

CAFER RACER 69mm

INSTRUCTION



Thank you for purchasing speedometer, before operating the unit, please read the instruction thoroughly and retain it for the future reference.

Notice

- DC 12V applications only.
- For installation, please follow the steps described in manual. Any damage caused by wrong installation shall be imputed to the users.
- To avoid the short circuit, please don't pull the wire when installing. Don't break or modify the wire terminal.
- Do not disassemble or change any parts excluding the manual description.
- The interior examination or maintenance should be executed by our professionals.

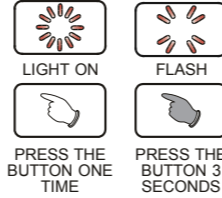
MARK MEANING:

NOTE You could get the installation details from the information behind the mark.

▲ Some processes must be followed to avoid the affection caused by wrong installation.

▲ WARNING! Some processes must be followed to avoid damages to yourself or the public.

▲ CAUTION! Some processes must be followed to avoid the damage to the vehicle.



1-1 Accessory

1 LCD meter X 1	2 Passive speed sensor X 1	3 RPM wire set X 1	4 M8/ S type speed sensor bracket X 1
5 M10/ S type speed sensor bracket X 1	6 Hexagon socket screw X 2	7 D6 X 5L mm magnet X 6	8 2.5 mm spanner X 1
9 Meter bracket X 1	10 Handle bar clamp X 1	11 Rubber X 1	12 M6 X 10L screw X 1
13 M5 X P0.8 nut X 3	14 M6 X P1.0 nut X 1	15 M5 washer X 3	16 M6 washer X 1
17 Aluminum bush X 1	18 Connect terminal X 8		

NOTE Please contact the local distributor if the items you open are not the same, with the above-listed one.

2-1 Wiring installation instructions

Legend:
 Purple—Neutral(-)
 Orange—Left turn signal(+12V)
 Blue—Right turn signal(+12V)
 Yellow—High beam(+12V)
 Gray—Warning lamp(-)

Connections:
 Red / Positive pole (Connect to the battery DC 12V)
 Brown / "+" Wire connect key on DC 12V main power switch
 Black / Ground wire connect to the vehicle body or the engine (It must be a good ground)

Speed sensor wiring:
 Dark brown —RPM Signal wire
 Digital speed signal sensor (Accessory 2)

NOTE Speed Sensor is a "Hall Sensor".
 Please choose either Type A or Type B RPM wire according to the need and then follow the instruction below to install at the proper position.

Main switch wiring reference:

	"+" Color	"-" Color
YAMAHA	Brown	Black
HONDA	Brown	Black
SUZUKI	Black	Green
SYM	Black	Green

NOTE The color listed above may differ depending on the model.
NOTE When connecting the power wiring, please follow the instruction. If you connect the red & brown wiring in parallel will cause the meter work improperly.

NOTE When connecting the power wiring, please follow the instruction. If you connect the red & brown wiring in parallel will cause the meter work improperly.

▲ The RPM wire installation
 Please check the polarity of your ignition coil, before you connect the RPM sensor type B there. An incorrect installation can lead to a defect of the meter or destroy the electrical system of your vehicle.
Transistor Ignition: If your vehicle has a transistor ignition system, connect the tach to the negative pole of the ignition coil.
CDI ignition: If your vehicle has a CDI ignition system, connect the speed sensor to the positive pole of the ignition coil.

MOTO / SCOOTER S type speed sensor bracket instruction

- Loose the screw on the caliper
- Install the speed sensor.
- Install the S type bracket on the caliper.
- Adjusting the distance between the sensor and screw to get the best speed signal. Please make sure the distance is under 2 mm to get the best signal.
- Please adjust the bracket to the proper angle and then screw it up. Please make sure the disc screw could pass the hole on the bracket for you to install the sensor into the same hole for catching the speed signal.

P.S.

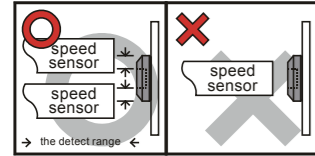
The active speed sensor could be installed by the metal parts to detect the speed.

- EX. 1 The disc screw.
- EX. 2 The disc to detect the disc gap. (Please make sure the distances 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.)

We will suggest you to catch the speed from the disc screws. The more the sensor points are, the better the speed accuracy is. The maximum sensor points the speed sensor could detect is 20 points per turn.

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

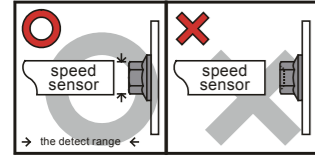
EX. 1



The hexagon socket disc screw

The best detect area: The edge of the hexagon socket screw.

Please don't catch the signal from the middle hole of the hexagon socket screw to avoid wrong signal.

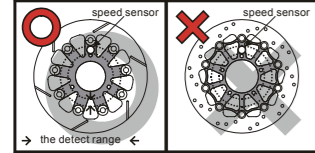


The hexagon screw

The best detect area: The middle of the screws.

Some hexagon screw center is with 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

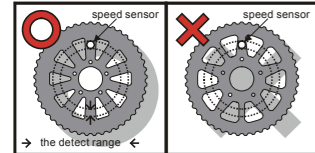


The disc

The best detect area: Please detect the speed signal from the gaps of the disc.

Please note that there are discs with the gaps in different difference, and this method will not work on it!

EX. 3



The sprocket

The best detect area: Please detect the speed signal from the gaps of the sprocket.

Please note that there are sprockets with the gaps in different difference, and this method will not work on it!

3-1 Basic function instruction

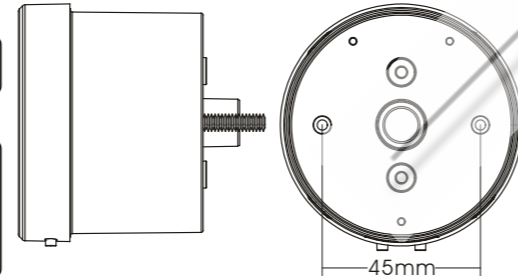
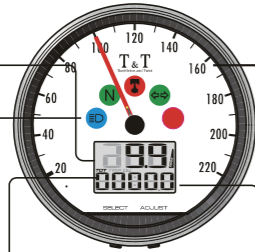
Tachometer
● Display range: 20,000 RPM

Telltails
● High beam (Blue)
● Neutral (Green)
● RPM Shift light (RED)
● Repeater (Green)
● Reserve (RED)

Clock **Trip meter**
● 24 H ● Display range: 0~9999.9 km (mile), reset automatically after 0~9999.9 km (mile).
● Display unit: 0.1 km (mile).

Speedometer
● Display range: 0~220 km/h

Odometer
● Display range: 0~99,999 km (mile), reset automatically after 99,999 km (mile)
● Display unit: 1 km (mile)



3-2 Function, setting instruction

● Speedometer	Display range: 0~220 km/h Display unit: km/h & MPH or alternative	○ The RPM input pulse	Setting range: Hi-ACT (Positive wave pulse) Lo-ACT (Negative wave pulse)
○ Display internal	<0.5 second	○ Max. RPM record	Display range: 0~20,000 RPM
○ Odometer	Display range: 0~99999 km (mile), reset automatically after 99999 km (mile) Display unit: 1 km (mile)	● Clock	24 H
○ Trip meter A . B	Display range: 0~9999.9 km (mile), reset automatically after 0~9999.9 km (mile). Display unit: 0.1 km (mile).	● Backlight brightness	Setting range: 1-5 (Darkest)~5-5 (Brightest) Setting unit: Each level represents 20%
○ Top speed record	Display range: 0~220 km/h	● Effective voltage	DC 12v
○ Tire circumference	Setting range : 300~2,500 mm Sensor point: 1~20 • Setting unit : 1	● Effective temperature range	-10~+60 °C
● Tachometer	Display range: 20,000 RPM	● Meter standard	JIS D 0203 S2
○ The shift light	Setting range: 5000~20000 RPM Setting unit: 100 RPM	● Meter size	85.5 X 54.5 mm
○ Warning	F-OFF (LIGHT ON) • F-ON (FLASH)	● Meter weight	Around 330 g
○ RPM input pulse	Display range: 0.5, 1~6	● Telltales	High beam (Blue) Neutral (Green) RPM Shift light (RED) Repeater (Green) Reserve (RED)

NOTE Design and specification are subject to change without notice!

3-3 Function switch instruction

● Select button function instruction



In RPM screen, Press the Select button once to switch function from ODO to Max. RPM record.



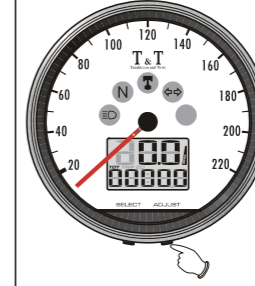
In Max. RPM record screen, Press the Select button once to switch from the Max. RPM record function to the main screen.

Hold pressing the Adjust button for 3 seconds to reset the Max. RPM record.

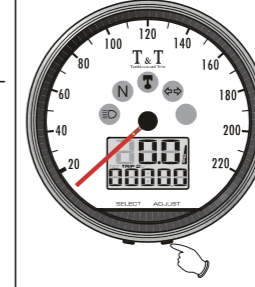


The RPM screen.

● Adjust button function instruction

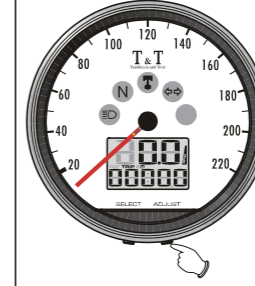


In ODO screen, press the Adjust button once to switch the function from ODO meter to trip A.



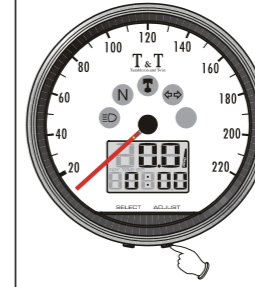
In Trip A screen, press the Adjust button once to switch from trip A to trip B

Hold pressing the Adjust button for 3 seconds to reset the trip A.

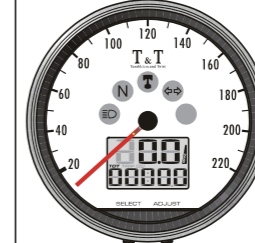


In Trip B screen, press the Adjust button once to switch from trip B to clock screen.

Hold pressing the Adjust button for 3 seconds to reset the trip A.

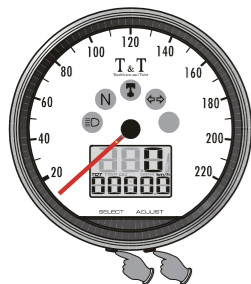


In clock screen, press the Adjust button once to switch from clock to ODO screen.



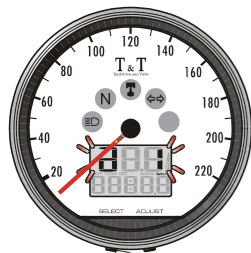
The ODO screen.

4 Function setting instruction

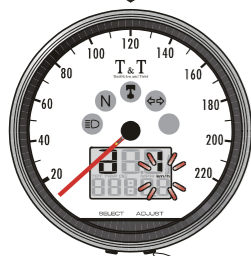


- In main screen, hold pressing the Select + Adjust button for 3 seconds to enter the setting screen.

4-1 Speed unit setting

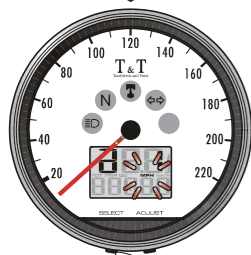


- Press the Select button one time to enter the speed unit setting

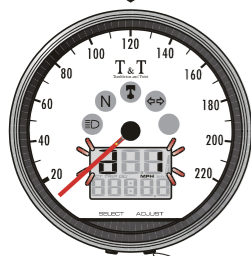


- EX. To change the setting from km/h to MPH.
- Press the Adjust button to change the setting.

NOTE Default: km/h
 ▲ Now the default is flashing
NOTE Setting range: km/h or MPH.
NOTE The odometer & trip meter will change together with the speed unit.

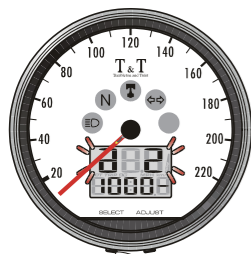


- Press the Select button once to go back to the Speed unit setting screen.
- EX. The Speed unit setting is changed from km/h to MPH.

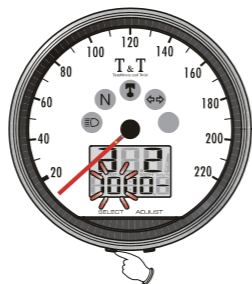


- Press the Adjust button once to go back to the tire circumference and sensor point setting screen.

4-2 The tire circumference and sensor point setting.



- Press the Select button one time to enter the tire circumference setting

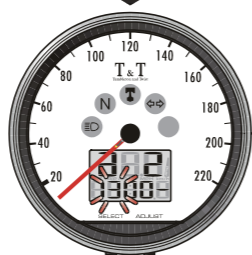
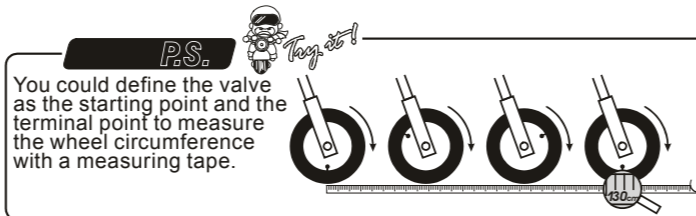


- EX. The tire circumference is 1,300 mm.
- Press the Select button to move to the digit you want to set.

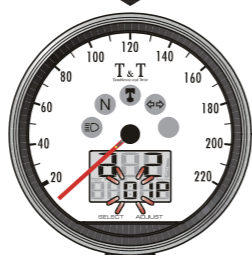
NOTE Default: 1,000 mm
 ▲ Now the default is flashing
NOTE The tire circumference setting range: 300~1,000 mm, and the digit you set is from left to right in order.

CAUTION!

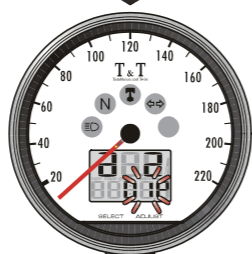
- Please measure the tire circumference (the tire you will install the sensor on) and make sure the number of magnet sensor point (You could install the magnet into the disc screw or the sprocket screw.)
- The speed displayed on the meter will be affected by the setting, please make sure the setting number is correct before you make the setting.



- Press the Adjust button to choose the setting number.

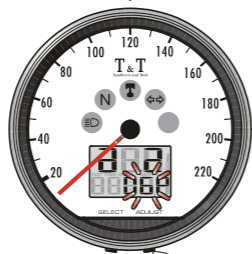


- Press the Select button once to go back to the sensor point setting screen.
- EX. The tire circumference setting is changed from 1,000 mm to 1,300 mm.



- EX. The sensor point you want to set is 6.
- Press the Select button to move to the digit you want to set.

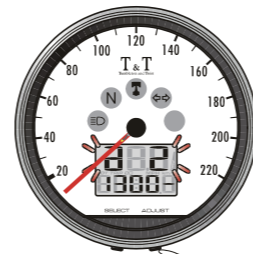
NOTE Default: 01P
 ▲ Now the default is flashing
NOTE The sensor point setting range: 1~20 points. You could change the setting from left to right.



- Press the Adjust button to choose the setting number.



- Press the Select button once to go back to the tire circumference and sensor point setting screen.



- Press the Adjust button once to go back to the RPM pulse and input signal setting screen.

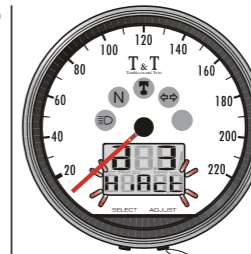
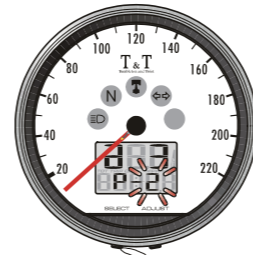


4-3 RPM pulse and input signal setting

- Press the Select button one time to enter the RPM pulse setting.



- Enter the number of ignition signals per crankshaft revolution ("P" value). This may vary according to the vehicle manufacturer/model and type of engine:
- If a 4-stroke engine fires at every second crankshaft revolution, enter P=0.5 (on 1-, 2- and 3-cylinder 4-stroke engines with one ignition coil for each cylinder)
- If a 4-stroke engine fires once per crankshaft revolution, enter P=1 (on 2-, 4- and 6-cylinder 4-stroke engines with one ignition coil for two cylinders)
- 2-stroke engines fire once per crankshaft revolution; enter P=1
- In the case of vehicles which have a distributor (mostly cars), you can enter P values up to 4, according to the number of cylinders.
- If you do not know how often your engine fires per crankshaft revolution, start by assuming the standard setting (P=1) - the instrument cannot be damaged if you do this. If an incorrect engine rpm is displayed, you should vary the P value by entering it manually until the figure displayed is realistic.
- Example illustration: The setting is changed from P=1 to P=2.
- Press the selection button and change to the function for setting the shift warning

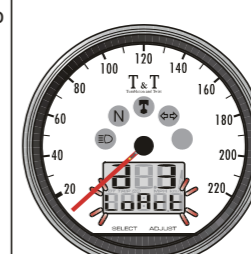


- EX. We would like to change the setting to LoAct. (The negative impulse)
- Press the Adjust button to choose the input signal you want to set.

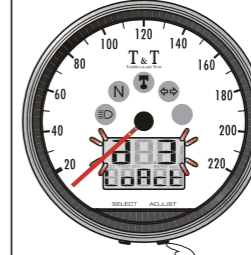
NOTE Default: HiAct
 ▲ Now the default is flashing

NOTE The impulse setting range is between Hi (the positive impulse) & Lo (the negative impulse)

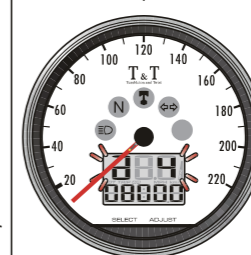
NOTE If the tachometer can't detect the signal (No RPM is displayed on the screen), you could choose another setting, and check it again.



- Press the Select button once to go back to the RPM pulse and input signal setting screen.
- EX. The input signal setting is changed from HiAct to LoAct.

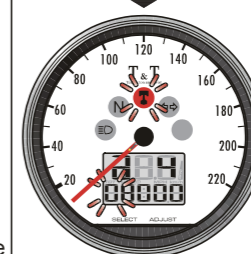


- Press the Adjust button once to go back to the shift light and shift light warning setting screen.



4-4 Shiftlight setting

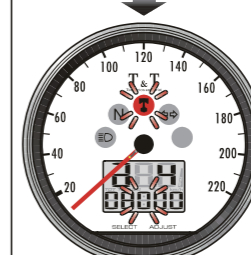
- Press the Select button one time to enter the Shift light setting.



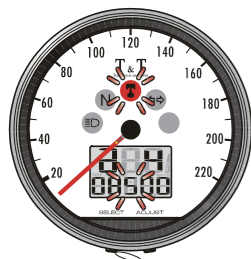
- EX: You want the shift light to light on at 8000 RPM Please change the shift light setting value to 8500 directly.
- Press the Select button to move to the digit you want to set.

NOTE Default: 8,000RPM
 ▲ Now the default is flashing

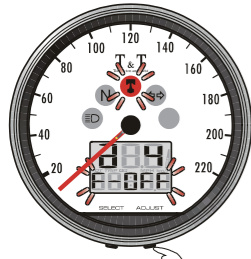
NOTE Setting range : 5,000~20,000 RPM
 Setting unit : 100 RPM



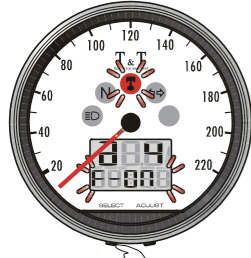
- Press the Adjust button to choose the setting number.



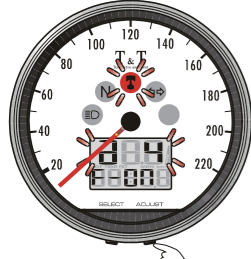
- Press the Select button to choose the Shift light setting.
- EX: Now the shift light setting is changed from 8,000RPM to 8,500 RPM.



- EX. You want to set the shift light F-ON (Flash).
 - Press the Adjust button to choose the setting number.
- NOTE** Default:F-OFF(Light on)
 ▲ Now the default is flashing
NOTE Setting range: F-OFF(Light on) · F-ON(Flash).

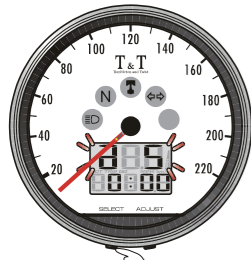


- Press the Select button once to go back to the RPM input signal and shiftlight setting screen.
- EX. The shiftlight setting is changed from F-OFF(Light on) to F-ON(Flash).

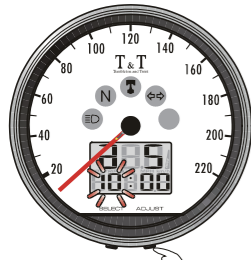


- Press the Adjust button to choose the clock setting screen.

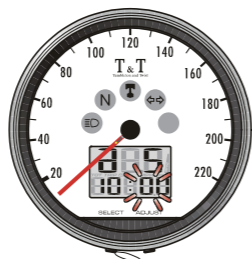
4-5 Clock setting



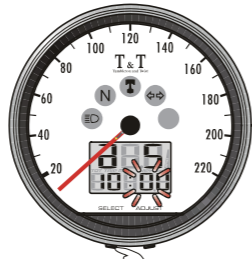
- Press the Select button one time to enter the clock setting.



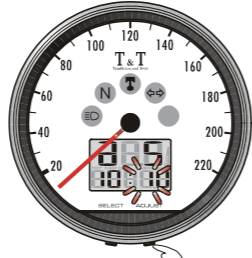
- EX. To change the setting to 10:00.
 - Press the Adjust button to choose the setting number.
- NOTE** Default:0 H.
 ▲ Now the default is flashing
NOTE Setting range: 0~23 H.



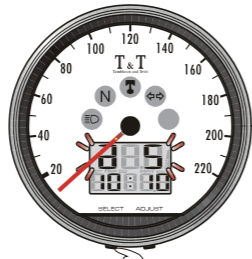
- EX. Now the setting is changed from 0:00 to 10:00.
- Press the Select button to enter the minute setting.



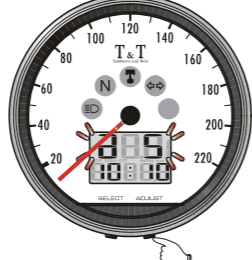
- EX. To change the setting to 14:10.
 - Press the Select button to move to the digit you want to set.
- NOTE** Default:0 minutes.
 ▲ Now the default is flashing
NOTE Setting range: 00~59 minutes.



- Press the Adjust button to choose the setting number.

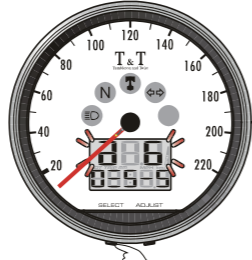


- Press the Select button once to go back to the clock setting screen.
- EX. Now the setting is changed from 10:00 to 10:10.

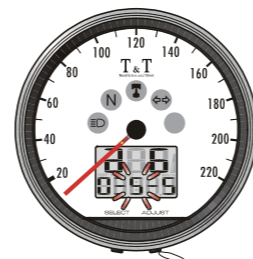


- Press the Adjust button to choose the backlight setting screen.

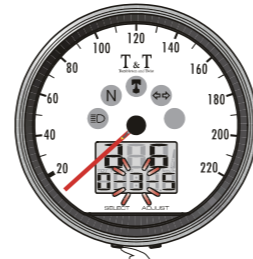
4-6 Backlight setting



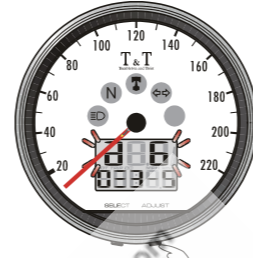
- Press the Select button one time to enter the backlight setting.



- EX. You want to set the backlight at 3-5 (60%).
 - Press the Adjust button to choose the setting number.
- NOTE** Default:5-5
 ▲ Now the default is flashing
NOTE Setting range:1-5(Darkest)~5-5 (Brightest),5 different levels available. Setting unit:20% per level. The backlight brightness will change immediately after you set the value.



- Press the Select button one time to enter the backlight setting.
- EX:The backlight setting setting is changed from 5-5 (100%) to 3-5 (60%).



- Press the Adjust button to choose the odometer display screen.

4-7 Meter Odometer display



- Press the Select button to enter the odometer display screen.

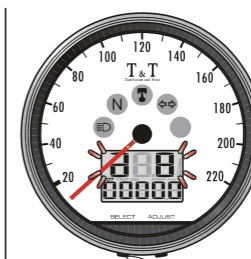


- EX. The internal odometer display is 12500 km.
 - Press the Select button once to enter the external odometer setting screen.
- ▲ This display only for viewing current mileage on the meter.

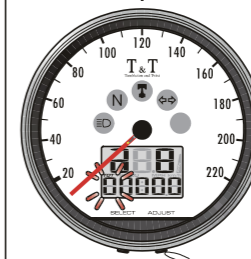


- Press the Adjust button to choose the external odometer setting screen.

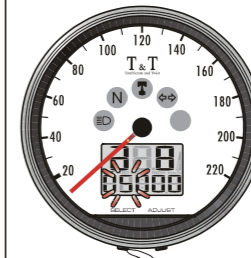
4-8 External Odometer setting



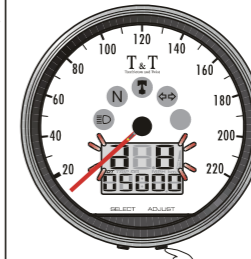
- Press the Select button once to enter the external odometer setting screen.



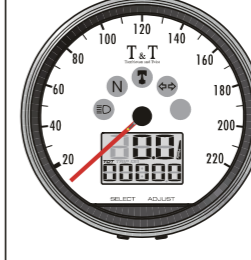
- EX. Set the odometer to 5000 km.
 - Press the Select button to move to the digit you want to set.
- NOTE** Default:00,000km(mile)
 ▲ Now the default is flashing
NOTE Display range : 0~99,999 km (mile)



- Press the Adjust button to choose the setting number.



- Press the Select button once to go back to the Meter Odometer screen.
- EX. The odometer setting has been changed from 0 km to 5,000 km.
- Press the Adjust button X3 seconds to go back to the main screen.



- The main screen.

5 Trouble shooting

The following situation do not indicate malfunction of the meter. Please check the following before taking it in for repair.

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. → Please 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 12V to make the meter work. 	The clock is incorrect.	<ul style="list-style-type: none"> ● Do you connect the wiring correctly. → Please check the positive wire (Red) connects to the battery, and main switch positive wiring (Brown) connects to the main switch. ● Please check your setting. → Please refer to the manual a5.
Speed does not appear or appear incorrectly.	<ul style="list-style-type: none"> ● Please make sure the speed sensor is connected correctly. ● Please check the tire-size setting. → please refer to the manual a2. 	Backlight doesn't work or doesn't have enough brightness	<ul style="list-style-type: none"> ● The harness connection might be wrong → Please check the backlight wire is properly connected according to the instruction. ● Please check your setting. → Please refer to the manual a6.
Tachometer does not appear or appear incorrectly.	<ul style="list-style-type: none"> ● Please check the RPM sensor wiring is connected correctly. ● Please check the spark plug is R type or not. If not, please replace the spark plug with the R type spark plug. ● Please check your setting. → Please refer to the manual a3. 	Telltale doesn't work	<ul style="list-style-type: none"> ● The harness connection might be wrong → Please check the harness wire is properly connected according to the instruction.

※If still can't solve the problems according to the steps above, please contact with distributors or us.

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