AUSTRALIAN warning systems®

Installation and Operation Instructions

4000 Series Siren

The Australian Warning Systems 4000 series siren amplifier is available in 2 different models to support 12 volt and 24 volt vehicles at 100 watt power level. Typically, the 4000 series siren is controlled with a 2 or 3 position switch and the vehicle horn button. The vehicle horn button is normally used to change the siren tone from wail to yelp and back again, and in some cases to generate an additional “airhorn” or “phaser” tone to compliment the vehicle horn.

WARNING: Failure to install or use this product according to manufacturer’s recommendations may result in property damage, serious injury, and/or death to those you are seeking to protect.

Caution! This device produces high sound pressure levels which can cause damage to hearing. Appropriate safety precautions should be taken to minimise exposure.

Do not install and/or operate this safety product unless you have read and understand the safety information contained in this manual.

1. Proper installation combined with operator training in the use, care and maintenance of emergency warning devices are essential to ensure the safety of you and those you are seeking to protect.
2. Exercise caution when working with live electrical connections.
3. This product must be properly grounded. Inadequate grounding and/or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.
4. Proper placement and installation is vital to the performance of the warning device. Install this product so that output performance of the system is maximized and the controls are placed within convenient reach of the operator so that he/she can operate the system without losing eye contact with the roadway.
5. It is the responsibility of the vehicle operator to ensure daily that all features of this product work correctly. In use, the vehicle operator should ensure the projection of the warning signal is not blocked by vehicle components (i.e. open trunks or compartment doors), people, vehicles or other obstructions.
6. The use of this or any other warning device does not ensure all drivers can or will observe or react to an emergency warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, drive against traffic, respond at a high rate of speed, or walk on or around traffic lanes.
7. This equipment is intended for use by authorized personnel only. The user is responsible for understanding and obeying all laws regarding warning signal devices. Therefore, the user should check all applicable city, state, and federal laws and regulations. The manufacturer assumes no liability for any loss resulting from the use of this warning device.
8. This device produces high sound pressure levels which can cause damage to hearing. Appropriate safety precautions should be taken to minimise exposure.

SPECIFICATIONS:		**12V 100W**	**24V 100W**
Part Number (Kit)		620-4000-12	620-4000-24
Amplifier Size (mm)		210L x 50W x 65H	210L x 50W x 65H
Input Voltage Range		10-15 VDC	20-30 VDC
	Standby	10mA	10mA
Current Draw	Max	10A	6A
Ambient Operating Temperature		-10 to +50 C	-10 to +50 C

INSTALLATION & MOUNTING:

Before installation, examine the siren and controller for transit damage. Do not use damaged or broken parts.

Important!

- This unit is a safety device and it must be connected to its own separate, fused power source to assure its continued operation should any other electrical accessory fail.
- This system must be securely mounted in an area with adequate ventilation and no direct exposure to water as excess heat or water ingress may adversely affect the operation of the siren and safety of the siren.

Caution:

- When drilling into any vehicle surface, make sure the area is free from any electrical wires, fuel lines, vehicle upholstery, etc. that could be damaged.
- When wires and cables pass through metal panels etc., make sure they are protected from abrasion with grommets or tape.
- Do not connect the red power wires until all other connections to the siren have been made.

MOUNTING THE SIREN AMPLIFIER

Before any installation work is carried out, plan where the various components will be mounted and what route the wiring will take. The 2000 siren is not waterproof, so it must be mounted within the vehicle cabin. The siren can be mounted by screwing it into any flat surface preferably with the connector pointing down so water can not run down the cables into the siren.

MOUNTING THE SIREN SPEAKER

The 2000 siren requires an 11 ohm 60 watt or an 100 ohm 100 watt siren speaker depending on the version. Check the speaker label to ensure a suitably rated speaker is being used. Speakers are weatherproof and may be mounted on a bull bar or under the bonnet. Roof mounting is not recommended due to occupational health and safety regulations regarding excessive cabin noise levels.

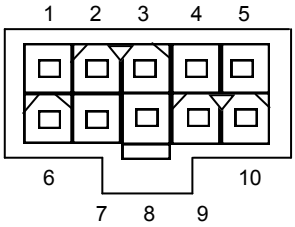
Install the siren speaker in the desired location, drilling any extra holes in the mounting bracket if necessary. Due to the varying types of mounting methods that may be encountered, and to keep waste to a minimum, mounting hardware is not supplied.
Ensure that the speaker is securely fixed into position. Ensure the position is such that water can not accumulate inside the speaker flare and that the drain hole of the speaker driver is at the bottom.

For most efficient operation, ensure that the position of the speaker flare is such that the sound path to the open air is as unobstructed as possible.

SIREN AMPLIFIER CONNECTIONS

CONNECTOR PIN ASSIGNMENT

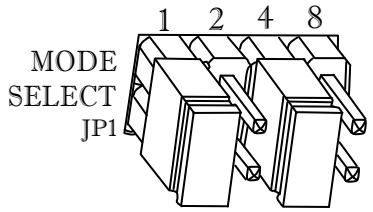
View into amplifier



1 - POWER+ RED	2 - POWER+ RED	3 - /HRT PURPLE	4 - GROUND BLACK	5 - SPEAKER WHITE
6 - HRT GREY	7 - /S1 GREEN	8 - /S0 BROWN	9 - GROUND BLACK	10 - SPEAKER WHITE

Each 4000 siren has a number of different possible operating modes. The desired mode is selected with an internal jumper block. The jumper block is configured at the factory to customer requirements before each siren is shipped. It is possible to change the mode of operation simply by moving the jumper pins to select the desired mode.

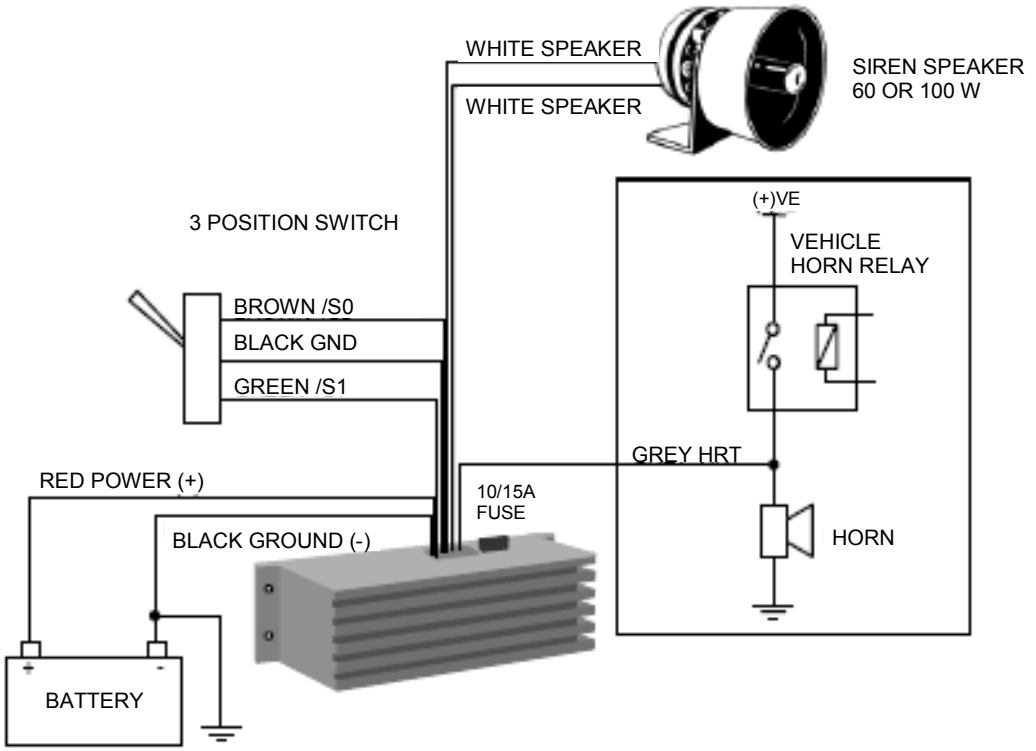
To change operating modes, first remove the siren amplifier from the vehicle and then unscrew the lid of the siren. Located at the top left corner of the circuit board are 4 sets of jumper pins marked JP1 numbers 1, 2, 4 and 8. It is a simple matter of choosing the mode from table 2, then fitting the required jumpers. Example: for mode 5 operation fit jumpers 1 and 4. To fit a jumper short the two pins together with the supplied connectors.



Mode	/S1	Null	/S0	HRT & /HRT	Switch	Jumper Block
0	WAIL	OFF	YELP	AIRHORN	3 Pos.	NO JUMPERS
1	-	WALP	-	TONE-CHANGE	2 Pos.	JUMPER 1 ON
3	OFF	STBY	WALP	TONE-CHANGE ON WALP / PHASER	3 Pos.	JUMPER 1 & 2 ON
5	MAN	STBY	WALP	TONE-CHANGE ON WALP / AIRHORN	3 Pos.	JUMPER 1 & 4 ON
6	HILO	OFF	WALP	TONE-CHANGE ON WALP	3 Pos.	JUMPER 2 & 4 ON
14	HILO	OFF	WALP	TONE-CHANGE ON WALP	3 Pos.	JUMPER 2 & 4 & 8 ON

Table 2. Note: "Walp" refers to wail/yelp type siren tone; "stby" = standby; "man" = manual

EXAMPLE WIRING DIAGRAM
MODES 0, 3, 5, 6 AND 14



EXAMPLE WIRING DIAGRAM
MODES 1