

Packing list - Speed Limiter kit for: KUBOTA RTV-XG850 Sidekick

SL 2790 kit

Pack in small kit carton (MCS 002)

Quantity: _____
Speed limit: _____
Standard (T900) <input type="checkbox"/>
Tamper resist (T901): <input type="checkbox"/>
Setup switch: _____

Qty Part Number Description

NOTE: - Make sure appropriate program is loaded to suit (tick one):

Standard (T900)
Tamper Resistant (T901)

1	SL 2790C P24	Computer Turn ON speed limiter and set to 24 kph (15mph) OR speed selected by customer (place in medium bag)	Speed limit: _____
2		Velcro mounting tape 7cm long	
1	MCS820-160CM	MCS Control Switch for Speed Limiter – OPTIONAL	QTY: _____

NOTE: - Make sure appropriate wiring to speed limiter relay to suit program (tick one):

Standard (T900)
Tamper Resistant (T901)

OR

1	SL 2791 FIC	RTV-XG850 speed limiter harness
fitted with:		
1	MCS 091	27-ohm 10-watt power resistor (Injector load resistor)
1		Set up Manual
1		Installation Manual for Kubota RTV-XG850

Parts bag contents (medium size bag, 150mm x 255mm)

1		8g x 3/8 pan head self-tapping screw (Relay mounting)
1		M5 x 16 pan head screw (Relay mounting)
2		5mm flat washers (Relay mounting)
1		M5 Nyloc nut (Relay mounting)
10		150mm cable ties
10		200mm cable ties
5		300mm cable ties
3	X S30L	Tamper Evident Seal (For computer harness plug and fuse holder & 1 spare)

Fuel Injector Cut Speed limiter for Kubota RTV-XG850 ©



“SpeedSafe”
ATV Electronic Speed Limiter
Installation Manual ©

For KUBOTA RTV-XG850 Sidekick
From 2018

Part Number SL 2790 FIC

16 August 2024

MOTORCYCLE CRUISE CONTROLS

MotorCycle Setup Pty. Ltd.
A.B.N. 94 798 167 654
AUSTRALIA

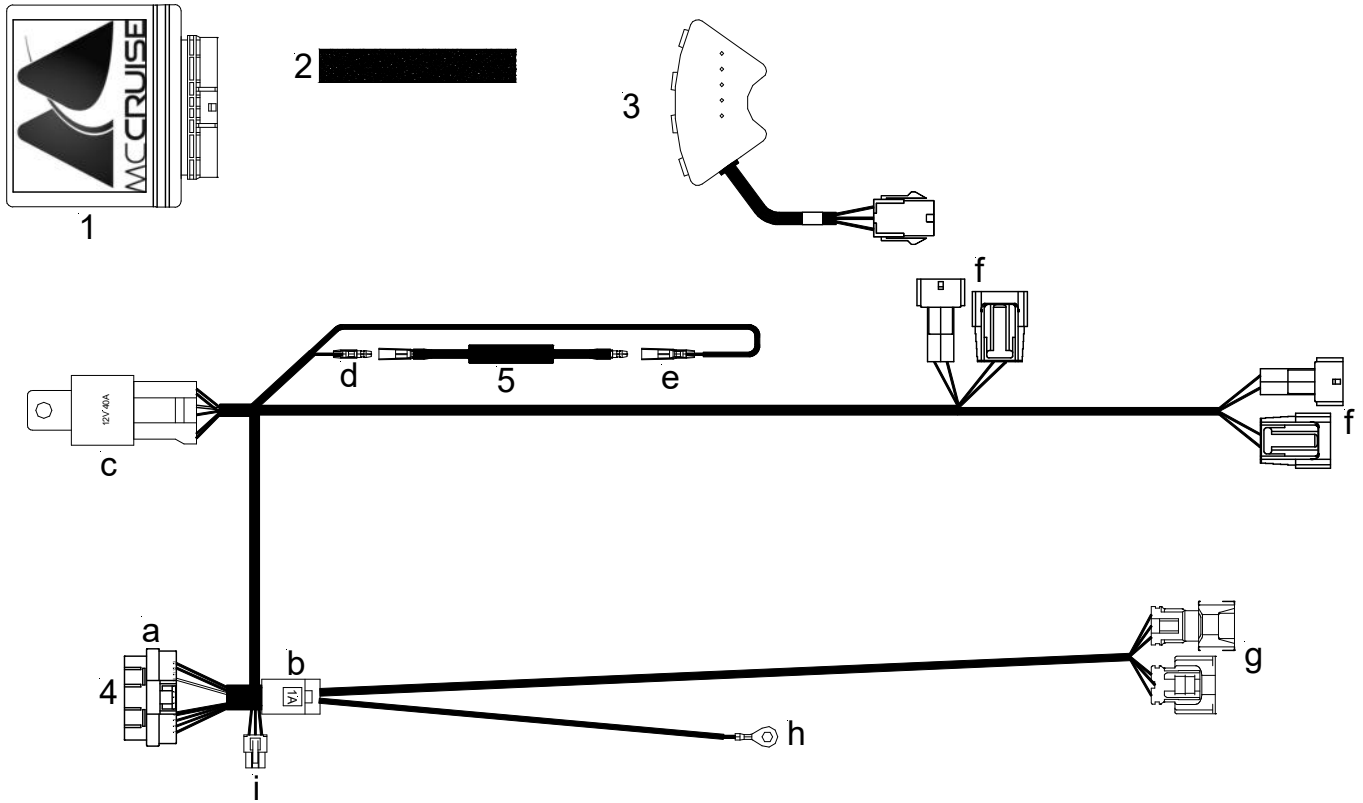
**Speed limiter kit for:
KUBOTA RTV-XG850
Model years from 2018**

Parts list for **Kit SL 2790 FIC**.

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	SL 2790C P24	Computer
2	2		Velcro mounting tape 7cm long (computer mounting)
<u>Item 4 is optional if more than one vehicle is fitted with the speed limiter</u>			
3	1	GT1014-160	MCS Slim Switch assembly for setting up speed limiter
4		SL 2791 FIC	Wiring harness
a			Computer plug (26 way)
b			Power fuse (1 amp)
c			Speed limiter control relay
d			Relay load resistor connector (red)
e			Relay load resistor connector (red/black)
f			Injector connectors (2-way)
g			Speedometer connector (3- way)
h			Ground connector (black wire)
i			Set up switch connector (6-way)
5	1	MCS 091	Relay load resistor (27 ohm 10 watt)
	10		150mm cable ties
	10		200mm cable ties
	5		300mm cable ties
	3	X S30L	Tamper Evident Seals (1 spare)
			Installation manual for RTV-XG850 Setup Manual

Fuel Injector Cut Speed limiter for Kubota RTV-XG850 ©

Parts list drawing



CAUTION

Your new “Speed Safe” speed limiter has been designed to provide a speed related engine cut out for your ATV.

This is achieved by momentarily cutting the fuel injector and then turning it back on again. The speed limiter function is achieved by doing this rapidly so the engine appears to be misfiring. The duration and frequency of the ‘misfire’ can be tailored to suit your needs. It can be a ‘fixed’ cut when the limiting speed is reached or a variable cut that increases the severity of the misfire with increased speed to achieve a ‘soft’ speed limiter.

While this function has been tested on the ATV listed, we cannot guarantee that long term operation with the speed limiter operating (continuous running with the speed limiter limiting the vehicle speed) will not result in damage to the vehicle fuel injection system, ignition system, engine, transmission or exhaust system.

To discourage this behaviour from the operator, there is also a ‘penalty mode’ that may be enabled that causes the vehicle to be slowed if the operator runs at a speed that has the speed limiter operating continuously for more than 5 seconds. The amount that the vehicle is slowed and the period of time it is slowed is selectable.

MotorCycle Setup P/L offers NO warranty for damage to the vehicle caused by use of the speed limiter. Fitment and use of the speed limiter is at the vehicle owner’s risk.

MotorCycle Setup Pty. Ltd. Speed Limiter Kit Installation Manual ©

To suit Kubota RTV-XG850 – 2018 on

If, after reading these instructions, you feel you are not competent to install this kit, we strongly urge you to seek the assistance of one of our authorised dealers and installers. Please phone or e-mail us to obtain the name of your nearest outlet.

CONTENTS

Chapters 1 to 5 and 8 to 11 are contained in the separate Information, Set up and Operation manual.

6. PREPARING THE VEHICLE FOR SPEED LIMITER INSTALLATION

7. INSTALLATION

This manual contains several **cautions**, **warnings** and **notes**, which are prominently displayed. The convention used is:

A **warning** applies whenever injury could result from ignoring the warning;

A **caution** applies whenever damage to the bike or cruise control could result from ignoring the caution; and

A **note** applies where other aspects should be considered before any action to do with installation is undertaken.

EXAMPLES:

WARNING: - Always ensure the bike is properly supported on the side or centre stand and cannot accidentally fall off either stand.

CAUTION: - Before drilling any holes, make sure there are no components that may be damaged on the other side of the surface being drilled. Double check for any wiring harness that might be easily damaged by a drill bit.

NOTE: - Lay the wiring harness in place and connect the components before cable tying the harness in place.

PARTS LIST

Check that all components depicted in the parts list are included in the cruise control kit. Please phone (03) 9808 2804 within Australia, international (61 3) 9808 2804 or e-mail sales@mccruise.com for advice, if any parts are missing;

6. PREPARING THE VEHICLE FOR CRUISE CONTROL INSTALLATION

The following disassembly operations must be performed prepare the vehicle for cruise installation:

- Raise the rear tilt tray;
- Lift the seats and remove the access panel;
- Disconnect the battery;
- Remove the left side vent cover (optional).

The following directions may be used to prepare the vehicle for speed limiter installation:

Raise the rear tilt tray.

Release the tilt tray lock handles, one each side.



Raise the tilt tray.

Fit the stay (arrowed) to ensure the tray can't drop and cause injury.



Remove the access panel.

Lift the rear edge of the seat base and tilt the seat forward.



Fuel Injector Cut Speed limiter for Kubota RTV-XG850 ©

Lift the storage tray out.



Lift the access panel out.



There is a 'box' under the storage tray with the vehicle's electrical 'boxes'.

Speed limiter components will be fitted in here.



Disconnect the negative terminal of the battery.

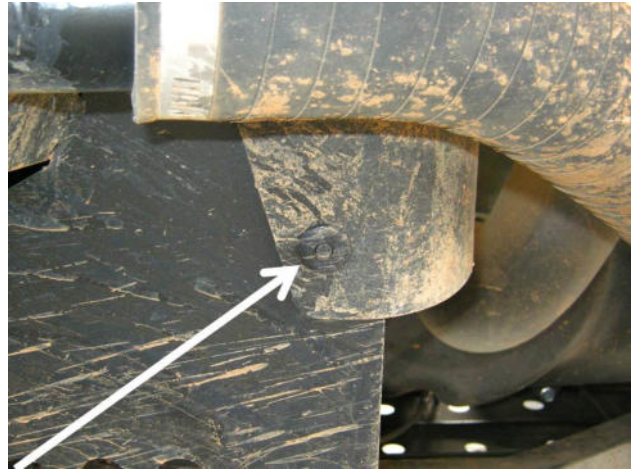
Remove the panel clip from the rubber sheet behind the battery, the battery is below the driver's seat.



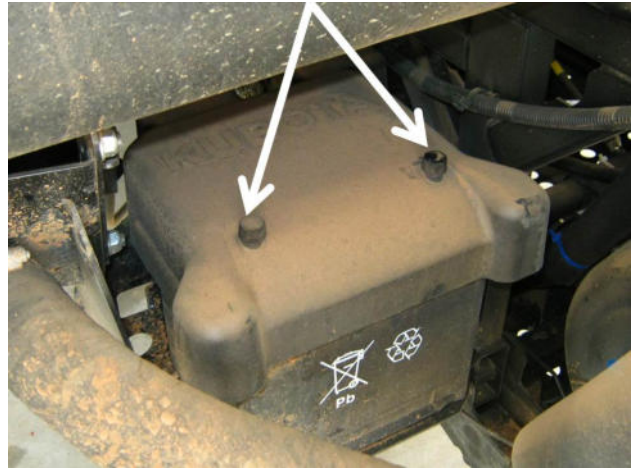
Fuel Injector Cut Speed limiter for Kubota RTV-XG850 ©

Push the centre pin in to release the clip.

Remove the clip and lift the rubber sheet.

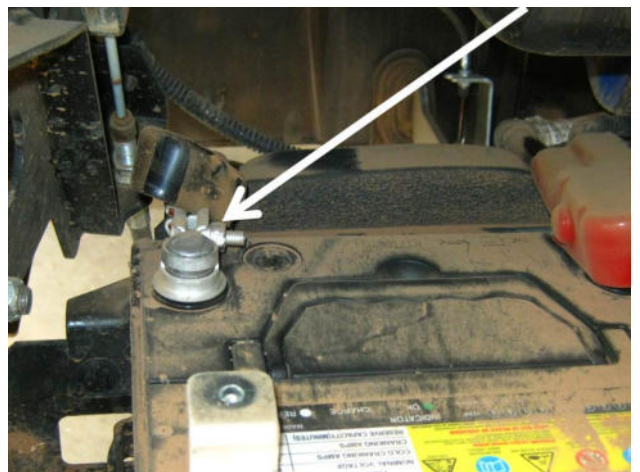


Undo the two thumb screws and remove the battery cover.



Lift the cover from the negative battery terminal.

Loosen the clamp bolt and disconnect the ground cable from the negative battery terminal.



Remove the left side filler panel (OPTIONAL).

Removing this panel is not essential but may make it easier to run one wire to the battery during the installation.

Undo the two screws and remove the left side panel, some models have a 'solid' panel and Torx head screws, some have a vented panel and thumbscrews.

Fuel Injector Cut Speed limiter for Kubota RTV-XG850 ©



7. INSTALLATION

Mounting the speed limiter computer.

The speed limiter computer will be mounted in the electrical compartment, under the passenger seat.

The relay will also be mounted in this compartment.



Clean the floor of the compartment with a suitable solvent such as methylated spirits or denatured alcohol.



Fuel Injector Cut Speed limiter for Kubota RTV-XG850 ©

Clean the bottom of the computer with suitable solvent such as methylated spirits or denatured alcohol.

Apply the two strips of Velcro mounting tape to the underside of computer, one next to the connector, the other at the back end of the computer opposite the connector.

NOTE: - A cable tie will be wrapped around the computer between the two Velcro strips, so ensure the orientation of the strips matches the photo.



Position the computer as shown on the inner guard.



Installing the wiring harness.

Locate the wiring harness in the kit.

Connect the large harness plug to the computer.



Identify the relay on the harness.

You will find a self-tapping screw and a M5 screw and Nyloc nut in the parts bag. Use either of these to mount the relay in the compartment behind the speed limiter computer.

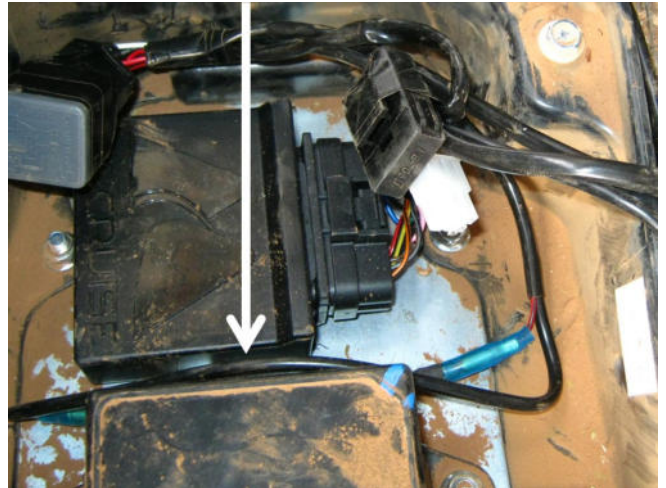


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The wiring harness may have the injector load resistor fitted already, if not connect the resistor to the red and red/black wires with the bullet connectors.



Position the resistor next to the computer.



There are three other branches of the wiring harness.

Identify the ground branch. This has a 6mm ring terminal fitted on a single black wire.

Route this branch forward, then down between the compartment and the seat base plastic moulding, then to the left side of the vehicle.



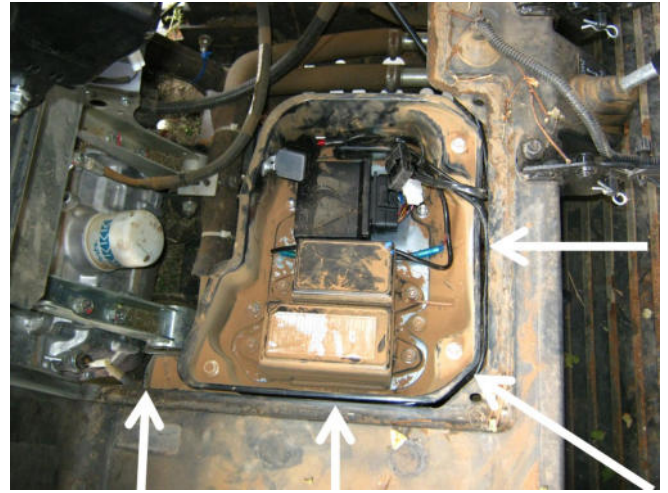
Route the ground branch to the left side of the vehicle. It will be connected to the battery later.

The battery is mounted below the driver's seat, in front of the left rear wheel.



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Route the other two branches to the right around the compartment.

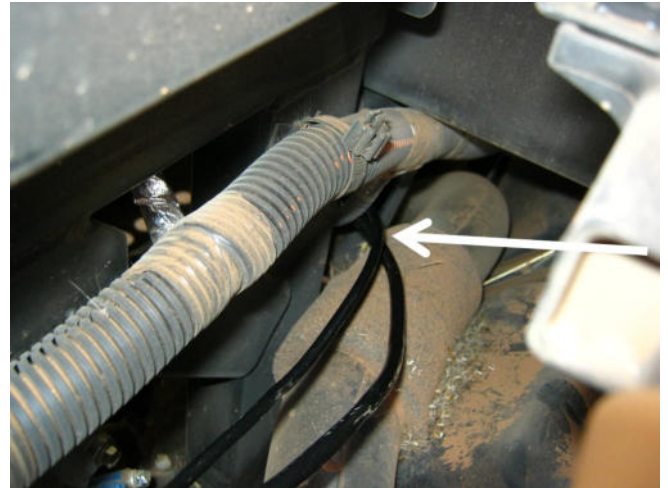


Route the branches around the compartment.

Route the branches under the chassis to the outside of the chassis rail (upper right arrow).



Draw the branches to the rear on the outside of the right side chassis rail.



Route the branches to the rear beside the vehicle's harness.



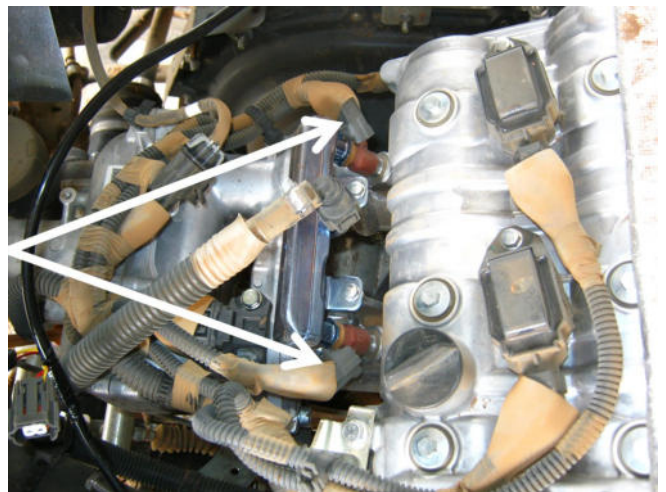
Fuel Injector Cut Speed limiter for Kubota RTV-XG850 ©

Route these branches under the chassis rail, towards the motor.



Injector connection.

One of the branches will be connected to the two fuel injectors located on the inlet manifold, next to the cylinder head.



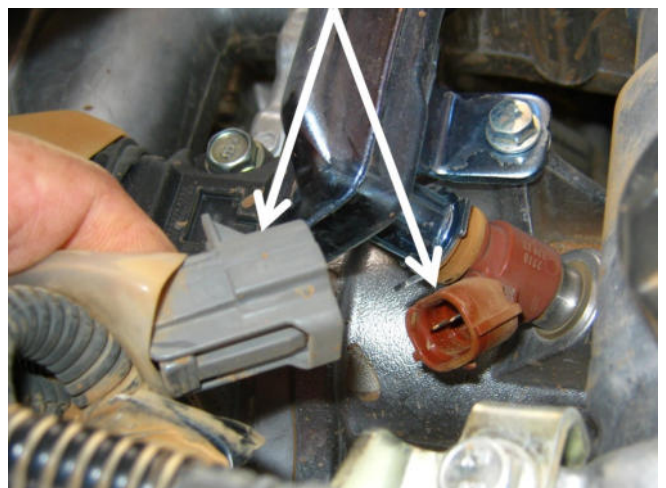
Identify the injector harness branch on the speed limiter harness.

This branch has four two-way connectors.

Route this branch to the motor to the left side fuel injector.



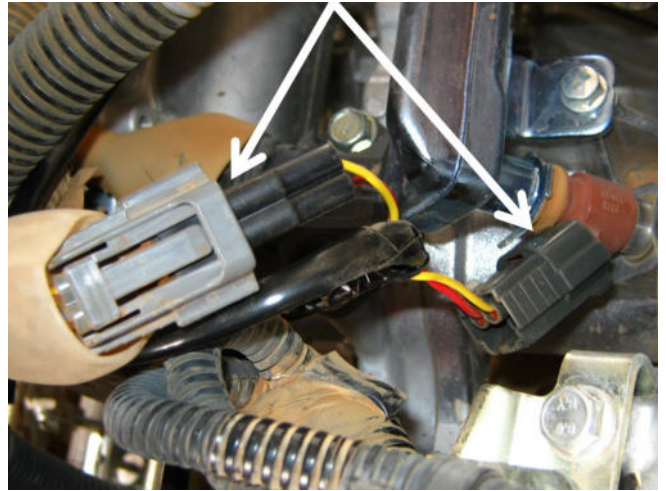
Disconnect the plug from the left-side injector.



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Route the speed limiter injector branch to the injector.

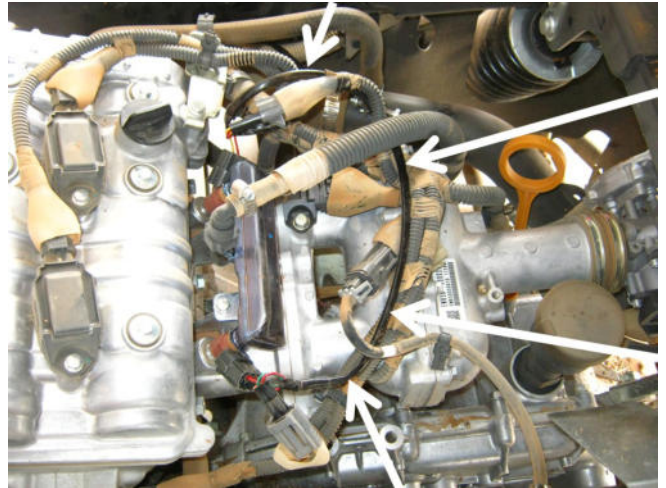
Connect the first set of plugs with the red and yellow wires to the injector and the vehicle's injector plug.



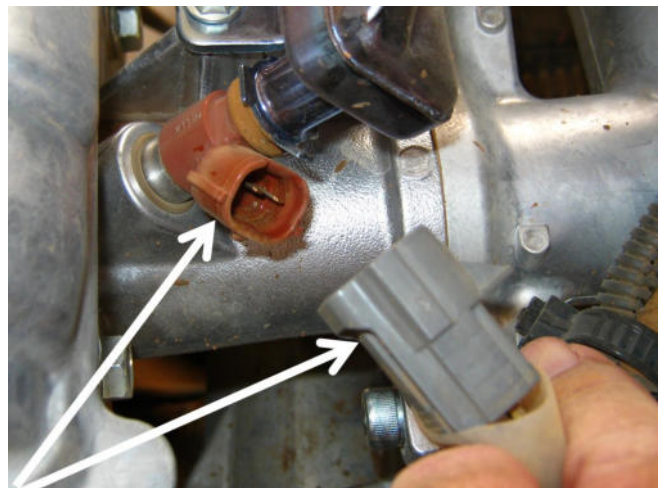
Securely cable ties the wires to the vehicle's wires to ensure the wires will not be damaged.



Route the second set of plugs with the vehicle's harness across to the right-side injector.



Disconnect the plug from the right-side injector.

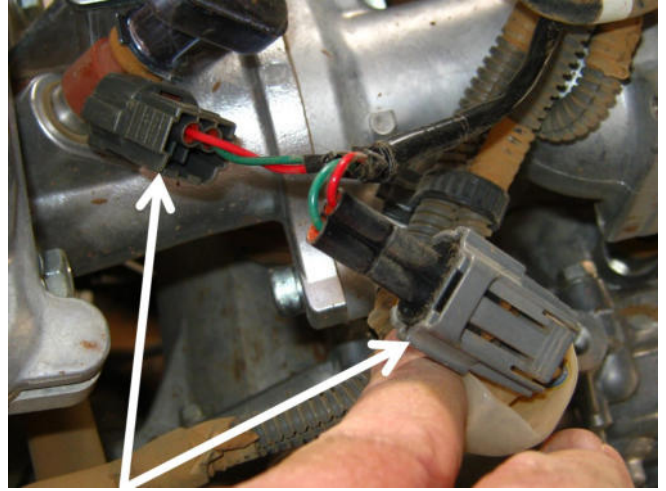


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Route the speed limiter injector branch to the injector.

Connect the second set of plugs with the red and green wires to the injector and the vehicle's injector plug.

Securely cable ties the wires to the vehicle's wires to ensure the wires will not be damaged.



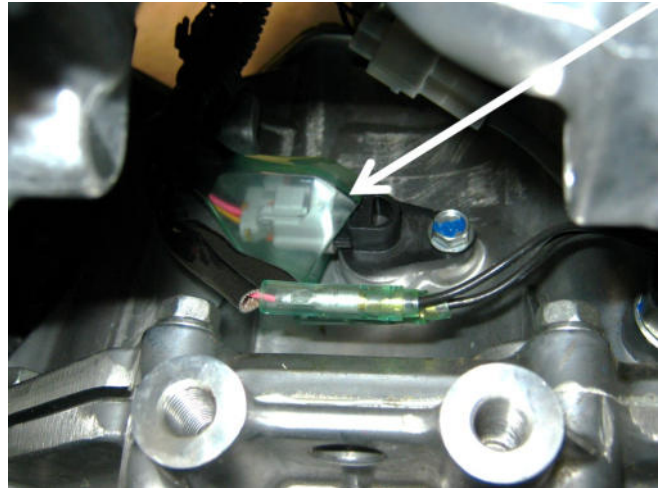
Power & speed sensor connection.

The vehicle's speedometer sender is on top of the transmission, under the inlet manifold.



The speedometer sender.

The plug is a 3-way plug with red/yellow, pink and black wires.



Depress the latch on top of the plug and disconnect the plug from the sender.

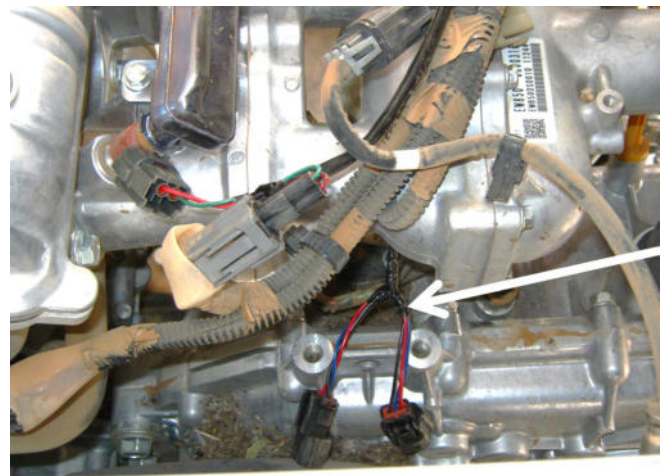


Fuel Injector Cut Speed limiter for Kubota RTV-XG850 ©

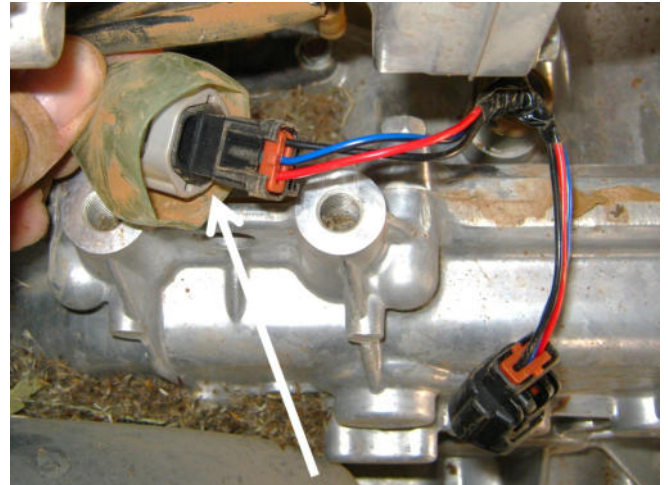
Route the speed limiter harness second branch under the chassis and across to the motor, under the inlet manifold.



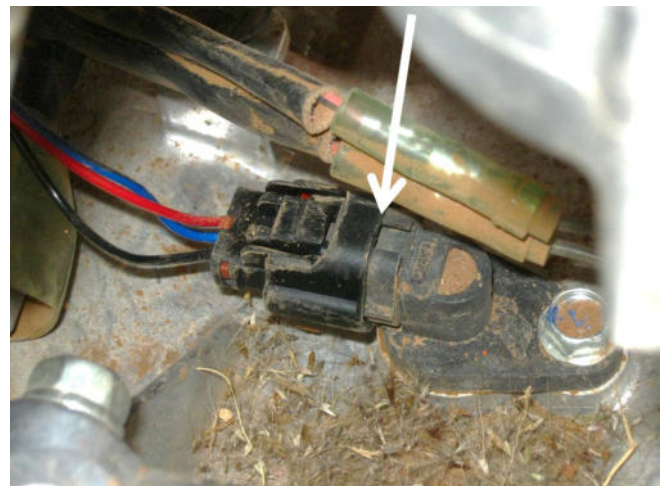
Draw the harness across the top of the transmission to the left side.



Connect the connector on the speed limiter branch to the vehicle's speedometer sender plug.

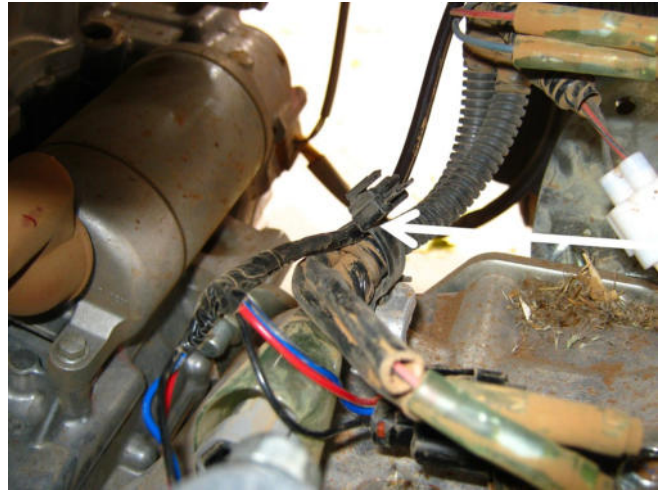


Connect the other connector to the speedometer sender on the transmission.



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Release the vehicle's cable tie on the top of the transmission and put the speed limiter wires in the cable tie and re-connect the cable tie.



Fit a long cable tie around the speed limiter computer to hold the resistor to the side of the computer.



The resistor fitted to the computer.



Ground wire connection.

Return to the black ground wire.

Route the wire to the vehicle's battery negative cable.



Fuel Injector Cut Speed limiter for Kubota RTV-XG850 ©

Connect the ground wire to the clamp bolt on the vehicle's battery negative clamp.



Check all wire and cable routing.

Make sure that wires will not be damaged by any moving or stationary parts.

Check that the seat will not crush any wires.

Fit cable ties where necessary to prevent wires being damaged.

Make sure wires are suitably isolated from heat from engine or exhaust system.

Ground connection.

Re-connect the ground cable to the negative battery terminal.

Replace the plastic insulator in the battery terminal.



Fitting the Tamper Evident seals.

You will find light blue tamper evident seals in the parts bag.

These are for fitment to the speed limiter computer and harness plug to prevent the harness being disconnected from the computer, the fuse holder, to prevent fuse removal, and the relay to prevent the relay being disconnected, to stop operators tampering with the speed limiter. In some cases, these blue seals may already be fitted to the relay and fuse holder.

Check the label on the speed limiter computer. If the label says 'T900' and 'STD', these seals should be fitted to these three locations to prevent the speed limiter being disabled. Removing the fuse and disconnecting the computer will disable the limiter. Disconnecting the relay and bridging connections will also disable the speed limiter. Seals should be fitted to prevent this being done.

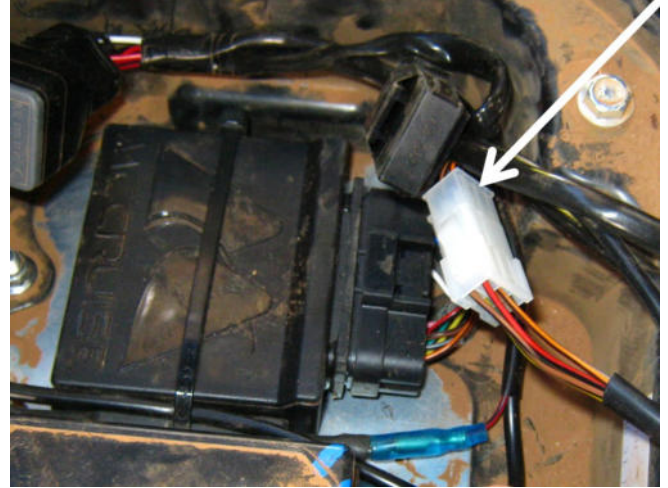
If the label says 'T901' and 'TR', then only the relay should have the seal fitted, as removing the fuse or disconnecting the computer will disable the vehicle entirely, therefore it is not necessary to fit the seals to these items.

8. DIAGNOSTIC MODE OPERATION

Refer to Chapter 8, Diagnostic Mode Operation, in the Set Up Manual.

We suggest that you re-assemble the vehicle AFTER the diagnostic test is complete.

For diagnostic testing and speed limiter setup/settings adjustment, connect the plug on the setup switch to the six-way plug on the speed limiter harness at the computer (arrowed).



We have a new slim switch which is now supplied with the speed limiters for diagnostic and setup purposes.

This shows the functions of the buttons for the various menu functions.



This original design switch may also be used in the same way if your shop/premises already has one.



The button functions vary depending on what menu function is being adjusted, but typically they are:

ON-OFF is used in to enter a menu or change to the next parameter in some menu functions.

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SET-ACC = Set or record a value (such as speed), Enable a function or Increase a number value.

RES/DEC = Disable a function or Decrease a number value

In some cases, two or three buttons are used together to enter different menus or make other changes.

The button functions and operation are the same on either switch.

Notes: