

FIRST LINE OF DEFENCE

M60

Version 4

INSTALLATION INSTRUCTIONS

Compatible with: M60 Ultimate, M60V5

Packs Limited
Infotel

Alarm Dialler

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Safety Information



Electrical Safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the M60.
- When adding or removing circuit boards other than the SIM/Config card from the system, ensure that the mains power has been switched off.
- Before removing the LIM board from the M60 ensure all power has been removed, including the battery back-up.
- Seek professional assistance before using an adaptor or extension cord. These devices could interrupt the grounding circuit.
- If the power supply/input board has been damaged, do not try to fix it yourself. Contact a qualified service technician from Packs Infotel.

Operation Safety

- Before using the M60, ensure all cables are correctly connected and the power cable is not damaged. If you detect any damage, contact Packs infotel or a Packs Infotel qualified service technician.
- To avoid short circuits, keep paper clips, screws and other conductive materials away from connectors, slots, sockets and circuitry.
- Your M60 should only be used in environments with an ambient temperature between 0°C and 40°C.
- If the battery is hot, damaged, or swollen, immediately disconnect the battery and contact Packs Infotel for a replacement.

About this guide

This user guide contains the information you need when operating and configuring the M60.

Where to find more information

Refer to the following sources for additional information and for product and software updates.

1. **Packs Infotel website.** The Packs infotel website, specifically set-up for your M60 (www.myM60.com) which provides updated information on hardware and software products.
2. **Optional documentation.** Your M60 may include optional documentation, such as flyers, or additional assistance for managing the operation or installation of the M60.

Conventions used in this Guide

To ensure that you perform certain tasks properly, take note of the following symbols used throughout this manual.



CAUTION: Information to prevent damage to the components and injuries to yourself when trying to complete a task.



IMPORTANT: Instructions that you **MUST** follow to complete a task.



NOTE: Tips and additional information to help you complete a task.

Preparations



Recommended tools

You will need the following tools to correctly install the M60.

- 3 Raw plugs capable of accepting a 5 mm screw.
- 3 Phillips Screws of 5 mm for mounting the M60.
- 1 Slotted screw driver.
- 1 Electrical wire cutters.
- 1 Phillips Screwdriver for use with 5 mm screws
- 1 Spirit level.



- We would recommend the use of a magnetic Phillips screw driver to aid in the mounting of the M60 box.

Find a location for the M60 where viewing of the display and alarm indicators is comfortable and practical for the end user. A recommended height would be between 1.5 to 1.83 metres from the floor level.

Allow adequate room for the M60 case door to open freely without the risk of damaging the M60 case door.

The M60 case is rated with an Ingress Protection of IP65. Therefore the M60 case is rated as:



- An IP65 rated enclosure gives protection against low pressure water jets from any direction, as well as condensation and water spray. It's suitable for most outdoor enclosures that won't encounter extreme weather such as flooding.

Maintaining IP65 Rating



-
- The IP65 rating will drop if the wrong size of cable are fitted through the glands.
-

If the installer is using cable that is smaller than the gland hole (5-12 mm) and the IP65 rating is still required due to being installed in a dusty and or damp environment, then ensure that any space around the cable and gland hole is filled appropriately.

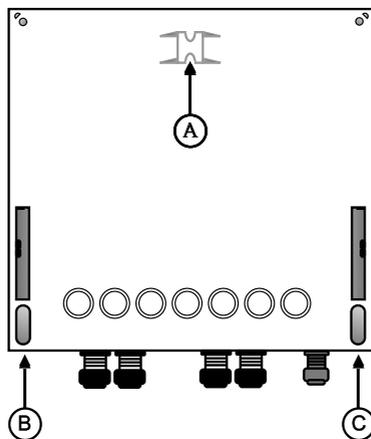
Mounting the M60

How to mount the M60

1. Figure 2 Shows the reverse side of the M60 case. The diagram shows where the 5mm screws for mounting the M60 need to be placed.
2. Install Screw 'A' in the correct position ready to hang the M60 by the mounting slot shown in figure 2. Continue to adjust screw 'A', until the M60 fits snugly to the wall.
3. Use a Spirit level to correctly align the M60 on the wall.
4. Remove the front panel to the M60 to get access to the mounting holes for screws 'B' and 'C'. Mark the wall in the centre of the slots to allow for some adjustment, and drills holes for the appropriate Raw plugs.
5. Align the M60 to the holes 'A' and 'B', and install the 5mm screws supplied.



- Magnetic tipped screwdrivers will make this job easier.



Connecting the Mains



Mains installation

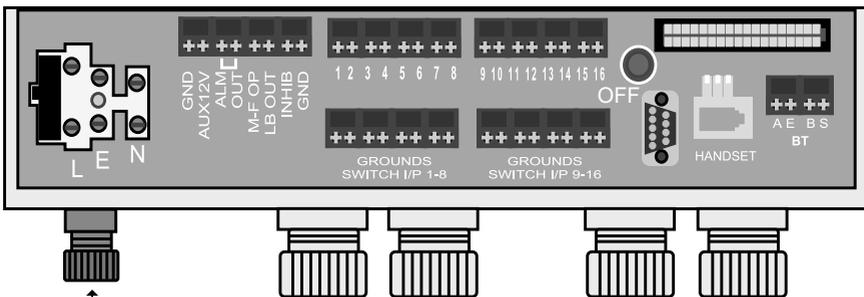


- If you are unsure how to wire to the electrical mains, please seek the help of a qualified electrician.



- It is recommend that the M60 is hard wired to the electrical mains rather than using a plug, this will remove the possibility of accidental disconnection of the M60.

Remove the front panel/termination plate, to reveal the various connections to the M60. The front panel has the key isolate switch installed, and requires two screws to be undone, to gain access to the connections.



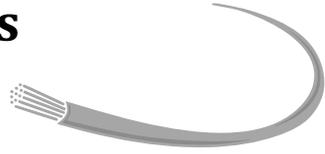
Connect the mains here

L=Live (Normally Brown) N=Neutral (Normally Blue) E=Earth (Normally Green)



- The M60 **MUST** be connected to a good quality mains earth.

Wiring Inputs/Sensors



Wiring digital inputs

The M60 can accept either 4,8, or 16 inputs depending upon the Model purchased. Additional channels can be added with the addition of the ADE (Analogue/Digital Expander). With an ADE connected the M60 can have up to 56 digital channels or 4 Analogue channels. For further information on the ADE module please contact us either by telephone or Email: info@packsinfortel.com



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- All digital inputs to the M60 **MUST** be Volt-Free, under no circumstances should any voltage be connected to the M60 inputs, doing so could cause **SERIOUS** damage to the system.
-

If you have a device you wish the M60 to monitor that has a voltage output then a relay **MUST** be used to supply a volt-free contact.

Making a connection

The M60 can accept both Normally Open or Normally Closed contacts.

The M60 is supplied with all inputs configured for Normally Open alarms. This is done purely so that when the M60 is switched on the Installer is not inundated with alarms before making the necessary connections.



-
- We would recommend where possible to wire all inputs as Normally Closed, the reason for this is, if any of the cores on the cable are broken then the M60 will generate an alarm, whereas the opposite would not.
-

To see how to wire each input/sensor to the M60 please look at Figure 3

Wiring the M60 Inputs

Connecting the inputs

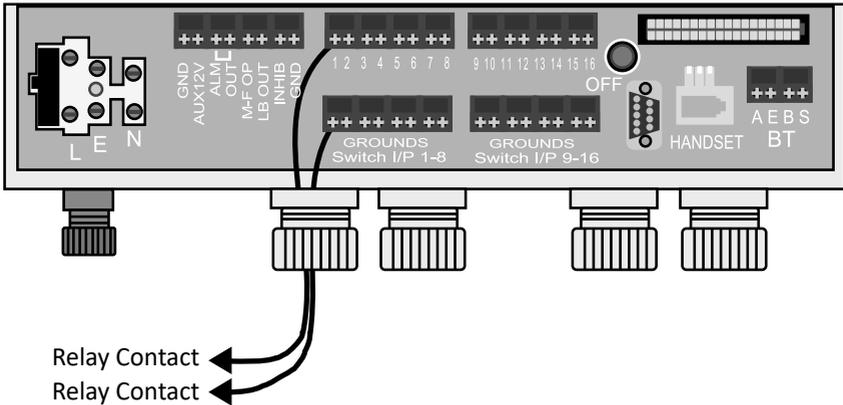


Figure 3 below shows how to wire external equipment to be monitored in channel 1 (input 1).

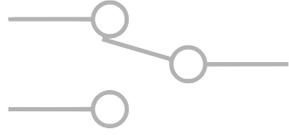
Since there is no voltage on the relay contacts the wires could be connected either way around.

Do the same for all other channels.

Figure 3. How to connect an Input



Altering the input type



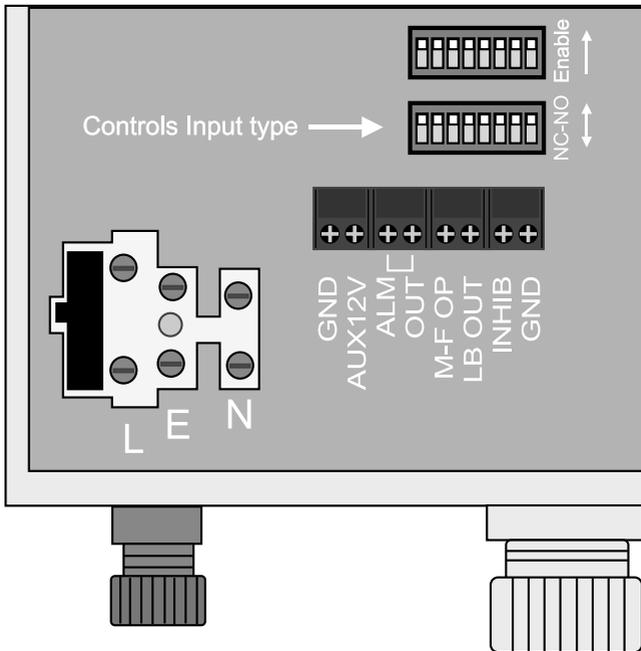
Setting for open or closed inputs

Shown in Figure 4 below is the location of the DIL switch that defines the input type for Channels 1-8 (i.e. Normally Open abbreviated as N/O, or Normally Closed abbreviated as N/C).

To change any Channel/Input to Normally Closed simply move the appropriate switch down. (e.g. if channel 1,2 and 3 are Normally Closed, then move switch's 1,2 and 3 down).

For channels 9-16, use the same process as above with the second DIL switch located directly to the right of the DIL switch shown in Figure 4.

Figure 4 (Location on M60 circuit board for Channels 1-8 input type)



Controlling Inputs



Enabling/Disabling Inputs

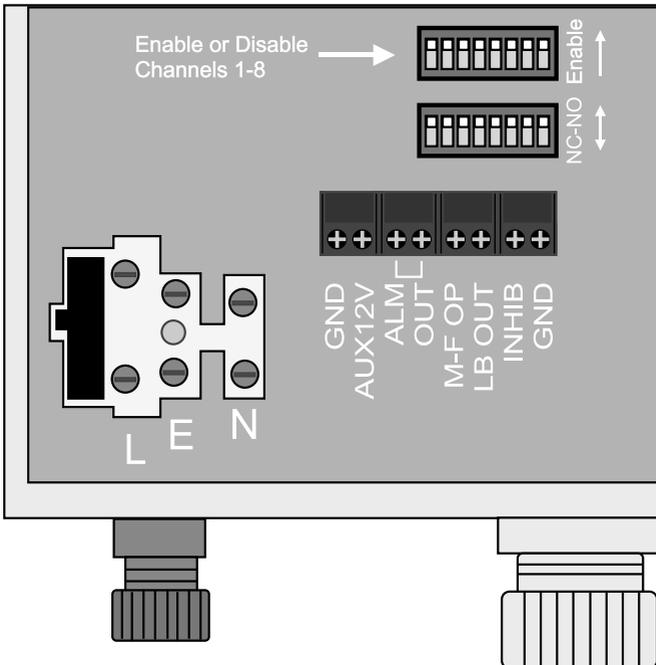
Any input/channel(s) on the M60 can be disabled so as not to activate in the event of an alarm.

The DIL switch responsible for controlling whether Channels 1-8 are enabled or not is shown in Figure 5 (Note: All the DIL switches are shown in the default Enabled position).

To disable a channel simply move the appropriate DIL Switch Down.

The DIL switch responsible for Enabling/Disabling Channels 9-16 can be found directly to the right on the circuit board.

Figure 5. Enabling & Disabling Inputs/Channels



Wiring the phone line



Connecting the M60 phone line

The terminal Block on the M60 responsible for connecting to the telephone line, *GSM unit, or *VOIP ATA Adapter is shown in Figure 6.

Only two wires are required to be fitted between the M60 and the telephone line. We recommend that the installer hard wires the M60 to the telephone block to remove any chance of being accidentally unplugged.

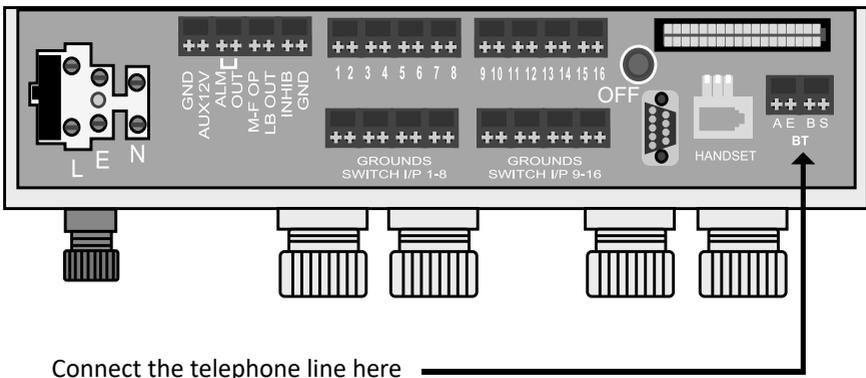
Using appropriate 2 pair telephone cable connect Blue/White in to the terminal marked A, then connect White/Blue in to the terminal marked B on the M60.

Open the telephone socket that the M60 will be using and connect Blue/White into terminal 2, then connect White/Blue in to terminal 5.

Depending upon the type of telephone socket, the use of an IDC Insertion tool may be required.

**Sold Separately please contact us for pricing and details.*

Figure 6

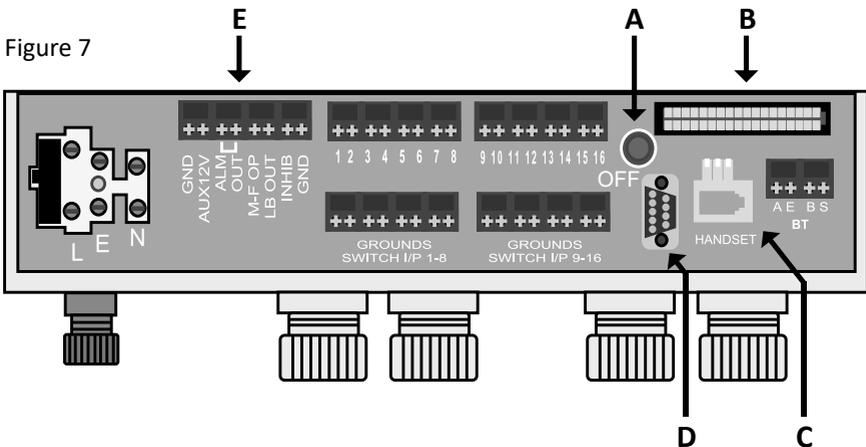


Additional Information

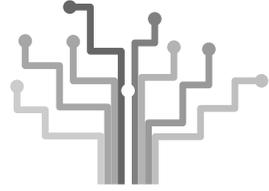


Additional Features on the M60 board

- A. Push button Power off. The M60 uses a rechargeable battery so that normal functions can continue in the event of a mains failure. Therefore simply removing the mains power to the M60 will not switch off the M60. To switch all power to the M60 off including the battery, the **push button** MUST be depressed for approximately 1 second.
- B. LIM (Line Interface Module) Socket. The LIM board interfaces the M60 with the telephone socket. A lightning arrestor is fitted as standard. If the installer chooses to remove the LIM board for easier access whilst wiring the M60, remember to place the LIM board back in the socket with the components facing down towards the ground.
- C. Telephone Handset Connection, used for recording messages in to the M60 (see M60 Operating instructions for more details).
- D. RS232 Output. For Packs Infotel engineers only.
- E. Multi-function terminal block. (See additional functions for more).



Multi-function Terminal

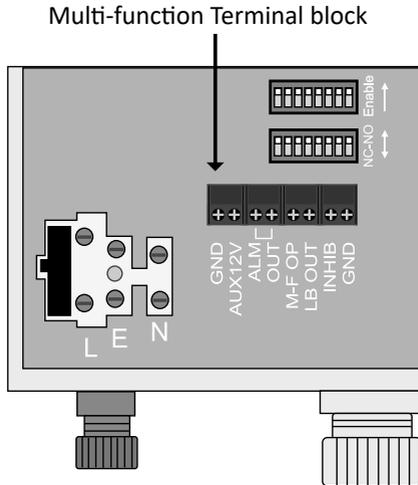


Additional functions

Figure 8 below shows the location of the Multi-Function terminal block.

The Multi-function terminal block has eight (8) connections, that for explanatory reasons shall be number 1 to 8 with connection 1 on the left, and 8 on the right.

Figure 8



1. GND Ground (Mains earth)
2. AUX 12V Auxiliary Output 12V with a Maximum load of 150mA.



- Do NOT exceed the Maximum load of 150mA on the 'AUX 12V' Doing so may damage the M60.

3. ALM OUT Connections 3 & 4 on the Multi-function terminal are the 'Alarm Output' contacts. These contacts are normally open when there are no active alarms. In the event of an active alarm(s) the 'Alarm Output' will close during the Alarm delay period. Once the Alarm delay has finished the contacts will revert to normally open.



- The maximum contact rating for the ALM OUT contacts is 1.5A. Exceeding the rating will damage the M60.
-

5. M-F OP Mains failure output. Connect a wire from this terminal to any of the spare M60 alarm channels to generate an Alarm in the event of a mains failure.
6. LB OUT M60 Low standby Battery. Can be used to generate an alarm on the M60 in the event of a low standby battery.
7. INHIB Inhibits the M60 from dialling out or being interrogated when the contacts are closed. The M60 will normally be dispatched with a key switch on the termination plate connected to the 'inhib' connection, and the 'Gnd' connection.
8. GND Ground (Mains earth)

Contact details



How to contact us

If you need to contact us about further information on changing the software on the M30/60, or any other information regarding our Alarm diallers, accessories, replacements, or additional software updates; then please do not hesitate to use any of the following forms of communication.

Email: info@packsinfotel.com

Telephone: +44 (1344) 874114



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- Our preferred form of communication is an email, with the details of the information you require. This allows us to assign the best Engineer/Technician, or sales representative for your specific requirements.
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Thank you for choosing
Packs Infotel
Professional Alarm diallers since 1956