Bike Sport Developments Ltd
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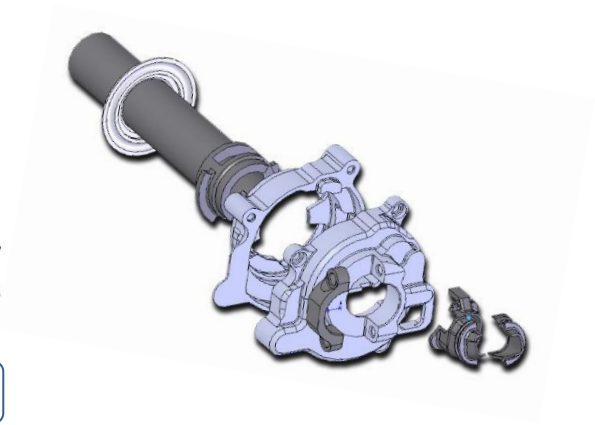
KT170 - Throttle grip housing installation manual
Yamaha R9 from 2025
Yamaha MT09 from 2024

Parts list
1 x Outer housing
1 x Inner housing
1 x Clamp
1 x Wire entry guide
1 x Wire entry cover plate
1 x O ring
1 x Grip shield ring
2 x M5 x 16 cap screw
2 x M5 x 12 cap screw
3 x M4 x 10 cap screw
1 x Instruction manual



1 – Remove the standard twist grip and switch assembly from the bike

2 – Remove the twist grip sensor element as seen here. This will be re-used.

3 – Fit the twist grip sensor into the inner housing as shown here using 2 x M5 x 12 cap screws

NOTE : At this stage these screws should only be very loosely fitted so that the sensor has some freedom of movement. The screws are only holding it together.

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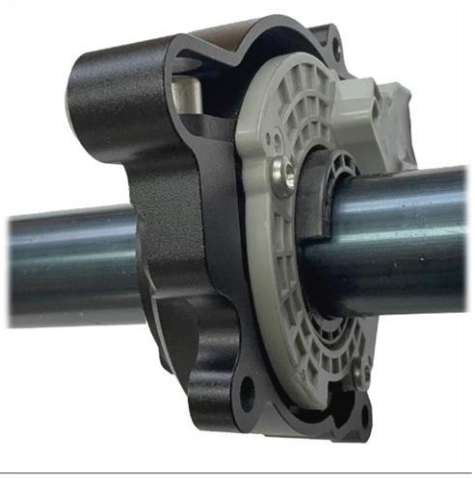
4 – Slide this assembly onto your handlebar as seen here.



5 – The new throttle tube can now be fitted into the outer housing.

This can only be done in one way, and to assist with this line up the two '**Gold'** dots as seen in this image and rotate into place.

There should be no need to apply force.

The mating face is pre-lubricated but you should ensure this is sufficient for smooth operation and add to the throttle tube as necessary

Lubrication should be maintained as a 'service item' during the use of the product with inspection and replacement of the throttle tube if any damage is seen.

6 – Slide the throttle tube and outer housing along the handlebar to mate with the inner housing and sensor.

You will need to rotate the throttle tube to engage the tabs with the sensor. It can only fit one way.

The two halves can now be secured and fully tightened together using the 3 x M4x10 cap screws.

Check the throttle tube for free movement and spring return at this stage to ensure there has been no error in assembly.

7 – Fit the clamp as seen here and fully tighten evenly to the handlebar in your chosen position using 2 x M5x16mm screws

IMPORTANT – Ensure your chosen position does not affect full movement of the brake lever.

NOTE – Choose your position with consideration of the wire exit routing.

NOTE – You can now fully tighten the 2 x M5x12mm sensor screws you fitted in section 3.

IMPORTANT - RE-CHECK - full and free throttle movement now that all has been fully tightened.

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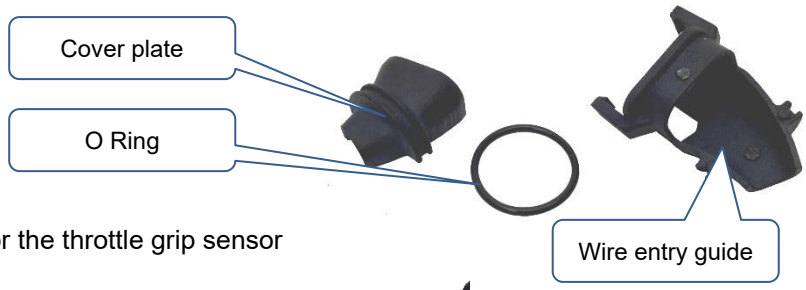
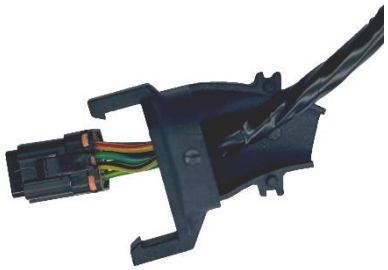
8 – The wire entry components are in 3 parts

- Entry guide
- Cover plate
- Retaining O ring



8a - Slide the O ring over the 6 way connector for the throttle grip sensor

8b - Slide the plastic cable entry guide over the 6 way connector for the throttle grip sensor

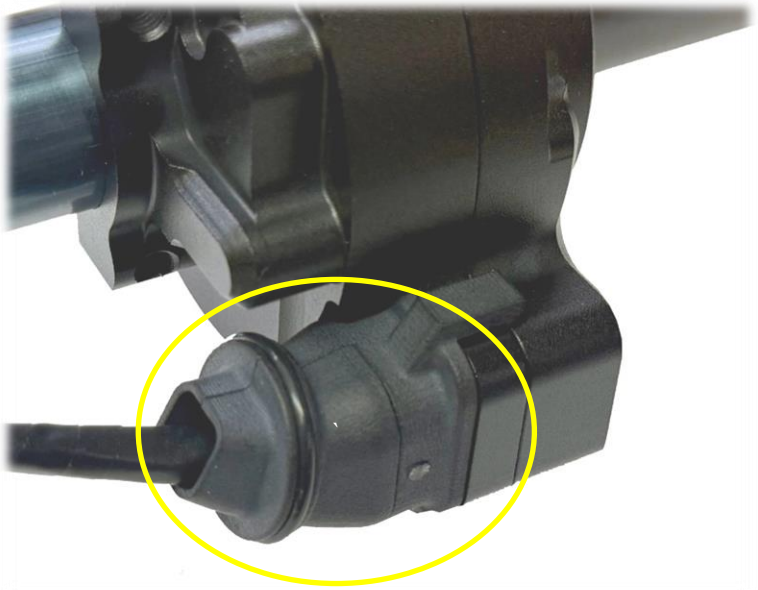


8c – Plug in the wire to the sensor

8d – Clip the Wire Entry Guide onto the aluminium inner housing. You will see there are 2 latch holes for this.

8e – Fit the cover plate and hold in place with the O ring.

The final assembly of the wire entry should look like this.



TIP – You can choose to 'glue' the cover plate to the wire entry guide permanently as it can be clipped off and on to your throttle housing. But this should only be done once it is fitted to your wire as the connector is too big to fit through a glued assembly.

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9 – This only leaves you to slide the **Grip Shield Ring** over the throttle tube.

This is held in place when you fit your rubber throttle grip

IMPORTANT – Never leave off this shield ring as it stops larger objects (during a crash) entering the assembly with potential to interfere or jam the throttle. Following any such incident the throttle should be stripped and checked for ingress.

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10 - Now fit your choice of handlebar switch. Our product 3BC-93 is designed specifically for this bike and mounts directly onto the brake master cylinder

NOTES.

The electrical output from the original sensor is exactly the same when using this new housing. No change in throttle response, idle or control behaviour is expected.

The standard 60deg twist grip angle is retained.

The throttle tube is available as a replacement part to allow repairs for crash damage.