



# Combination Meter Manual

## General description

### Combination Meter system description

This combination meter mainly consists of the LCD(Liquid Crystal Display) and LED(Light Emitting Diode).

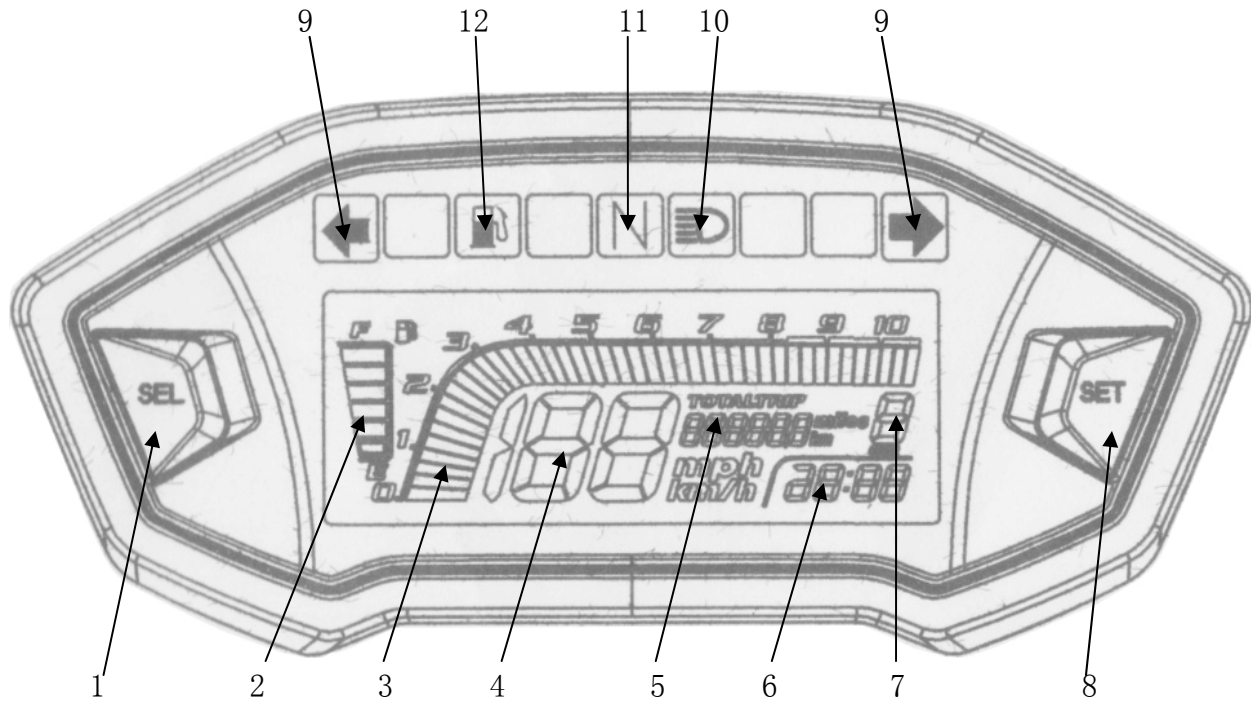
The LCDs indicate Speed, Tacho, Odo / Trip / clock/, Gear position, Engine revolution indicator and Fuel level indicator respectively.

### LED(Light Emitting Diode)

LED is used for the illumination light 、 change color and each indicator light.

LED is maintenance free.LED is less power consuming and more resistant to vibration resistance compared to the bulb.





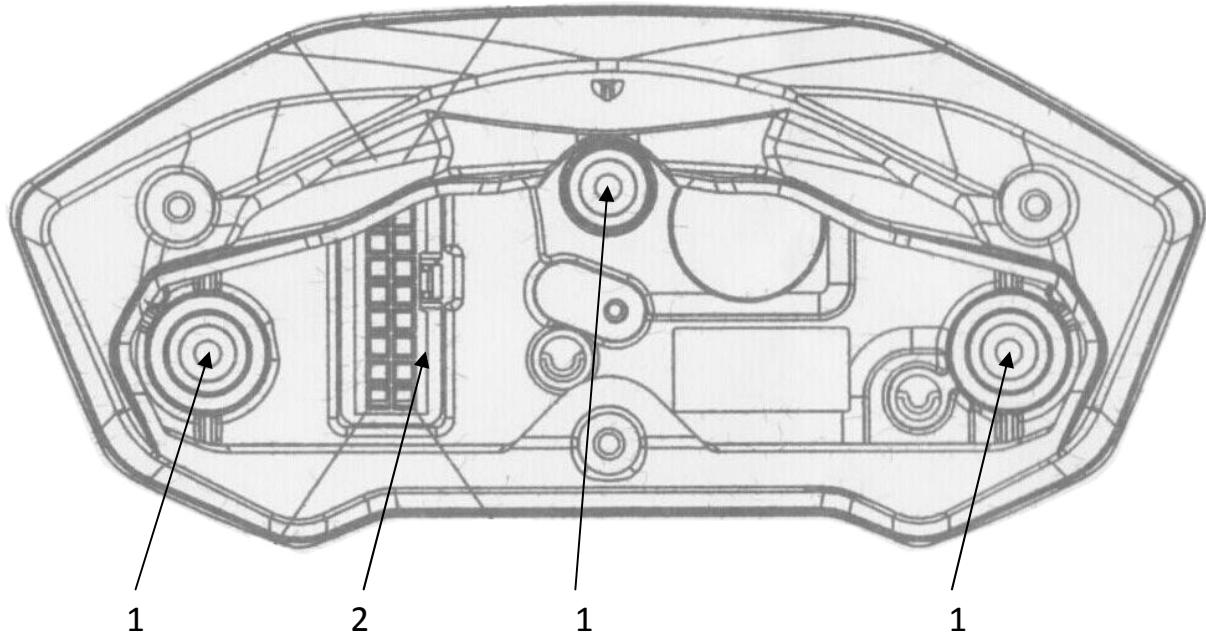
1.SEL button	7. LCD(Gear position indicator)
2.Fuel Level Gauge	8. SET button
3. Tachometer	9. LED(Turn signal indicator light)
4. LCD(Speedometer)	10. LED(High-beam indicator light)
5. Odo/Trip	11. LED(Neutral indicator light)
6.LCD(Clock)	12. LED (Fuel indicator light)

## Instructions

### Combination Meter Removal and installation

#### Removal

- 1) Removal the combination meter mounting bolt(1)



2) Disconnect the coupler(2) and remove the combination meter assembly.

### **Installation**

Install the combination meter in the reverse order of removal.

### **NOTE**

**Fix the boot of the combination meter coupler firmly.**

### **Combination Meter Disassembly and Assembly**

Refer to “Combination Meter Removal and installation”

#### **Disassembly**

Disassemble the combination meter as shown in the combination meter components.

#### **Assembly**

Assemble the combination meter as shown in the combination meter components.

### **Combination Meter inspection**

#### **LED inspection**



Check that the LEDs(Fuel and meter panel illumination) immediately light up when the ignition switch is turned ON.

Check that other LEDs (neutral, high-bream and turn signal indicator lights) light up/go off by operating each switch.

If abnormal condition is found, replace the combination meter assembly with a new one after checking its wire harness/coupler. Refer to “Combination Meter Removal and installation”

### Technical Specifications

#### 1. legislated standard

.Warning light: GB15365

.Other function on Qc/T 727

.Error of size at GB/T 1804-v

#### 2. Enviromental parameter

.Working Temperature: -30℃ ~ +80℃

.Storage Temperature: -40℃ ~ +90℃

.Anti-ultraviolet, Anti-Dazzle, Waterproof, lighting protection, Anti-vibration

#### 3. Electrical performance

.Supply Voltage: DC8V ~ 18V

.Max Voltage: DC24V < 60sec

.Quiescent current < 1.5mA(test at 13.5V)

.Average Consumption 120mA±20mA(test at 13.5V)

.Max Consumption 200mA±20mA(test at 13.5V)



4. Speedometer

.Display range:0 ~ 199 km/h, Display unit: 1 km/h or 1MPH

.Display mode:LCD

.Speed Induction way:External sensor section

5. Odometer

.Display range: 0 ~ 99999.9 km or 0 ~ 99999.9mile ; Display unit :0.1 km or 0.1 mile

.Reset automatically after 99999.9 km;

.Odometer cannot be reseted once the battery broken

6. Clock

.clock: 1:00 ~ 12:59(12H)

7. Weight

.Werght : around 750g

8. Gear Indicator

.Display range: 1 ~ 5

9. Backlight color change

.Setting range: red, orange, yellow, green, blue, light blue, purple, white

10. Indicator light color

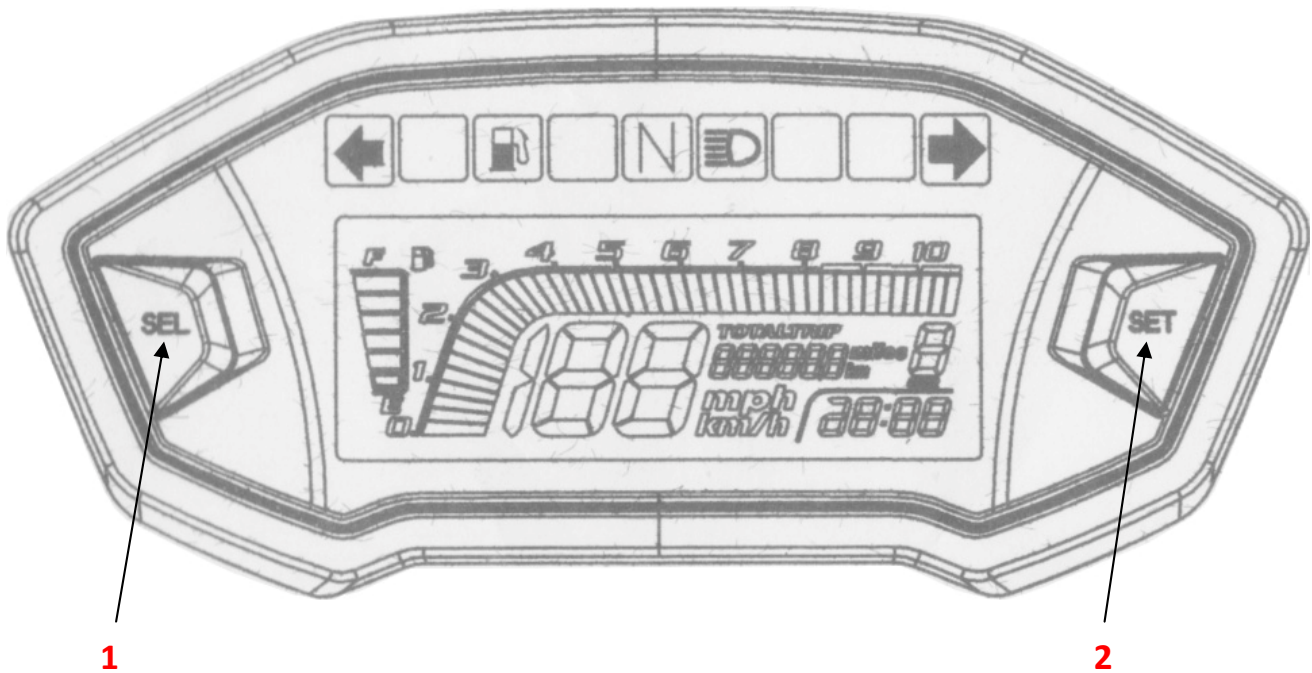


11.

.High beam(Blue); Turn signal (Green); Fuel Warning(yellow)

**Adjustmet:**

**(1)SEL button**



- 1) with the SEL button (1)pressed, turn the ignition switch ON.
- 2) Keep pushing the SEL button for more than 0.8 to 3 sec.

Time	Ignition switch	Adjuster button(1)	
	OFF		
0	ON	PUSH	
.0.8 sec	↓	Odo display status or Trip display status	Adjustment of status
		Odo ↔ Trip	Switching positions
.1.5	↓	Odo Display	Trip Display
		Adjustment of status	



sec	↓	status	status	
. 3sec		PUSH → Clock Adjustment Clock	PUSH → Parameter adjustment	PUSH → drop out
.		Release		

## (2)SET button

- 1) with the SET button (2)pressed, turn the ignition switch ON.
- 2) Keep pushing the SET button for more than 0.8 to 3 sec.

Time	Ignition switch	Adjuster button(2)	
	OFF		
0	ON	PUSH	
.0.8 sec	↓	Red → orange → yellow → green → blue → light blue → purple → white → Red	
.1.5 sec		Odo Display status	Trip Display status
3sec		Metric ↔ miles	PUSH → Trip Reset
.	↓	Release	

## Explanation:

① M-factor(Factor):

Tacho(r/min) Frequency(Hz)	M-factor		
	0	1	2



100	6000	3000	1500
200	12000	6000	3000

For example, two-stroke engine, this parameter is set to "0" (default is 0), 4-stroke, this parameter is set to "1"

② PULSE(PULSE):

This is the number of pulses speed counter range can be set from 1 to 10, with the combination of instruments supporting speed counter is fixed at 2, so here you want to set for two, if other speed counter, then the parameters to be set with matching the number of pulses.



③ Tire circumference size parameters(LC-XXX):

Tire circumference units CM, Such as tire circumference 1850mm, this parameter is set to LC-185

④ ID No....

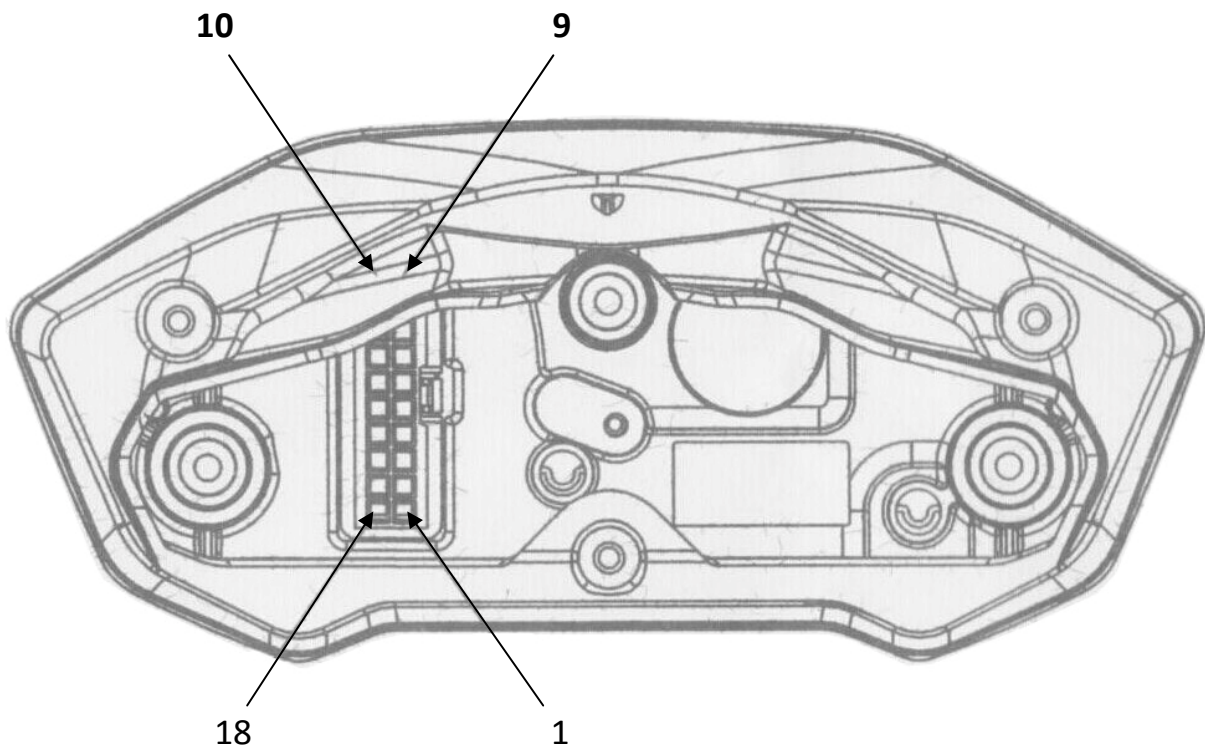
Such as ID number input (Id-XXX) is correct (factory setting value of the item ID 750), it will enter the parameter setting mode (LC-XXX),





otherwise it will not enter the parameter setting state

### The instrument cluster features correspond



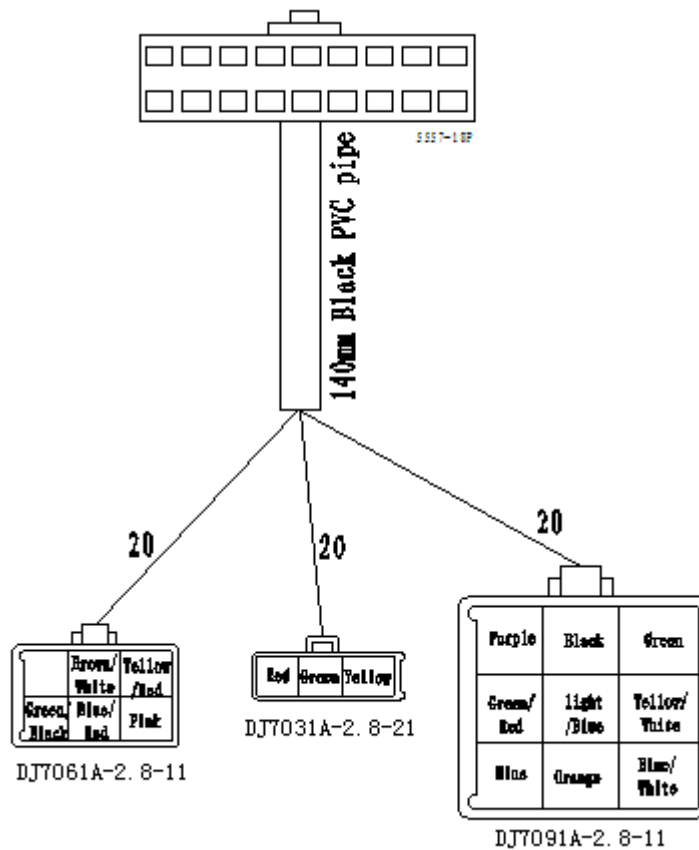
NO.	Function	Cable Color	Signal Format	NO.	Function	Cable Color	Signal Format
1	1 gear	Pink	Low	2	3 gear	Green/ Black	Low
3	5 gear	Brown/ White	Low	4	+5v	Yellow	High



5	Fuel	Yellow/ White	Resistance	6			
7	IGN	Black	High	8	Battery	Purple	High
9	GND	Green	Low	10	Speed	Red	Pulse
11	Tacho	Blue/ White	Pulse	12	Left turn signal	Orange	High
13				14	Neutral indicator	Green/ Red	Low
15	High Beam	Blue	High	16	Right turn signal	Light Blue	High
17	4 gear	Yellow/ Red	Low	18	2 gear	Blue/ Red	Low



Cable Picture



### Function Table:

Cable Color	Orange	light /Blue	Blue	Black	Green	Red	Blue/ White	Yellow	Yellow/ White	Green/ Red	Pink	Blue/ Red	Green/ Black	Yellow /Red	Brown/ White	Purple
Function	Left turn signal	Right turn signal	High Beam	IGN	GND	Speed	Tacho	Sensor Power	Fuel	Neutral indicator	1 Gear	2 Gear	3 Gear	4 Gear	5 Gear	Battery

### Fuel Level Indicator Inspection

If the fuel level indicator light does not function properly, check the fuel level gauge and its lead wire/coupler. If the fuel level gauge and its lead wire/coupler are functioning properly, replace the combination meter with a new one.

### Fuel Level Gauge Inspection

Inspect the fuel level gauge in the following procedures:

- 1) Remove the fuel pump.
- 2) Measure the resistance at each fuel level gauge in float position. If the resistance is incorrect, replace fuel level gauge with a new one.



Special tool:Multi-circuit tester set

Specification of Fuel meter with sensor ----Resistance( $\Omega$ )

Float position	Resistance
Full	6—10( $\Omega$ )
Empty	90—98( $\Omega$ )

3) install the fuel pump.

### **Speedometer Inspection**

If the speedometer, odometer or tripmeter does not function properly, inspect the speed sensor and the coupler connections. if the speed sensor and coupler connections are OK, replace the combination meter unit with a new one. Refer to “Combination Meter Removal and Installation”