

# M60 Series

MODELS: M60i, M60B, M60S, M60AU, M60AM

### **OPERATION & WIRING MANUAL**

All models certified to:-AS/NZS4601 1999 amendment 1 2003 & AS/NZS3749.1 2003 Class B

These products should be installed according to the requirements of the AS/NZS 3749.2 Installation Standard

References to alarm functions and siren responses do not apply to model M60i

### **REMOTE CONTROL**

2 Supplied

#### **BUTTON 'TWO' ONLY**

#### **CH2 OUTPUT**

PRESS FOR 3 SECONDS FOR 'AUXILIARY OUTPUT' (EG: BOOT RELEASE)

## BUTTON 'TWO' THEN

HEN ONE'

#### SILENT ARM / DISARM

THIS SEQUENCE WILL SILENTLY ARM OR DIS-ARM THE SYSTEM WITHOUT SIREN CHIRPS. ALARM MODELS ONLY

#### **BUTTON 'ONE' AND 'TWO' TOGETHER**

#### 'PANIC'

PRESS FOR 3 SECONDS TO SOUND THE SIREN OF THE ALARM. PRESS BOTH AGAIN TO CANCEL

#### **BATTERY REPLACEMENT**

YOUR REMOTE CONTROL USES ONE 12v 23amp BATTERY WHICH IS AVAILABLE FROM YOUR MONGOOSE AGENT OR ELECTRONIC SHOP. CHANGE AT LEAST ONCE A YEAR.

#### **BUTTON 'ONE' ONLY**

#### **ARM & DISARM**

PRESS FOR 1.0 SECOND TO ARM OR DISARM THE SECURITY SYSTEM -(DOORS WILL ALSO LOCK OR UNLOCK IF THE CENTRAL LOCKING HAS BEEN CONNECTED)

### BUTTON 'ONE' THEN BUTTON 'TWO'

#### **'SENSOR BYPASS'**

THIS SEQUENCE DEACTIVATES
SENSORS SUCH AS THE IMPACT SENSOR, ULT
MODEL). DOORS, BONNET & BOOT REMAIN PR
ONLY DEACTIVATE SENSORS TO
REDUCE THE POSSIBILITY OF FALSE ALARMS.

## **CONTENTS**

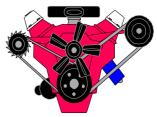
Automatic engine immobilisation	4	Indicator flashing	10
Arming	5	Dash mounted warning light	10
Open circuit bypass	5	Chirp confirmation	10
Central locking	5	Panic	11
Disarming	6	Boot release	11
Security re-arm	6	Programme options	11/12
Silent arm/disarm	6	* Siren or horn output	
Bonnet, boot & doors	6	* Automatic arming	
2 stage impact sensor (M60B)	7	* Ignition safety door lock	
Ultrasonic sensors (M60AU)	7	* Siren chirps	
Microwave sensor (M60AM)	8	* NSW siren timing	
Sensor disable	8	Remote controls	13
Intrusion alert	8	Remote code learning	13/14
Battery back-up siren (M60AU/AM)	8	EMERGENCY OVERRIDE	15
Automatic re-set	9	Testing your alarm	16
Arm condition memory	9	Wiring & programming	
Noise pollution control	9	Warranty terms & conditions	

#### **OPERATING YOUR VEHICLE SECURITY SYSTEM**

#### **AUTOMATIC 'DUAL CIRCUIT' ENGINE IMMOBILISATION**

The engine will always be automatically immobilised 30 seconds after the ignition has been turned off.

This feature cannot be turned off or defeated as it is a Standards mandatory feature.



When the ignition is turned OFF, the dashboard LED will start to fast flash for 30 seconds to indicate the automatic sequence has commenced. At the end of the 30 seconds, the siren will chirp once, the indicators will flash once and the dashboard LED will slow flash as confirmation of immobilisation. Only the engine is immobilised - the alarm system is not yet armed.

If an attempt is then made to start the engine whilst immobilised, the siren will chirp.

#### ONCE IMMOBILISED, PRESS BUTTON ONE TO PERMIT ENGINE STARTING

NOTE: If the system is fully armed by pressing the remote button, the engine is immobilised immediately and any attempt to start the engine will cause the siren to sound fully.

The installer of this system will immobilise two of the following possible circuits to prevent engine starting (a third immobiliser may be added as an option extra):

- Starter motor
- Ignition system
- □ Electric fuel pump
- □ Other engine controlling circuit

#### **ARMING**

#### NORMAL OPERATION

- ☐ Turn the engine off, close all windows and remove the keys from the ignition
- ☐ Exit the vehicle and close all the doors (& bonnet & boot).
- ☐ Press button **one** on the remote control.
  - The indicators flash once and the siren will chirp once to indicate that the system is armed. The dash board warning light, LED, will slow flash to indicate the system is armed.
- If your vehicle has central locking and it has been connected to this security system, the doors will lock at the same time as arming.

NOTE: If the engine is automatically immobilised (occurs 30 seconds after ignition OFF) before you had a chance to arm the system, press button one twice – once to turn off just the immobiliser and the second time to fully arm and immobilise the system. The system can be programmed to arm automatically 30 seconds after the last door is closed. See page 12.

#### **OPEN CIRCUIT BYPASS**

If any door, the bonnet or boot is left open upon arming, the siren will chirp once to signify the system is armed and then sound briefly to inform you a circuit is still open. If ignored, that circuit will not be protected. The open circuit (a door, the bonnet or boot) will automatically arm itself upon closure.

**CENTRAL LOCKING** - additional parts, at extra cost, may be required depending on vehicle equipment level. This security system has built-in relays to operate a vehicles' existing central locking system by remote control. When connected, the doors will lock or unlock at the same time as arming or disarming.

#### **SENSOR DISABLE**

To turn off any sensors fitted, but arm the bonnet, boot and doors and immobilise the engine, press button one followed by button two. See page 8 for full description.

#### DISARMING

- ☐ Press button **one** on the remote control to disarm the system.
  - The siren will chirp twice and the indicators will flash twice to indicate disarming.
- The doors will unlock if the vehicles' central locking is connected to the security system.
- ☐ If a door is not opened within 30 seconds, the system will automatically re-arm (& re-lock if connected to your central locking). See below.

#### **AUTOMATIC SECURITY RE-ARM**

The alarm will automatically fully re-arm (and re-lock the doors if connected) if it has been disarmed by remote but a door has not been opened within 30 seconds. The lights flash once as confirmation of re-arming. This feature cannot be turned off.

If a door, bonnet or boot is opened after disarming, the alarm will not re-arm and the doors will not re-lock. However, the engine will re-immobilise if the ignition is not turned ON within 30 seconds.

#### SILENT ARM / DISARM (no siren chirps)

Press button **two** followed by button **one** within 2 seconds to silently arm or disarm the system. The chirps may be permanently turned off via the programming options – see your installer.

#### **SECURITY PROTECTION**

#### **IGNITION, BONNET, BOOT & DOORS**

When armed, the siren will sound and the indicators will flash for 30 seconds when any of these are triggered. If a door, the bonnet or boot is left open, the siren will cycle 90 seconds (3  $\times$  30 seconds) and the indicators will flash.

(If programmed for NSW, the siren will sound for 30 seconds once only)

The system does require your vehicle to be fitted with courtesy light door switches for these to trigger the alarm. Fitting or replacing door switches will incur additional charges.

#### 2 STAGE IMPACT SENSOR (MODEL M60B/M60S – optional on other models)

This sensor is designed to detect impact to the vehicle such as to the bodywork or glass. It should not be triggered by normal wind, or rocking motions.

- ☐ If the sensor detects a light impact, the siren will sound a few warning chirps.
- ☐ If the sensor detects a heavier impact, the analyser circuit will determine this and sound the siren for 30 seconds and flash the lights.

The sensitivity level is set by the installer and should be at its optimum. Avoid over sensitivity as people nearby may not respond due to too many false alarms. (This type of sensor may not prevent wheel theft, we therefore advise the fitment of locking wheel nuts)

There may be times when you wish to deactivate the impact sensor to avoid false alarms, follow the instructions for 'sensor disable by remote' on page 8.

#### **ULTRASONIC SENSOR (M60AU MODEL – optional on other models)**

The ultrasonic sensor fill the interior of your vehicle with high frequency sound and is designed to trigger the alarm when the interior environment changes. Possible changes are the breaking or removal of glass, a door being opened, or even strong wind through a slightly open window.

For the ultrasonic sensor to operate correctly ensure all doors and windows are closed when arming the alarm system. (False alarms are generally created by open windows or even strong wind through the air vents)

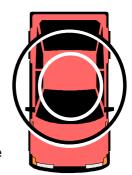
Due to the efficiency of this type of sensor, we advise that you do not leave people or animals inside the vehicle as any movement will trigger the alarm. Should you need to leave people or animals inside, follow the instructions for 'sensor disable by remote' to avoid the alarm being triggered.

Ultrasonic's are not recommended for soft top vehicles or vehicles where air movement is likely within the vehicle.

#### MICROWAVE SENSOR (M60AM MODEL – optional on other models)

The microwave sensor is designed to trigger the alarm when a microwave field registers physical movement. 2 fields are generated, one outside the vehicle to give perimeter protection, and one inside to give interior protection.

Intrusion into the perimeter area chirps the siren as a warning, whilst intrusion into the interior fully sounds the siren. The fields are adjustable for size and should have been set by the installer at their optimum. It is advisable to limit the exterior field to about the width of the door mirrors and the interior to approximately ¾ of the vehicle width. Do not leave people or animals inside the vehicle as any movement will trigger the alarm. Should you need to leave people or animals inside when arming, follow the instructions for 'sensor disable by remote'.



Note: As the microwave produces circular protective fields, some areas of the vehicle may not be protected.

#### SENSOR DISABLE BY REMOTE (ALARM MODELS ONLY)

There are times when you may wish to deactivate the supplied sensors (impact, ultrasonic or microwave – depending on model of alarm or fitted accessories) to prevent false alarms.

To turn these sensors off, but arm the bonnet, boot and doors and immobilise the engine, press button one to arm the system and within 3 seconds, button two. You will hear the siren chirp for arming followed by three tones indicating the sensors are turned off for this time only.

To disable the sensors at some later time after arming, press the 2<sup>nd</sup> button three times quickly. If the alarm is sounding and has been triggered by a sensor, pressing the 2<sup>nd</sup> button disables the sensor from further detections.

#### **INTRUSION ALERT**

When disarming, if the siren chirps 4 times and the indicators flash 3 times you know the system has been triggered. Refer to the LED flash codes on page 10 to show which circuit has been triggered.

#### BATTERY BACK-UP SIREN (M60S/M60AU/M60AM – optional on other models)

Vehicle battery disconnection, or cutting the siren wires, will cause the battery back-up siren to sound independently of an alarm trigger. The siren can be turned off with the special keys provided or whenever the car battery needs attention or changing.

Please check that the siren has been mounted in such a position so as to avoid water ingress or heat damage. If washing the engine bay, cover the siren with a plastic bag to prevent water damage. Heat or water damage is not covered by the warranty.

#### **AUTOMATIC RE-SET**

Upon an intrusion (ie; door opened and closed), the siren will sound for 30 seconds, after which it will stop and reset to the armed position. It will then re-trigger on the next intrusion.

If a door is left open, the siren will sound for 3 x 30 seconds and then that circuit will be bypassed to avoid unnecessary noise.

(If programmed for NSW, only sounding occurs - must be manually re-set after first trigger)

#### **ARM CONDITION MEMORY**

Should the vehicle battery be disconnected, the system memorises the last set position of the alarm. If the alarm was disarmed prior to battery disconnection, reconnection does not cause the alarm to sound. If the battery was disconnected whilst the system was armed, reconnection will return the system to the armed state.

#### NOISE POLLUTION CONTROL

To reduce noise nuisance and possible false alarms, the system will isolate an individual circuit if it is triggered three times in succession or is left open.

(Eg: 3 x bonnet/boot, 3 x doors, 3 x ignition, 3 x sensor)

Reset by remote by disarming and then re-arming, or by turning the ignition 'on' then 'off'.

#### INDICATOR FLASHING (FUSE PROTECTED)

When the siren sounds, the indicators flash simultaneously. The indicators will also flash on arming and disarming the system.

- a) 1 Flash Armed.
- b) 2 Flash Disarmed.
- c) 3 Flash Disarmed and previously triggered.



#### **DASH MOUNTED WARNING LIGHT - LED**

The LED shows the status of the alarm, intrusion and any open circuit when arming. Turning the ignition 'on' resets the flash codes.

- a) Fast flashing 30 second countdown of automatic functions.
- b) Slow flashing system armed. c) LED off - system off.
- d) On permanently in remote code learning mode
  e) 1 flash bonnet or boot has been opened.
  f) 2 flash sensor has been triggered.
  g) 3 flash a door has been opened.
- h) 4 flash an engine start was attempted.



#### **CHIRP CONFIRMATION & CODES**

- a) 1 Chirp Armed.
- b) 1 Chirp/short siren indicates an open circuit when arming.
- c) 2 Chirps Disarmed.
- d) 4 Chirps Disarmed and indicates that the alarm has been triggered.
- e) Continual chirps Ignition has been turned on when the engine is immobilised

#### PANIC BY REMOTE (in either armed or disarmed state)

In the event of personal attack, or you suspect that your vehicle is being tampered with, the alarm can be 'panicked' by pressing buttons one and two at the same time on the remote for more than 3 seconds. The siren will sound and the indicators will flash. Pressing the buttons again cancels panic.

#### **BOOT RELEASE** (AUXILIARY OUTPUT) - OPTIONAL CONNECTION

The system provides an output which may be optionally connected to control a vehicle's electric boot release (f the vehicle is equipped). This may incur additional charges depending on the vehicle specification.

To activate:

Press button two on the remote for 3 seconds and the boot will unlock and open
The boot trigger circuit and any interior sensor will be bypassed
Upon closing the boot the bypassed circuits will re-arm automatically

#### **PROGRAMMABLE OPTIONS**

The system can be programmed to enable or disable certain features.

These can only be changed by your installer:-

,	FACTORY DEFAULT
Automatic (passive) arming	OFF
Ignition safety door lock	OFF
Chirps on (can be momentarily turned off by remote)	ON
NSW siren timing (mandatory in NSW)	OFF
Turbo function	OFF

#### PROGRAMME OPTIONS EXPLAINED

#### **AUTOMATIC (LAST DOOR) ARMING - PROGRAMMABLE**

This feature is factory set in the 'off' position. You may have this programmed 'on' for added security. The alarm will arm automatically 30 seconds after the last door is closed.

- ☐ The doors will not lock so that keys cannot be locked inside
- ☐ If the engine immobilises prior to the opening and closing of a door, this feature is bypassed. Press button one to unset the immobiliser and press again to arm the system.
- ☐ The opening of a door, bonnet or boot during the 30 seconds will suspend the countdown and recommence on closure.

#### **IGNITION SAFETY DOOR LOCK - PROGRAMMABLE**

If the system has been connected to a vehicles' central locking, the doors will lock 3 seconds after the ignition is switched 'on' and unlock when the ignition is turned 'off'.

If a door is left open for more than 3 seconds after the ignition has been turned on the safety door lock feature will be inoperative.

#### SIREN CHIRPS - PROGRAMMABLE

The chirps can be permanently turned off. Only the indicators confirm the arming and disarming.

#### **NSW SIREN TIMING - PROGRAMMABLE**

It is a mandatory requirement in New South Wales, Australia, for vehicle alarm systems to sound the siren for one trigger cycle of 30 seconds only. With this feature turned on, the indicators will flash for any subsequent trigger.

#### TURBO FUNCTION – PROGRAMMABLE (not applicable to all models)

This allows an engine to remain running from a turbo timer so you can arm the bonnet, boot & doors (and lock the doors if connected to central locking). When the turbo timer stops, the immobilisers become active immediately and any connected sensor become active after a 10 second delay. An intrusion through the doors whilst the engine is running will sound the alarm and immediately immobilise the engine.

12

#### **ROLLING CODE REMOTE CONTROLS**

Two remote controls are supplied with the system which enable you to arm and disarm your security system.

One remote control should be kept with your car keys and the other with your spare car keys in a safe place. We do not recommend leaving the spare remote and car keys in the vehicle.

The remote security code of your alarm system changes each time you press the remote button. This coding system is referred to as Rolling Code and is completely random therefore eliminating the possibility of anyone recording it (code grabbing).

As there are billions of code combinations the chances of duplication are literally billions to one. Additional remote controls may be added as the alarm module can memorise up to four remote controls.

The batteries in the remote controls should be changed when you notice any of the following;

- □ System does not respond to the remote signal
- Operation is intermittent
- ☐ Reduced operating range less than 5 metres
- ☐ The LED fails to light

Replace with a 12v 23A alkaline battery.

#### REMOTE 'CODE LEARNING'

The main alarm module has a learning capacity to memorise up to four remote controls.

If you wish to add further remotes, or a remote has to be replaced, the new remote needs to be code learnt into the main module. If for instance you have lost a remote and are fearful that someone may try to use it, the lost remote can be deleted from memory so it cannot be used.

An irregular or interruption to the vehicle's power supply may cause loss of remote memory. If your

An irregular or interruption to the vehicle's power supply may cause loss of remote memory. If your alarm fails to respond to the remote try re-learning them or see your Mongoose dealer.

REMOTE 'CODE LEARNING': To learn a remote or additional remote:  Disarm the system				
	Open the drivers door and leave open			
	Turn the ignition ON/OFF 3 times (ignition remains off)			
	The siren will chirp 3 times, the indicators will flash 3 times and the dashboard LED will			
	light permanently to confirm you have entered remote code learning mode.			
	Press button one on the first remote – siren will chirp once as confirmation of reception			
	Press button one on the second remote – siren will chirp twice as confirmation of reception			
	Repeat for up to four remotes (siren will chirp 3 times for the third and 4 times for the			
	fourth)			
	Leave the system for 10 seconds and the learning mode is completed. This is confirmed			
	by three fast chirps and light flashes.			

NOTE: When learning a new replacement or additional remote, the original remote(s) must be re-learnt or they will be erased from memory and will not operate this system.

#### To delete a lost remote from memory:

Enter learning mode as detailed above. Memorise existing remote once. The lost remote is now deleted. When a replacement is obtained, learn both the existing and new remotes into memory as detailed above.

#### **EMERGENCY OVERRIDE – 4 DIGIT PIN CODED**

The system can be disarmed by entering your the unique 4 digit PIN code shown on the 'PIN Code Card' issued with this product. **KEEP THE CARD IN A SAFE PLACE – NOT IN THE VEHICLE!** 

Following is an example using PIN code 4525

The code is entered by turning the ignition ON or OFF in sequence with the dash mounted LED.

- 1) **Ignition ON** LED will light permanently to commence override.
- 2) **Ignition OFF** LED will start flashing. Count the number of flashes for the first number.
- 3) **Ignition ON** after **4** flashes (1<sup>st</sup> number of the example). The LED will light.
- 4) Ignition OFF count the number of flashes.
- 5) Ignition ON after 5 flashes (2<sup>nd</sup> number). The LED will light.
- 6) **Ignition OFF** count the number of flashes.
- 7) Ignition ON after 2 flashes (3<sup>rd</sup> number). The LED will light.
- 8) Ignition OFF count the number of flashes.
- 9) **Ignition ON** after **5** flashes (4<sup>th</sup> number).
- 10) The system will now disarm and the vehicle can be started.

Note: If your PIN code contains a "0", this equals '10'.

Should you miss the LED flashes or enter a digit incorrectly, wait for 11 flashes and simply repeat the procedure from step 1).

This system will always automatically immobilise the engine every time the ignition is turned off. This override sequence will have to be used to start the engine if your remote controls are not available or inoperative.

15

### MONGOOSE EMERGENCY 4 DIGIT PIN CODE OVERRIDE

#### **PIN CODE:**

PLEASE KEEP THIS CARD IN A SAFE PLACE BUT BE READILY AVAILABLE SHOULD YOU NEED TO USE THE OVERRIDE PROCEDURE DO NOT LOSE THIS CARD

#### **TESTING YOUR ALARM**

We strongly recommend that you test your alarm frequently.

- 1) Without disarming the system, unlock <u>and open</u> a door with the ignition key the alarm should sound, excluding model M60i. Check all other doors, bonnet and boot by the same procedure.
- 2) Check the impact sensor, M60B only unless fitted as an accessory, by giving the vehicle varying degrees of impact - be careful to do this on areas of the vehicle not likely to be damaged by impact. Light impacts should chirp the siren whilst heavier impacts should fully sound the siren.
- 3) Enter the vehicle and shut all doors, arm the system by remote and try to start the engine to test the engine immobiliser it should not start.
- 4) To test the ultrasonic sensors, M60AU, enter the vehicle, shut all doors and windows, arm the system and allow it to stabilise for 10~20 seconds. Now wave or clap your hands the alarm should sound.
- 5) To test the microwave sensor, M60AM, arm the system and wait at least 10~20 seconds for the sensor to stabilise. Moving a hand over the outside of side windows should chirp the siren. To test the perimeter field size, repeat this movement on the outside of all glass areas. To test the interior, leave a window open when arming and reach in and wave an arm around the siren should fully sound.

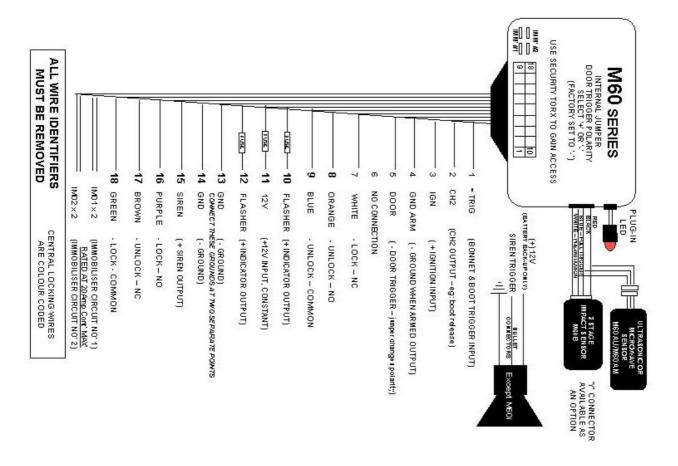
**WIRING INFORMATION:** Installation to be carried out by suitably qualified persons. **MAIN MODULE** The plugs are edge numbered & the wires printed for the function;

	1)	– TRIG	(-) BONNET & BOOT TRIGGER INPUT		
	2)	CH2	(-) CH 2 OUTPUT – EG: BOOT RELEASE		
	3)	IGN	(+) 12v IGNITION INPUT		
	4)	GND ARM	GROUND WHEN ARMED		
	5)	DOOR	(-) DOOR TRIGGER – jumper changes polarity		
6) NO CONNECTION		NO CONNEC	TION		
	10)	FLASHER	(+) INDICATOR OUTPUT – 8 amp cont' max		
	11)	12V	(+) CONSTANT 12v POWER SUPPLY		
	12)	FLASHER	(+) INDICATOR OUTPUT – 8 amp cont' max		
13) & 14) GND		) GND	(-) 2 GROUNDS – DO NOT JOIN TOGETHER AT THE SAME POINT		
	15)	SIREN	(+) SIREN OR HORN OUTPUT		
	7)	WHITE	LOCK - NC		
	8)	ORANGE	UNLOCK - NO		
	9)	BLUE	UNLOCK - COMMON		
	16)	PURPLE	LOCK – NO		
	17)	BROWN	UNLOCK - NC		
	18)	GREEN	LOCK - COMMON NOT USED		
		IM01	IMMOBILISER CIRCUIT #1 – PAIRED WIRES – max 20amp cont'		

IM02

IMMOBILISER CIRCUIT #2 - PAIRED WIRES - max 20 amp cont'

### **WIRING**



#### **TURBO INTERFACE**

To enable, remove the cover from the main module and remove the jumper between the main IC and the receiver board.

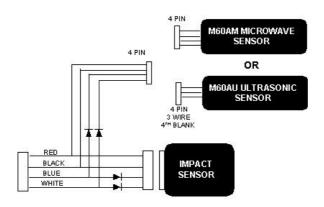
### SENSOR PORT

The sensor port is a 4 pin input that accepts an impact sensor, ultrasonic sensor or microwave sensor. A "Y" connector is available as an option where 2 sensors are required.

The M60B/M60S is supplied with a 2 stage impact sensor – other sensors optional.

The M60AU is supplied with an ultrasonic sensor.

The M60AM is supplied with a 2 stage microwave sensor.



#### IMPACT SENSOR – Included in M60B/M60S – optional on other models.

The impact sensor is 2 stage:- light impacts should chirp the siren, whilst heavier impacts should fully sound the siren.

The sensor should not be mounted in the engine compartment. The ideal location for this sensor is solidly mounted under the dashboard near the centre of the vehicle.

- ☐ The sensor is fully adjustable from the potentiometer on the side of the sensor module.
- Apply varying degrees of impact to the vehicle at various locations to ensure detection is possible.
- ☐ Turn clockwise for more sensitivity, anticlockwise for less sensitivity.

#### <u>ULTRASONIC SENSOR</u> – M60AU (optional on other models)

Ultrasonic's will detect any movement inside the car, including air movement. It is therefore important that all windows, vents and sunroofs be fully closed before the sensor is activated.

- □ Ultrasonic heads should be mounted at the top of the front windscreen pillars, facing towards the centre of the rear window.
- Always ensure that ultrasonic heads are connected correctly, match colours of leads and plugs.
- The sensitivity can be varied with the potentiometer on the module. Turn clockwise to increase sensitivity, anticlockwise to decrease sensitivity.

Care should be taken to ensure that the ultrasonic leads are not crushed or damaged as this may result in false alarming or failure to trigger.

It is inadvisable to attempt to extend or shorten the ultrasonic leads.

#### 2 STAGE MICROWAVE SENSOR- M60AM (optional on other models)

The microwave should detect intrusions into the protected areas. Two fields are generated, one outside the vehicle and one inside. Intrusions into the exterior area will chirp the siren whilst intrusions into the interior will fully sound the siren.

- ☐ The microwave plugs in directly to the white sensor port of the M80.
- As the field shapes cannot be altered, the location and position of the sensor is critical. Do not mount under metallic objects or where coins or CD's are stored. Seat frames will shield the sensor giving areas of non-coverage. It will penetrate non-metallic objects, but will not penetrate metal. It will work with windows down, sunroofs open or even in a convertible with the top down. Air movement, noise and temperature should not affect the microwave.
- ☐ The two field sizes are independently adjustable from the potentiometers on the front of the sensor.
  - 1. **Exterior**: Green LED. Turn clockwise to increase sensitivity, anticlockwise to decrease sensitivity (very fine adjustment fraction of a turn only).
  - 2. **Interior**: Red LED. Turn clockwise to increase sensitivity, anticlockwise to decrease sensitivity (very fine adjustment fraction of a turn only).

Do not adjust interior field greater than exterior. The 'noise pollution control' feature will turn off each trigger input after 3 intrusions into each. Reset by remote to re-activate the sensor.

Full installation instructions are available on the Mongoose internet site: <a href="https://www.mongoose.com.au">www.mongoose.com.au</a> with access restricted to Mongoose authorised installers.

#### WARRANTY CONDITIONS

#### PRODUCT WARRANTY

Mongoose warrants for a period of 36 months that it will make good without charge at Mongoose's discretion, by repair or replacement with a reasonable equivalent, any defect in the product providing that;

- (a) the defect has been notified as soon as it is noticed to an authorised Mongoose installation centre, distributor or agent (in the first instance to the original installation centre).
- (b) the alarm is less than 3 years of age from the date of sale and was manufactured within the last 4 years.
- (c) the alarm has been installed by an approved Mongoose installation agent
- (d) it has been installed according to the AS/NZS 3749.2 Installation Standards and/or to our written instructions.
- (d) provision of proof of purchase stating where it was purchased and by whom it was installed.
- (e) if the alarm is installed by anyone other than an approved Mongoose installer a 12 month parts only warranty applies
- (f) an authorised installation centre has determined that the defect complained of is a genuine product defect and not caused by;

  (l) incorrect installation or any other consequential damage caused by the vehicle or other vehicle parts

  - (ii) operation of alarm after it is known to be defective
  - alteration or modification of the alarm or its components
  - (iv) the fitment of additional security parts or accessories not supplied by or approved of by Mongoose
  - (vi) any work carried out on the alarm by someone other than an authorised Mongoose installation centre
  - (vii) misuse, accident, deliberate act or abuse (eg: misdirected electrical current, ingress of water or fluid, vehicle damage)

#### Exclusions;

- (I) removal & refitting costs of parts
- (iii) batteries, i.e. remote controls
- (v) alarms operated outside the original country of purchase
- (vii) transport costs of getting a vehicle to a repair centre
- (ii) mobile service costs
- (iv) normal wear and tear
- (vi) freight costs of parts to rectification centres
- (viii) consequential costs of vehicle non-operation where the remote controls or PIN code card are lost, not available, or an inability to use

#### **INSTALLATION WARRANTY**

Warranty for the installation is borne by the original installing agent only.

The period and terms of warranty are determined by the installation agent and should be verified with them.

Rectification work required to correct an installation fault carried out by anyone other than the original installation agent will incur their charges. Authorisation to have this work carried out and agreement to have any costs refunded should be obtained from the original installation agent prior to work commencing.

Whilst every care is taken in fitting the security system, Mongoose accepts no responsibility for any damage caused to a vehicle in the installation process. Responsibility is borne by the installer.

- THIS WARRANTY IS ONLY TRANSFERABLE AS PRESCRIBED AS BELOW.

  If the vehicle is sold with this product, the new owner receives the balance of any warranty period remaining.
- If the original owner has the system re-installed into an alternative vehicle by an authorise Mongoose installation centre, the owner b) receives the remaining period of warranty. If re-installed by an unauthorised person, this warranty ceases.

This product is manufactured, tested and certified to the joint Australian and New Zealand Standards AS/NZS4601 1999 amendment 1 2003 & AS/NZS3749.1 2003 Class B.

Manufactured for: Mongoose (Australia) Pty Ltd Make & Model Number: Mongoose M60 Series

Country of manufacture: Taiwan R.O.C.

Supply voltage: 12v DC nominal – negative ground Current consumption: 0.3amps (see alarm module label) Suitability: All vehicles with 12v negative earth batteries Date of manufacture: Refer date code on alarm module case

AS/NZS3749.1 2003 Class B definition: includes control equipment including setting and unsetting facilities, all sensors, warning devices and provision for immobilisation of the vehicle.

Whilst this security system provides a deterrent, it may not prevent theft or damage through wilful criminal intent. Mongoose does not by inference, intent or any other means guarantee that a vehicle fitted with one of it's security systems will not be stolen, broken into, tampered with, or parts taken. Mongoose does not offer nor will pay compensation for any loss. We recommend adequate vehicle insurance and the fitment of other security devices as deemed necessary. The loss and any associated costs of replacing the remote controls and/or PIN code card in making the vehicle mobile are the responsibility of the vehicle owner/driver.



# Installation Certificate

We confirm this Mongoose security system has been installed into the vehicle detailed below, to the requirements of ASNUZS 3749.2:1997 or subsequent Installation Standards'.

### 

# PROOF OF PURCHASE DO NOT LEAVE THIS INFORMATION IN THE VEHICLE

OWNERS NAME:	VEHICLE MAKE:	
ADDRESS:		VEHICLE MODEL:
		VEHICLE REG' NO:
TELEPHONE NO:		ALARM MODEL NO:
ALARM PURCHASED FROM:		
DATE PURCHASED:	Dealer	
INSTALLED BY:		
DATE INSTALLED:		
INSTALLER SIGNATURE:		
OWNERS SIGNATURE:		

Please complete the above details, detach from this manual and keep in a safe place. These details should be presented to your Mongoose dealer in the unlikely event that you require this product to be repaired under the terms of the 'product warranty'. Refer 'Warranty Conditions'. Failure to provide this 'Proof of Purchase' may result in rectification charges being made. If you sell the vehicle within the warranty term, please pass on this on to the new owner.