

Installation Wiring guide for the Acumen DG8, CL10 and PD8 range

NOTE! While this suggested fitting guide is produced with extreme care it is issued only as a guide. Motorcycle manufacturers reserve the right to alter specifications of their products at any time and because of that the wiring colours may change.

NOTE! We only list what we have actually seen working. If we have not actually seen the application we do not list the motorcycle. This does not mean the product will not work on your bike.

The DG8 works by comparing the information signals to the Tacho and Speedo. Some motorcycles do not have a Tacho, but this is not a problem – use any ‘clean’ electrical pulse relative to engine speed, such as crank pick-up sensor.

Some motorcycles have a cable-driven speedometer, in which case – for the DG8 and the CL10 Chain Oiler - you will require the Speedo upgrade kit (Acumen part number 30101).

Some power supplies on some motorcycles are quite unstable. You will see this by the display flickering, showing a number one or even going to a blank screen. Where we know this happens, we have marked it on this sheet. Swapping the DG8 Brown and Orange wires often cures this. If you still have a problem contact us at support@acumen-electronics.co.uk

In general; most of these connections will be made at the rear of the instruments. Some motorcycles use a 'BUS' information to the instruments in which case you will need to connect the DG8 wires to the individual sensors on the motorcycle. Any pulse relative to speed (Engine or Road) will be acceptable. Where this is known, it is listed on the fitting information chart.

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

Note:- Aprilia are great bikes to ride, but they change wiring colours for a past-time and sometimes their wiring diagrams make no sense at all. We are very hesitant to put this information here because of these reasons! Earth wires usually Blue/Green but CHECK!

Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
Mille Factory	2004	Green/red	Grey/black	Grey/White	Yellow /Black spot
Mille	2001/2	Green	Brown/Pink	Grey/White	Grey/Violet
Futura	2001/2	Green	Brown	Blue/Orange	Brown/Pink
Falco SL1000	2003/4	Green Pin 8 at ECU	Brown/Pink Pin 4 @ ECU	Grey/White Pin 6 @ ECU	Grey/Violet Pin 12 @ ECU
RS250		Green/Brown	Blue/Black	Grey/Violet	White/Violet
RSVR	04/05	Green	Grey Black	Pin 6 on Plug B @ ECU	Pin 15 on Plug A at ECU

Notes:- Futura: Neutral wire on L H Frame rail by Diode

Bennelli Connections will be made at the rear of the instruments

Note:- Earth (Ground) wires are normally Black

Make/Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
Tornado	2001/2	Green/White	White/Violet	Blue/Orange	Red/Grey
Tornado	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:- Earth (Ground) wires are normally Brown

Make/Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
F650CS/GS	All	Green	Brown/Black	Yellow	Black
R1150R	All	Green/Brown	Brown/Black	Blue	L/Green

Notes:- 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:- Earth (Ground) wires are normally Black

Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
Buell Cyclone	All	Orange	Tan	Orange/White	Pink
Buell XB9R Firebolt	All	Orange/White	Tan/Yellow	White	Pink
XB12*				White	Green/White

XB12* White and Green/White connections at the ECU

Cagiva Connections will be made at the rear of the instruments

Make/Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
Raptor	All	Grey/Red	Black/White	Orange/White	Grey/Green

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

Note:- Earth (Ground) wires are normally Black

Make/Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
749*	All	Blue/Yellow	Yellow/Green	Green	Grey/Green
998	All	Red	Blue	Speedo kit *	Grey/Green
996	All	Red	Blue	Speedo kit *	Grey/Green
916*	All	Red	Blue	Speedo kit *	Grey/Green
748*	All	Red	Blue	Speedo kit *	Grey/Green
1098*			Black	Grey	Green/Yellow

Notes:- Speedo upgrade kit Acumen part number 30101

749:- All connection in to looms to ECU behind battery carrier

Very Early 748 and 916 had a 2 wire positive Switched neutral light switch which requires a special switching relay available from Acumen on a made-to-order basis, for which there is a nominal charge

1098 – This information given to us by a customer and not tested by us. Black wire at neutral switch. Grey wire at speedo sensor. Green/yellow wire to rear injector.

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

Note:- Earth (Ground) wires are normally Black

Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
Harley Sportster	99	Orange/White	Tan	White/Green	Pink
Harley Softail *	99 on	Orange	Tan	White	Pink
V-Rod *	early	Grey	Tan	White	Red
V-Rod *	late	Grey	Tan		Red
Sportster *	2006	Grey	Tan	Black/Blue	Red

Notes:-

Softail: *Pink wire is stand alone option wire for Tacho*

V-rod: EARLY; *White Speedo wire is twisted 3wires red/black/white. Tacho red is twisted pair red/black in the loom to the ECM, The rest are in the loom to the clocks.*

Sportster 2006; *Speedo wire Blue/Black in twisted pair at ECU from Sensor. Red wire from crank Sensor to ECU. Grey wire from ignition fuse. Black wire at ECU. Tan wire at rear of instruments*

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

Note:- Earth (Ground) wires are normally Green, but may be Green/Yellow, Green/Black, Green/Pink

Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
Hornet 600	All	Black/Brown	Light Green/Red	Pink/Green (Later models are Pink/Blue)	Yellow/Green
CBR600 FX/Y	99/2000	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
CBR600 F1/S	2001/02	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
CBR600 RR	2003/4/5/6	White/Green	Light Green/Red	Pink/Green	Yellow/Green
CBR600RR	2007-10	White/Black	Light Green/Black	Pink/Green	Yellow/Green
Firestorm	All	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
Varadero	All	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
VFR750 *	94FR > 97FV	Black	Light Green	Pink	Yellow/Green
VFR800	Up 2001	Black/Brown	Light Green/Red	Pink	Yellow/Green
VFR800 V Tec	2002-2009	Black/White	Light Green/Red	Pink	Yellow/Green
Fireblade Injected	Up To 2003	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
Fireblade Injected	2004	Black/Brown	Light Green/black	Pink	Yellow/Green
Fireblade Injected	2004/5	Brown/white	Light Green/black	Pink	Yellow/Green
CBR1000RR	2006/7/8/9/10	Brown/white	Light Green/Black	Pink (Note may be Pink/Green)	Yellow/Green
SP1/2	All	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
CB1000R	07/08/09/10	Black/Brown	Light Green/Red	Pink/Blue	Yellow/Green
CBR1100XX Blackbird Carb	All	Black/Brown	Light Green/Red	Pink	Yellow
CBR1100XX Blackbird Inj	All	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
CB1300-F3 *	2003 on	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
STX1300 Pan European	2002 on	Black/Brown	Light Green/Red	Pink/Green	Yellow/Green
GL1800 *	All	Brown/Blue	Light Green	White/Black	Yellow/Green
VTX 1800 *	All	Black/Brown	Lt Green/Red	Pink/Green	Yellow

VFR750 Ground, Power and Speedo pickup from speed sensor behind the left hand side panel

CB1300-F3 All connections can be made inside the headlight

VTX 1800. yellow wire is from crank pick up sensor

The Tacho and neutral wires are taken from the ECU

Kawasaki Connections will be made at the rear of the instruments

Note :- Earth (Ground) wires are normally Black/Yellow

Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
ZX6R & ZX636	J model on	Brown/White	Light Green	Yellow	Light Blue
ZX9R	C model on	Brown/White	Light Green	Yellow	Light Blue
ZX10	All	Brown/White	Light Green	Blue/Yellow	Light Blue
ZX12R	All	Brown/White	Light Green	Yellow	Light Blue
Z1000	All	Brown/White	Light Green	Pink	Light Blue
Z750	All	Brown/White	Light Green	Pink	Light Blue
ER-6N	All	Brown/White	Light Green	Light Green/Red	Light Blue

KTM

Note: - Earth (Ground) wires are brown.

Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
Super Duke	09	Yellow/Red	Green/Black	Black/Orange	Blue/White
RC8	All	Yellow/Red	Green/Black	Black/Orange	Black/Brown

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

Note:- MV changed their wiring colours at an unknown model point. Check colours in loom at rear of clocks

Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
MV F4S Late	All	Violet/Red	Green/Yellow	Brown	Grey/Yellow
MV F4SEarly	All	Violet/White	Green/Yellow	Brown	Grey/Yellow
F4 1000R	2006	Blue/Yellow	Green/Yellow	Orange/Black	Yellow/Blue

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 DG8 Brown and Orange wires. ie; take the DG8 tacho wire (Brown) to the bike's speedo and vice versa.

Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
SV650 *	Up to 02	Orange/Green	Blue/Black	Pink	Green*
SV650S *	Up to 02	Orange/Green	Blue/Black	pink	Green*
SV650	2003 on	Orange/Green	Blue/Black	Pink/White	Brown/Black
GSX600	Most	Orange/Red	Blue/Black	Pink	Yellow
GSF600 *	Most	Orange/Green	Blue/Black	Pink	Black/Blue *
GSXR600Inj	All	Orange/Green	Blue/Black	Pink	Yellow/Blue
GSX750F *	99/2000	Orange/Green	Blue/Black	Pink	Black/Blue *
GSXR750Inj	All	Orange/Green	Blue/Black	Pink	Yellow/Blue
GSXR750W	All	Orange/Red	Blue/Black	Pink	Yellow
GSXR1000Inj	All	Orange/Green	Blue/Black	Pink	Yellow/Blue
TL1000R	All	Orange/Green	Blue/Black	Pink	Black/Red
GSF1200 Bandit *	All	Orange/Green	Blue/Black	Pink	Black/Blue *
GSF1250 Bandit	All	Orange/Green	Blue/Black	Pink	Yellow/Blue
GSX1400	All	Orange/Green	Blue/Black	Pink	Brown/Black
SV1000	Up to 07	Orange/Green	Blue/Black	Pink/White	Brown/Black
DL1000 V-Strom	All	Orange/Green	Blue/Black	Pink/White	Brown/Black
DL650 V-Strom	All	Orange/Green	Blue/Black	Pink/White	Brown/Black
GSX1300R	All	Orange/Green	Blue/Black	Pink	Yellow/Blue
VL 1500	2004-5	Orange/Green	Blue/Black	Pink	Black *
M1800	All	Orange/Green	Blue/Black	White	Black/Green

Notes:-

SV650 up to 2002 connect DG8 Brown to the GREEN wire from the ignition pick-up. 2-way connector LH frame rail under rear of tank

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

GSX750F Tacho Pulse from Ign 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

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

Note:- Earth (Ground) wires are normally Black

Model	Year	Power	Neutral	Speedo	Tacho
DG8 colours		RED	Green	Orange	Brown
Daytona 600	03/04	Green/Red	Black/White	Red/Orange	Red
TT600	All	Green/Red	Black/White	White/Blue	Red
Sprint	RS/RT	Green/Red	Black/White	White/Blue	Pink
Tiger *	05	Green/Red	Black/White	Pink	White/Blue
Daytona 955i	99 on	Green/Red	Black/Grey	White/Blue	Red
Daytona 955i *	2003	Green/Red	Black/Grey	Orange/Green	Red
Sprint ST 1050 *	2004	Green/Red	Black/White	Pink/Yellow	Green/Pink
Speed Triple	2003	Red/Blue	Black/White	Red/Orange	Red
Speed Triple *	2006	Brown/Pink	Black/White	Pink/Yellow	Blue/Purple
Speed Triple	2008	Green/Red	Black/White	Pink/Yellow	Blue/Purple
Sprint ST1050	2006/7	Green/Red	Black/White	Pink/Yellow	Blue/Purple
Sprint ST1050*	2008	Green/Red	Black/White	Pink/Yellow	Black/Purple
Tiger 1050 *	2007	Green/Red	Black/White	Pink/Yellow	Blue/Purple

Daytona 9551 2003 model The orange/green wire from the speed sensor is found in the right hand side front fairing where it meets the tank, 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. Power and Ground behind instruments – be aware there are two Green/Red wires, but only one is switched 12V If the display flashes at higher RPM's, swap the DG8 Brown and Orange wires.

Tiger 05. In the fit we did we had to reverse the speedo and tacho connections (ie, take the DG8 tacho – Brown – wire to the bikes speedo and vice versa) If the DG8 flickers and goes out at high revs, swap these two wires.

Tiger 1050. All connections at the Black connector of the ECU, in front of the battery. If the display flickers/goes blank at high RPM swap the Brown and Orange DG8 wires

Speed Triple; 2006; All connections at smaller of the two ECU connectors except the ground connection which is in the larger of the two connectors at the ECU.

Sprint ST1050. All connections at the Black connector on the bikes ECU

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
DG8 colours		RED	Green	Orange	Brown
FZ6 – N *	2004/5/6/7/8	Red/White	Light Blue	White/Yellow	Grey
FZ1 *	2006/7/8	Red/Yellow	Light Blue/White	White/Yellow	Grey
Fazer 600	2000/2003	Light Brown	Light Blue	White	Yellow/Black
Fazer 1000	2000/2001	Red/Yellow	Light Blue	White	Yellow/Black
XJ6N *	09/10	Red/White	Light Blue	White/Yellow	Grey
Fazer 1000	2002/3/4/5	Light Brown	Light Blue/White	White	Yellow/Black
R6	1998	Red/Yellow	Light Blue	White	Yellow/Black
R6	1999-2002	Light Brown	Light Blue/White	White	Yellow/Black
R6 *	2003-2005	Light Brown	Light Blue/White	White/yellow	Yellow/Black
R6R *	2006/7/8/9/10	Light Brown	Light Blue/White	White/yellow	Yellow/Black
R1	1999	Red/Yellow	Light Blue	White	Yellow/Black
R1	2000/2001	Light Brown	Light Blue/White	White	Yellow/Black
R1*	2002/2003	Light Brown	Light Blue/White	White Yellow	Yellow/Black
R1*	2004-08	Brown	Light Blue/White	White Yellow	Yellow/Black
FJR1300 *	2001/2	Red/White	Light Green	Grey	White/Yellow
FJR1300 & ABS *	2003-10	Red/White	Light Blue/White	Grey	White/Yellow
Warrior *		Red/White	Light Blue	White/Yellow	Light Grey
MT01 *	2006-10	Red/White	Light Blue	White/Yellow	Grey
TDM (all conn's at ECU)	2004 on	Red/White	Blue/White	Grey	White/Yellow

Notes:- FJR1300 connect to DG8 Speedo wire (Orange) to the bikes Crank sensor (Grey) and the DG8 Tacho (brown) wire to the Bike Speedo (White/Yellow) All connections are to ECU L/H side sub-frame. Neutral wire in loom below ECU. For flickering DG8 or defaulting to 1st gear at high revs, swap the orange and brown DG8 wires around. Connect the DG8 Speedo wire (Orange) to the bikes Speedo (White/Yellow)and the DG8 Tacho (brown) wire to the Bike Crank sensor(Grey)

FZ6-N & Late Fazer 1000 connect to DG8 Speedo wire (Brown) to the bikes Crank sensor (Grey) and the DG8 Tacho (Orange) wire to the Bike Speedo (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 Speedo connection under tank. White 3-way connector to Speedo sensor

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

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

MT01; All connections under seat. DG8 Red, Black, Brown and Orange to ECU large connector. DG8 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 DG8 Brown & Orange wires

FZ1 Grey wire at bike's ECU, the smaller of the two plug connections. White/Yellow at ECU

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

XJ6N All connections at ECU except Neutral switch made at wire to switch