MEMCOM

SHEET NO. 450 857GB
ISSUE 1

Memcom Reference Manual
Contents

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1 Memcom Lift Alarm product information

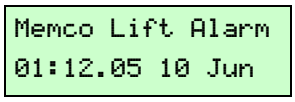
Memcom Lift Alarm

2 Memcom quick start guide

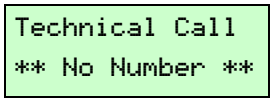
Memcom QuickStart Guide

3 Memcom display and keypad

Once power has been applied to the Memcom the normal operating screen (Memco Lift Alarm) assuming no faults should be displayed.



If there is a background number programmed and the battery is good then a call attempt will not be made.
If the battery is low (indicating that it had been running on battery after a power cut which then flattened the battery) then a technical call is made approximately 10 Seconds after power up. If there is no technical number programmed (*Menu ✱15)* the display will briefly indicate:



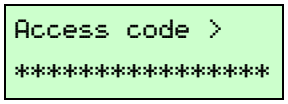
Pressing the up (& down) arrow on the keypad allows you to scroll through the different status and programming screens.

3.1 Program mode

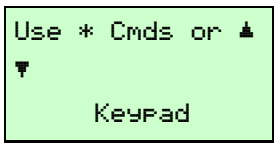
On the keypad press the ✱ key. Then enter the units access code, (Default is 1234). If no password is programmed press ✱ followed by **#.** The password length is 0-6 numbers.

You will not be locked out after entering incorrect passwords.

Note: Alarm calls are inhibited in programming mode.



The correct code grants access to the programming menu.



Use the ⇧ and ⇩arrows on the keypad to navigate the menu.

To program a new value, type in the new information and press the # key to confirm. When the value is successfully programmed three beeps are heard and the value entered will be in the centre of the display.

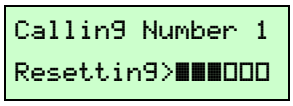
To delete a value enter ✱ then #.

To return to the top of the menu screen press #. If you have modified a screen the first # will save the parameters and second # will return you to the main menu. If you do not wish to save a change use the up or down arrow keys on the keypad. No changes will be made.

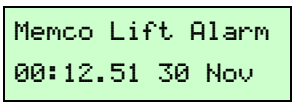
All programmable options have a shortcut number. This number can be used to go directly to the menu screen and is also used when programming remotely via a telephone. The shortcut numbers are displayed on each screen on the top left in programming mode.

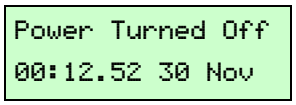
E.g. To go directly to the EN81-28 background call number from the main menu press **✱16.**

A call can be aborted by pressing and holding the # key. When the key is held for about 4 seconds the call will be aborted.



To prevent the battery from discharging when you disconnect the mains for an extended time, the display will flash after 10 seconds:





Once '**Power turned off**' is displayed press and hold the # key on the Memcom until the display turns off. To switch the Memcom on again apply 24VDC or Mains.

4 Memcom menus

4.1 Telephone numbers

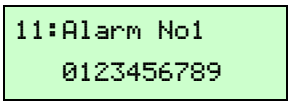
Note: For all telephone numbers the default protocol is "Voice Guided". However, this can be altered by entering the following codes after the telephone number,

Telephone number only	Voice Guided (Operator will be prompted with instructions)
**0	Unguided (No instructions, the line will open automatically)
**1	Memtel (This must be used when connecting to the Memco **E**mergency **T**elephone **R**eceiver software or the Web Based Global-Net Background call tracking system)
**2	SMS (Only for use with Memcom GSM)
**3	P100i protocol
**4	Hotline protocol (no number required as line is preset to dial a fixed number so only enter **4)

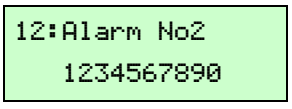
For example to program the EN81-28 background call test number to 01234567890 using the Memtel protocol.

Pressing the up arrow key once from the main menu will get you to the 1st Alarm number

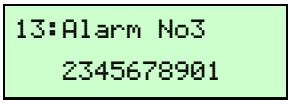
This is the 1st number the unit will dial when the alarm is raised. (If it has been programmed). As standard this number is attempted the number of times indicated by the 1st digit in Dial attempts screen before moving on to the 2nd Alarm number if unsuccessful.



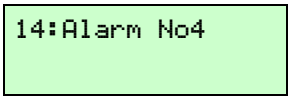
This is the 2nd number the unit will dial when the alarm is raised. (If it has been programmed.) As standard this number is attempted the number of times indicated by the 2st digit in Dial attempts screen before moving on to the 3nd Alarm number if unsuccessful.



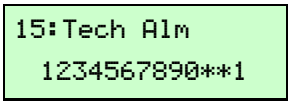
This is the 3rd number the unit will dial when the alarm is raised. (If it has been programmed.) As standard this number is attempted the number of times indicated by the 3rd digit in Dial attempts screen before moving on to the 4nd Alarm number if unsuccessful.



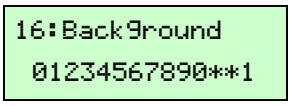
This is the 4th number the unit will dial when the alarm is raised. (If it has been programmed.)/ As standard this number is attempted the number of times indicated by the 4th digit in Dial attempts screen



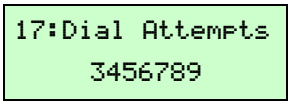
This is the number the unit will dial when a technical alarm is raised. (If it has been programmed.). A technical alarm is a non-scheduled event e.g. from a technical input or low battery with no main power. All other diagnostics are only checked during a scheduled background call. As standard this number is attempted the number of times indicated by the 5th digit in Dial Attempts screen before waiting for the next technical alarm.



This is the number the unit will dial when a system check (EN81-28) has been completed. As standard this number is attempted the number of times indicated by the 6th digit in Dial Attempts screen before waiting for the next background call.

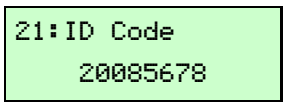


The number of attempts the unit will make before stopping.
E.g. Alarm 1 = 3 attempts; Alarm 2 => 4 attempts. Background call 9 attempts.

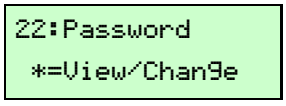


4.2 Memcom ID and password

ID Code, this is the units ID code used when communicating with the PC software. The ID code can be 0-9 digits. This number will be programmed as a six digit serial number by default. The number must be unique when using the Memcom PC or Web software. The first 3 digits are used by the web based software for identifying customers.



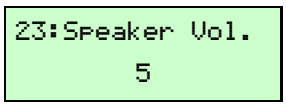
To view or change the password press ✱.



This is the current password code for the unit. If this has no numbers then no password is set. The password can only be numbers.

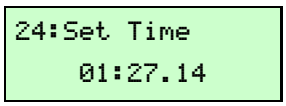
4.3 Speaker volume

Speaker volume, this is the volume level of the built in speaker (0-9). Volume 9 is the maximum. 3 is recommended for car operating panel, and 5 for top of the car installations.

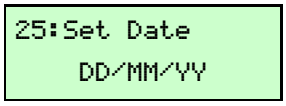


4.4 Time and date

This is the current time. It is set by pressing the number keys for hours and minutes then # to confirm.
It is not necessary to set the time and date when using Memcom with the PC or Web software as there will be an automatic synchronisation during the first call.



This is the current date. It is set by pressing the number keys then # to confirm.
It is not necessary to set the time and date when using Memcom with the PC or Web software as there will be an automatic synchronisation during the first call.



Note: the time and date setting is lost if the Memcom is powered off because it has no backup facility but any other programmed settings such as alarm numbers are not. The time and date is automatically synchronised when performing a background call to the ETR software or Global-net web software,

4.5 Hardware options

Memcom does not require hardware jumpers to configure different modes of operation. This is all controlled in software by selecting the appropriate Hardware options.

Any combination can be enabled by entering the sum of the respective numbers.

0 Nothing Enabled

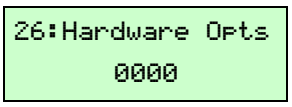
1 Select EN81-28 Operating Mode. In this mode operation is as follows:

Standby Mode (No Alarm Active)

In EN81-28 Mode the alarm button inside the car will work as normal but will be filtered.
With the filtering input (Pin 16 Green connector) active (doors open) the Alarm button is disabled.
If the EOA (Pin 10; Green connector) input is permanently active (in Standby –mode) then the Alarm button is enabled. This allows an engineer to test the alarm button with the doors open.
An alarm using the TOC button or MPS buttons can be made independent of the doors open filtering.

If a call in to the unit is made in EN81-28 mode the Memcom will not go into 2 way speech in standby mode. This is to ensure privacy. Remote programming is still possible.

Alarm mode (After Alarm call but before EOA)



This is effective once an alarm has been made and the call has ended. The EOA (End of Alarm) is required to indicate that an engineer is or has been present so the Memcom can be switched back to standby mode. Once EOA is activated a call will go to the first number. If it is set to voice protocol then the location message is played until the operator presses ✱ then # to end the call. If the first number is set to PC protocol then a call to the first Alarm number to registering an EOA call (close off the alarm event). This should clear the event on the ETR Software.
In alarm mode it is possible to call the Memcom and communicate with the person(s) in the lift at all times.

2 Service Input = Technical 2. Convert the service input to a technical input

4 External Microphone connected. Note: If the Memcom is mounted on the top of the car it is necessary to have an external microphone in the lift. The Memcom must be configured to recognise the external microphone.

8 Consecutive Dial Mode. Dial the alarm numbers consecutively.

E.g. With dial attempts set at 333345 and consecutive dial mode not set, during an alarm call the following sequence will be followed.

Attempt Emergency No1 - 3 times
Attempt Emergency No2 - 3 times
Attempt Emergency No3 - 3 times
Attempt Emergency No4 - 3 times

With consecutive dial mode set (8) the following sequence will be followed.

Attempt Emergency No1 then
Attempt Emergency No2 then
Attempt Emergency No3 then
Attempt Emergency No4

Repeat the above 3 times.

16 Enable GSM Module (Only required when operating with the Memcom GSM)

32 Enable external microphone for voice recording. This is only used for test and debugging purposes.

64 Configure Memcom to accept the Alarm button input as normally closed (N/C). Default is normally open (N/O).

128 Alternative dial tone enable – used in countries other than UK (such as Greece, Italy and Czech) where a non-continuous dial tone can stop the Memcom from dialling out. *Note: This only applies with multiple Memcoms sharing the same line. It has no effect in other configurations.*

256 Enable the service input to be used as an alarm button input – used where a voltage is present on the lift alarm button.

Note: the default is 12 for Top of Car installations and 8 for Car Operating Panel Installations.

4.6 Hardware monitoring

Hardware monitoring selects internal monitoring and the display of the appropriate fault messages.

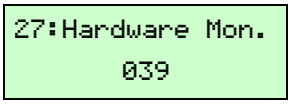
Any combination can be enabled by entering the sum of the respective numbers. For example, 6 would enable battery and phone line monitoring.

0 Nothing enabled (This does not affect the EN81-28 background call)

1 Power supply monitored

2 Battery condition monitored

4 Phone line monitored – This checks for a dial tone. Disable if connected to a hotline and using the hotline protocol ✱✱4 otherwise a call could be made. Note: from version 2.29 Firmware the dial out operation changes but only when multiple Memcoms are connected which is indicated by non zero network ID (*28) and when phone line monitoring is enabled. With both of these conditions the Memcom will only try to dial out when it detects the presence of a ring tone. In any other condition the Memcom will eventually attempt to dial out regardless of the presence of a ring tone. When several units are connected to one line this means that a second unit may attempt to dial out over an existing call.



8 GSM No Signal Monitored. Only when connecting to Memcom GSM

16 GSM Low Signal Monitored. Only when connecting to Memcom GSM.

32 Internal speaker/microphone monitored. If the lift is very noisy or an external speaker has been fitted then it may be appropriate to disable this.

4.7 Network ID

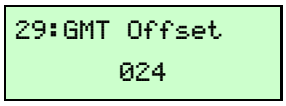
The unique network address (or extension number) of the unit. If there is only one unit on a telephone like it should be a 0. If more than one Memcom is connected to the same telephone line they should be each given unique IDs starting from1 up to 8(max).
Note: If you are connecting multiple Memcoms to the same line you must ensure there is the same answer delay number of rings set on all the Memcoms

4.8 GMT time offset

GMT Offset; Greenwich Mean Time Offset. Set for 24 when the Memcom is used in a GMT time zone.
To change the setting by 1 hour add or deduct 2 from the current setting e.g.:

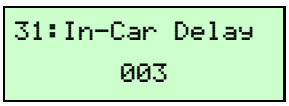
022 = GMT – 1 hour
023 = GMT – 1/2 hour
024 = GMT
025 = GMT + ½ hour
026 = GMT +1 hour etc

This is used by the PC software for scheduling background calls across different time zones.

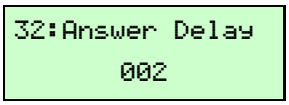


4.9 Delays

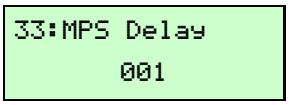
In-car delay, how long the in-car button needs to be pressed (seconds) before the alarm is raised. (Assuming none of the filters are active)



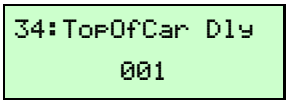
Answer delay is the number of rings the unit must detect before answering any incoming calls.



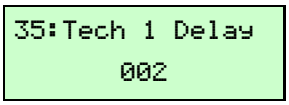
MPS intercom delay is how long the MPS alarm button needs to be pressed before the alarm is raised. (Note: This is called PIT delay on some versions of software.



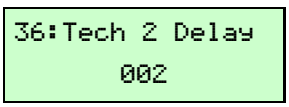
Top Of Car Delay is how long the Top Of Car alarm button needs to be pressed before the alarm is raised.



Technical input 1 delay in seconds using terminals 11 and 12.



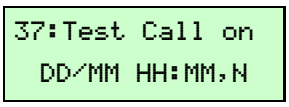
Technical input 2 delay in seconds using terminals 16 and 17.
Note: To use the 2nd technical input the service counter input must be reconfigured by adding "2" to the hardware options value.



4.10 Time and Date of next test calls

The date and time of the next test call. The test call option allows you to setup the time & date of the call. This is normally done automatically via the Memco ETR PC or Global Net Web Software.

Unless you are using caller ID calls the extra digit after the comma should always be a zero.

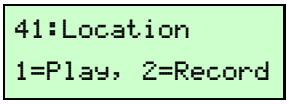


Caller ID calls. The date and time is programmed is for the next FULL background call. The digit after the comma is used to set the frequency of the intermediate caller ID calls (1, 2 or 3). E.g. If the date is set to 30 days from now and the number after the comma is a 3. This will make the unit do a caller ID call every 3 days at the programmed time until the correct date is reached when it will generate a full & proper test call.

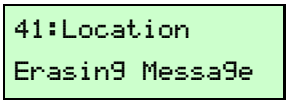
4.11 Recorded messages

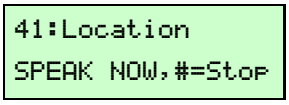
4.11.1 Location message

The location message stored within the Memcom. This allows the call centre/reception desk to hear the location of the lift and should always be recorded. There is no default location message recorded.



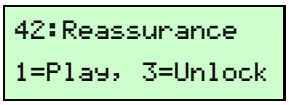
To check or change the message:
Press 1 to play current message
Press 2 to record new message then wait until the current message is erased then speak clearly towards the keypad. To stop recording press # on the keypad
Press 3 to lock the message and 3 again to unlock the message



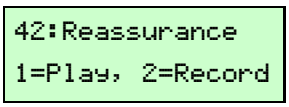


4.11.2 Reassurance message

Memcom will be supplied with a default reassurance message so in most cases it does not need to be change. If the message needs to be change e.g. To a different language, the recommended wording is:
"Please remain calm, the alarm has been activated and lift services are about to be contacted".



To check or change the message:
Press 1 to play current message
Press 3 to unlock the message
Once unlocked press 2 to record a new message and 3 again to lock the message.



4.11.3 Guidance message

Memcom will be supplied with a default guidance message so in most cases it does not need to be changed. If the message needs to be change e.g. To a different language, the recommended wording is
"Lift Alarm, please press 3 for location or # to speak to trapped passengers. Before you hang-up please press star then hash"

```
43:Guidance
1=Play, 3=Unlock
```

To check or change the message:
Press 1 to play current message
Press 3 to unlock the message
Once unlocked press 2 to record a new message and 3 again to lock the message.

```
43:Guidance
1=Play, 2=Record
```

4.12 Service Counter

The service counter is used to trigger a technical call once the number of input triggers set by the service interval has been reached.

```
51:Ser. Interval
      0500
```

Service count is the running total on input triggers. It can be set. To test set service count to one less than service interval and on the next input trigger a technical call will be made.

```
52:Service Count
      0000
```

4.13 Languages

To change the menu language select:

0 for English

```
61:Language(Eng)
       0
```

1 for German

```
61:Sprache(DEU)
       1
```

2 for French

```
61:Langage(FRA)
       2
```

3 for Italian

```
61:Lingua(ITA)
       3
```

4 for Spanish

```
61:Lenguaje(ESP)
       4
```

4.14 GSM sim pin code

Only required with a Memcom GSM that has a Pin locked SIM card.
Note: The Pin code is only retried after leaving the programming menus.

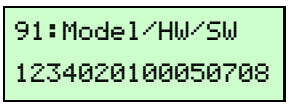
```
81: GSM Sim Pin
      1111
```

4.15 Hardware and software versions

Hardware (HW) and Software (SW) revision number, this is the hardware & software revision date.

Shown is:

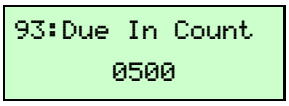
Hardware Platform	1234
Hardware Revision	02
Software	01.00
Software Date	05/07/08



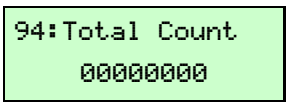
4.16 Service counter status (read only)

Number of operations since last service. (Note, this cannot be altered, alterations have to be made in screen 52).

Number of operations until the next service is due.



Number of operations since manufactured:

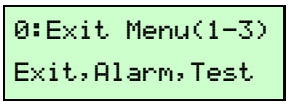


4.17 Exit menu

1 to Exit Menu only.
2 to make a test Alarm call to alarm number 1
3 to make a test background (EN81-28) test call.

Additionally the other telephone numbers can be tested by entering

∗021# Calls Alarm number 1
∗022# Calls Alarm number 2
∗023# Calls Alarm number 3
∗024# Calls Alarm number 4
∗035# Technical Alarm



5 Programming and connection via telephone

5.1 Programming

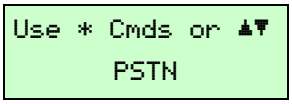
Call the telephone number of the Memcom

If more than one Memcom is connected to the same line you must first enter the network ID (1-8) of the Memcom followed by #. You must also ensure that each Memcom has the same answer delay.

Once the Memcom has answered you will hear 3 beeps followed by the location message (if recorded) then press ✱ followed by the password and then #.

Note: if no password has been set then only ✱ then # need to be pressed.

The following should be displayed on the Memcom.



You are now in the standard programming menu. All the telephone key presses will be echoed on the Memcom's screen as if you were programming from the keypad itself. As you are using a remote phone there are no up or down arrow keys so you need to use the shortcuts. Once you have confirmed a change with # you automatically go back to the main menu (above) without needing to press # again. *Note: This is different from entering a change on the keypad where # confirms the change and then displays the updated number i.e. it does not return back to the main menu.*

If you enter the shortcut menu number and followed by a # the settings for that shortcut are read back to you allowing confirmation of any settings programmed.

E.g. To program the alarm, background and technical alarm number, check those numbers, record a location message and finally do a test alarm call.

Dial the Memcom's telephone number then.....

✱ (Password) #	to enter programming mode
✱110444555666#	program alarm number 1 with 0444555666 using voice guided protocol
✱150444555666#	program technical alarm with 0444555666 and no protocol (On a technical alarm a verbal error code is read out).
✱160444555666✱✱1 #	program background call number with 0444555666 using Memtel protocol
✱11#	to listen to confirmation of the number programmed alarm number 1
✱15#	to listen to confirmation of the technical alarm number
✱16#	to listen to confirmation of the background call number
✱412	to record a location message – wait for beep then speak clearly and press # to end recording
✱411	to listen to the recorded location message (if a mistake is made then repeat recording)
✱02#	to exit programming mode and make an alarm test call to the 1st number

The Memcom should ideally be installed on a dedicated external line. If this is not possible and a time delay is required before dialling add ✱ to get a 3 second delay.

E.g.✱119✱0444555666✱✱1 # alarm Number 1 will dial 9, wait for 3 seconds and then dial 0444555666 using Memtel protocol

It is important to close the connection with the Memcom with an appropriate ✱0 [*Number*] # to end programming mode.

✱ 0 1 #	to close the connection only
✱ 0 2 #	to close the connection and make an alarm call using the first alarm number (alarm numbers 2, 3 and 4 can be tested by adding the relevant number after the 2 e.g. ✱ 0 2 3 # will test the third alarm number)
✱ 0 3 #	to force a background test call (6th number programmed)
✱ 0 3 5 #	to test the technical alarm 5th number

5.2 Connection (2 way communication)

Call the telephone number of the Memcom and press # to open up two way communication. If the Memcom is set to EN81-28 mode and there is not an active alarm you will not be able to go in to talk/listen.

Other functions that are available include

1	Turn off the Memcom's microphone
2	Turn off the Memcom's speaker
3	Play the stored location message
4	Select audio path to the MPS. *Note: can only be carried if the MPS has initiated the alarm call*
5	Select audio path to the Memcom (default)
0	Play a test tone
✱(n)	Change volume to level (n = 0 to 9)
#	Duplex – switch both the Memcom's microphone and speaker on

To close the call press ✱ then #.

Note: If there is more than one Memcom on one line you must first dial the Network ID of the Memcom (1-8) followed by #, then # again to open up the voice link.

If you do not end the call this way the line will remain open for a few minutes and it is not possible to call the Memcom back during this time.

5.3 Memcom emergency call sequence (without PC software)

5.3.1 Standard call sequence

Guided mode (No suffix after telephone number)	**Un-guided mode. (✱✱0 after alarm number)**
Alarm press	Alarm press
Yellow LED operates	Yellow LED operates
Reassurance message “Please remain calm…”	Reassurance message “Please remain calm…”
Memcom dials alarm phone number 1	Memcom dials alarm phone number 1
Operator picks up the call	Operator picks up the call
Guidance message is played to the operator	Green LED illuminates and 2 way speech possible
Operator waits for completion of the guidance message and then presses 3. The location message is played and two way speech starts	
Green LED illuminates and 2 way speech is possible	
Operator options are: 1 Talk 2 Listen 3 Play location message 4 Select audio path to MPS units 5 Select audio path to Memcom (default) 0 Test tone ✱(n) Change volume to level (n = 0 to9) # Duplex.	Operator options are: 1 Talk 2 Listen 3 Play location message 4 Select audio path to MPS units 5 Select audio path to Memcom 0 Test tone ✱(n) Change volume to level (n = 0 to9) # Duplex.
After 2 minutes 30 seconds there will be a warning that the call will end in 30 seconds and the user should press # to reset the time counter back to 3 minutes.	After 2 minutes 30 seconds there will be a warning that the call will end in 30 seconds and the user should press # to reset the time counter back to 3 minutes.
Operator presses ✱# to end the call. (If the call is just ended by putting the phone down the line will be engaged for a couple of minutes)	Operator presses ✱# to end the call. (If the call is just ended by putting the phone down the line will be engaged for a couple of minutes)

5.3.2 No Answer sequence

Guided mode (No suffix after telephone number)	**Un-guided mode. (✱✱0 After Alarm number)**
Alarm press	Alarm press
Yellow LED operates	Yellow LED operates
Reassurance Message “Please remain calm…”	Reassurance message “Please remain calm…”
Memcom dials Alarm phone number 1	Memcom dials alarm phone number 1
After approx. 60 seconds the Memcom hangs up and dials the next number in the sequence (This could be the same number again or the next alarm number depending on the number of call attempts (✱17) and whether consecutive dial mode is selected (hardware options ✱26) The sequence above continues until the call is answered or all call attempts are completed.	After approx. 60 seconds the Memcom hangs up and dials the next number in the sequence (This could be the same number again or the next alarm number depending on the number of call attempts (✱17) and whether consecutive dial mode is selected (hardware options ✱26) The sequence above continues until the call is answered or all call attempts are completed.
Operator picks up the call	Operator picks up the call
Guidance message is played to the operator	Green LED illuminates and 2 way speech is possible
Operator waits for completion of the guidance message and then presses #.	
Green LED illuminates and 2 way speech is possible	
Operator options are: 1 Talk 2 Listen 3 Play location message 4 Select audio path to MPS units 5 Select audio path to Memcom (default) 0 Test tone ✱(n) Change volume to level (n = 0 to9) # Duplex.	Operator options are: 1 Talk 2 Listen 3 Play location message 4 Select audio path to MPS units 5 Select audio path to Memcom (default) 0 Test tone ✱(n) Change volume to level (n = 0 to9) # Duplex.
After 2 minutes 30 seconds there will be a warning that the call will end in 30 seconds and the user should press # to reset the time counter back to 3 minutes.	After 2 minutes 30 seconds there will be a warning that the call will end in 30 seconds and the user should press # to reset the time counter back to 3 minutes.
Operator presses ✱# to end the call. (If the call is just ended but putting the phone down the line will be engaged for a couple of minutes)	Operator presses ✱# to end the call. (If the call is just ended but putting the phone down the line will be engaged for a couple of minutes)

6 System messages

6.1 Status messages

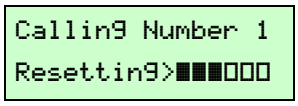
Pressing and holding any of the alarm buttons (wired external, Memcom or MPS) will trigger the system into making an alarm call

Once activated the Reassurance message will play and the display will indicate the status of the call. These messages will vary depending on the type of call & progress of the call

Possible status messages are listed opposite

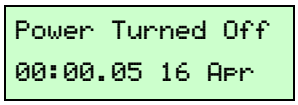
```
Callin9 Number 1
Waitin9 for PC
Wait Dial Tone
Wait for answer
Sendin9 PC data
Talkin9 to Car
Listenin9 to Car
Online with Car
Doin9 Test Call
Answered Call
```

To abort a call press and hold the # key, when the key is held for about 4 seconds the call will be aborted.

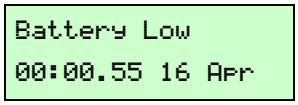


6.2 Fault messages

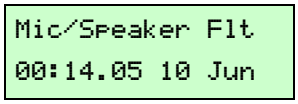
This message is displayed when the power to the unit is off and the unit is running on its internal battery.



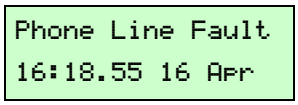
Battery Low is displayed when the internal battery is either missing, faulty or requires charging. Note: It takes approximately 24 hours to fully charge a good battery from flat.



Mic/Speaker fault is displayed when the internal microphone and/or the speaker is faulty. If there is a lot of noise in the lift this can cause a false failure. If the Memcom is in a fully enclosed environment and there is either insufficient space around Memcom or no speaker holes in the lift enclosure it may create feedback and cause a false failed reading, *Note: The external microphone is not tested and this should be tested manually.*

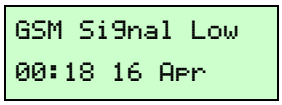


Phone line fault is displayed when the phone line is disconnected from the Memcom or where the dial tone is not detected e.g. very weak. *Note: the phone line is only tested before a background (EN81-28) call or when exiting programming menu. Making an alarm call will not test the phone line and therefore even if successful will not clear the error message*.

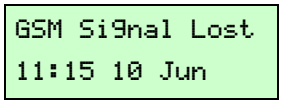


6.3 GSM fault messages

GSM Signal low is displayed when the signal being received by the Memcom GSM is weak and maybe unreliable to make a call.



GSM Signal lost is displayed when no signal is being received by the Memcom GSM.



No communication is detected between the GSM and Memcom. Please check the PSTN connection between the two units.

6.4 Fault codes (verbal)

Code	Lift input	Event label	Example follow up procedure
002		Technical Alarm - Test Call	No action required
003	Free choice	Technical Alarm - "Free Choice"	Dependant on type of technical alarm type used
004	Lift Status	Technical Alarm - Doors open too long	Contact Service Engineer
005	Service Input	Technical Alarm - Lift in service too long	Send service engineer
006		Technical Alarm - Low Battery	Send call-out engineer
007		Technical Alarm - Battery load test failure	Send call-out engineer
008		Technical Alarm - Mains Failure	Send call-out engineer
009	Memcom GSM	Technical Alarm - Low GSM signal	Send engineer to improve aerial position and signal
010	EOA Input	End Of Alarm	No action required

7 Memcom Inductive Loop 451 000

Memcom Ind. Loop Installation

8 Memcom MPS 492 020

Memcom MPS Product Info

Memcom MPS Installation

Appendix A – Quick reference display summary