MONGOOSE MAP80
INSTALLATION & WIRING

Read these instructions carefully prior to installation

These products should be installed according to the requirements of the AS/NZS 3749.2 Installation Standard.
Installation should only be carried out by suitably qualified persons.

DO NOT LEAVE THESE INSTRUCTIONS IN THE VEHICLE, THEY ARE FOR INSTALLATION PURPOSES ONLY

The Mongoose MAP80 upgrade alarm/immobiliser is designed to suit virtually any vehicle which has remote controlled central locking.*

**** WARNING: Should a vehicle not have the compatible inputs/outputs, then this product may not operate correctly or not be suitable for that type of vehicle.***
If in doubt, do not fully install. Just connect power, ground and the 3 control wires (ARM, DISARM & DISARM #2) to verify the system can arm and disarm. If okay, proceed with full installation.

STEP 1: Connect all the alarm wires, grounds first – do not connect the control wires at this time
STEP 2: Change programming if you require control input from 'light flash'
STEP 3: Now connect the 3 control wires
STEP 4: Verify the system arms and disarms by remote, but does not disarm by unlocking manually.

NOTE: If you connect the 3 control wires and then wish to change the control programming, you will need to unplug the main loom from the alarm module for programming changes to take affect – this is due to the polarity learning nature of the wires.

CONTROL INPUTS - ARM & DISARM: Located on main loom

ARM **connect to vehicle's lock motor wire**
- this wire is polarity learning – no jumpers, no programming

DISARM **connect to vehicle's unlock motor wire**
- this wire is polarity learning – no jumpers, no programming

DISARM #2 **connect to door(s) unlock signal wire (-)**
- if required, polarity can be changed by programme #4

Disarm #2 is a disarm check wire that prevents disarming by any means other than by remote control or by the PIN override.
This wire must be connected to any door that produces the unlock signal to the BCM – diodes may be needed to ensure correct vehicle operation.
When a door is manually unlocked, this wire sends a signal to the MAP80 instructing it to ignore the disarm (unlock) signal from the body control module. This is known as DISARM DEFEAT and is the recommended method of installation.

Note: If you have triggered the alarm by opening the car door with the ignition key you may have to close all doors and lock & unlock the vehicle with the cars remote to turn alarm off as some factory remotes do not operate with a door open.

MAP80 IS FACTORY PROGRAMMED FOR 'DISARM DEFEAT'

OPTIONAL METHOD – LIGHT FLASH

Where a vehicle flashes lights (park or indicators) when the vehicle is locked and unlocked by remote control - but does not flash when locked/unlocked manually, the **DISARM #2** wire may be connected to a light flash wire.
DO NOT USE THIS METHOD if the vehicle has a factory alarm, and/or the hazard signals are produced by the BCM (body control module) .

The security system now requires two signals to arm and two signals to disarm. One from the central locking pulse PLUS one from the light flash.
If it only receives one signal, either from the central locking or from the lights, it will not arm or disarm.

2 PROGRAMME CHANGES REQUIRED;
PROGRAMME #3 TO 'ON'
PROGRAMME #4 TO (+) depending on light flash polarity.

'ALARM' INPUTS/OUTPUTS - MAIN WIRE HARNESS:

GROUND x 2

CONNECT GROUNDS FIRST - DO NOT CONNECT THEM TOGETHER
Secure these two wires at two separate points to the metal grounded chassis or frame of the vehicle.

ENGINE IMMOBILISERS:

There are two 30 Amp (10amp continuous) built-in 'normally open' relays for the automatic engine immobiliser (programmed OFF as default).
A current draw test must be carried out on any circuit to be immobilised to ensure full load, with all accessories turned on, does not exceed 10amps continuous.
If vehicle does not have its own engine immobilisation, the automatic function of this product must be programmed ON for legislation, Standards and/or insurance requirements.

"-" DOOR TRIGGER **"+" DOOR TRIGGER**

These triggers are delayed for 3 seconds to allow for vehicles which turn on the dome light before the unlock signal is generated. The delay is to prevent false alarms.
NOTE: If the dome light comes on during unlocking, the auto rearming of the alarm function may cancel if the vehicle does not have an automatic re-lock function. Use door trigger wires that are unaffected by the dome light if auto re-arm is required.
Some vehicles may require connection to each door and separated from each other by diodes.

FUSE BOX +12V
Connect this wire to constant +12v fused power source.

BOOT "-"
This input is used for instant triggering of the boot circuit. If the boot bypass function is connected, this circuit is bypassed until the boot is closed – it then re-arms after 10 seconds.

LIGHT X 2
If the installed keyless entry system flashes the parking lights, connect these wire directly to (+) indicators.
If the installed keyless entry system flashes the indicators, connect one, or both, of these wires to the (+) parking light wire.

BONNET "-"
Connect to the provided bonnet pin switch unless the vehicle is already equipped. Do not connect the boot to this input, especially if the boot bypass function is required.

IGNITION
Connect to ignition circuit where:
a. Ignition key in OFF position there is no +12V
b. Ignition key in ACC position there is no +12v
c. Ignition in the ON position and in the crank position there is +12V

"+" SIREN Connects to the 'trigger wire' of the siren harness.

SIREN HARNESS
The siren harness is labeled and has corresponding connectors for the siren.
Ground terminal – do not use the siren mounting screws as a ground connection point – secure separately with a screw and star washer to the body-shell of the vehicle ensuring a good ground.
WARNING: Do not connect the siren harness to the module until all other module wires are connected – ground wires first.

4 PIN WHITE CONNECTOR: 2 STAGE IMPACT SENSOR
The harness plugs into the sensor and to the matching white connector on the side of the module.

4 PIN GREEN CONNECTOR: GLASS BREAK SENSOR (MAP80G only)
The harness plugs into the sensor and to the matching white connector on the side of the module.

2PIN RED CONNECTOR: LED
The LED plugs into the red connector on the side of the alarm module.

4 PIN SIDE PLUG – optional fitment

If features not required, do not use or plug in

GROUND WHEN ARMED

Function: This wire provides constant 500mA ground output after arming.

BOOT BYPASS

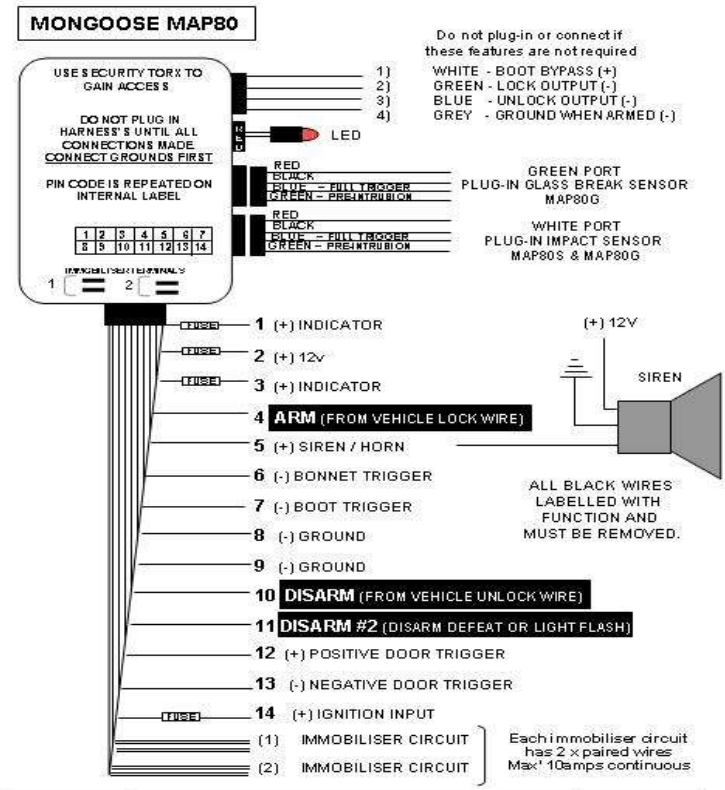
This (+) input allows for the boot alarm circuit to be bypassed if the vehicle's remote has a separate boot release button. Pressing the remote button will open the boot, turn off the boot alarm circuit and bypass the sensor ports. All other circuits remain armed.
Closing the boot will re-arm these circuits after a 10 second delay.
A (-) negative boot release signal will require an optional polarity change over relay.

LOCK - Output (-) low current

UNLOCK – Output (-) low current

The MAP80 can control the vehicle's central locking for features such as 'ignition safety door locking' and 'security re-arm and re-lock'.
Many vehicles will automatically re-lock if a door hasn't been opened within a certain time after 'unlocking'. In this case, these wires do not need to be connected.
If the vehicle owner wishes to have 'ignition door locking', these wires will need to be connected. Some vehicles may require optional relays for this feature to operate.

Whilst every effort has been made to ensure the accuracy and clarity of the information contained in these instructions, Mongoose accepts no responsibility or liability due to incorrect connection or use of this product.
Verify that the connections to a vehicle are correct and within the specifications of this product.



Wire description	CONTROL INPUTS Function	Wire Polarity
ARM	Connect to vehicle's lock motor wire.	Switching
DISARM	Connect to vehicle's unlock motor wire.	Switching
DISARM #2	DISARM DEFEAT - prog' #3 OFF - #4 to (-) - default Connect to unlock signal wire from driver/passenger doors OR LIGHT FLASH – prog' #3 ON - #4 to (+) Connect to vehicle light flash wire Do not use if factory alarm fitted, or hazard signal produced by BCM	Programmable

PROGRAMMING

1. Disarm the system and wait for interior dome light to go out.
2. Open and leave open the drivers door.
3. Within 10 seconds, turn ignition ON/OFF quickly the number of times relative to the programme chart (eg: 5 times for siren chirps).
4. After 1.5 sec, siren will chirp and lights and LED will flash the same number of times relative to the programme number as confirmation of the correct programme. Installer must wait for the confirmation light/LED flashes, then operate the following steps;
5. If the selected feature is already set at 1st column (ON), LED will light solid and siren chirps once. If the selected feature is already set at 2nd column (OFF), LED will not light and siren chirps twice.
6. Within 5 seconds after confirmation chirps and light flashes in Step 3, turn ignition on/off to reverse the current setting (If ON already, ignition on/off changes it to OFF. If already OFF, ignition on/off changes it to ON).
7. To exit the programming procedure, leave system for 10 seconds (no further ignition input) or just close door. System will fast chirp 3 times and lights flash 3 times to signify end of programming.
8. During the programming procedure, if ignition is turned on for 5 seconds, or door closed, system will directly exit the programming procedure.

WARNING NOTES:

1. **It is possible to accidentally enter programming mode when testing for circuits to immobilise (eg; pulsing ignition on/off within 10 seconds of opening the door). To prevent this, wait longer than 10 seconds or do not connect the door wire when testing circuits.**
2. **Pulsing ignition on/off may also be the vehicle manufacturers method of changing programmes. Be aware and conversant with the correct operation of the vehicle.**

*** = FACTORY DEFAULT**

	FEATURE	LED 'ON' ONE CHIRP	LED 'OFF' TWO CHIRPS
3	DISARM #2 INPUT TYPE	LIGHT FLASH	**DISARM DEFEAT***
4	DISARM #2 POLARITY	(+)	**(-) ***
5	SIREN CHIRPS	**ON ***	OFF
6	IGNITION DOOR LOCK	ON	**OFF ***
7	CDL PULSE	**0.8 Secs ***	3.5 Sec.
8	SIREN OR HORN	**SIREN ***	HORN
9	DOOR DIAGNOSTICS	**ON ***	OFF
10	NSW SIREN TIMING	ON	**OFF ***
11	LAST DOOR ARMING	ON	**OFF ***
12	AUTO DOOR LOCK	ON	**OFF ***
13	PERIMETER NITE LITE	ON	**OFF ***
14	TURBO FUNCTION - see note	ON	**OFF ***
15	AUTOMATIC ENGINE IMMOBILISER	ON	**OFF ***
16	LIGHT FLASH CONFIRMATION	**ON ***	OFF
17	RE-SET TO FACTORY DEFAULTS	RE-SET	RE-SET

See owners handbook for an explanation of these features.

NOTES:

a) Some vehicles do not permit remote door locking with the engine running, so turbo interface function may be inoperative.

b) If you wish to change programmes 3 and/or 4 after connection, you will need to unplug the main loom for changes to take affect – this is due to the polarity learning nature of the arm/disarm wires.