



# **M20, M20S & M24**

## **Owner's Operation Manual**

For correct operation, please read this manual to familiarise yourself with the features.

We recommend professional installation of this security product

M20 & M20S suitable for 12volt, negative ground vehicles

M24 suitable for 24 volt, negative ground vehicles

## REMOTE SECURITY KEY

### BUTTON TWO ONLY

**'DISARM' (& UNLOCK)**  
PRESS BUTTON TWO TO  
DISARM THE ALARM SYSTEM.  
(DOORS WILL ALSO UNLOCK  
IF THE CENTRAL LOCKING  
HAS BEEN CONNECTED)

**BOOT RELEASE (CH'2 OUTPUT)**  
PRESS BUTTON TWO FOR 3  
SECONDS FOR CHANNEL 2 OUTPUT.  
IE; BOOT RELEASE (OPTIONAL)  
POWER WINDOW CLOSE (OPTIONAL)

### BUTTON ONE & TWO AT SAME TIME

**SILENT ARM**  
PRESS BOTH BUTTONS TO SILENTLY  
ARM THE SYSTEM WITHOUT SIREN  
CHIRPS. DISARM IS AUTOMATICALLY  
SILENT

### LED

THE LED CONFIRMS REMOTE TRANSMISSION.  
REPLACE BATTERY WITH TYPE RCB23A  
EVERY 12 MONTHS.



### BUTTON ONE ONLY

**'ARM' (& LOCK)**  
PRESS FOR 1.5 SECONDS  
TO ARM THE SECURITY SYSTEM -  
(DOORS WILL ALSO LOCK IF THE  
CENTRAL LOCKING HAS BEEN  
CONNECTED)

**SENSOR DISABLE**  
PRESS BUTTON ONE WITHIN 5  
SECONDS OF ARMING TO  
BYPASS THE SHOCK SENSOR

**'PANIC'**  
PRESS FOR AT LEAST 2  
SECONDS TO SOUND THE SIREN  
AND FLASH THE INDICATORS

REMOTE MAY DIFFER  
TO THAT SHOWN

## CONTENTS

Operating your security system.....	4	Siren sounds.....	8
Remote control key.....	4	Override / valet switch.....	8
Central locking.....	4	Security re-arm.....	8
Arming the system.....	4	Ignition safety door lock.....	8
Engine immobiliser.....	4	Code learning.....	9
Disarming the system.....	5	Defective zone bypass.....	10
Vehicle lights on warning.....	5		
Automatic, last door, arming.....	5	Security options	
Doors, bonnet & boot.....	5	Dome light supervision option..	10
Impact sensor & bypass.....	5	Battery back-up siren option...	10
Silent arming & shock sensor bypass	6	Ultrasonic sensor option.....	10
Auto re-set.....	6	Microwave sensor option.....	10
Panic.....	6	Testing your alarm.....	11
Electronic siren.....	6	Wiring diagram	
Indicator flashing.....	6	Programming	
Arm condition memory.....	6	Warranty terms and conditions	
Indicator flash confirmation / codes...	7	Proof of purchase	
Chirp confirmation / codes.....	7		
Dash mounted warning light (LED)...	7		

## **OPERATING YOUR VEHICLE SECURITY SYSTEM**

### **REMOTE CONTROL KEY - 2 BUTTON x 2**

Two remote control keys 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.

### **CENTRAL LOCKING - KEYLESS ENTRY\***

This security system has built-in relays to control central locking systems. The system is programmable to operate standard electric or vacuum systems.

\* Certain vehicles may require additional parts to enable the correct use of this feature. These parts are not included in this system. Kits are available to convert vehicles with manual door locks to electric operation.

### **ENGINE IMMOBILISER**

This security system is equipped with a built-in engine immobiliser to prevent engine starting when the system has been armed by the remote control or by the programmable automatic last door arming feature. The authorised installer of this product should have advised you which circuit has been immobilised. A typical circuit to immobilise would be the starter motor, ignition coil or electric fuel pump.

### **ARMING**

Before arming the system, turn off and remove the keys from the ignition. Close all windows and doors. Check that the bonnet and boot are also closed.

The system is armed by depressing the right-hand remote button, marked with a locked padlock symbol, momentarily (approx. 1.5 seconds). It is important to press the button for the recommended time as a shorter duration may not activate the system. Verify that the small red LED on the remote illuminates. If it does not light, the battery may need changing.

You will notice the indicators flash once and the siren chirps once to indicate that the system is armed. The dash mounted warning light, LED, will slow flash to indicate armed mode.

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.

### **DISARMING - 2 STAGE**

To disarm, press the left-hand remote control button, marked with an unlocked padlock symbol. The siren will chirp twice and the indicators will flash twice. The doors will unlock if this system has been connected to the vehicles central locking system. 2 STAGE: If the alarm is sounding, the first press stops the siren, a further press disarms the system.

### **VEHICLE 'LIGHTS ON' WARNING WHEN ARMING THE SYSTEM**

If the vehicles lights are 'ON' when you arm the alarm, the siren will emit a warning sound before the arm chirp.

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

The system can be programmed to arm automatically 20 seconds after closing the last door (or bonnet or boot). Opening a door within 20 seconds will suspend the countdown and recommence on door closure.

### **DOORS, BONNET AND BOOT PROTECTION**

The siren will sound and the indicators will flash for 30 seconds should any of these be opened when the system is armed. The system requires your vehicle to be fitted with courtesy door light switches. Fitting door switches will incur extra costs if not standard in your vehicle.

### **IMPACT SENSOR - 2 STAGE**

The sensor is designed to detect major vehicle movement (sharp shock) such as impact, vehicle towing causing shock, or violent glass breakage. It may also be triggered by shock waves produced from loud exhausts, thunder and heavy vehicle traffic. It should not be triggered by normal wind or rocking motions. If the sensor receives a light impact the siren fast chirps for a few seconds. It sounds fully for 20 seconds if it detects a heavy impact.

The sensitivity level is set by the installer and should be at its optimum. Over sensitivity can cause false alarms.

***The shock sensor will not sound the siren if it has been bypassed by the remote.***

### **SHOCK SENSOR BYPASS**

The shock sensor can be bypassed to prevent false alarms. Arm the system by pressing the right-hand button and within 5 seconds press the same button again.

**SILENT ARMING**

Press both buttons to silently arm the system without the siren chirps. Disarming is then automatically silent.

**AUTOMATIC RE-SET**

The siren will sound for 5 to 30 seconds, depending on the circuit triggered, after which it will stop and reset to the armed position. It will then re-trigger on the next intrusion or if a circuit was left open.

**PANIC**

In the event of personal attack, the alarm can be 'panicked' for 6 seconds by pressing the right-hand remote control button for more than 2 seconds. Holding down the remote button causes the panic to be continuous. Panic mode does not operate with the ignition on or if the system is disarmed.

**ELECTRONIC SIREN (M20S has a battery back-up siren)**

This is mounted under the bonnet and must be situated in a place to protect it from heat and water damage such as driving through deep water or engine cleaning. If washing the engine bay, cover the siren with a plastic bag to prevent damage. Heat or water damage is not covered by the warranty.

**INDICATORS LIGHTS FLASHING**

When the siren sounds, the indicators flash simultaneously. If 'shorted', the siren continues to sound. The indicators will also flash on arming and disarming the system.

**ARM CONDITION MEMORY**

Should the vehicle battery be disconnected, the system memorises the last set position of the alarm. If the alarm was disarmed, reconnection does not cause the alarm to sound. If the battery was disconnected whilst armed, reconnection will cause the system to trigger. To cancel, disarm with the remote control. (Vehicle battery disconnection will cause the optional battery back-up siren to sound - this is turned off at the siren with the special key provided)

### INDICATOR FLASH CONFIRMATION / CODES

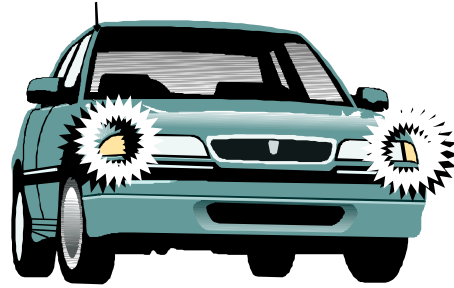
This is a visual indication of system status.

- A) 1 Flash - Armed
- B) 2 Flash - Disarmed

### CHIRP CONFIRMATION / CODES

This is an audible indication of system status.

- A) 1 Chirp - Armed
- B) 2 Chirps - Disarmed
- C) 3 Chirps - Door, bonnet & boot open when arming
- D) 4 Chirps - Disarm and indicates the alarm has been triggered
- E) Fast chirps - Light impact detected by the shock sensor



### DASH MOUNTED WARNING LIGHT - LIGHT EMITTING DIODE (LED)

Located on or near the dashboard area, the LED is a small red flashing light that indicates the vehicle is fitted with a security system. The LED also tells the status of the alarm;

- A) Slow flashing - System armed
- B) Fast flashing - Automatic last door arming countdown
- B) LED off - System off
- C) Continuously lit - Valet mode
- D) 1 flash, 1 pause - Door, bonnet or boot triggered
- E) 2 flash, 1 pause - Sensor triggered
- F) 3 flash, 1 pause - Ignition triggered



If you disarm the alarm and hear 4 chirps, the alarm has been triggered. By reading the flash codes above, you can determine which circuit has been triggered.

## **SIREN SOUNDS**

- A) Continuous - Door activation
- B) Slow intermittent - Sensor triggered
- C) Fast intermittent - Ignition triggered
- D) 'Whoop-whoop' – Vehicle lights are on when arming

## **EMERGENCY OVERRIDE SWITCH - Ensure you know the location of this.**

At the time of installation, a hidden push button switch was fitted under the dashboard.

If the alarm fails to respond to the remote control, or you have misplaced it, you can override the alarm as follows;

- 1) Open the door with the ignition key - the siren will sound and the indicators will flash
- 2) Turn on the ignition
- 3) Press the override push button once - this will cancel the alarm sounding and override the system.

## **VALET MODE - LED PERMANENTLY LIT**

To turn off the alarm system, turn the ignition on and press the override switch 3 times. **LED will stay lit to indicate valet mode.** Repeat to turn the system back on. The remote will only operate the central locking whilst in valet mode (if connected).

## **SECURITY RE-ARM (& RE-LOCK)**

The alarm will automatically re-arm if it has been disarmed by remote but the doors have not been opened within 20 seconds. Doors also re-lock if central locking connected.

**(This feature may not be operative if your vehicle has dome light supervision or is enabled by this product)**

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

If the system has been connected to a vehicle with central locking, the doors will lock 20 seconds after ignition 'on' and unlock with ignition 'off'. If a door is left open during engine starting, the safety door lock feature will be inoperative when the door is closed.



### **ROLLING CODE REMOTE CONTROLS**

The security code of your alarm system changes each time you press the remote button. This coding system is completely random therefore eliminating the possibility of 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.

### **REMOTE CODE LEARNING**

The main alarm module has a learning capacity to memorise the remote controls programmed into it. The two remote controls supplied have different ID codes to each other, much like the PIN number on a credit card except that the ID code also has an additional 'rolling code' giving billions of code combinations.

If you wish to add further remotes, or a remote has to be replaced, the new remote needs to be memorised by the alarm system.

If you have lost a remote and are fearful that someone may try to use it, the lost remote can be deleted from memory to make the lost remote inactive.

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

### **TO MEMORISE A NEW REMOTE:**

- a) Disarm the system by remote or the override method described on the previous page.
- b) Turn on the ignition so the dashboard warning lights are on.
- c) Press the override switch for 5 seconds until the siren chirps 5 times to indicated learning mode.
- d) Press any button on any existing remote. Siren chirps once indicating it has memorised the first remote.
- e) Then press any button on any other remote, the siren chips twice as confirmation.

This procedure can be repeated for up to 4 remotes. Leave the system for 10 seconds and the learning mode is completed.

***When memorising a remote(s), any previous remotes are erased from memory.***

### **DEFECTIVE ZONE BYPASS**

If any door, the bonnet or boot has been left open when arming, the siren will emit a warning. The open circuit will then be bypassed. The alarm will re-arm an open circuit when it is closed.

### **SECURITY OPTIONS** - ask your installer for more details

#### **DOME LIGHT SUPERVISION (Optional)**

The system provides the facility for dome light supervision. Upon disarming, the interior light will illuminate for 30 seconds which is cancelled upon ignition on. The interior light will also flash during an intrusion.

NOTE: The fitting of this option may make the 'security re-arm (& re-lock)' feature inoperative.

#### **BATTERY BACK-UP SIREN (Standard on M20S – OPTIONAL on M20)**

In place of the standard siren, a battery back-up version gives added protection against unlawful disconnection of the vehicles battery or power connection to the siren. Any attempt to do so will trigger the sirens own battery back-up. The only way to cancel this is with the special key supplied as it is designed to sound continuously.

#### **ULTRASONIC SENSOR (optional)**

An ultrasonic sensor fills 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.

#### **MICROWAVE SENSOR (optional)**

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.

## **TESTING YOUR ALARM**

We strongly recommend that you test your alarm frequently. It takes only a short time and is very important to maximise the protection of your vehicle.

### 1. Arm the system.

Without disarming the system, just unlock the door with the ignition key and open the door. The alarm should sound and the indicators flash. Check all the other doors, bonnet and boot by the same procedure.

### 2. Engine immobiliser.

Open the drivers window. Arm the alarm. Without opening a door, reach in and try to start the engine. It should not start.

### 3. Shock sensor.

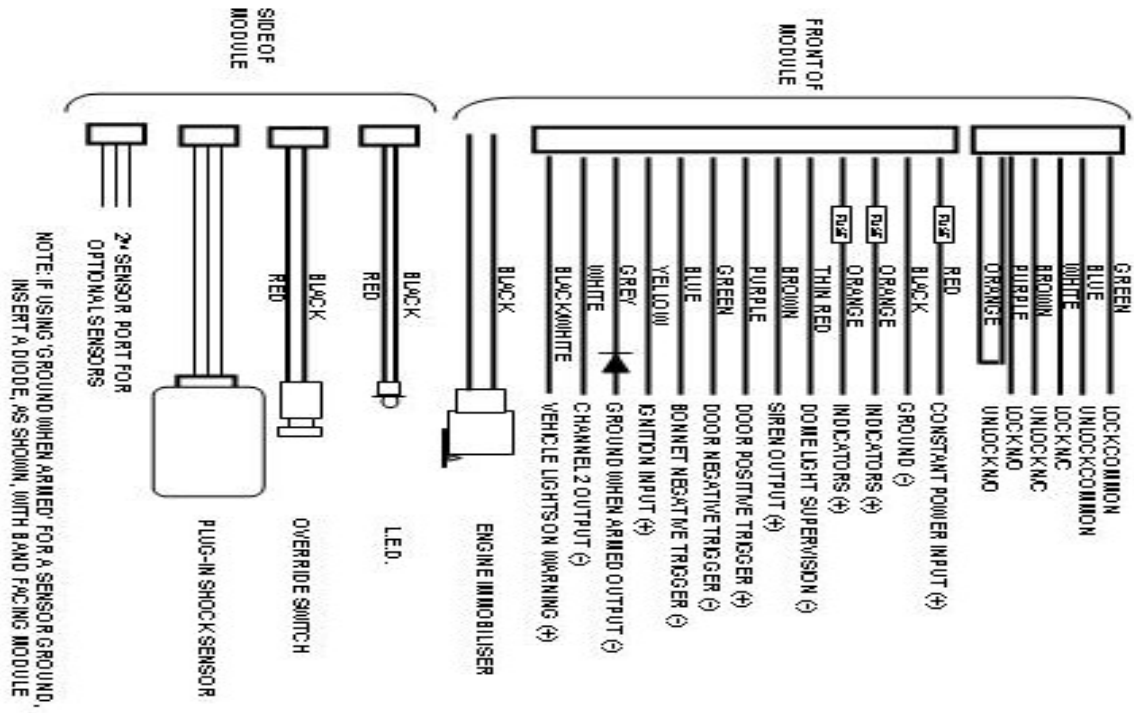
Arm the system. Check the shock sensor by giving the vehicle varying degrees of impact. The degree of force required to trigger the shock sensor should have been set at the time of installation. If it is adjusted too lightly, the siren will sound with only a light shock and cause too many false alarms. Adjusted too heavily and the sensor may not be triggered. The adjustment is therefore critical and we suggest you see your installer who can adjust it for your particular vehicle or your for your preference.

### 4. Remote controls.

Every care should be taken as the remote controls supplied are used to operate the system. Do not get them wet, drop them on a hard surface or tamper with the internals. To ensure correct operation at all times, replace the battery with an 12v23a from your Mongoose dealer or electronic supply shop every 12 months.

Please contact your Mongoose dealer, installer or re-seller should you have any difficulty in the use of this product.

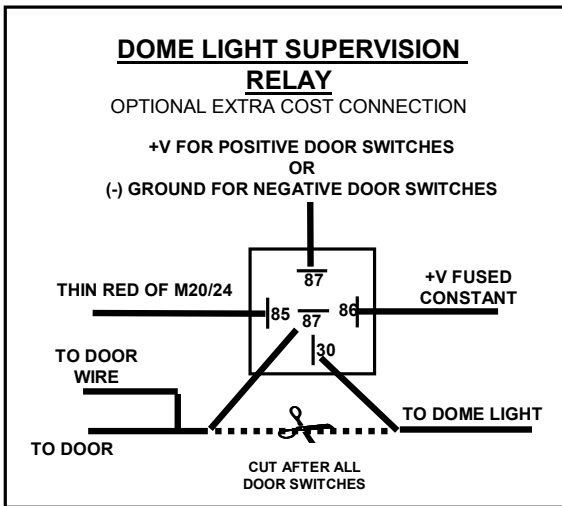
Installation to be carried out by suitably qualified persons.



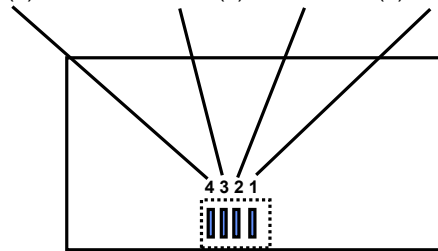
WARNING: M24 is for 24 volt vehicles only. Only use 24 volt accessories, eg: sensors, door motors, etc.

**WIRING INFORMATION: Installation to be carried out by suitably qualified persons.**

M20S siren is multi-purpose. Use BLUE trigger wire for M20 and cut and insulate the PURPLE  
 RED = +12v BLACK = ground BLUE = negative trigger PURPLE = positive trigger



NSW SIREN (4) - AUTO ARMING (3) - IGN LOCK (2) - CDL PULSE (1)



<b>1</b>	W / JUMPER	0.5 SEC CDL OUTPUT (DEFAULT)
	OPEN	3.0 SEC CDL OUTPUT
<b>2</b>	W / JUMPER	IGNITION SAFETY DOOR LOCK
	OPEN	URNS OFF THIS FEATURE (DEFAULT)
<b>3</b>	W / JUMPER	MANUAL ARMING (DEFAULT)
	OPEN	AUTOMATIC (LAST DOOR) ARMING
<b>4</b>	W / JUMPER *	NSW SIREN TIMING
	OPEN	STANDARD SIREN TIMING (DEFAULT)

## WARRANTY CONDITIONS

Mongoose warrants that it will make good without charge, by repair or replacement with a reasonable equivalent, at Mongoose's discretion, any defect in the product, **excluding defect in installation**, submitted for claim for a period of three years from date of sale provided that;

- (a) the defect has been notified 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 according to our written instructions
- (d) provision of proof of purchase and warranty registration on request.
- (e) an authorised installation centre has determined that the defect complained of is one of workmanship and not caused by;
  - (i) misuse or abuse such as misdirected current, water or fluid damage
  - (ii) operation of alarm after it is known to be defective
  - (iii) accident or deliberate act
  - (iv) alteration or modification of the alarm, or its components, by any party not authorised by Mongoose
  - (v) the fitting of parts or accessories not supplied or approved of by Mongoose
  - (vi) any work carried out on the alarm by someone other than an authorised Mongoose installation centre
  - (vii) any consequential damage
  - (viii) **if the alarm is installed by anyone other than an approved installer a limited parts only 12 month warranty applies**

Warranty for the installation is borne by the original installing agent only. This will be chargeable if not returned to the original installer.

Whilst every care is taken by our installers in fitting the alarm, Mongoose takes no responsibility for any damage caused to a vehicle in the installation process.

Responsibility is borne by the installer and any claims directed to them.

Exclusions from this warranty are;

- (i) alarms operated outside the original country of purchase
- (ii) batteries, i.e.; as fitted to the remote controls
- (iii) normal wear and tear
- (iv) transportation of repairs or replacement parts etc. to rectification centres
- (v) faults associated with the installation
- (vi) mobile service costs for repairs
- (vii) labour costs for repairs

### **THIS WARRANTY IS ONLY TRANSFERABLE AS SET OUT BELOW**

If the vehicle is sold, the new owner receives the balance of the period between the original installation date and 3 years.

If the original owner has the system re-installed into an alternative vehicle by an authorised Mongoose installation centre, the owner receives the remaining period between the original installation date and 3 years.

Mongoose does not by inference, intent or any other means guarantee that a vehicle fitted with one of our security systems will not be stolen, broken into, tampered with, or parts taken. Vehicle security systems are deterrents and we recommend vehicle owners to have fully comprehensive insurance and to fit other security devices such as locking wheel nuts if the vehicle has expensive wheels and tyres.

**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:.....	Dealer
DATE PURCHASED:.....	
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 this on to the new owner.



**Mongoose (Australia) Pty Limited  
Sydney, Brisbane  
Mongoose (New Zealand) Limited  
Auckland**

**For service contact your Mongoose agent;**