DSSA
Digital Switching Systems Australia

SITE SAFE MODULE

WWW.DIGITALSWITCHING.COM.AU

OVERVIEW

The Site Safe Module (SSM) is an advanced safety device aimed to simplify, control and warn a driver when any problem arrises.

It utilises the latest digital, micro controller technology to ensure reliability, performance and longevity.

The Site Safe Module (SSM) allows for automatic control of preset devices conveniently from inside the vehicle's cabin.

Utilising six inputs and four outputs, the Site Safe Module can automatically warn the driver when the handbrake has not been applied, can turn on DRL's as a preset function, turn beacons plus many more applications.

FEATURES

- *Easy installation by authorised installer*
- *Programmable software for customisation*
- *Compact and lightweight*
- *12V or 24V Available*
- *Durable Australian Design*
- *Audible Warning Alarm*
- *Economical & Reliable*

CONNECTION:

There are two connection options shown in the diagrams below.

In the 'Typical Connection' Output 4 common should be connected to ground, if the accessory requires negative switching.

The 'Alternative Connection' shows the wiring required if the accessory running through Output 4 requires positive switching.

OVERVIEW

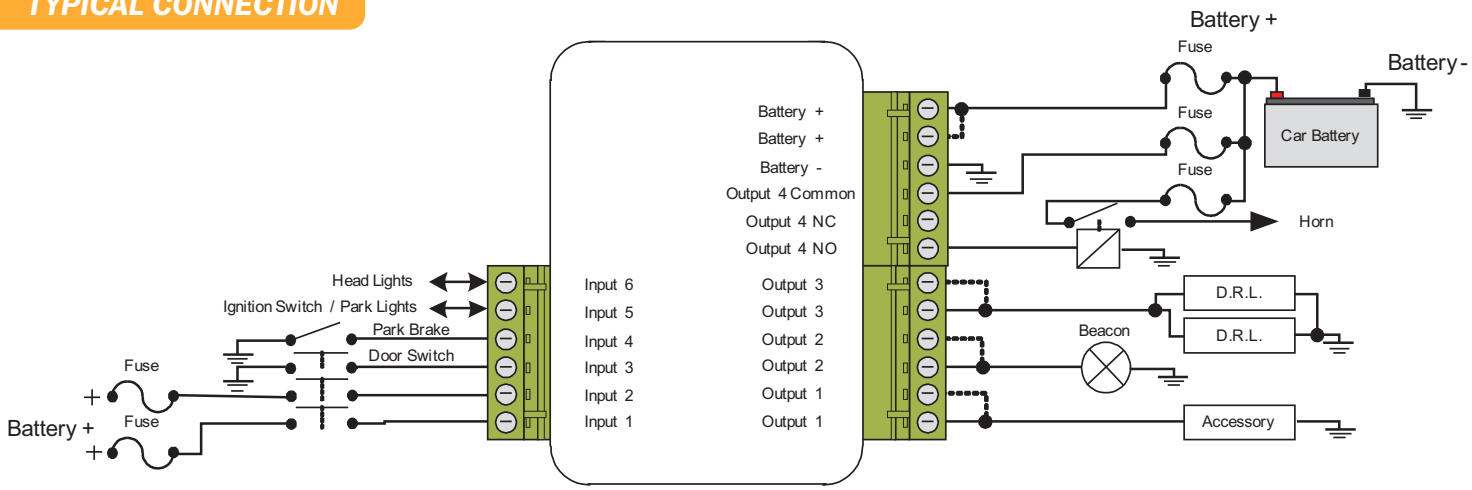
The Site Safe Module (SSM) is an advanced safety device aimed to simplify control, and to warn the operator should a safety parameter be breached, it utilises the latest digital micro-controller technology to ensure reliability and performance.

These instructions are intended for use by an authorised installer. Modifications, manipulation or improper repairs can affect the operation and safety of the unit.

- *BEACON CONTROL*
- *SPARE OUTPUT*
- *PARK BRAKE ALARM*
- *D.R.L CONTROL*

Unit 3/15 Parramatta Road, Underwood QLD, AUSTRALIA 4119
*PO Box 1301, Slacks Creek, AUSTRALIA 4127- **P** +61 (0)7 3290 4115 - **E** sales@digitalswitching.com.au*

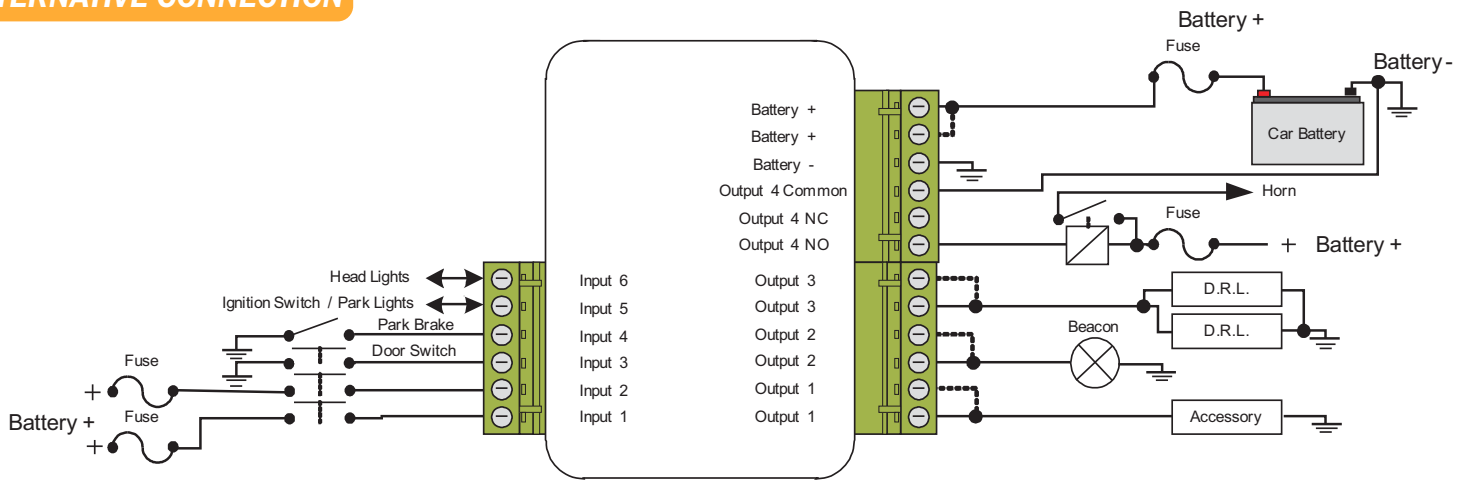
TYPICAL CONNECTION



Typical Connection

1. Ensure the polarity of device connected to input/output.
2. Inputs can be positive or negative switches.
Configuration is done via DIP switch settings.
Please refer to the installation manual.

ALTERNATIVE CONNECTION



Alternative Connection (STG Relay)

1. Ensure the polarity of device connected to input/output.
2. Inputs can be positive or negative switches.
Configuration is done via DIP switch settings.
Please refer to the installation manual.

INSTALLATION GUIDE

- Mount the Site Safe Module (SSM) in a dry safe, secure place away from heat and humidity.
- If possible, select an inconspicious area that will not be routinely accessed.
- Make sure the module is kept clear of moving parts or debris.
- Also ensure the module is safe from moisture or liquids.

Please ensure you read this complete manual as fitting instructions and testing procedures are incorporated throughout.

OPERATION OVERVIEW

General Input 1 and General input 2 are momentary inputs, briefly connect the input to battery positive (+) or battery negative (-) (depending on the DIP switch setting) to toggle On and Off General Output 1 and General Output 2 respectively.

If General Input DIP switch is enabled (ON), releasing the Park Brake will switch OFF General Output 1 and General Output 2.

The Door Switch and Park Brake switches are set to Low Active (by default) but can be configured either way. If the Door Switch is active (OPEN) while Parl Brake is NOT active (OFF), then the on board buzzer will immediately sound for 5 seconds before alarm (Output 4) is activated. Applying the Park Brake will disable BOTH buzzer and alarm immediately. Once the door is opened, the alarms latch on unless the Park Brake is applied. It is good practice to apply the Park Brake BEFORE opening the door.

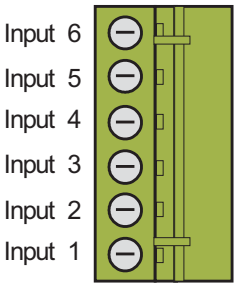
If Daytime Running Light is set to be controlled by Battery Voltage sensing, the Day Time Running Light (Output 3) is turned ON with a delay of 5 seconds once the engine is running and the Alternator is charging. If either the Head Light or Park Light is turned ON the DRL's are turned OFF immediately The DRL's are also turned off with a delay of 20 seconds once the battery voltage falls below the pre-set threshold setting.

If Daytime Running Light is set to be controlled by the Ignition Switch, Daytime Running Light (Output 3) is turned ON with a delay of 5 seconds once the Ignition Switch is turned ON. If Head Light is turned ON the DRL is turned OFF immediately. The DRL is turned OFF with a delay of 20 seconds once the Ignition Switch is turned OFF.

If any of the DIP switches are changed, a power reset (remove power for 5 seconds and re-connect) must be performed for the changes to take effect.

NOTE: Disconnect Battery before doing any connection,

INPUT CONFIGURATION

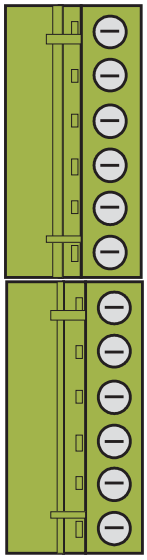


Name	Description	Default Switch Mode	Default Active Mode
Input 1	General Input 1	Momentary STB	High
Input 2	General Input 2	Momentary STB	High
Input 3	Door Switch	STG	Low
Input 4	Park Brake	STG	Low
Input 5	Park Light / Ignition Switch*	STB	High
Input 6	Head Lights	STB	High

* Depends on Daytime Running Light Trigger Setting, Input 5 would be operated as Park Light OR Ignition Switch

STB: Switch to Battery Positive STG: Switch to Ground Negative

OUTPUT CONFIGURATION

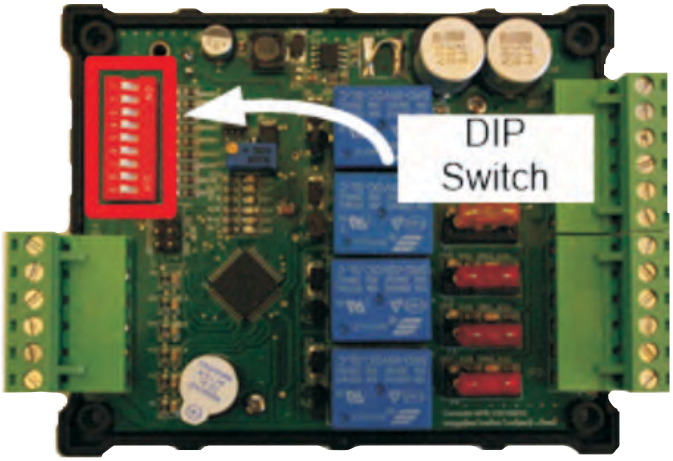


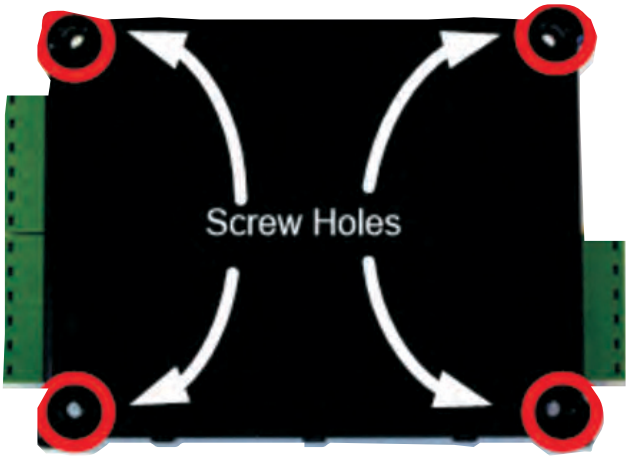
Battery +
Battery +
Battery -
Output 4 Common
Output 4 NC
Output 4 NO
Output 3
Output 3
Output 2
Output 2
Output 1
Output 1

Name	Description	Maximum Fuse
Battery +	Connect to battery +	
Battery +	Connect to battery +	
Battery -	Connect to battery -	
Output 4 Common	Connect to EITHER Battery + OR Battery - for Output 4	5A
Output 4 NC	Mobile Phone (optional)	5A
Output 4 NO	External Alarm	5A
Output 3	Day Time Running Light	10A
Output 2	General Output 2	10A
Output 1	General Output 1	10A

STB: Switch to Battery Positive STG: Switch to Ground Negative

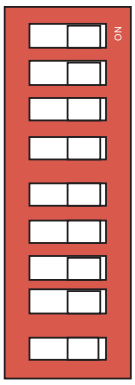
DIP CONFIGURATION ACCESS





1. *Unscrew the four screw holes*
2. *Remove the cover*
3. *Change DIP switch settings*
4. *Close the cover*
5. *Screw and secure*

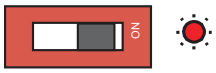
DIP SWITCH CONFIGURATION



Voltage
Daytime Running Light Trigger Setting
General Input Selection
General Input 1 Selection
General Input 2 Selection
Door Switch Selection
Park Brake Selection
Work Light Selection
Hi Beam Selection

Note: Red LED lights up when the DIP switch is switched to right.

Switch to Left



Switch to Right

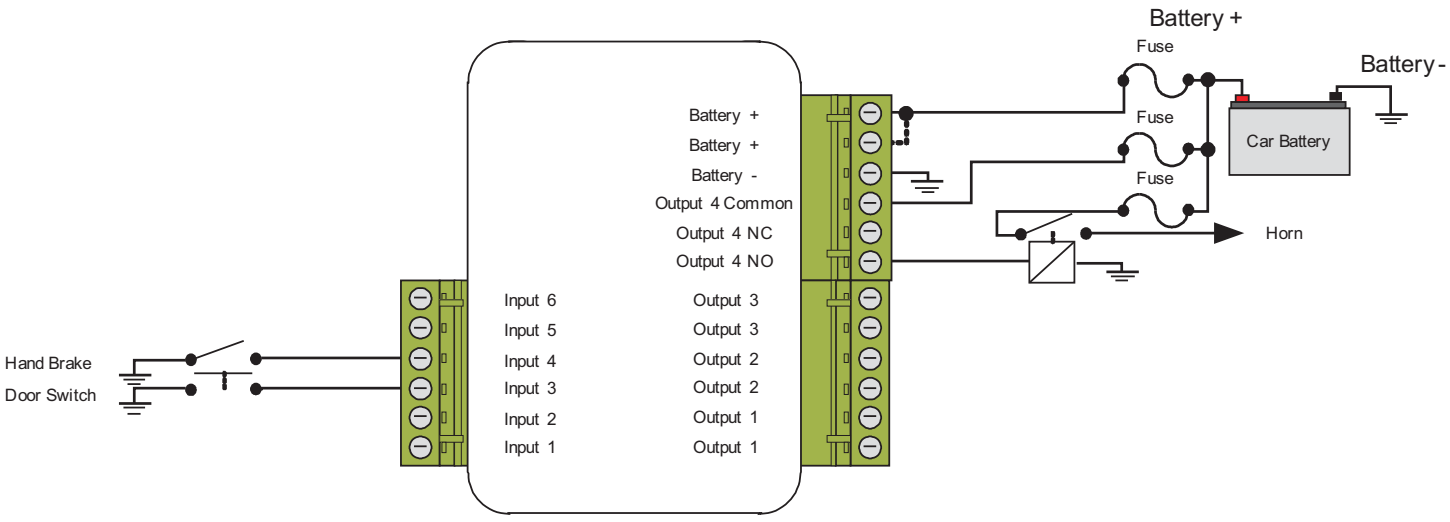
Name	Description	Switch to Left	Switch to Right
Voltage	+24V/+12V Selection	Select +12V	Select +24V
Daytime Running Light Trigger Setting	Select to control Daytime Running Light using Battery Voltage OR Ignition Switch	Voltage Sense For 24V System: turn on (5s delay) at 27.4V/ turn off (20s delay) at 26.8V For 12V System: turn on (5s delay) at 13.7V/ turn off (20s delay) at 13.4V	Ignition Sense Turn on (5s delay) when Ignition Switch is ON Turn off (20s delay) when Ignition Switch is OFF
General Input Selection	When the Park Brake is Released Switch Off General Output 1/2	Disabled	Enabled
General Input 1 Selection	Select General Input 1 to be Momentary STB or STG	STG (Negative Switching)	STB (Positive Switching)
General Input 2 Selection	Select General Input 2 to be Momentary STB or STG	STG (Negative Switching)	STB (Positive Switching)
Door Switch Selection	Select Door Switch Input to be STB or STG	STG (Negative Switching)	STB (Positive Switching)
Park Brake Selection	Select Park Brake Input to be STB or STG	STG (Negative Switching)	STB (Positive Switching)
Park Light / Ignition Switch Selection*	Select Work Light / Ignition Switch Input to be STB or STG	STG (Negative Switching)	STB (Positive Switching)
Head Lights Selection	Select Head Lights Input to be STB or STG	STG (Negative Switching)	STB (Positive Switching)

* Depends on Daytime Running Light Trigger Setting, Input 5 would be operated as Park Light OR Ignition Switch

TESTING PROCEDURE PARK BRAKE ALARM

1. Disconnect Battery before doing any connection.
2. Connect Park Brake switch to Site Safe Module Park Brake input.*
3. Connect Door Switch to Safe Site Module Door Switch input
4. Ensure that the polarity of BOTH switch(s) and set the DIP switch setting accordingly.
5. Connect the Battery to the Site Safe Module.
6. Ensure that the vehicle will not move when the Park Brake is released. Ensure the park Brake is ON and the driver door is closed
7. Release the Park Brake, no alarm should be heard.
8. Open driver door, alarm should be heard. Wait 5 seconds to see if the (optional) external alarm is activated.
9. Close driver door, both alarm(s) should still be heard.
10. Apply Park Brake, both alarm(s) should stop.

**** In case the Park Brake Indicator on the dash board lights up after connecting the Park Brake Switch to the Site Safe Module input, installer should install a separate Park Brake Switch for connecting to the Site Safe Module instead of connecting the original one.***



Typical Park Brake Connection

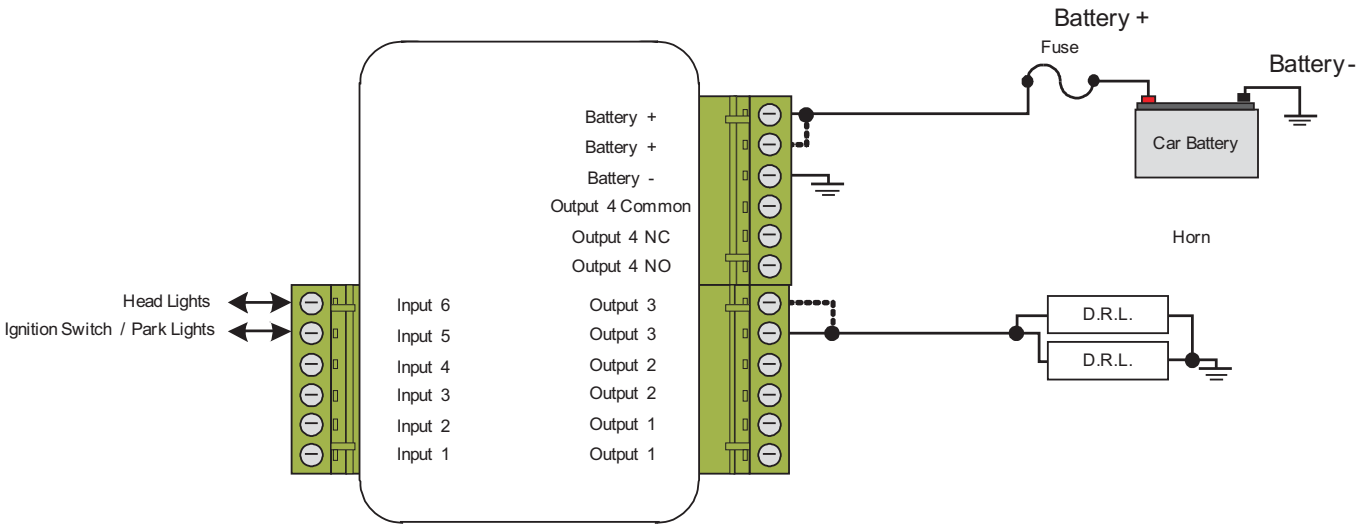
1. Ensure the polarity of device connected to input/output.
2. Inputs can be positive or negative switches.
Configuration is done via DIP switch settings.
Please refer to the installation manual.

TESTING PROCEDURE DAY TIME RUNNING LIGHTS

1. Disconnect Battery before doing any connection.
2. Connect Park Light/Ignition to the Site Safe Module Park Light/Ignition inputs respectively.
3. Connect Daytime Running Light to Safe Site Module Daytime Running Light output.
4. Ensure that the polarity of Park Brake/Ignition, and set the DIP switch setting accordingly.
5. Ensure the battery voltage is higher than the turn-on threshold. The threshold can be adjusted via the DIP switch setting.
6. Connect the battery to the Site Safe Module.
7. Switch OFF BOTH Park Light/Head Lights, Daytime Running Light should turn ON after 5 seconds.
8. Switch ON Park Light, Daytime Running Light should turn OFF immediately.
9. Switch OFF Park Light, Daytime Running Light should turn ON after 5 seconds.
10. Switch ON Head Lights, Daytime Running Light should turn OFF immediately.
11. Switch OFF Head Lights, Daytime Running Light should turn ON after 5 seconds.

For more information on ignition switching see last page.

TESTING PROCEDURE DAY TIME RUNNING LIGHTS



Typical DRL Connection

1. Ensure the polarity of device connected to input/output.
2. Inputs can be positive or negative switches.
Configuration is done via DIP switch settings.
Please refer to the installation manual.

GENERAL INPUT SWITCH 1 & 2

1. Disconnect Battery before doing any connection
2. Connect Momentary Switch 1 and 2 to the Site Safe Module respective inputs.
3. Connect device to be operated by General Input 1 and General Input 2 to the Site Safe Module respective outputs.
4. Ensure the polarity of Momentary Switch be Switch to Battery (STB).
5. Connect the Battery to Site Safe Module.
6. Press Momentary Switch 1 once, the device connected to the General Output 1 will switch ON/OFF status. Press the Momentary Switch again to ensure it will switch ON/OFF.
7. Press Momentary Switch 2 once, the device connected to the General Output 2 will switch ON/OFF status. Press the Momentary Switch again to ensure it will switch ON/OFF.
8. If General Input Selection DIP switch setting is enabled, release the Park Brake, BOTH General Output 1 and General Output 2 will switch OFF.

ELECTRICAL PARAMETERS

Supply Voltage	+12V to 24V Nominal (+28V Max)
Input Voltage	0V to +24V

FOR IGNITION SETTING

1. Disconnect Battery before doing any connection.
2. Connect Ignition Switch to the Site Safe Module Ignition Switch input respectively.
3. Connect Daytime Running Light to Site Safe Module Daytime Running Light Output.
4. Ensure the polarity Ignition Switch, and set the DIP switch setting accordingly.
5. Connect the Battery to the Site Safe Module.
6. Switch OFF BOTH Park Light/Ignition Switch, Daytime Running Light should turn OFF.
7. Switch ON Ignition Switch, Daytime Running Light should turn ON after 5 seconds.
8. Switch OFF Ignition Switch, Daytime Running Light should turn OFF after 20 seconds.
9. Switch ON Ignition Switch again, Daytime Running Light should turn ON after 5 seconds.
10. Switch ON Park Brake Light, Daytime Running Light should turn OFF immediately.
11. Switch OFF Park Light, Daytime Running Light should turn ON after 5 seconds.

MECHANICAL PARAMETERS

Input Connector	Phoenix Connector 1 x 6 Pin
Output Connector	Phoenix Connector 2 x 6 pin
Operating Temperature	-20°C to 85°C
Storage Temperature	-40°C to 85°C
Dimensions (mm)	111.5 (L) x 90.5 (W) x 32 (D)

TROUBLE SHOOTING

Problem	Check
No response from Site Safe Module	1. Check if the power is good 2. Check if the connections are good 3. Check if the DIP switch setting is correctly set
No output from Site Safe Module	1. Check if the connections are good 2. Check if the LED display is correct 3. Check if the fuse is broken (indicated by RED LED next to the relay)
Daytime Running Light do not light up	1. Check if the connections are good 2. Check if the battery voltage is greater than the turn-on threshold setting when the engine is running in case voltage setting is used
Daytime Running Light take a long time to switch OFF	1. Change to use the Ignition Switch setting