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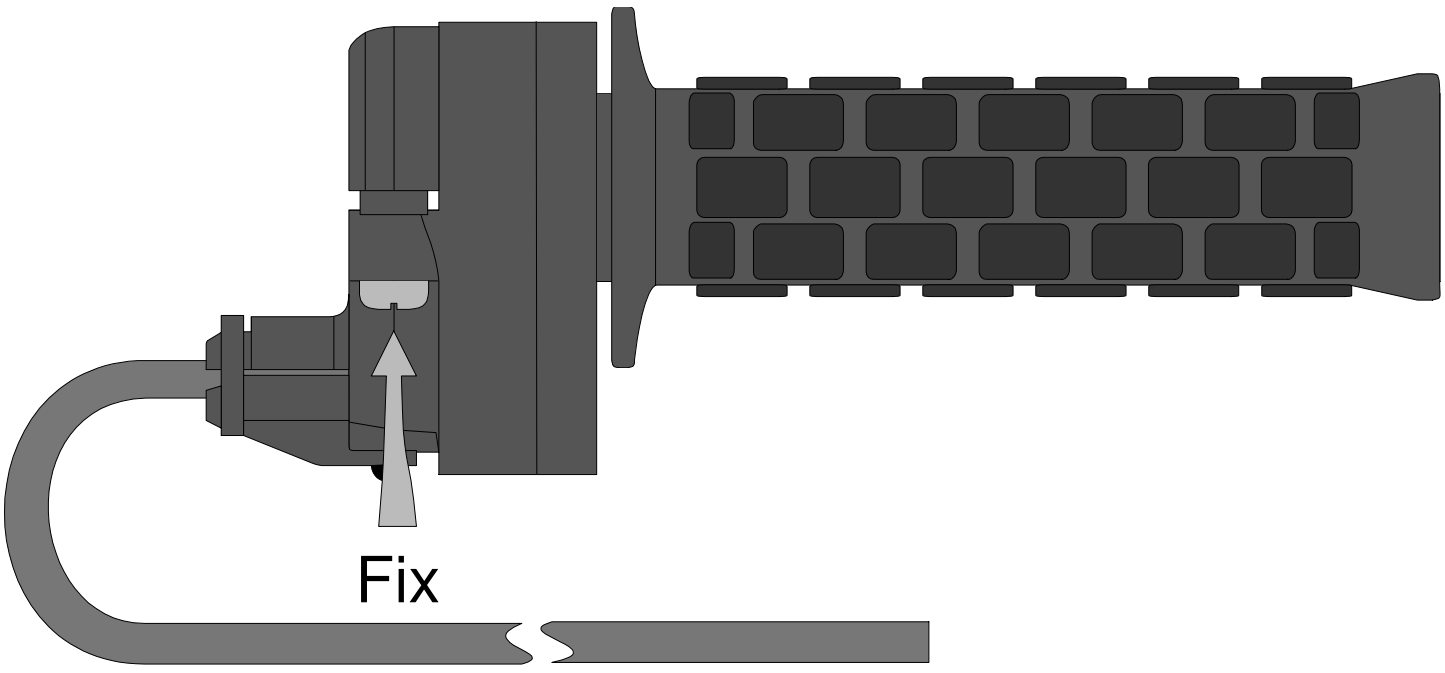
Instruction Manual

Magura Twist-grip Throttle

The Magura is a twist operated 5K potentiometer suitable for use with all 4QD's controllers, though some require a resistor change to match them.

The grip has a spring return-to-zero.

It is intended for fixing on a tubular handle-bar of 20mm diameter.



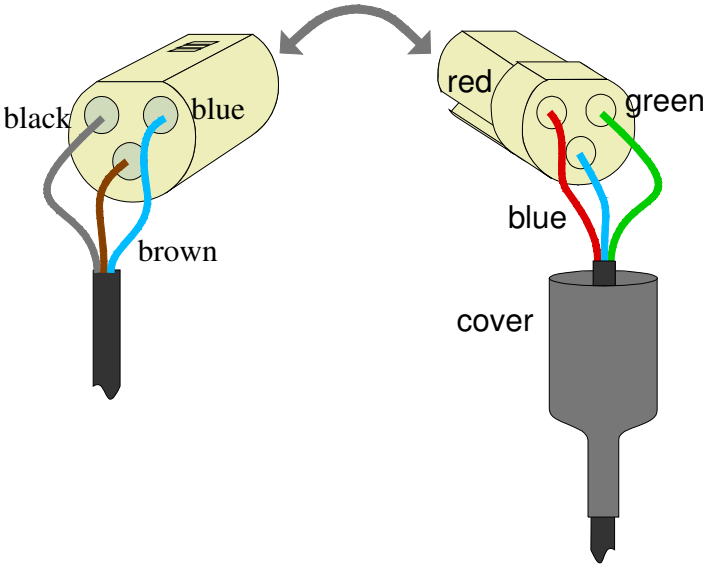
Connections

The grip is supplied with a 1.5m length of 3 core cable attached. Colours in this are

Blue	Top speed
Brown	wiper (variable)
Black	zero speed

Note that the supplied cable is too thick to reliably connect with the IDC connectors used on 4QD controllers and you should therefore use some method of joining this integral cable to the rest of the wiring.

One suggested method is a CONI connector as supplied by 4QD. Wiring for this is shown below.



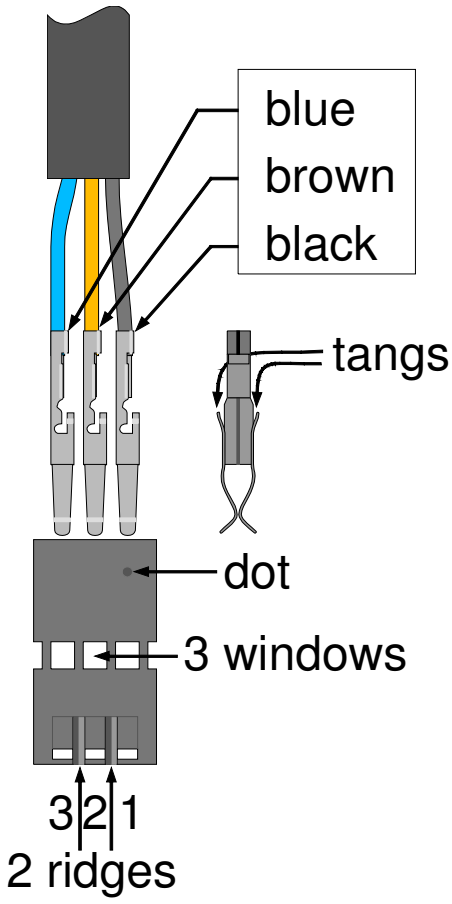
Wiring diagrams in all 4QD manuals show the pot wiring with Red, Blue and Green. These colours connect to the Magura as below:

Magura	4QD	
Blue	Red	Pot max
Brown	Blue	Wiper
Black	Green	Pot zero

1QD and 2QD.

The grip can be supplied with RFK connectors pre-crimped as shown below, to fit controllers with a 3 pin pot connection, such as the 1QD and 2QD.

In this case the connector shell is normally supplied separately - to ease assembly should the cable need to be passed through any holes or chassis member.



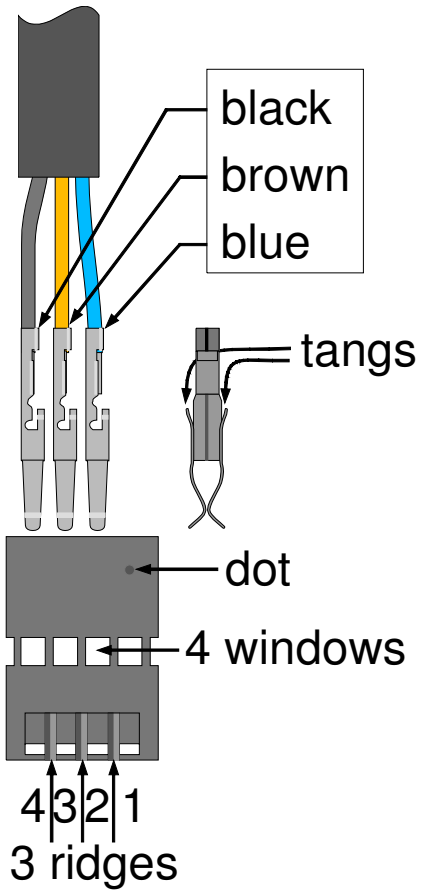
Porter

Connections for the Porter are shown in the manual for that controller.

Connections

Uni.

For use with the Uni controller, a 4 pin shell is required. The connections are then as below.



Mounting

The grip is designed to fit on a tubular handlebar of 20-22 mm diameter. There is some clamping adjustment.

It is best to avoid inserting your metal handle more than 20mm into the clamp, especially if it is a larger diameter.

Be aware that the larger diameter tubes may cause interference problems if inserted more than 20mm into the grip especially if there are burs or paint runs on the end of the tube. Also if dirt or grit gets in to the grip or the metal handle bar rusts then binding could occur.

Electrical

The potentiometer used in the throttle grip is a 5K pot and should work with any 4QD controller.

With controllers that have a gain adjustment you may use this to get full speed as instructed in the controller's manual.