TECHNICAL BULLETIN

 # 02 - 2026 (March 2026)

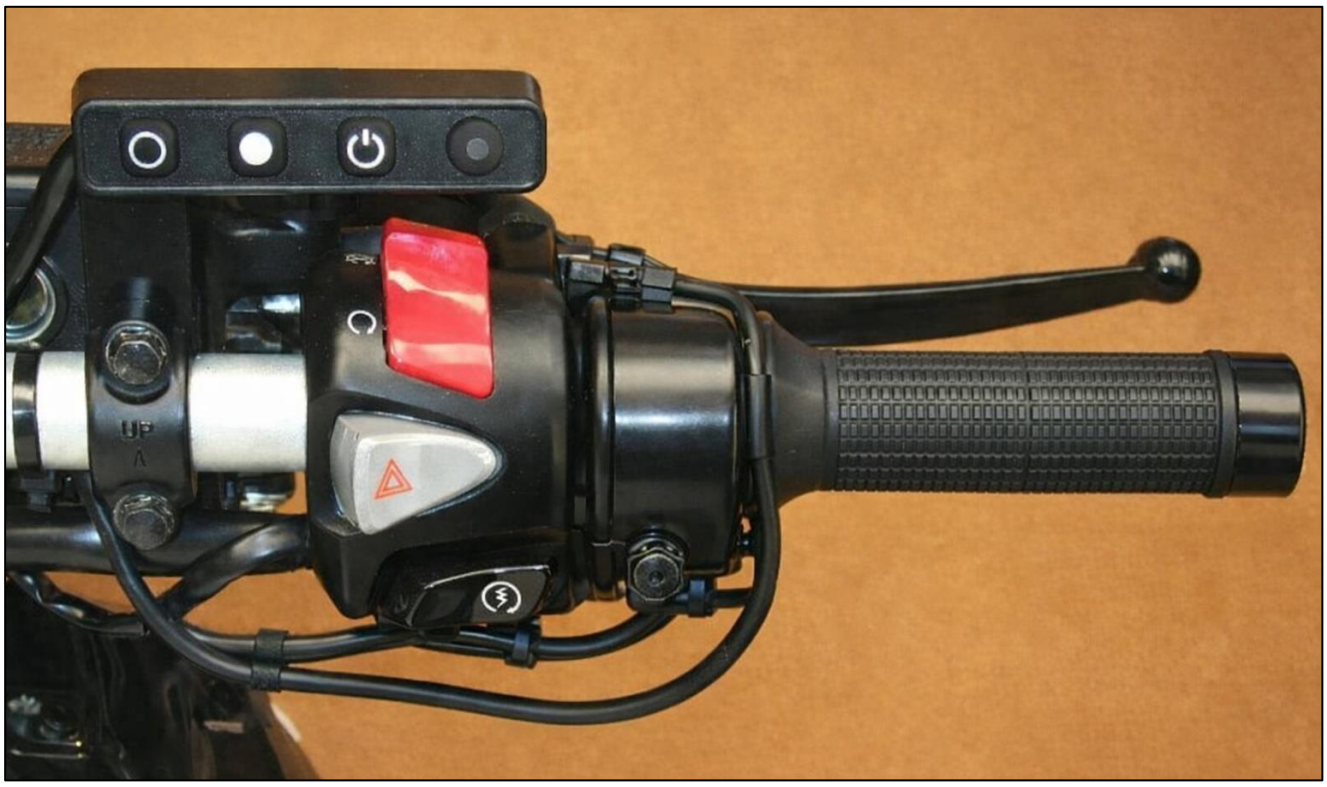
Motorcycle Cruise Control Systems

Ensuring the Safe Operation of OE and Aftermarket Cruise Control Systems

Supporting New Zealand's Repair Certification Industry

About RepairCert NZ Technical Bulletins

These Technical Bulletins have been developed to support Specialist Light Vehicle Repair Certifiers (Repair Certifiers) in ensuring autobody repairs are carried out safely and correctly. Repair Certifiers should, in the first instance, be guided by (if available) relevant Vehicle Manufacturer's Information and Repair Industry Information, and in the absence of such information, refer to the Best-practice Guidance provided within RepairCert NZ Technical Bulletins. These Bulletins can also be used by the wider autobody repair industry.



Purpose

This Technical Bulletin provides Best-practice Guidance to Specialist Motorcycle Light Vehicle Repair Certifiers (Motorcycle Repair Certifiers) about the correct inspection process for cruise control systems fitted to motorcycles, both for those systems fitted by the motorcycle manufacturer (OE systems), and for non-OE (aftermarket) systems.

It also has broader motor vehicle industry relevance beyond repair certification, and may be a useful reference document for the entry certification and in-service certification of motorcycles.

Applicable Requirements

This Technical Bulletin differs from most RepairCert NZ Technical Bulletins in that (apart from the two specific situations outlined below) there are no mandatory legislative requirements (referred to as 'applicable requirements') that apply to accelerator systems which would require a Repair Certifier to inspect and assess a cruise control system fitted to a motorcycle.

Therefore, this Technical Bulletin is a non-mandatory Best-practice Guidance document to support Motorcycle Repair Certifiers in assessing whether a cruise control system, if fitted to a motorcycle, is safe.

The applicable requirements (limited to the two specific situations outlined below) are set out in the *Land Transport Rule: Vehicle Repair 1998* (*Repair Rule*).

The *Repair Rule* specifies that '*a repair to a vehicle, its structure, systems, components or equipment, must restore the damaged or worn vehicle, structure, system, component or equipment so that they are within safe tolerance of the state of the vehicle, structure, system, component or equipment when manufactured*'.

This means that where a motorcycle is fitted with:

- an OE cruise control system and the system is damaged, a Repair Certifier must ensure that the system is returned to within a safe tolerance of its state when the motorcycle was manufactured; or
- Advanced Rider Assistance Systems (ARAS), a Repair Certifier must ensure that the safe operation of the ARAS is not adversely affected by the presence of an aftermarket cruise control system.

Beyond these two specific situations, there are currently no applicable requirements for an accelerator system or a cruise control system fitted to a motorcycle, so this Technical Bulletin is limited to providing Best-practice Guidance for Repair Certifiers to apply at their discretion.

While there are currently no requirements within the *Light Vehicle Repair Certification Vehicle Inspection Requirements Manual* (*Repair VIRM*) that are applicable to accelerator systems on motorcycles (other than in relation to water damage), this could change into the future as ARAS becomes more prevalent.

Background

Motorcycle Repair Certifiers may, when inspecting a damaged motorcycle, encounter an OE cruise control system or an aftermarket cruise control system.

While some (typically aftermarket manually operated systems) can be simple and easily identified devices, many other cruise control systems (either OE or aftermarket) are far more complex, and require careful inspection (as well as diagnostic scanning) to identify any damage that may compromise the correct operation and safety of the system following a collision.

How the Systems Work

Motorcycle cruise control systems are designed to reduce throttle-hand wrist and hand fatigue (especially when riding over longer distances). They work by holding the throttle in any position selected by the rider, allowing speed to be maintained without constant rider input.

In the interests of safety, motorcycle cruise control systems require the rider to always keep their hands on the handlebars to maintain full control of the motorcycle, and to be able to disengage the device immediately.

A cruise control system can be either:

- for aftermarket systems, a mechanical or manually operated device (generally universal fitting) which simply clamps onto the throttle tube (*see Image 1*), or replaces the bar end weight (*see Image 2*) and utilises a small amount of friction applied directly to the throttle tube or grip (or via a mechanical lever that rests against the lever perch or base) to overcome the spring return function of the throttle, preventing it from returning to its closed position; or
- a system that incorporates an electronic control unit (ECU) typically connected to the motorcycle's electronic speedometer, fuel injection, and throttle control systems to electronically maintain a set speed selected by the rider via a handlebar-mounted control switch array, which can be either an OE system or a (primarily) model-specific electronic (Ride-by-Wire) aftermarket system (*see Images 3 and 4*).

Both of these systems must disengage instantly when the rider applies the brakes or clutch, or manually cancels the system.

Image 1: *Typical throttle-mounted mechanical cruise control.*

Image 2: *Typical bar end-mounted mechanical cruise control.*

Images 3 and 4: *Examples of control switch arrays used on different electronic cruise control systems; an OE unit at left (Image Credit 2), and an aftermarket unit at right (Image Credit 3).*

Correct Inspection Process

Mechanical or Manually Operated Systems

Simple inspections to perform include:

- with the throttle hold device engaged in any selected position, check the friction resistance (or strength) by twisting the throttle - there should be very little effort required to overcome the friction that holds the twist throttle in the selected position; and
- testing the operation of any friction set and release buttons or paddles - they should engage and disengage instantly, with no binding or sticking.

Electronic Systems

Key hardware components to visually inspect and evaluate (with some being dependent on the type of system installed), include:

Control Switch Array

Confirm that:

- it is securely fastened to the handlebars; and
- it is correctly positioned (on either side of the handlebars) to enable the rider to operate it instantly); and

- it is not interfering with, or inhibiting the operations of the twist throttle action or any switch-gear functions; and
- the buttons or switches are functioning correctly; and
- there is no damage to the housing, wiring, or connectors.

Electronic Control Unit (ECU)

After identifying the location of the ECU (*see Note 1 below and Image 5*) confirm that:

- it is securely attached; and
- it has not sustained any visible damage; and
- there is no damage to any wiring and connectors.

Note 1	Depending on the make and model of motorcycle, and the cruise control system manufacturer, the ECU could be located under the seat, under the fuel tank, attached to the frame, inside the headlamp cowling, or in behind fairings and other bodywork.

Speed Sensors(s)

Depending on the type of cruise control system fitted (either OE or aftermarket), speed sensors may be located on the front wheel, rear wheel (*see Image 6*), both front and rear wheels, or the transmission output shaft.

Confirm that:

- the speed sensor is properly attached to its mounting bracket; and
- the mounting bracket is securely attached to the motorcycle and correctly aligned with the pick-up magnets; and
- there is no direct damage to the speed sensor, wiring, or connectors.

Image 5: *An electronic control unit (ECU), located under the seat in this example (Image credit 4).*

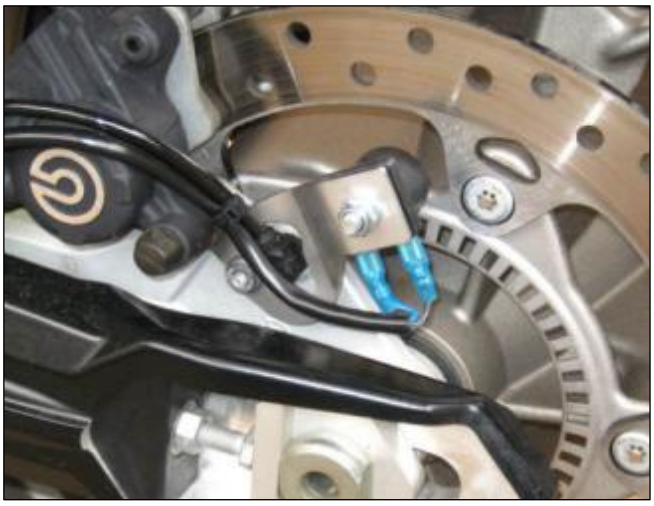


Image 6: *Example of an aftermarket speed sensor and mounting bracket, with the pick-up magnets attached to the brake disc bolts (Image Credit 5).*

Electric Throttle Servo Motor

After identifying the location of the electric throttle servo motor (*see Note 2 and Image 7*), confirm that:

- it is securely attached to the motorcycle; and
- it has not sustained any visible damage; and
- there is no damage to any wiring and connectors; and
- for those systems where the electric throttle servo motor controls throttle position via a cable (that attaches to a Cable Interface Unit [CIU] or 'spool') (*see Image 8*), there are no kinks or tight bends in the connecting cable.

Note 2	Depending on the make and model of motorcycle, and the cruise control system manufacturer, the electric throttle servo motor could be located under the seat, in or around the rear subframe, or attached to the frame or engine.

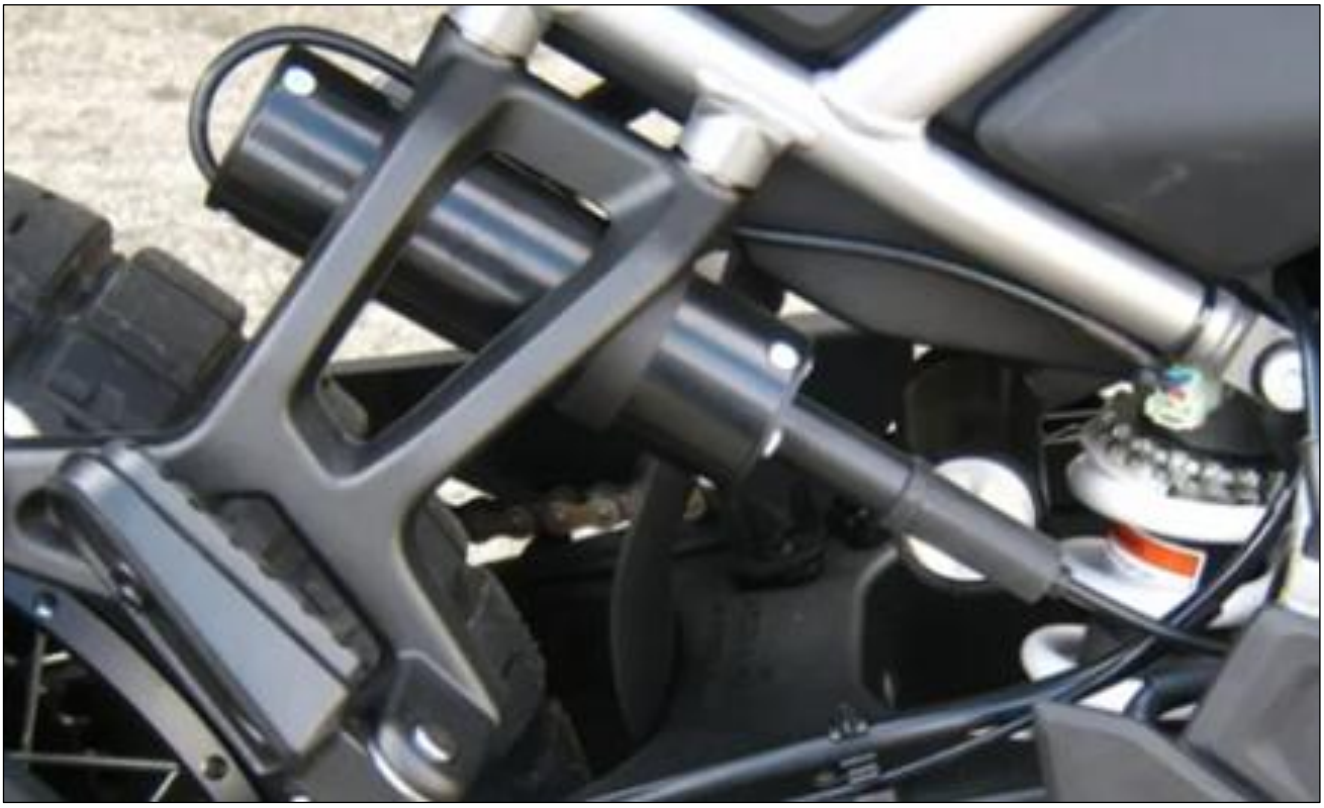


Image 7: *Example of an Electric Throttle Servo Motor (Image Credit 6).*

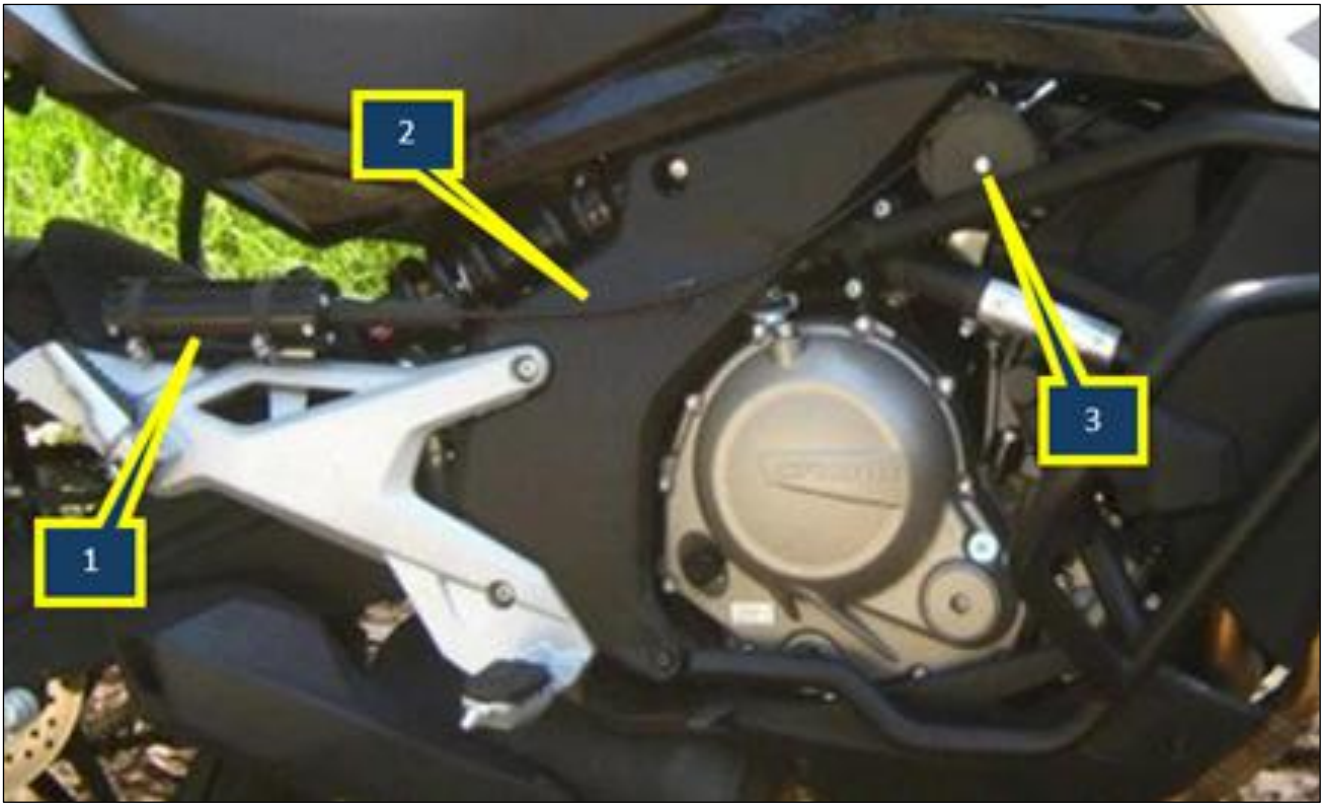


Image 8: *Electric throttle servo motor (1) connecting cable (2) Cable Interface Unit (CIU) or 'Spool' (3) (Image Credit 6).*

Confirming that an Electronic Cruise Control System is Operating Correctly

If there is any suspicion that the electronic functions of an electronic cruise control system have been compromised and are not operating as the motorcycle manufacturer or cruise control system manufacturer intended, an automotive electronics expert who has the necessary expertise should be engaged to test electronic operation, using the appropriate diagnostic tools and other electrical testing equipment.

This may require, where appropriate, a manufacturer-specified road testing procedure to be applied.

FOR FURTHER INFORMATION PLEASE CONTACT REPAIRCERT NZ.

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