



# **MX40 Series II**

STANDARDS CERTIFIED SEPTEMBER 2000

TO AS/NZS4601 1999

**OPERATING & INSTALLATION INSTRUCTIONS**

**DO NOT LEAVE THIS MANUAL IN YOUR VEHICLE**

## **MX40II REMOTE SECURITY**

### **BUTTON TWO ONLY**

#### **'DISARM' (& UNLOCK)**

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

#### **WHEN SIREN ADDED**

SIREN WILL CHIRP TWICE TO CONFIRM DISARMING

### **LED**

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

NOTE; THE REMOTE CONTROL IS NOT WATER RESISTANT OR PROOF. OPTIONAL WATERPROOF REMOTES ARE AVAILABLE.....PART NO' MRC200W



### **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)

#### **WHEN SIREN ADDED**

SIREN WILL CHIRP ONCE TO CONFIRM ARMING  
PRESS FOR 3 SECONDS TO 'PANIC' THE ALARM

### **BUTTON ONE & TWO TOGETHER**

#### **SILENT ARM & AUTO SILENT DISARM**

PRESS BOTH BUTTONS TO SILENTLY ARM WITH NO CHIRPS. DISARMING IS AUTOMATICALLY SILENT. ONLY APPLICABLE WHEN A SIREN IS ADDED.

#### **ARMING THE SYSTEM - BY REMOTE**

The system is armed by depressing button ONE on the remote control momentarily (approx. 1~1.5 seconds).

You will notice the park lights will flash once to indicate that the system is armed. (The optional siren will chirp once)

The dash board 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.

The system will be fully armed after approximately 5 seconds.



#### **DISARMING THE SYSTEM - BY REMOTE**

Press button TWO on the remote control to disarm the system.

The park lights will flash twice and the doors will unlock if wired to the vehicle's central locking system. (The optional siren will chirp twice) The dashboard LED will begin to fast flash to indicate the system will automatically re-arm after 30 seconds.

You must start the engine to prevent the system re-immobilising.

#### **AUTOMATIC DUAL CIRCUIT ENGINE IMMOBILISATION – 30 SECONDS AFTER IGNITION OFF**



If the system is not manually armed by the remote control the vehicle will be automatically immobilised 30 seconds after the ignition is turned off. The dash board LED will fast flash for 30 seconds to indicate the system is in this sequence. After 30 seconds the dash board LED will slow flash to indicate armed mode and the parking lights will flash once. (The optional siren will chirp once)

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

The system will automatically re-immobilise after 30 seconds if it has been disarmed by remote. Doors will also re-lock, if connected, if no door is opened within the 30 seconds. Opening a door will not prevent the engine from being automatically immobilised – the engine must be started to prevent this. For the security re-lock feature to operate, the system must have been initially set by the remote control.

#### **TRIGGER & 2 STAGE DISARM**

When armed, if a door is opened or the ignition is switched on the park lights will flash for 30 seconds (the optional siren will sound).

If the system is being triggered, press the disarm button once to cancel the lights and optional siren. Press a second time to disarm the system.

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

After the system has been triggered, it will automatically re-set to the armed position. If the parking lights flash 4 times upon disarming, this indicates the system has been triggered.

#### **ARM CONDITION MEMORY**

Should the vehicle battery be disconnected, the system memorises the last set position of the system. If the system was disarmed and the engine not immobilised prior to battery disconnection, reconnection does not immobilise the vehicle until reset by the ignition being turned ON then OFF. If the battery was disconnected whilst the system was armed, reconnection will return the system to the armed state and then immediately trigger.

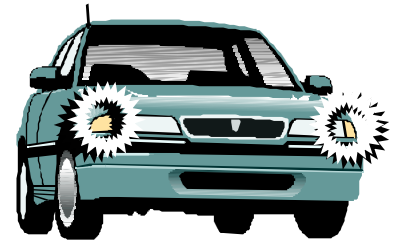
#### **PARK LIGHTS FLASHING (connection to the indicators may infringe your warranty)**

The park lights flash to confirm the arming and disarming of the system. They will also flash if the system is triggered whilst the system is armed. The park light output is fuse protected to prevent the module being shorted.

### **PARK LIGHT CONFIRMATION / CODES**

This is a visual indication of system status.

- 1 Flash - Armed by remote.
- 2 Flashes - Disarmed.
- 3 Flashes - Armed by remote with a door left open.
- 4 Flashes - Disarmed but system was triggered.
- Flashes for 30 seconds - System triggered.



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

Located on or near the dashboard area, the status LED is a small red flashing light that indicates the vehicle is fitted with a security system. This LED needs to be visible to you.

- A) Slow flashing - system armed.
- B) LED off - system disarmed.
- C) Fast flashing - 30 second immobilisation or auto re-arm countdown.



### **SYSTEM OVERRIDE – PIN CODED FACTORY PRE-SET CODE IS 1-1-1-1**

Should the remote control fail to operate the system or is lost, the system can be overridden using a unique 4 digit PIN code of your choice. You can change the PIN code at any time when the system is disarmed and how to do this is detailed later in this manual. The PIN is therefore a unique number to you and must be memorised or kept secure. Removing power does not re-set the code.

To override the security system use the following procedure.

**NOTE: During system override, the remote controls will not function.**

Assuming a PIN code of **2-3-3-4** *as an example*;

- A) Open door with the ignition key and close all doors.  
(Lights will flash and optional siren will sound)  
**The override sequence does not operate with any door open.**
- B) Turn ignition on/off - on/off - on  
LED lights for 3 seconds to signify override mode
- C) wait for the LED to flash twice for 1st digit (**2**)  
turn ignition off - LED lights solid for 2 seconds then turn ignition on
- D) wait for LED to flash the 2nd digit (**3**)  
turn ignition off - LED lights solid for 2 seconds then turn ignition on
- E) wait for LED to flash the 3rd digit (**3**)  
turn ignition off - LED lights solid for 2 seconds then turn ignition on
- F) wait for LED to flash the 4th digit (**4**)
- G) turn ignition off – LED lights solid to confirm last digit input  
Assuming the PIN code is correct, the system will now disarm and the optional siren will stop sounding and the engine may be started.

### **SYSTEM OVERRIDE - CONTINUED**

NOTE: This system will always automatically immobilise the engine each time the ignition is turned off. If either of the 2 supplied remote controls are lost or fail to operate, then this override sequence will have to be used until replacement remotes are obtained.

The PIN code programmed at the time of installation is:----->  
DO NOT LEAVE THIS MANUAL IN YOUR VEHICLE

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**IS THE VEHICLE BATTERY FLAT ? THE OVERRIDE WILL NOT OPERATE IF THE VEHICLE BATTERY IS FLAT.**

### **CHANGING THE PIN CODE NUMBER**

Your PIN code number can be changed at any time when the system is disarmed. Information on how to change the code is given in the installation section of this manual but we suggest this is carried out by an authorised Mongoose dealer.

### **WHAT HAPPENS IF I FORGET MY PIN CODE NUMBER ?**

Providing your remote controls are in working order, you can re-programme a new PIN or, visit an authorised Mongoose dealer who can re-programme a unique number for you.

WHAT HAPPENS IF I FORGET MY PIN CODE NUMBER AND HAVE LOST OR DAMAGED MY REMOTE(S) AND I CAN'T START MY VEHICLE ?

Due to the high security of this product, this system can only be deactivated by the supplied remote controls or by the PIN coded override. It is important that the PIN code is a number easily memorised by yourself and/or written down in a secure place.

If you cannot recall the PIN code, please call your local Mongoose direct during normal office hours. You will need to provide evidence that you are the vehicle owner and the serial number of the security system. Once validated, we will assist you in getting your vehicle mobile.

Roadside assistance personnel will not be able to assist you other than by rewiring the system. Any associated costs are not covered by Mongoose.

SERVICE

Should you have reason to have this security system serviced, please provide the serial number of this system.

NOTE: The serial number is not the PIN code.

DO NOT DISCLOSE YOUR PIN CODE NUMBER TO ANYONE.

Write your serial number here:-



## **INSTALLATION**

The installation of this product must comply with the AS/NZS 3749.2 -1997 Standard or any updated versions. Copies of the relative Standards are available from the Standards offices.

**IMPORTANT:** IF VEHICLE IS EQUIPPED WITH AIR BAG SYSTEM, for personal safety and to avoid possible AIR BAG release it should be temporarily disabled. Please refer to the vehicle supplier for details. Mongoose is not responsible for the accidental triggering of vehicle airbags.

- a) Read all sections of this manual so you understand how the system operates.
- b) Inspect and identify all components of the supplied equipment.
- c) The supply of installation tools or equipment is not included.
- d) Carry out a vehicle inspection report as shown in the general Mongoose installation manual
- e) Disconnect the vehicle battery & disable any airbag.
- f) If the vehicle has a security coded radio, ensure the code is available.
- g) All connections are to " FLOW SOLDERED" and insulated. The use of snap lock connectors is not permitted. All wires are to be *taped & loomed*.
- h) It is recommended that the main +12v is not connected whilst wiring and soldering the other connections to avoid misdirected electrical current or any other energy which may interfere with the module's or vehicle's electronics.
- i) The cables supplied are black in colour with removable labels identifying the wire function. To ensure this product conforms to the Standards, these tags are to be removed during or at the completion of the installation.

## **COMPONENT LOCATION**

### **SIREN ASSEMBLY (OPTIONAL PART)**

Select a suitable location for the siren assembly under the bonnet, away from sources of extreme heat and possible water damage. Select a location that will allow a direct sound path towards the ground for maximum sound dispersion. In most cases the fire-wall area or one of the front suspension strut housings are suitable locations. Establish what is behind the chosen location to ensure hidden vehicle parts are not interfered with. Once the location has been established place the siren mounting bracket and mark and drill three (3) x 1.5mm holes. Fit the siren bracket and the siren to the bracket.

### **DASH BOARD WARNING LIGHT - LED**

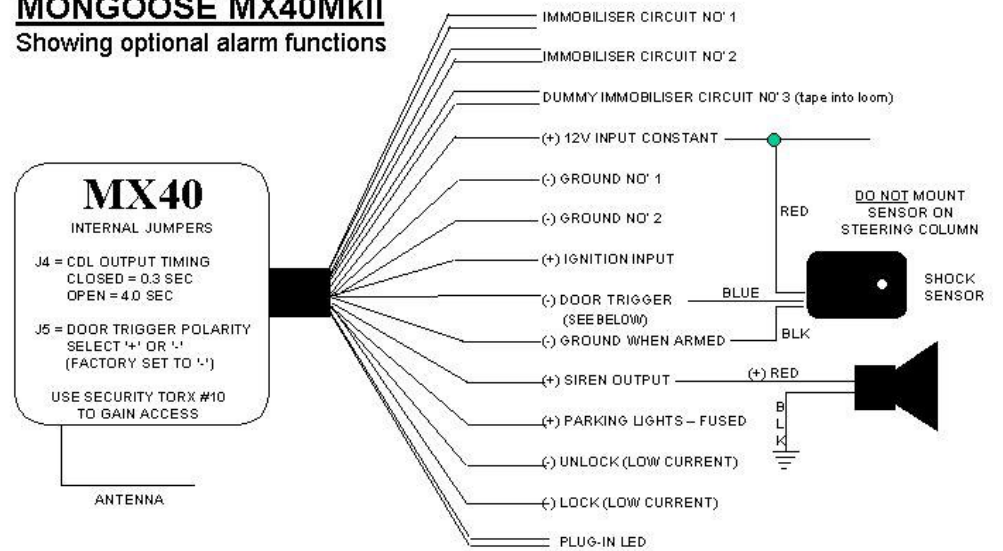
The LED (Light Emitting Diode) is usually installed in an area which is visible from most angles outside the vehicle and to the driver. The LED is a surface mount type with a self adhesive pad and is suitable for mounting virtually anywhere. Once this area has been selected, clean the area surface with alcohol or solvent and attach. Route the cable securely to where the module will be located.

### **MAIN MODULE – MUST BE CONCEALED FROM VIEW AND TAMPERING**

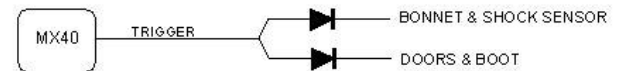
It is required that the main module is located in a position to make unauthorised access difficult. This is the key to effective security. It is recommended to check where the module will finally be located before it is secured. Once this has been established the installation may be proceeded with. Do not locate near vehicle computers or other similar electronic components as they may affect the performance of this product.

## MONGOOSE MX40MkII

Showing optional alarm functions



NOTE: THE MX40 HAS ONLY ONE TRIGGER INPUT FOR BONNET, BOOT, DOORS AND SHOCK SENSOR. CONNECT THE BOOT SWITCH TO A REAR DOOR AND ADD DIODES SUPPLIED AS SHOWN.



## **WIRING**

DO NOT CONNECT THE MAIN +12V POWER SUPPLY PRIOR TO WIRING AND SOLDERING THE OTHER CONNECTIONS.

### **SIREN ASSEMBLY (OPTIONAL – NOT SUPPLIED)**

- a) Secure a ring terminal on the black wire of the siren to chassis (ground). Use a serrated washer and screw to ensure a good grounding. **It is recommended to use a separate grounding screw and NOT one of the siren bracket screws as the grounding point.**
- b) Route the red (+12v) siren wire cable through a firewall rubber grommet at the shortest and most convenient point. Where the cable passes through the firewall it must be insulated by the rubber grommet.
- c) Where possible route and loom the wire alongside factory wiring and secure with cable ties.
- d) Once inside the vehicle, route and secure this wire to where the main module will be located.

### **ANTENNA - BLACK (THIN WIRE AT MODULE)**

This is the module receiver's antenna **DO NOT GROUND THIS WIRE!!** Let it "hang" free under the dash, but not exposed. Keep away from magnetic objects such as loud speakers or vehicle computers as it can reduce the range of the remote. **Do not coil or wrap around other cables.**

### **DASH MOUNTED LED**

The LED must be mounted in such a position that it can be seen by the driver and from both sides from outside the vehicle.

### **MAIN MODULE**

The main module has concealed plugs with only black wires emitting from it. The wires are labeled for the function;

- 1 (+) 12V OUTPUT TO PARKING LIGHTS
- 2 DOOR TRIGGER ('+' OR '-' SELECTABLE BY JUMPER J5. FACTORY SET TO '-')
- 3 (-) NEGATIVE GROUND
- 4 (+) 12V FUSED CONSTANT POWER
- 5 (+) 12V IGNITION INPUT WIRE (ALSO +12V BACK-UP FOR IMMOBILISATION)
- 6 (-) GROUND WHEN ARMED
- 7 (-) LOCK, LOW CURRENT (0.3 SEC PULSE – OPEN JUMPER J5 FOR 4.0 SEC)
- 8 (-) UNLOCK, LOW CURRENT (0.3 SEC PULSE – OPEN JUMPER J5 FOR 4.0 SEC)
- 9 (+) OPTIONAL SIREN OUTPUT
- 10 IMMOBILISER CIRCUIT NO' 1 (BLACK TAPED TOGETHER)
- 11 IMMOBILISER CIRCUIT NO' 2 (BLACK TAPED TOGETHER)
- 12 DUMMY IMMOBILISER CIRCUIT NO' 3 (CLEAR TAPED TOGETHER)
- 13 LED

#### **GROUND – 2 WIRES (-)**

Two ground (-) wires are provided, connect these via ring terminals to two separate ground points ensuring a good metal to metal contact. Do not connect the ground wires together.

#### **IMMOBILISER WIRES – EACH 15AMP CONTINUOUS**

There are 2 automatic engine immobiliser circuits. The relays are of the normally open type. The only time they maintain continuity is when the system is powered and the ignition is turned on. At all other times, the engine circuits are immobilised.

It is suggested that these circuits be used to interrupt the starter motor and low tension ignition or any other suitable disabling circuits such as electric fuel pump. We do not recommend interrupting the computer circuits. It is recommended that the vehicle owner is informed which circuits have been interrupted.

**Verify the continuous current draw of each circuit is within the capacity of this product.**

Two dummy immobiliser wires are provided and have no function other than to deceive illegal tampering. DO NOT CUT OFF OR CONNECT ANYTHING TO THESE. Loom these wires into the main wiring loom so they appear to be part of the system.

#### **POWER SUPPLY +12v FUSED**

The power supply must be taken from a permanent 12v FUSED supply and should be connected last.

Not suitable for 24v systems unless a reducing transformer is being used.

#### **IGNITION WIRE (+)**

It is imperative that the ignition wire is connected to receive 12v when in the engine run and the crank position of the ignition switch. The ignition input is also a back-up power supply to the main power supply. Ensure this connection is secure.

#### **PARK LIGHTS (+)**

The MX40II is designed to flash the parking lights, not the indicators. This wire is fuse protected to prevent shorting. Connecting to the indicators may overload the circuit and voids warranty.

#### **DOOR TRIGGER – (Change jumper J5 for ‘+’ or ‘-’ input - factory set to (-) negative)**

Connect this wire to a common door switch so that it receives a ground signal regardless of which door is opened. Any other triggers may be connected at this point (bonnet, boot, shock sensor). In this configuration, and when the optional siren is installed, a ground signal will cause the siren to sound.

#### **GROUND WHEN ARMED (-)**

This wires provides a ground signal when the system is armed. This may be used for a third immobiliser relay.

#### **CENTRAL LOCKING (-) LOCK / UNLOCK (Jumper J4 controls timing)**

The MX40II has low current lock and unlock central locking outputs. Additional components may be required depending on the type of vehicle and/or its' central locking. Please refer to the Mongoose installation manual for further details.

**(Factory set at 0.3 sec pulse. Remove jumper J4 for 4.0 second pulse)**

### **OVERRIDE PIN CODE PROGRAMMING**

The PIN code is programmable to any 4 digit number. **The factory default is 1-1-1-1.** This must be changed to a number the vehicle owner can easily remember. It is recommended that installers do not keep any record of the vehicle owners PIN code. Write the PIN code in the space provided earlier in this manual. INFORM THE VEHICLE OWNER TO MEMORISE THE CODE NUMBER.

- 1 Disarm the system using the remote control.
- 2 Disconnect the power feed *and the central locking connections* to this system for 10 seconds and then reconnect.
- 3 Within 10 seconds of reconnecting the power, turn the ignition ON then OFF.
- 4 Open & close the door 5 times and leave closed.  
The optional siren will give one long chirp and the park lights will stay on to show learning mode.  
If the code is, for example, 2-3-3-4
- 5 Turn ignition ON.  
The LED lights for 3 seconds to show the start of the learning sequence. The LED will then start to slow flash.
- 6 Allow the LED to flash twice for the first digit (2), then turn ignition OFF.  
The LED will light for 2 seconds to confirm 1<sup>st</sup> digit input.
- 7 Turn the ignition ON and the LED starts to slow flash again.
- 8 Repeat steps 6 & 7 for the 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> digits.
- 9 After the 4<sup>th</sup> digit is accepted the programme learning will cease.  
(Turning ON the ignition & opening a door will also cancel this learning mode)  
ARM THE SYSTEM AND TEST THE OVERRIDE PIN CODE FOR CORRECT OPERATION.



### **TESTING SYSTEM OPERATION**

After all the connections have been made and checked for correct connection, re-connect the battery. If the parking lights flash press Button ONE on the remote control to cancel.

***Now follow the operator instructions and test all features.***

### **COMPLETING THE INSTALLATION**

Once all the testing procedures for the system have been carried out and are satisfactory, secure the main module to the predetermined area under the dash. Re-connect the AIR BAG system (if vehicle is equipped). Re-code the radio if the vehicle battery was disconnected. "Tidy-up" the looms, replace all steering column covers, "kick" panels, door trims etc. apply the window stickers and clean the vehicle.

It is advisable to test all the vehicle's circuits, (lights, wipers, radio, indicators etc) in case any wires were disturbed during the installation of this product.

### **TO LEARN NEW REMOTE CONTROLS**

If optional siren is not installed, connect a test light or multi-meter to the siren output wire.

Disarm by remote or use the override & turn the ignition on with doors closed.

Open & close the drivers door 5 times to enter learning mode – door remains closed at completion.

Test light (or siren) flashes 5 times – signifies learning mode.

Any remote, including any existing, must be memorised at this time. Press remote button ONE on the first remote and then the ONE button on any subsequent remote (one after the other) - learns up to 4 remotes. Learning only one erases all previous memory. Turn off ignition to complete the sequence.



**Mongoose (Australia) Pty Limited  
Sydney, Melbourne, Brisbane  
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