

'SpeedSafe' Electronic Speed Limiter for **Honda SXS700 Pioneer from 2014**



NOTE 1: - Different model years of this vehicle have different connectors on the fuel injector. Refer to the end of this document for details. You specify the correct connectors when ordering the speed limiter to be able to fit it.

NOTE 2: - Different model years of this vehicle have different connectors on the brake light switch. Refer to the end of this document for details. You specify the correct connectors when ordering the speed limiter to be able to fit it.

NOTE 3: - Different model years of this vehicle may have different connectors on the speedometer sender. Refer to the end of this document for details. You specify the correct connectors when ordering the speed limiter to be able to fit it.

The 'SpeedSafe' speed limiter is an electronic speed limiter for fitment to ATV's (Quad Bikes).

It is a 'stand-alone' device or may be added to an existing 'QuadCruise' cruise control installation. A cruise control cannot be added to an existing speed limiter installation without replacing most of the parts.

The 'SpeedSafe' speed limiter can be set to any speed desired. The 'SpeedSafe' speed limiter allows full use of the available power on the ATV up to the limiting speed. The limiting speed is normally set to 25kph (15mph), but can be set to any speed the owner/manager desires.

'Tamper Resistant' and 'Standard' configurations are available.

When 'Tamper Resistant' is selected, in most cases any interference with the speed limiter (disconnecting electrical plugs, removing a fuse or other 'tampering' and most failure modes) will result in the vehicle not running. When 'Standard' is selected, in most cases disconnecting wires or removing the fuse will disable the speed limiter, allowing the vehicle to operate normally. The hardware for both versions is the same, with a minor change to one wiring connection. **You MUST specify if you want 'tamper proof' or 'standard' configuration when the unit is ordered in order to get the correct default setting.**

When the vehicle reaches the limiting speed, the speed limiter causes the engine to misfire, progressively cutting engine power by controlling the operation of the fuel injector. . There are several different operating modes available.

When 'Soft Cut Mode' is selected, at the limiting speed the engine develops a slight but rapid misfire. If the operator tries to go faster by applying more throttle, the speed limiter makes the misfire worse as speed increases. The 'range' of the speed variation from slight misfire to severe misfire is selectable (0.5kph to 8kph in several steps) as well as the 'rate' of the misfire (2, 4 or 6 'misfires' per second). The misfire is so severe at the highest cut rate, the vehicle cannot exceed the maximum speed. If a very 'firm' limit is desired, a low speed range (0.5kph) would be selected, if a 'soft' limit is desired a high speed range (8kph) would be selected. The 'rate' of the misfire also effects the 'feel' of the limiter, but not the operation. 2 misfires per second is very rough, 6 is smoother.

When 'Hard Cut Mode' is selected, at the limiting speed the engine is cut completely until the vehicle drops below the limiting speed.

'Penalty Mode' can also be selected when using either soft or hard cut modes. If the operator persists in running on the limit (causing misfire) for more than 5 seconds, the limiting speed is reduced progressively and is held for a period of time. If the operator keeps the speed below the limiting speed, after the time has elapsed, the original limiting speed is restored. The amount of the speed reduction and the penalty time period are both selectable.

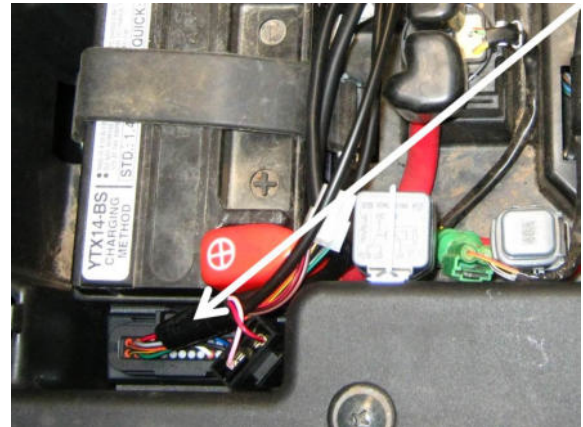
The following provides a brief description of the component locations of the 'SpeedSafe' electronic speed limiter.

Current draw is approximately 0.020 amp (0.28 watts).

Installed weight of the speed limiter by itself (not including cruise control parts) is approximately 0.5kg (depending on model).

Refer to the line drawing on the back of this sheet to identify the component numbers in the text.

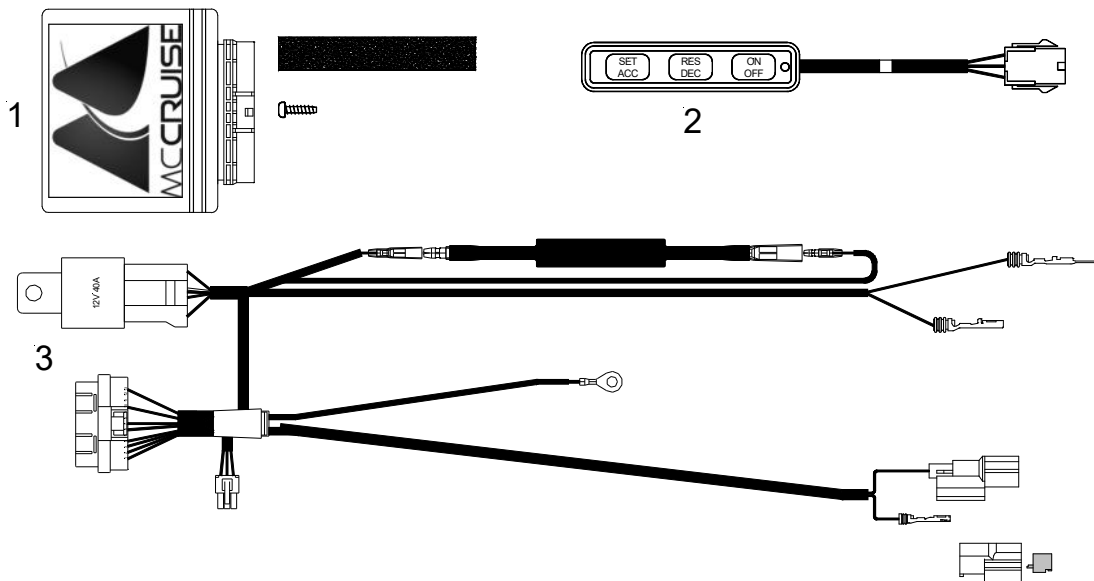
The **Computer (1)** is installed under the seats, beside the battery.



The **Setup Control Switch (2)** is hand held for setup of the speed limiter, and is then removed from the vehicle. This remains fitted to the vehicle when the cruise control is fitted, but there is a specific set of instructions that must be followed so that the speed limiter setup cannot be altered by the operator accidentally or intentionally.



The **Wiring Harness (3)** is dedicated to the vehicle. Power for the speed limiter is sourced from the vehicles engine management system. Speed signal is sourced from the vehicle's speedometer sender, the connector to the speedo sender is disconnected, and matching plugs on the speed limiter harness are connected to the vehicle's plug. The speed limiter is connected to the engine fuel injector to cut the engine, also using the same method as the speed sensor connection. Ground is sourced from the negative terminal of the battery.



MotorCycle Cruise Controls

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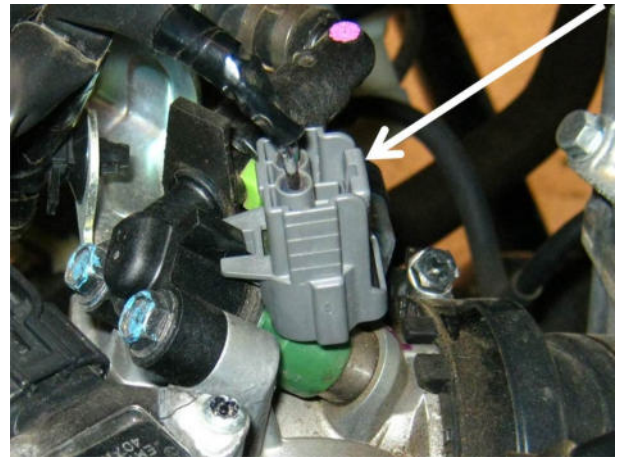
Injector connector identification.

There are two different injector connectors on the SXS700 depending on the model year.

The fuel injector is on top of the throttle body (arrowed), visible with the rear tray raised.



This photo shows the earlier version with a grey DL090 connector.



This photo shows the later version with a black HX040 connector.

You must select the correct connector type when ordering the speed limiter



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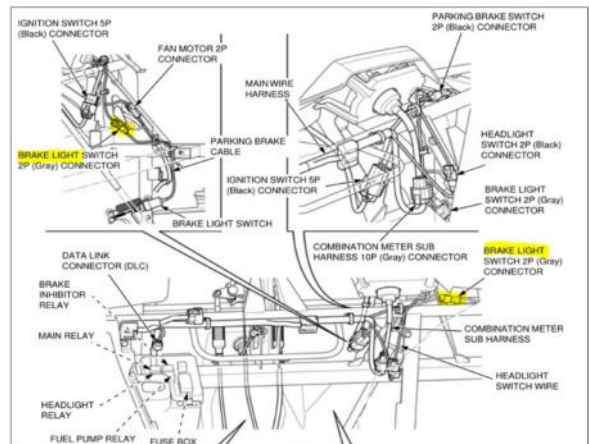
Brake Switch connector identification.

There are two different brake light switch connectors on the SXS700 depending on the model year.

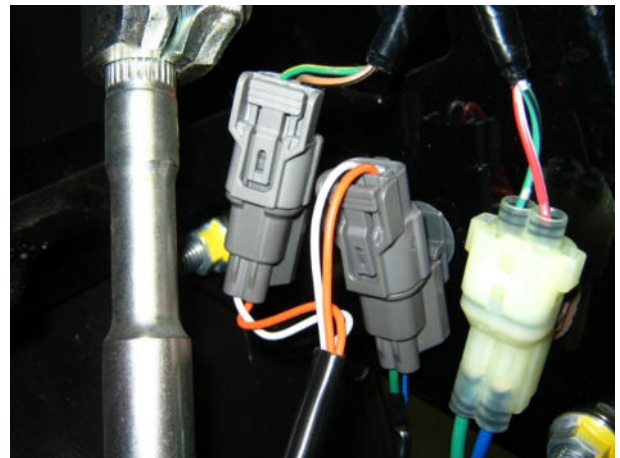
The brake light switch connector (arrowed).
This photo is taken from above the left front wheel.



This extract from the manual will help to identify the brake light switch plug.



Note: - This photo is from another vehicle but shows the older style of brake switch plug (the grey plugs).



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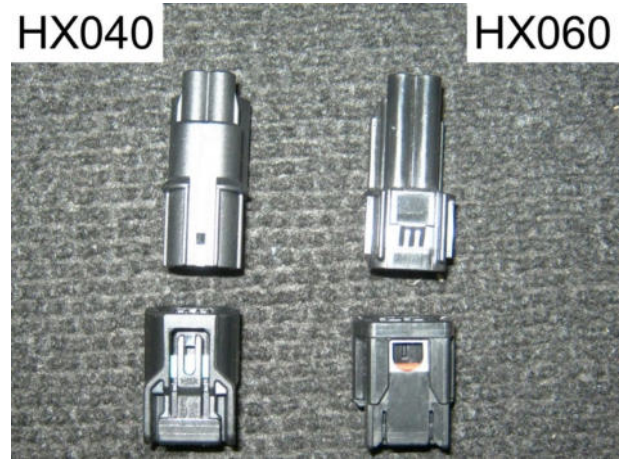
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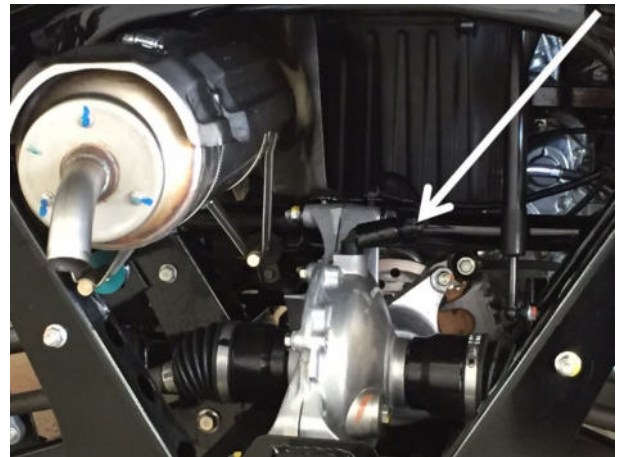
The following photos show the two different 2-way connectors used. To our knowledge, all models up to 2020 or 2021 use the HX040 connector on the rear brake light switch. Some or all Honda models that have had a minor or major update may have changed to the HX060 connector for the brake light switch connector in the 2021 or 2022 model year.

We need to know if your vehicle has the earlier HX040 connectors or the later HX060 connectors on the brake light switch.



Speedometer sender connector identification.

The speedometer sender is on top of the rear axle final drive unit (differential).



The following photos show the two different 3-way HX040 and 4-way HX060 connectors used. To our knowledge, all models up to 2020 or 2021 use the HX040 connector on the speedometer sender. Some or all Honda models that have had a minor or major update may have changed to the HX060 connector for the speedometer sender connector in the 2021 or 2022 model year.

We need to know if your vehicle has the earlier HX040 connectors or the later HX060 connectors on the speedometer sender.

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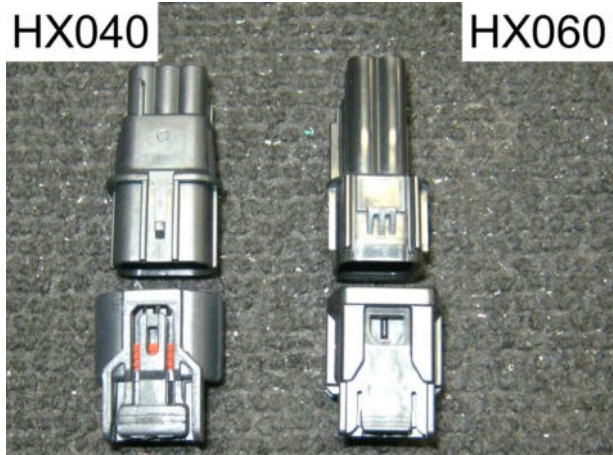
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