

# KOSO GEAR METER APPLICATION INSTRUCTION



## Introduction

The gear meter works by comparing relative between motorcycle tacho and speedo signal. For the motorcycle which do not have Tacho. You could get clean pulse signal from engine such like crank pick up sensor. For more RPM signal catch way please check on KOSO website on [www.koso.com.tw](http://www.koso.com.tw) For the applications not list. You could purchase KOSO signal adaptor parts connect with gear meter to makes the gear meter work properly.

**Aprilia** Most of these connections will be made at the rear of the instruments

**NOTE** Some of Aprilia models wire color may different. Please check correct wire color with motorcycle user manual.

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>Mille Factory</b>	2004	Green/red	Grey/black	Grey/White	Yellow /Black spot
<b>Mille</b>	2001/2	Green	Brown/Pink	Grey/White	Grey/Violet
<b>Futura</b>	2001/2	Green	Brown	Blue/Orange	Brown/Pink
<b>Falco SL1000</b>	2003	Green	Brown/Pink	Grey/White	Grey/Violet

**NOTE** Neutral wire is located on LH of frame rail by Diode.

**NOTE** The wire color of tacho is yellow with black point from Alternator

**Bennelli** Connections will be made at the rear of the instruments

**NOTE** The ground wire color normally is back

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>Tornado</b>	2001/2	Green/White	White/Violet	Blue/Orange	Red/Grey
<b>Tornado</b>	2003	Green/White	White/Violet	Blue/Orange	Grey/ Violet

**B.M.W** Most of these connections will be made at the rear of the instruments

**NOTE** The ground wire normally is brown

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>F650CS/GS</b>	All	Green	Brown/Black	Yellow	Black
<b>R1150R</b>	All	Green/Brown	Brown/Black	Blue	L/Green

**NOTE** R1150R Tacho Connection to Black 6 way plug under tank pin 5, not pin 2 also L/green

**Buell** Connections will be made at the rear of the instruments

**NOTE** The ground wire normally is Black

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>Buell Cyclone</b>	All	Orange	Tan	Orange/White	Pink
<b>Buell XB9R Firebolt</b>	All	Orange/White	Tan/Yellow	White	Pink

**Cagiva** Connections will be made at the rear of the instruments

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>Raptor</b>	All	Grey/Red	Black/White	Orange/White	Grey/Green

**Ducati** Most of these connections will be made at the rear of the instruments

**NOTE** The ground wire normally is black

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>999</b>	All	To Be confirmed	To Be confirmed	To Be confirmed	To Be confirmed
<b>749*</b>	All	Blue/Yellow	Yellow/Green	Green	Grey/Green
<b>998</b>	All	Red	Blue	Speedo kit *	Grey/Green
<b>996</b>	All	Red	Blue	Speedo kit *	Grey/Green

**NOTE** Speed upgrade kit Acumen part number 30101For 749 model: All the wire connect to ECU is at behind of battery carrier.

**Harley-Davidson** Most of these connections will be made at the rear of the instruments

**NOTE** The ground wire normally is black

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>Harley Sportster</b>	99	Orange/White	Tan	White/Green	Pink
<b>Harley Softail *</b>	99 on	Orange	Tan	White	Pink
<b>V-Rod *</b>	All	Grey	Tan	White	Red
<b>Sportster *</b>	2006	Grey	Tan	Black/Blue	Red

●For Softail: The pink wire is for Tacho

●For V-rod: The Speedo wire color white. It is twisted by 3 wire red/black/white. The Tacho wire color red. It is twisted by red/black loom to ECU. The rest wire is hidden in back side of meter.

●For sportster 2006: The Speedo wire twisted by 2 wire blue/black. The red wire is crank sensor signal to ECU. Grey wire is from ignition fuse. Black wire is at ECU.

**Honda** Most of these connections will be made at the rear of the instruments

**NOTE** The ground wire normally is green. But some models the ground wire using different color like Green/Yellow, Green/Black or Green/Pink

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>HORNET 600</b>	All	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
<b>CBR600 FX/Y</b>	99/2000	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
<b>CBR600 F1/S</b>	2001/02	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
<b>CBR600 RR</b>	2003/4/5/6	White/Green	Light Green/Red	Pink/Green	Yellow/Green
<b>CBR600RR</b>	2007	White/Black	Green/Black	Pink/Green	Yellow/Green
<b>Firestorm</b>	All	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
<b>Varadero</b>	All	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
<b>VFR750 *</b>	94FR > 97FV	Black	Light Green	Pink	Yellow/Green
<b>VFR800</b>	Up 2100	Black/Brown	Light Green/Red	Pink	Yellow/Green
<b>VFR800 v Tec</b>	2002-2007	Black /white	Light Green/Red	Pink	Yellow/Green
<b>Fireblade injected</b>	Up to 2003	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
<b>Fireblade injected</b>	2004	Black/Brown	Light Green/black	Pink	Yellow/Green
<b>Fireblade injected</b>	2004/5	Black/white	Light Green/black	Pink	Yellow/Green
<b>CBR1000RR</b>	2006/7	Black/Brown	Light Green/black	Pink	Yellow/Green
<b>SP1/2</b>	All	Black /Brown	Light Green/Red	Pink/Green	Yellow/Green
<b>CBR1100RR blackbird card</b>	All	Black/Brown	Light Green/black	Pink	Yellow
<b>CBR1100RR blackbird inj</b>	All	Black/Brown	Light Green/black	Pink/Green	Yellow/Green
<b>CB1300-F3*</b>	2003 on	Black/Brown	Light Green/black	Pink/Green	Yellow/Green
<b>ST1300 pan European</b>	2002 on	Black/Brown	Light Green/black	Pink/Green	Yellow/Green
<b>VTX 1800*</b>	All	Black/Brown	Lt Green/RED	Pink/Green	Yellow

**VFR750** The wire of ground, power and speedo pick up is from speed sensor behind the left hand of side panel.

**CB1300-F3** The connecting can be make in the headlight

**VTX 1800** Pick up sensor wire colored yellow.

The Tacho and neutral wires are taken from the ECU

**Kawasaki** Connections will be made at the rear of the instruments

**NOTE** The ground wire normally is Black/Yellow

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>ZX6R &amp; ZX636</b>	J model on	Brown/White	Light Green	Yellow	Light Blue
<b>ZX9R</b>	C model on	Brown/White	Light Green	Yellow	Light Blue
<b>Zx10</b>	2004/5/6/7	Brown/White	Light Green	Blue/Yellow	Light Blue
<b>ZX12R</b>	All	Brown/White	Light Green	Yellow	Light Blue
<b>Z1000</b>	2003/4/5/6/7	Brown/White	Light Green	Pink	Light Blue
<b>Z750</b>	2004/5/6/7	Brown/White	Light Green	Pink	Light Blue
<b>ER-6N</b>	2006/7	Brown/White	Light Green	Light Green/Red	Light Blue

**M V Agusta** Connections will be made at the rear of the instruments

**NOTE** Some of models not list here please check wire color with user manual.

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>MV F4S Late</b>	All	Violet/Red	Green/Yellow	Brown	Grey/Yellow
<b>F4 1000R</b>	2006/	Blue/Yellow	Green/Yellow	Orange/Black	Yellow/Blue

**Triumph** Most of these connections will be made at the rear of the instruments

**NOTE** The ground wire normally is Black

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>Daytona 600</b>	03/04	Green/Red	Black/White	Red/Orange	Red
<b>Sprint</b>	RS/RT	Green/Red	Black/White	White/Blue	Pink
<b>Tiger *</b>	05	Green/Red	Black/White	Pink	White/Blue
<b>Daytona 955i</b>	99 on	Green/Red	Black/Grey	White/Blue	Red
<b>Daytona 955i *</b>	2003	Green/Red	Black/Grey	Orange/Green	Red
<b>Sprint ST 1050 *</b>	2004	Green/Red	Black/White	Pink/Yellow	Green/Pink
<b>Speed Triple</b>	2003	Red/Blue	Black/White	Red/Orange	Red
<b>Sprint ST1050</b>	2006	Green/Red	Black/White	Pink/Yellow	Blue/Purple
<b>Tiger 1050 *</b>	2007	Green/Red	Black/White	Pink/Yellow	Blue/Purple

**Daytona 955i 2003 model** The speedo signal wire orange/green from speedo sensor can be found in the right side of fairing near the tank. It is 3 pin triangular waterproof connector.

**Sprint ST1050 2004:** Power and Earth connections are to the rear of the instruments, as usual. All other connections are under the L/H inner fairing panel, into the main loom to the rear of the bike from the ECU.

**Sprint ST1050 2006:** Speedo, Tacho and Neutral connection into wires into smaller connector of ECU, under LH fairing.



**Suzuki** Most of these connections will be made at the rear of the instruments

**NOTE** Earth (ground) wires are normally Black/white. If the display flickers at high RPM, or goes blank, swap the KOSO Brown and Orange wires. I.e; take the KOSO tachometer wire (Brown) to the bike's speedometer and vice versa.

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>SV650 *</b>	Up to 02	Orange/Green	Blue/Black	Pink	Green *
<b>SV650S *</b>	Up to 02	Orange/Green	Blue/Black	Pink	Green *
<b>SV650</b>	2003 on	Orange/Green	Blue/Black	Pink/White	Brown/Black
<b>GSX600</b>	Most	Orange/Green	Blue/Black	Pink	Yellow
<b>GSF600 *</b>	Most	Orange/Green	Blue/Black	Pink	Black/Blue *
<b>GSXR600Inj</b>	All	Orange/Green	Blue/Black	Pink	Yellow/Blue
<b>GSX750F *</b>	99/2000	Orange/Green	Blue/Black	Pink	Black/Blue *
<b>GSXR750Inj</b>	All	Orange/Green	Blue/Black	Pink	Yellow/Blue
<b>GSXR750W</b>	All	Orange/Red	Blue/Black	Pink	Yellow
<b>GSXR1000Inj</b>	All	Orange/Green	Blue/Black	Pink	Yellow/Blue
<b>TL1000R</b>	All	Orange/Green	Blue/Black	Pink	Black/Red
<b>GSX1400</b>	All	Orange/Green	Blue/Black	Pink	Brown/Black
<b>Sv1000</b>	Up to 04	Orange/Green	Blue/Black	Pink/White	Brown/Black
<b>DL1000 V-Strom</b>	All	Orange/Green	Blue/Black	Pink/White	Brown/Black
<b>DL650 V-Strom</b>	All	Orange/Green	Blue/Black	Pink/White	Brown/Black
<b>GSX1300R</b>	All	Orange/Green	Blue/Black	Pink	Yellow/Blue
<b>VL 1500</b>	2004-5	Orange/Green	Blue/Black	Pink	Black *

**GSF600** Tacho Pulse behind left side panel from Ign Pick-up

**GSX750F** Tacho Pulse from Ignition Pick-up

**GSF1200** Bandit Tacho Pulse behind left side panel from Ign Pick-up

**VL1500** Tacho pulse from one of the black alternator wires going to the rectifier/regulator inside L/H/S gear box cover

**Yamaha** Most of these connections will be made at the rear of the instruments

**NOTE** Earth (Ground) wires are normally Black or Black/Yellow

Model	Year	Power	Neutral	Speedo	Tacho
<b>KOSO COLOURS</b>		RED	Green	Orange	Brown
<b>FZ6-N *</b>	2004/5/6/7	Red/White	Light Blue	White/Yellow	Grey
<b>FZ1 *</b>	2006/7	Red/Yellow	Light Blue/White	White/Yellow	Grey
<b>Fazer 600</b>	2000/2003	Light Brown	Light Blue	White	Yellow/Black
<b>Fazer 1000</b>	2000/2001	Red/Yellow	Light Blue	White	Yellow/Black
<b>Fazer 1000</b>	2002/3/4/5	Light Brown	Light Blue	White	Yellow/Black
<b>R6</b>	1998	Red/Yellow	Light Blue	White	Yellow/Black
<b>R6</b>	1999-2002	Light Brown	Light Blue/White	White	Yellow/Black
<b>R6 *</b>	2003-2005	Red/Yellow	Light Blue/White	White/Yellow	Yellow/Black
<b>R6R *</b>	2006/7	Light Brown	Light Blue/White	White/Yellow	Yellow/Black
<b>R1</b>	1999	Red/Yellow	Light Blue	White	Yellow/Black
<b>R1</b>	2000/2001	Light Brown	Light Blue/White	White	Yellow/Black
<b>R1 *</b>	2004/5/6/7	Brown	Light Blue/White	White/Yellow	Yellow/Black
<b>FJR1300 *</b>	2001/2	Red/White	Light Green	Grey	White/Yellow
<b>FJR1300 &amp; ABS *</b>	2003/4/5/6	Red/White	Light Blue/White	Grey	Yellow/Black
<b>Warrior *</b>		Red/White	Light Blue	White/Yellow	Light Grey
<b>MT01 *</b>	2006/7	Red/White	Light Blue	White/Yellow	Grey

**FJR1300** connect to KOSO Speedometer wire (Orange) to the bike's Crank sensor (Grey) and the KOSO Tacho (brown) wire to the Bike Speedometer (White/Yellow). All connections are to ECU L/H side sub-frame. Neutral wire in loom below ECU. For flickering KOSO or defaulting to 1st gear at high revs, swap the orange and brown KOSO wires around. Connect the KOSO Speedometer wire (Orange) to the bike's Speedometer (White/Yellow) and the KOSO Tacho (brown) wire to the Bike Crank sensor (Grey).

**FZ6-N & Late Fazer 1000** connect to KOSO Speedometer wire (Brown) to the bike's Crank sensor (Grey) and the KOSO Tacho (Orange) wire to the Bike Speedometer (White/Yellow). All connections are to ECU loom or, if you prefer, under the petrol tank. Neutral wire in ECU loom coming up from gearbox.

**R1 2002/03/04** Speedometer connection under tank. White 3-way connector to Speedometer sensor

**R6 2003** Speedometer connection under tank. White 3-way connector to Speedometer sensor

**Warrior** Connections to the ECU except for Neutral wire in loom below ECU and Tacho feed 2-way natural colour plug underneath ECU

**MT01**; All connections under seat. KOSO Red, Black, Brown and Orange to ECU large connector. KOSO Green to large relay behind ECU? you can connect in the main harness on the right-hand side of the bike, at the rear of the tank. If display flashes at higher RPM swap KOSO Brown & Orange wires

**FZ1** Grey wire at bike's ECU, the smaller of the two plug connections

**R6R** Speedometer connection under tank. White 3-way connector to Speedometer sensor. Ground connection is Black/White at instrument cluster