL	Pink
HONDA	Yellow / Green	CAGIVA	Gray / Green
SUZUKI	Yellow / Blue	DUCATI	Gray / Green
KAWASAKI	Light Blue	H-D	Pink
APRILIA	Gray / Violet	MV	Gray / Yellow
BMW	Black	TRIUMPH	Red
BENELLI	Gray / Violet		

NOTE The color listed above may differ depending on the model and year.

Fuel indicator wire reference:

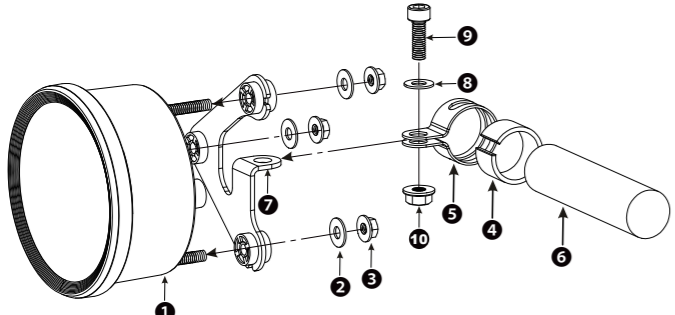
	Power	Key on	Ground
YAMAHA	Green	KYMCO	Yellow / White
HONDA	Yellow / White	SYM	Yellow / White
SUZUKI	Yellow / White	PGO	Gray
KAWASAKI	Black / L Green		

△ The fuel sensor is electronic type, do not connect in parallel with the original wire - otherwise the fuel gauge won't display.
The wrong installation of the fuel wire might damage the instrument.

NOTE When connecting the power wire, follow the instructions carefully. If the red & brown wires are connected in parallel, the meter won't work properly.

△ The RPM wire installation
We recommend installing the R type spark plug or low-resistance spark plug cap at the same time.
A. Connect the RPM wire (Type A) on the spark plug wire by connecting the male and female connectors.
B. Connect the RPM wire (Type B) to the pick up sensor.
C. Connect in parallel the RPM wire (Type A) with the original tachometer signal wire.
The best signal source will be in order as C>B>A, we will suggest that you check different ways if you have problems getting the RPM signal.

2-2 Installation instructions




When installing, please follow the steps below.

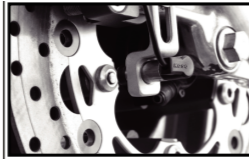
1. LCD Meter (Accessories 1)
2. M5 washer (Accessories 17)
3. M5XP0.8 nut (Accessories 15)
4. Rubber (Accessories 13)
5. Handle bar clamp (Accessories 12)
6. Bike handle
7. Meter bracket (Accessories 11)
8. M6 washer (Accessories 18)
9. M6X18L screw (Accessories 14)
10. M6XP1.0 nut (Accessories 16)

NOTE Adjust the meter to the proper angle before tightening the handle bar bracket screws.


MOTO / SCOOTER S type speed sensor bracket instructions




Install the S type sensor bracket.



Install the speed sensor on the bracket.




Adjust the sensor bracket position to make sure that the sensor is facing the magnet. This will prevent bad speed signal or no signal from occurring.




Adjust the distance between sensor and magnet. We suggest you make sure the distance is under **3 mm** for catching good speed signal.

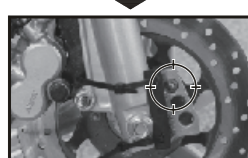
MOTO / SCOOTER L type speed sensor bracket instructions



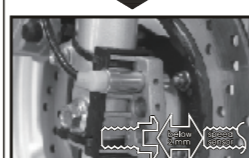
Install the L bracket and the anti-slip rubber on the front fork and adjust it to the proper height and angle.



Install the speed sensor on the bracket.



Use the cable tie to fix the bracket on the front fork. Make sure the disc screw could pass the hole on the bracket for you to install the sensor into the same hole to receive the speed signal.



Adjust the distance between sensor and magnet. We suggest that you make sure the distance is under **3 mm** for receiving a good speed signal.

PS.



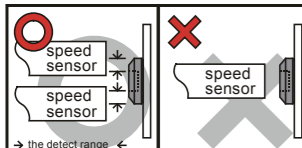
The active speed sensor can be installed on the following metal parts, in order to detect the speed.

- EX. 1 The disc screw.
 EX. 2 The disc to detect the disc gap. (Please make sure the distance between the gaps are the same in advance to avoid wrong speed signal.)
 EX. 3 The sprocket to detect the disc gap. (Please make sure the distances between the gaps are the same in advance to avoid wrong speed signal.)
 EX. 4 Rear disc - detect the gap between the disc.

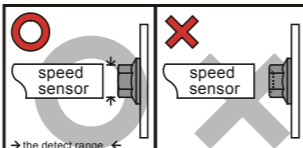
We suggest that you use the disc screws as the location for the magnets. You can use 1 or more magnets. Make sure the distance between the magnets are the same. The maximum points that the speed sensor can detect is 20 points per turn.

▲ After installation, please use your hand to turn the tire to see if everything is ok. The LED on the active speed sensor will light up once the signal is detected.

EX. 1

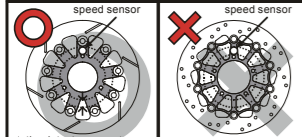


The hexagon socket disc screw
 The best detection area: The edge of the hexagon socket screw.
 ▲ Don't catch the signal from the middle hole of the hexagon socket screw to avoid wrong signal.



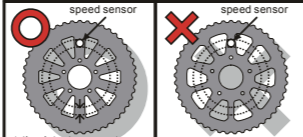
The hexagon screw
 The best detection area: The middle of the screws.
 ▲ Some hexagon screws have a small hole in the center. In this case, we will suggest you to catch the signal from the edge of the screw like the hexagon socket screw.

EX. 2, 4




The disc
 The best detection area: the gaps of the disc.
 ▲ There are certain discs with gaps in different places, and this method will not work on those.

EX. 3



The sprocket
 The best detection area: the gaps of the sprocket.
 ▲ There are certain sprockets with gaps in different places, and this method will not work on those.

3-1 Basic function instructions



Tachometer
 ●Display Range : 0 ~ 10,000 RPM

Indicator
 ●RPM shift light ●Trun signal
 ●Warning 1 ●High beam light
 ●Warning 2 ●Engine warning light
 ●Neutral

Gear meter
 ●Display range : off, highest gear, N and highest gear, show all (N / 1 ~ 6)

Fuel meter
 ●Display Range : 6 Levels

Odometer
 ●Display range : 0 ~ 999,999 km (mile)
 return to zero upon exceed
 ●Display unit : 1 km (mile)

Distance meter A,B
 ●Display range : 0 ~ 9,999.9 km (mile)
 returns to zero upon exceed
 ●Display unit : 1km (mile)

Speedometer
 ●Display range : 0 ~ 360 km (0 ~ 255 mile)
 ●Display unit : 1 km (mile)

Millage maintenance user settings (closable)
 ●Display range : user adjustable (500 ~ 16,000km / 300 ~ 10,000 mile) ~ -999 mile, automatically decreases according to the increase of total millage.
 ●Display unit : 1 km (mile)

Time
 ●Display range : 12 / 24 hour format

Engine temperature
 ●Setting range : -40 ~ 215°C (-40 ~ 419 °F)


Voltmeter
 ●Display range : 8 ~ 18 V

3-2 Function settings instructions

●Speedometer	Display range : 0 ~ 360 km (0 ~ 255 mile) switchable Display unit : 1 km (mile)	●RPM shift light · Warning 1 · Warning 2
○Speedometer unit	Display range : km · mile	○Warning cause
○Over speed warning	Setting range : 30 ~ 360 km (19 ~ 225 mile), warning sign will be given once exceed(include) setting value. Setting unit : 1km(mile)	○Warning method
○Display interval	<0.5 second	●Fuel meter
○Tire circumference	Display range : 300 ~ 2,500 mm Setting unit : 1 mm	●Clock
○Sensitive point	Display range : 1 ~ 20 point Setting unit : 1 point	●Voltmeter
○Internal and external odometer	Display range : 0 ~ 999,999 km (mile) return to zero upon exceed Display unit : 1 km (mile)	●Under voltage warning
○Trip meter A,B	Display range : 0 ~ 9,999.9 km (mile) returns to zero upon exceed Display unit : 0.1 km (mile)	●Backlight brightness
●Gear meter	Display range : off, highest gear, N and highest gear, show all (N / 1 ~ 6)	○Backlight color
●Tachometer	Display range : 0 ~ 10,000 RPM	●Maintenance millage
○RPM signal	Display range : P-0.5 · P-1 ~ P-24	○Operating voltage
○The RPM input pulse	Display range : Hiact · Loact	●Temperature range
○Over RPM warning	Setting range : 1,000 ~ 10,000 RPM, warning sign will be given once exceed(include) setting value. Setting unit : 100 RPM	○Specifications
●Thermometer	Display range : 0 ~ 250 °C (32 ~ 482 °F)	●Meter Size
○Thermometer unit	Display unit : °C · °F	○Meter Weight
○Over temp warning	Setting range : 60 ~ 250 °C (140~ 482 °F), warning sign will be given once exceeding the setting value. Setting unit : 1 °C (°F)	●Indication light


NOTE Design and specification may change without further notice.

3-3 Main menu functions



●In the total millage screen, press the **button once** to switch to Trip A screen.

●Hold the **button for 3 seconds** to enter into the settings screen.



●Trip A screen, Press the **button once** to switch to Trip B screen.

●Hold the **button for 3 seconds** to clear the Trip A recordings.



• Trip B screen, press the **button once** to switch to the millage maintenance screen.

• Hold the **button for 3 seconds** to clear the Trip B recordings.



• In the temperature screen, press the **button once** to switch to the voltage screen.



• In the millage maintenance screen, press the **button once** to switch to the clock screen.

• Millage maintenance will count down from setting value, when it reaches 0, the screen will blink to indicate the millage reached.



• Hold the **button for 8 seconds** to clear the millage maintenance recordings.

○ In the 0 second, start holding the button.

○ In the 3rd second, the inform feature will blink once.

○ During the 4 ~7 the seconds, if you release the button it will cancel the process.

○ On the 8 th second, the millage maintenance record is cleared.



• In the voltage screen, press the **button once** to switch to the Max. Speed Record display screen.

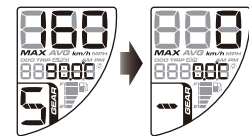


• In the clock screen, press the **button once** to switch to the temperature screen.



• In the Max. Speed record display screen, press the **button once** to return to the millage screen.

• Hold the **button for 3 seconds** to clear the Max. Speed Record display.



4 Trouble shooting

The following situations do not indicate malfunction of the meter. Check the following points before taking it in for repairs.

Trouble	Check item	Trouble	Check item
The meter doesn't work when the power is on.	<ul style="list-style-type: none"> The power doesn't supply to the meter. →Make sure the wiring is connected. The wiring and fuse are not broken. →The battery is broken or the battery is too old to supply enough power (DC 8 V) to make the meter work. Check the voltage of your battery, and make sure the voltage is over DC 8 V. 	The odometer and trip meter are not accumulating data or accumulated the wrong data.	<ul style="list-style-type: none"> It is possible that the permanent power wire is not connected properly. →Check if the red positive wire is properly or not.
The meter shows the wrong information.	<ul style="list-style-type: none"> Make sure the speed sensor is connected properly. →Please check if speed sensor is connected and working properly. Also check whether the cable of speed sensor is broken or lose. 	Fuel gauge does not appear or appears incorrectly.	<ul style="list-style-type: none"> Check your fuel tank. Check the wiring harness. →Is the wire connected properly.
Speed does not appear or appears incorrectly.			

* If the problem is not resolved after following the steps shown above, contact your local distributor for assistance.