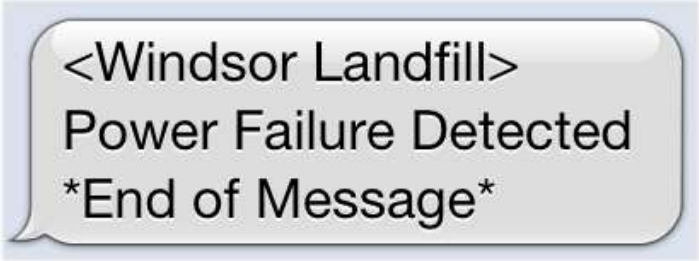
Last revision 01/2025

M60 SMS Reference Manual V7

An M60 or M30 fitted with our SMS Module fitted works exactly the same as a standard machine, but has the added facility to send SMS TEXT Messages.

Each channel/input has its own customisable SMS message; the messages are programmed by us on to the M60's CONFIG card. If you need your messages changed at any point you just need to fill in the update questionnaire and we will send you a replacement CONFIG card.
The SMS Text messages are separate from the speech messages so these will still need to be set up as per a standard machine.



How to setup your alarm phone numbers.

Setup
In order for an alarm call recipient to receive an SMS message instead of the default speech, the Call Type needs be changed in the menu to SMS Text Message.

The Call Type will need to be setup for each dial out number in every roster; this gives you the most flexibility as it allows you for example to setup dialout 1 as a speech message, dialout 2 as a SMS, dialout 3 as pager etc.

If we have pre setup your machine with your requested telephone numbers and Call Types then this process will already have been done for you and you can ignore this section of the manual.
Otherwise you will next to setup your phone numbers and Call Types as per the instructions in the Keypad Section of the operating manual.

How to Fit / Replace the SMS Module.

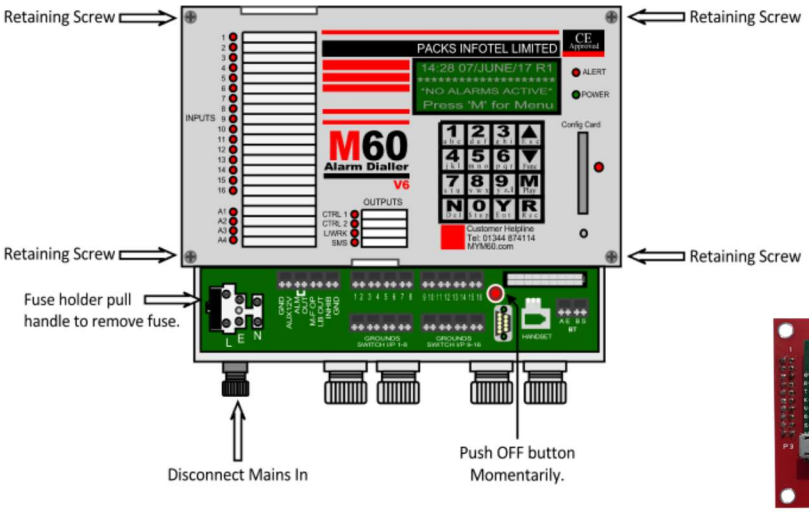


Diagram showing how to power down the M60 and remove the membrane

SMS Module

Note - You should ground yourself using a grounding strap to prevent any possible damage from static.

You will require.

- 1 SMS Module.
- 1 Small flat terminal screw driver.
- 1 Medium Cross/Phillips Screw Driver.
- Anti static bracelet – this is recommended but not essential.

How to remove power from the M60.

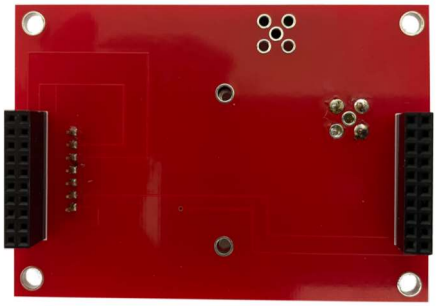
1. Turn off any incoming mains 240VAC or 110VAC supply.
2. Remove the "termination plate" where the key switch is located.
3. If a mains supply is connected (and the LCD is still displaying information) -
    a. Remove the black Fuse Holder in the grey mains terminal located on the bottom left hand side.
    b. Press the push button marked "OFF" – located on the right hand side next to the vertical line card.
    c. The M60 will now turn off.

Remove the M60 Membrane.

The LCD display should now be blank.

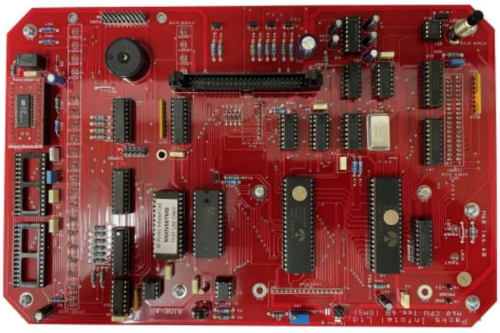
1. Undo the four retaining screws located in each corner of the main M60 CPU Membrane Panel (Where the LCD display is).
2. Carefully remove the membrane from the case, while making sure not to let it drop as there is a 50 way ribbon cable connecting the CPU to the bottom Power Supply board.
    a. Inside the main case at the top you will see the M60's white battery – follow the batteries lead and you will see a 3 way plug in terminal. Carefully pull this off.
    b. Unclip the 50 way ribbon cable from one of the boards by using the levers on each side of the socket.
    c. Remove the Config Card from the Front Slot and place to one side.
    d. Lay the CPU Membrane Panel face down (so the RED PCB is facing you) on a clean & clear surface.

Fit the SMS Module.

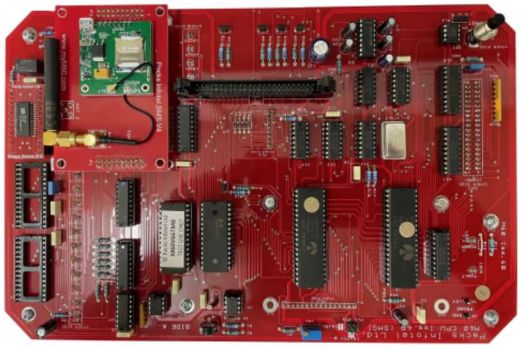


Rear of the SMS Module

Front of the SMS Module



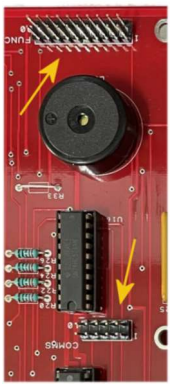
Before Fitting



After Fitting

Look at the rear of the M60 CPU Membrane panel that you have just removed, turn the panel round so the soft reset push switch is located at the top right hand corner as pictured above.

In the top left hand corner you will see 2 Male Pin strips (20 way and 10 way) marked FUNC and COMMS, this is where the SMS module is fitted.



1. Pick up your new SMS Module with the Front facing upwards.
   Antenna and the SIM card holder facing towards you.
2. Turn the SMS Module around so the Antenna is facing to the left
   with the label on the SMS Module PCB marked P3 at the top and P1 at the bottom.
3. Carefully connect the SMS Module's Female sockets onto the CPU Pins,
   So the P3 header connects to FUNC and P1 connects to COMMS.
4. Double check the SMS Module is fitted the correct way round.
5. Double check all the pins are seated correctly in the Female sockets.
6. Secure the SMS Module to the CPU with either a cable tie or nut and bolt fixing.

Caution – Please make sure that the SMS Module is fitted the correct way round and also all of the pins on the CPU are fully seated inside the sockets on the SMS Module.
Incorrect fitting will cause permanent damage to the SMS Module.

Go to the next section to check how to insert a new SIM card.

How to Insert \ Change your SIM card.

Please refer to the previous section if you need assistance dismantling the M30 / M60 or locating your SMS module.

Before starting make sure any pin code has been removed from the SIM, it has been tested to check its working and you can get reception in the proposed installation/testing location.
Note: If you are using a network coverage APP it is the 2G section is the most important for SMS.

You should also ground yourself using a grounding strap to prevent any possible damage from static.

You will require.

- 1 phone **MICRO** SIM card.
- Anti static bracelet – this is recommended but not essential.

Micro SIM

Locate the SMS Module.

Look at the rear of the M60 CPU Membrane panel that you have just removed, in the corner you will see a small piggyback module with a black stubby tube antenna.
As depicted on the right.

Insert/Replace your SIM card

1. Locate the SMS module.
    a. On the module you will see a silver rectangle, this is the SIM card holder.
    b. Carefully slide the silver cover down and lift it up.
    c. If you look at the exposed black holder you will see one corner is slightly infilled with a triangle.
    d. Match this triangle with the notched part on your SIM card and place it in the holder with the SIM contacts (gold part) facing down.
    e. Now close the Silver lid and slide it back up to lock the SIM in place.

When the SIM is inserted correctly you will hear a small click and the card will not move.

If the SIM keeps moving or you can't close the lid, check its position and that you have the correct type of SIM card.

Reconnect Power and Perform a Basic Test.
Once you have inserted your new SIM you will need to reconnect power and do a basic test.

1. Reconnect the ribbon cable if you removed one end during the initial dismantle.
2. Reconnect the batteries 3 way terminal block – make sure the red wire is on the right hand side.
3. Reinsert the black fuse holder and turn on your mains connection.
4. You will hear a beep and all the lights will turn on briefly as the M60 performs its start-up routine.
5. Look at the top of the SMS module and check the status indicators.
    a. See SMS Module Status Indicators.

Reassemble your M60.
Once you are happy the SIM card is inserted and has found a network you just need to put the M60 back together.

Reassemble the M60 by inserting the 4 screws into the membrane and reattaching the termination plate.

You should always do a full system check including alarm tests on the M60 after replacing the SIM / SMS Module or making any changes to the setup.

SMS Module Status Indicators.

RED LED shows power is connected.

GREEN LED;

- When the M60 is initially powered up this will flash very quickly as it tries to connect to the network.
- After about 30 seconds the GREEN LED will briefly pause flashing when the module has found and registered itself on your local mobile \ cell network.
    - In poor reception areas this may take longer.
- The GREEN LED will then start flashing again every 3 seconds, showing you are connected to the network.
- If the GREEN LED continues to flash very quickly it means that either there is an issue with your SIM, you do not have sufficient mobile\cell phone reception where the M60 is currently located or you may need to change the between the GSM or LTE modes.
    - Items to Check;
        - Make sure the SIM is activated and does not have a PIN code turned on.
        - Connect an external antenna and or the move the M60 to another location.
        - You may need to move the system mode from/to GSM or LTE if you have continued issues.
            - See GSM or LTE Mode.

GSM or LTE Mode.

You may need to alter the connection mode in poor reception areas or to suit your phone network's needs.
To do this;

- Press the soft reset button on the rear of the CPU board and whilst the M60 is booting up press and hold the
    - UP arrow for LTE.
        - Hold until you hear a beep and switch from GSM to LTE or vice versa.
    - DOWN arrow for GSM.
        - Hold until you hear a beep and switch from GSM to LTE or vice versa.
    - Now do a hard reset, i.e. do a complete power down and then power back up.
        - Remove the Mains connection and then press the push button on the bottom right of the power supply board.
            - Note: You may have to re-enter your phone numbers after a hard reset.
    - After about 30 seconds the GREEN LED will briefly pause flashing when the module has found and registered itself on your local mobile \ cell network.
    - The LED will then start flashing again every 1 second to 3 seconds.

Antenna Placement and Fixing.

Antenna Options

The standard SMS module comes with a small “stubby” antenna inbuilt, this should be sufficient for a typical installation. But in poor reception areas this can be replaced for other types of internal or external antenna.

Please contact us for the Antenna options.

Antenna Characteristics.

A female SMA connector is provided to allow connection of a passive antenna.
The Antenna / Aerial used should conform to the following characteristics;

- GSM/EDGE Bands.
- B2 (1900), B3 (1800), B5 (850), B8 (900).
- LTE Bands.
- B1 (FDD 2100), B2 (FDD 1900), B3 (FDD 1800), B4 (FDD 1700 / AWS), B5 (FDD 850), B8 (FDD 900), B12 (FDD 700ac), B13 (FDD 700c), B17 (FDD 700bc), B18 (FDD 800), B19 (FDD 800), B20 (FDD 800DD), B26 (FDD 850), B28 (FDD 700), B39 (TDD 1900).
- The impedance of any antenna or cable assembly used to connect to the module should be 50 ohms.
    - The aerial should be able to cope with a minimum of 2W output power.
    - The VSWR should be less than 3:1 to avoid damage to the device.

Antenna Placement

When the M60 is in use the Antenna \ Aerial should be placed in a position so it is not close to other electronics devices or other antennas.
We would recommend a minimum distance of 50CM between adjacent antennas operating on similar bands in order to get maximum performance and reduce interference.

Antenna Connection Cable

If you are going to use a cable to extend or repair the provided antenna then this cable must be a high quality low loss cable. Both the cable and any connectors used during the extension or repair should have 50 ohms impedance.

Exposure to RF Energy

There has been some public concern about possible health effects of using GSM equipment in close proximity to a person or body. Although research on health effects from RF energy has focused for many years on the current RG technology, research has begun on new radio technologies, such as GSM and UMTS. After existing research had been reviewed, and after compliance to all applicable safety standards has been tested, it has been concluded that the our GSM modules are fit for use. If you are concerned about exposure to RF energy, there are a number of things you can do to minimize exposure. Obviously, limiting the duration of time near a device will reduce your exposure to RF energy. In addition, you can reduce RF exposure by adhering to the following guidelines:

Electronic devices
Most electronic equipment, for example in hospitals and motor vehicles is shielded from RF energy. However, RF energy may cause some malfunctioning on improperly shielded electronic equipment.

Vehicle electronic equipment
Check your vehicle manufacturer to determine if any on board electronic equipment is not adequately shielded from external RF energy.

Medical electronic equipment
Consult the manufacturer of any personal medical devices (such as pacemakers, hearing aids, etc.) to determine if they are adequately shielded from external RF energy.
Do not use the GSM\SMS modules in health care facilities whose regulations stipulate not to use RF energy products.

Aircraft
Turn the M60 off before boarding any aircraft. To prevent possible interference with aircraft systems, Federal Aviation Administration (FAA) regulations require you to have permission from a crewmember to use your GSM equipped equipment whilst the plane is on the ground. To prevent interference with cellular systems, local RF regulations prohibit using the module whilst in the air.

Blasting areas
To avoid interfering with blasting operations, turn the M60 OFF when in a “blasting area” or in areas posted: “turn off two-way radio“. Construction crew often uses remote control RF devices to set off explosives.

Potentially explosive atmospheres
Turn the M60 off when in any area with a potentially explosive atmosphere. It is rare, but the GSM\SMS module or their accessories could generate sparks. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include fuelling areas such as petrol stations, below deck on boats, fuel or chemical transfer or storage facilities and areas where the air contains chemicals or particles, such as grain, dust or metal powders. Do not transport or store flammable gas, liquid or explosives, in the compartment of your vehicle, which contains your terminal or accessories. Before using your terminal in a vehicle powered by liquefied petroleum gas (such as propane or butane) ensure that the vehicle complies with the relevant fire and safety regulations of the country in which the vehicle is to be used.

Safety Recommendations

PLEASE READ CAREFULLY

Be sure the use of this product is allowed in the country intended and the environment required. The use of this product may be dangerous and has to be used with caution in the following areas:

- Where it can interfere with other electronic devices in environments such as hospitals, airports, aircrafts, etc
- Where there is risk of explosion such as gasoline stations, oil refineries, gas works etc it is responsibility of the user to enforce the country regulation and the specific environment regulation.
- Do not disassemble the product; any mark of tampering will compromise the warranty.

The M60 has to be handled with care, avoid any direct contact with the pins because electrostatic discharge may damage the product.
The same precautions have to be observed for the SIM card installation.

The antenna should be installed with care in order to avoid any interference with other electronic devices and has to guarantee a minimum distance from the body of 20 cm.

Please visit MyM60.com for the latest documentation.

Packs Infotel Ltd
1 Broomfield Hall buildings,
London Road,
Sunningdale,
Ascot,
Berkshire,
SL5 0DP,
UK.

info@packsinfotel.com

01344 874114