

 **MK9s Carephone™**



**Installation, Operation, Testing**

# Thank you...

...for installing the MK9s Carephone medical alarm. We believe this equipment will allow people to live independently in the safety and security of their own home for as long as possible.

This manual is a guide for installing, operating and testing the MK9s Carephone medical alarm.

There are many ways this medical alarm can be configured. In most cases the alarm will be pre-programmed to call a specialised Medical Alarm Monitoring Service, and configured to meet their specific technical requirements. In other cases, such as in residential aged-care facilities, the alarm may be programmed to call staff directly or to switch over to a monitoring service after-hours. For more detailed information on the alarm configuration please consult the alarm provider.

The MK9s Carephone is designed and manufactured in Australia by VC International Pty. Ltd. (VCI), a company which benefits from over 30 years experience providing quality medical alarms.

The MK9s Carephone should give many years of trouble free service, however, there are things you need to know about the installation, operation, testing and potential limitations of the equipment.

Please read this manual carefully.

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# Installation

*Before installing, please see the sections 'ADSL filters' and 'Mode-3 connections' in this manual.*

## Step 1 **Unpack the equipment**

You should have:

- One dialler unit
- One pendant
- One mode-3 telephone line
- Adaptor connected to a cream telephone lead.

*Please check for any additional equipment ordered such as ADSL filters, smoke detectors or security products.*



## Step 2 Find a good location for the Dialler Unit

The Dialler Unit should be located close to a power point and a telephone socket. The best locations are where most of the time is spent, like a bedroom or living area, or a central position in the apartment or villa.

If there is more than one telephone in the apartment or villa, it is a good idea, (but not essential), to connect the Dialler to the 1<sup>st</sup> telephone connection, usually in the living area.

## Step 3 Plug in the power transformer

Plug the power transformer into an un-used power point. Turn on the power point and check for a green light on the power transformer.



*Double adaptors and power boards are often unreliable. They should be avoided if possible.*

## Step 4 Plug in the telephone connection.

The Dialler can be plugged into either new-style or old-style telephone sockets.

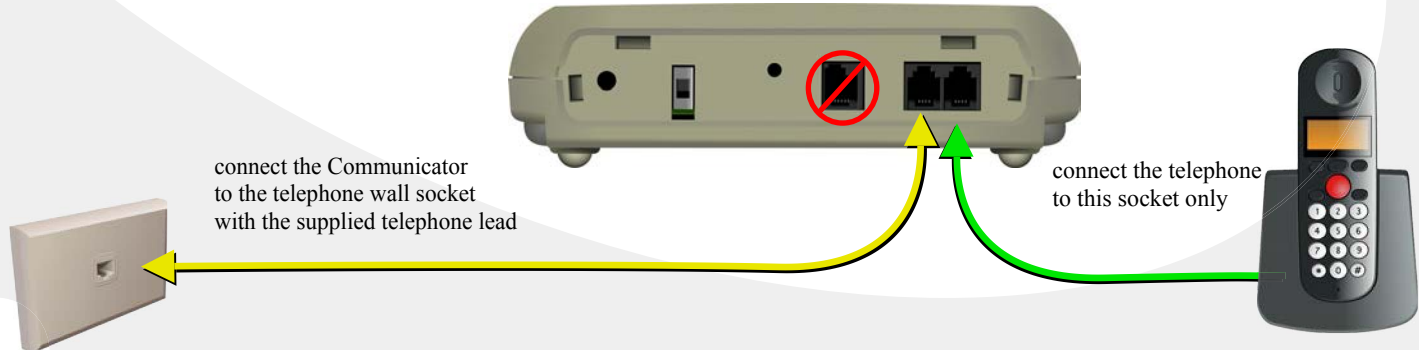
### If there is a new style 'RJ' telephone socket:

- Remove the telephone lead from the Mode-3 adaptor plug
- Plug the telephone lead directly into the new-style RJ telephone wall socket.
- Locate the telephone connection on the rear panel of the Dialler. You may need to remove the plastic cover with a screwdriver or knife blade. Plug the home telephone into the telephone connection as shown below.
- Pick-up the telephone handset and make sure you can still hear dial-tone.



new-style 'RJ' type socket and plug

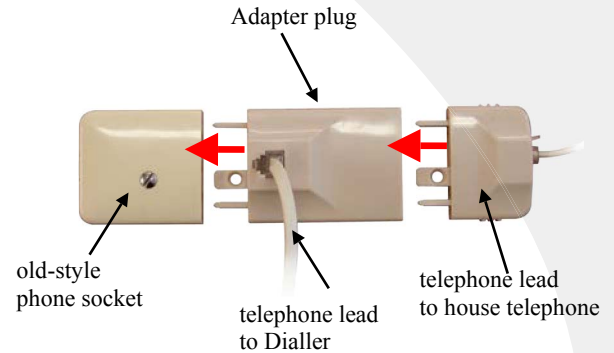
*If you cannot hear dial tone in the telephone handset check all connections*



## Plug in the telephone connection continued...

### If there is an old-style telephone socket:

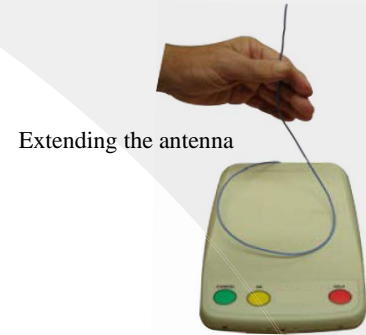
- Remove the home telephone from the wall socket and plug in the telephone adaptor plug.
- Plug the home telephone into the socket on the rear of the adaptor plug, as shown.
- Pick-up the telephone handset and make sure you can hear dial-tone.



*If you cannot hear dial tone in the telephone handset, check all connections.*

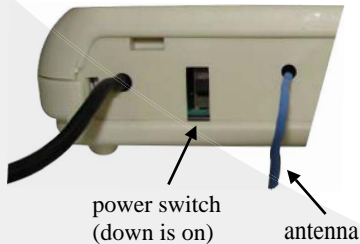
## Step 5 Unwrap the radio antenna

The loose wire is the radio antenna. Unwrap the antenna and stretch it out to its full length. Let it hang down behind the Dialler without twisting around any other wires.

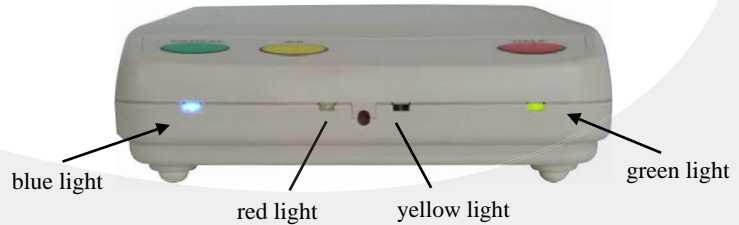


## Step 6 Turn on the power

Switch ON the power switch on the rear of the Dialler. All the lights will flash during start-up and then a green light should remain flashing. If the green light does not flash, or flashes yellow or red, check that the power transformer is correctly inserted into the power point and the power point is switched ON.



A yellow light may remain on\* and a blue light may start flashing. If the blue light continues to flash after one minute, check the telephone connections as shown in Step 4. When the problem is resolved, the blue light should stop flashing within one minute.



\* depends on dialler configuration

# Installation Testing

The alarm must be tested at the time of installation and at regular periods thereafter, to check everything is working correctly.

**Step 1** Tell the monitoring service or village staff that you're about to test the medical alarm.

It's important to tell them you are installing and testing , otherwise they may think you need help.

It's also a good idea to have family members of village staff present when the alarm is tested for the first time, so they can check it works too.

**Step 2** Testing the pendant

- Find the green cancel button on the top of the Dialler Unit.
- Press the red button on the pendant for at least one second. The Dialler should emit a loud alarm sound and the red light should come on.
- Press the green cancel button on the Dialler quickly to cancel the outgoing calls.



The cancel button will only cancel a call while the alarm is sounding. If the call goes through to the operator, just tell them you are testing.

### Step 3

### Checking pendant range

The pendant will normally operate around an average residence and garden, however it is important for the user to know its limitations.

The MK9s Carephone has a built-in walk-test function which automatically reduces the range by about 50% to allow a margin of safety.



To enter the walk-test mode:

- Press the 'hidden' walk-test button on the dialler and observe the red light on the front of the dialler unit lights.
- Perform a walk-test pressing the pendant from all locations around the residence and garden. Test the pendant close to the floor. The dialler will emit a loud tone when the pendant signal is received. You have 3 minutes for the walk-test.
- To exit walk-test mode, switch the dialler off and on at the rear panel switch. The Dialler Unit will also automatically revert to normal operation after 3 minutes.

In the unlikely event areas are found where the pendant will not work, if possible move the location of the Dialler Unit closer to those areas.

## Step 4

### Making a test call

The MK9s Carephone is usually supplied pre-programmed, so there is no need to enter phone numbers or program the alarm.

- Press the pendant to activate the alarm. It's a good idea to have the user press the pendant so they become familiar with the operation.

The dialler will sound the alarm and will then call the programmed phone numbers.

When a call is answered you will hear a series of tones. Depending on the alarm configuration, the monitoring service operator will either immediately come onto the line, or will make a return phone call which the alarm will auto-answer. ***Please do not pick up the telephone.***

*Congratulations!*

You have now successfully installed and tested the MK9s Carephone.

Please instruct users to wear their pendant whenever they are at home or in the garden and to testing the alarm regularly. Manual testing helps users remember how to call for help should they need to, and checks the operation of the equipment.

# The lights, and what they mean

The lights on the front of the Dialler Unit show the operational status of the equipment.



Blue Telephone line light

Flashing power light

## The Flashing Power Status light

**Flashing green**

**Everything is normal**

**Flashing yellow or Red**

The mains power is disconnected

- Check the power transformer is pressed hard into the power point and the power point is switched on.
- Check the power circuits in the house by plugging in another appliance.

**No light or a steady light**

**The equipment is not working**

- Check that the power transformer is pressed hard into the power point and the power point is switched on.
- Also check the power switch on the rear panel of the Dialler Unit is ON
- Check the power circuits in the home by plugging in another appliance.

*If there is still not a flashing green light, the power circuit or the equipment may be faulty.  
Contact the alarm provider for further assistance.*

## The Blue Telephone Line Light.

### No blue light

Everything is normal.

### Steady blue light

A telephone is off-the-hook.

If the telephone is not being used, replace the telephone handset.

### Flashing blue light

**The equipment is not working.** The telephone connection is either unplugged or faulty.

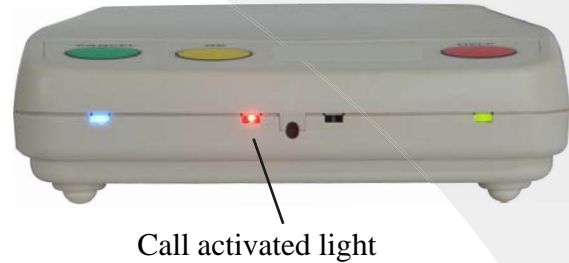
- Check that the telephone plug is fully pressed into the wall socket. Then check the telephone for dial-tone. If you DO hear dial tone wait for one minute to see if the blue light stops flashing.
- If you DO NOT hear dial tone, unplug the Dialler Unit from the telephone line and plug the house telephone directly into the wall socket, i.e. how it was prior to installing the alarm.
- If you STILL DO NOT hear dial tone, the telephone line is probably faulty. Reconnect the Dialler Unit and call the telephone service company from another phone line or a mobile phone and report the fault.
- If you NOW DO hear dial tone the fault may be with the alarm, not the telephone line. Contact the alarm provider for further assistance.

*Note: The telephone service provider will not repair the alarm and will charge a call-out fee if nothing is wrong with the telephone line. There are other telephone line faults which cannot be detected by the equipment See the 'Notices' section in this manual.*

## The Lights, and what they mean cont...

### The Call Activated Light

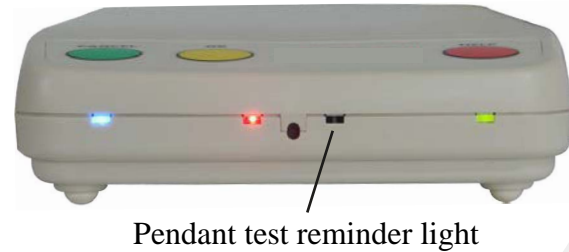
This light shines red when an emergency call is activated and will extinguish when the call is terminated.



### The Pendant Test Reminder Light \*

This light shines when it is time to make a regular test call

This light will also flash about once per second when the pendant battery is getting low and needs replacing. Contact your alarm provider for a replacement pendant.



*\* Function activation depends on alarm configuration*

# Types of calls the alarm will make

## **Calls for assistance**

The Dialler unit will make up to 15 call attempts to each programmed phone number, the maximum allowed under Australian telecommunications regulation.

Calls are made in blocks of 10 calls with a 12 minute gap between each block in order to overcome temporary telephone network congestion.

## **Equipment supervisory calls**

The Dialler Unit will make silent calls to the alarm monitoring service if the dialler has been unplugged from mains power for more than about 6 hours, or if the internal battery is faulty. The dialler will continue to operate for up to 70 hours during a power failure.

Silent calls are also made when the mains power or the battery fault is restored.

## **Automatic silent test calls \***

Automatic silent test calls may be made to the alarm monitoring service to verify the dialler unit is operating correctly. Users must also regularly manually test their pendant through to the monitoring service.

*\* Depends on alarm configuration*

# Mode-3 telephone connection

A Mode-3 telephone line connection is a special way of wiring a telephone line so the alarm will still work if any extension telephones or other telephone equipment are left off-the-hook, or are in use.

If there is only one telephone, and no other telephone equipment such as answering machines, security alarms or modems, then there is no need for a Mode-3 connection.

If there is other equipment connected to the telephone line, we recommend that the telephone line is re-wired in Mode-3. This will need to be done by a suitably qualified person, often an electrician. There will be a charge for this work.

A Mode-3 connection will not be required if all corded telephones are replaced with portable 'cordless' phones, and if the base station is connected to the rear of the Dialler Unit or to the Mode-3 adaptor supplied, and if there is no other equipment connected to the telephone line such as fax machines or security systems.

Contact your alarm provider for information on how to arrange a Mode-3 connection.

*See section on 'Portable 'Cordless' Phones.'*

*If the Internet is connected, please see the next section on 'ADSL filters.'*

# ADSL Filters

If the Internet is connected, the service may either be a low-speed dial-up service, a wireless service, or a high-speed Cable or ADSL service.

If the service is ADSL, it works by sending high frequency signals over the phone line. Because ADSL uses high frequency signals, and voice uses a lower frequency, both can happily co-exist on the same phone line. However, the voice and ADSL signals need to be separated by using a splitter/filter.

A splitter/filter will stop the ADSL signal interfering with the telephone and also with the MK9s Carephone.

The filter removes the ADSL signal from the dialler and also from any telephone connected into the rear of the dialler or the Mode-3 adaptor plug, (and any Mode-3 wired extension telephones).

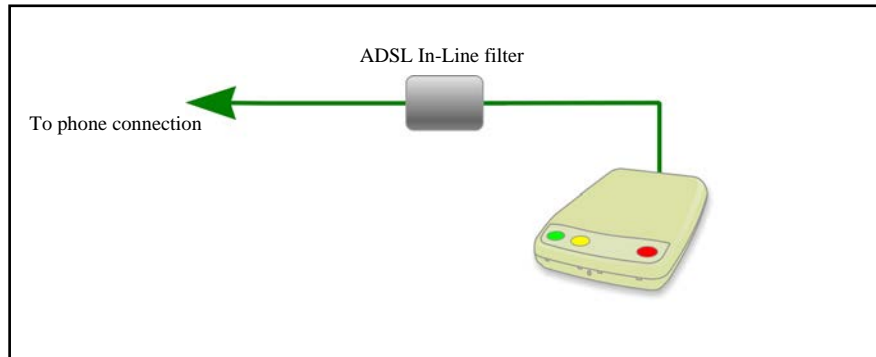
If the telephone wiring is to be changed to Mode-3, that is also a good time to have a Central Filter installed. A Central Filter will remove the ADSL signal from all the telephones and telephone equipment, and also provide a connection for a computer modem.

**If an ADSL splitter/filter is not installed, the alarm may not work as expected.**

*See the following pages for connection diagrams for Central Filters.*

## Fitting an in-line ADSL filter

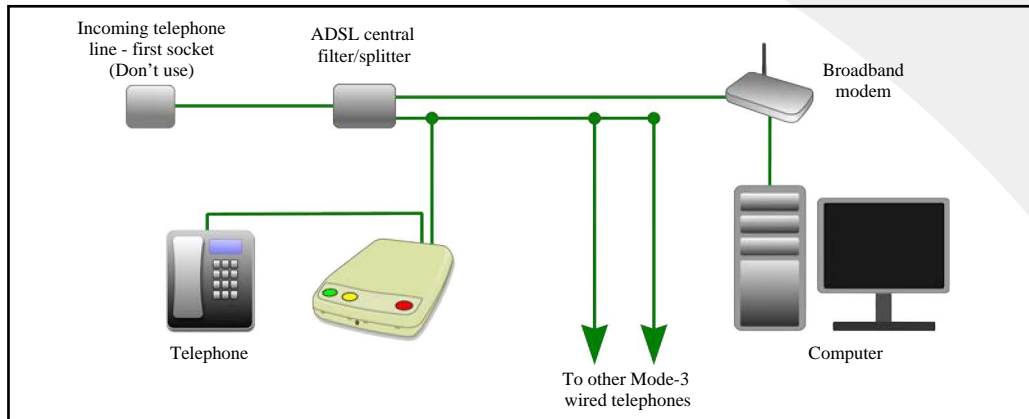
An in-line ADSL filter can be fitted into the Dialler telephone lead as shown below.



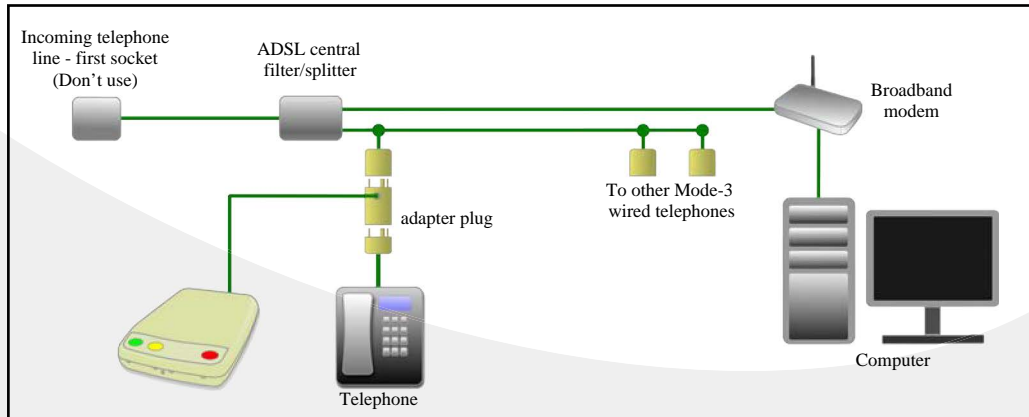
An in-line filter will only protect the equipment that it is connected to, in this case the alarm and any telephone connected to the rear of the dialler or to the Mode-3 adaptor.

**If an in-line filter is used as shown, the Internet will stop working if the computer modem is plugged into the telephone socket provided on the Dialler Unit rear panel or the Mode-3 adaptor plug. Any extension telephones wired in Mode-3 will also not receive the ADSL signal.**

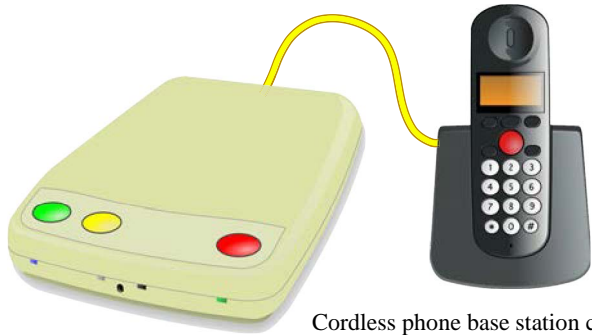
## ADSL central filter/splitter installation with new-style RJ connections



## ADSL central filter/splitter installation with old-style 611 connections



# Portable 'Cordless' phones



Cordless phone base station connected to the Communicator



Additional remote cordless handsets located in different rooms of the home

A Mode-3 connection will not be required if all corded telephones are replaced with portable 'cordless' phones, and if the base station is connected to the rear of the communicator or to the adaptor plug supplied, and if there is no other equipment is connected to the telephone line such as fax machines or security systems.

*Also see the section on DECT Phones in the 'Compatibility with other equipment' section.*

# Compatibility with other technologies

## Other Telephone Services

The MK9s Carephone is designed to operate over a standard two-wire telephone exchange line, often called the Public Switched Telephone Network (PSTN) or Plain Old Telephone System (POTS).

Telephone networks are changing. A few years ago all telephone equipment was standardised, and any piece of telephone equipment would work from any telephone socket. It had been that way for almost 100 years! That is no longer the case. Although the vast majority of people have a standard telephone connection, and will for years to come, some telephone services are now provided over wireless, cable TV systems, or the Internet.

**The MK9s Carephone may not operate over other technologies, or may be unreliable.**

If the telephone service is changed over to something other than a standard PSTN line, call the alarm provider for advice.

The MK9s Carephone may be connected to the analogue telephone socket provided on NBN customer equipment, however the NBN service must be correctly configured and back-up battery life will be limited by the NBN customer equipment, (to typically 3-6 hours).

Call the alarm provider for advice before entering into any service contract for the NBN.

## **Portable Phones**

The Dialler Unit contains a large loudspeaker to achieve very good voice quality. The magnetic field from the loudspeaker can affect the operation of the hook-switch in some portable phones.

This only occurs on a few models of portable phones, and only if the portable phone base station is placed on the top surface of the dialler.

If difficulty is experienced with a portable phone after the alarm is installed, move the base station off the top surface of the Dialler Unit.

## **DECT Phones**

Some portable phones use the Digitally Enhanced Cordless Telecommunication system, (DECT). A DECT base station continuously transmits a radio signal at quite high pulsed power levels, and DECT phones can cause interference to other electronic equipment.

The MK9s Carephone uses special circuitry to filter out unwanted radio signals. However, just to be on the safe side, locate any DECT equipment as far away as practicable from the Dialler Unit and then test the range of the pendant.

## **Solar Powered Systems in Remote Areas**

The MK9s Carephone can also operate from a 12-32V DC solar power system, or from a 110V AC system. VCI can supply a special alarm modified for this purpose.

## **Connection to Technical Aids for People with Disabilities**

The MK9s Carephone can be connected to the alarm outputs of technical aids used by people with disabilities.

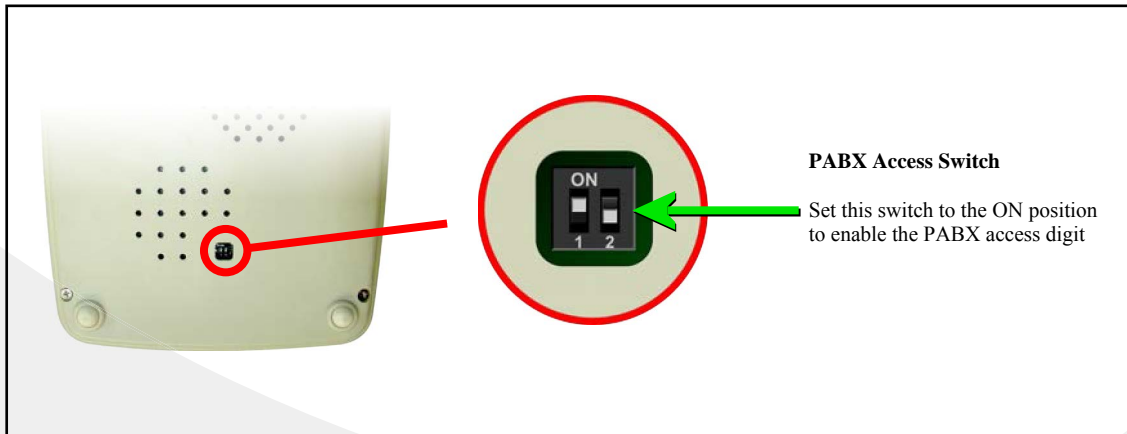
Contact your alarm provider for more information.

# Connecting through a PABX

If the equipment is connected to a PABX line, the PABX access digit must be selected.

Locate the small option switches on the bottom of the Dialler Unit and set the PABX switch, as shown.

The PABX access digit is set to **0**. Other access digits can be programmed upon request.



*Note: The equipment should not be connected to a digital PABX system*

# Private phone number over-ride

*This function is not required when calls are sent to alarm monitoring services*

If the users telephone line has a 'private number' the users telephone number is not sent through the network to the receiving end.

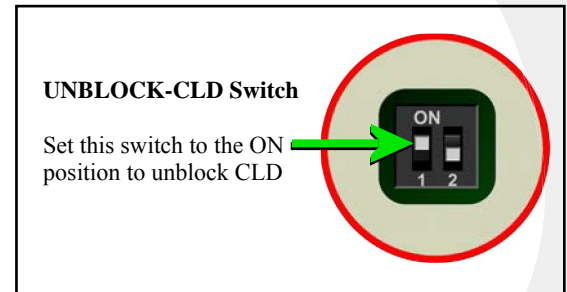
In some village alarm applications the users telephone number helps identify the person calling for help, and the users number needs to be sent on all alarm calls.

If the users telephone line has a 'private number', locate the small option switches on the bottom of the Dialler Unit and set to UNBLOCK-CLD as shown in the diagram.

*See previous page for switch location.*

The Communicator will then send the universal network unblock code '1832' with each outgoing telephone call it makes. The users 'private' phone number will only be sent with calls from the alarm. Calls from the from the home telephone will remain 'private'.

If for some reason the user does not want a 'private' telephone number sent on alarm calls, simply deactivate the function by setting the UNBLOCK-CLD switch to off.



# Answering the phone with the pendant

Users can answer and hang-up a telephone call using the pendant and hold a 'hands-free' telephone conversation.

- To answer an incoming call, press the pendant while the telephone is ringing.
- To hang-up the call, press the pendant again, or pick-up and replace the telephone handset.

*At any time during a 'hands-free' call, users can pick-up the telephone handset to change from a 'hands-free' call to a private telephone-handset call.*

*During a pendant answered hands-free telephone call, an alarm activation will require two presses of the pendant.*



# Setting the Volume and Alarm Duration

The alarm is supplied pre programmed and the volume and alarm settings do not normally need to be changed. To start the adjustment sequence press the Call button on the Dialler Unit during start-up (when the lights are flashing).

**Siren Alarm Volume** - When the call button is released, the siren will continuously steps through three volume levels, (and the power light will step through green/yellow/red). While at the required volume press the call button again. The dialler will emit a high pitch tone to acknowledge the setting is stored and move to the next setting.

**Receive Volume \*** - The dialler will now siezes the telephone line and receive dial tone. The dialler will continuously step through three volume levels, (and the power light will step through green/yellow/red). While at the required volume press the call button again. The dialler will emit a a high pitch tone to acknowledge the setting is stored and move to the next setting.

**Siren Alarm Duration** - The dialler will now enter the siren alarm duration function. The dialler will sound audible tones in groups of between one and 5. Pressing the Cancel button will step-up to the next group of tones. Refer to the times below. When the required alarm dutation is found, press the call button again. The dialler will emit a a high pitch confirmation tone to acknowledge the setting is stored and the dialler will re-start.

1 beep - no alarm siren   2 beeps - 5 seconds   3 beeps - 10 seconds   4 beeps - 15 seconds   5 beeps - 20 seconds

If all functions not completed in 10 minutes the dialler will restart and revert to normal operation.

*\* Function depends on alarm configuration and operates only in simplex PTT voice mode..*

# Questions and answers

**Q How do I clean the equipment?**

A Use a mild detergent on a damp cloth. Do not use harsh detergents or chemicals, or too much water.

**Q Should the alarm be tested?**

A Yes, we recommend testing the equipment regularly. Residents should test their pendant regularly so they know how to use it.

**Q Can the alarm be installed with more than one phone?**

A Yes, but see the important information in the section 'Mode-3 telephone connection'.

**Q What happens if the power fails, or during a black-out?**

A The alarm will run for up to 70 hours on its internal battery.  
(Unless the equipment is connected to the NBN in which case it will be 3-6 hours)

**Q What happens if the telephone line is disconnected?**

A The alarm cannot work without a working telephone line. The blue light will flash if the telephone line is disconnected and will extinguish after it is re-connected. There are other telephone line faults which cannot be detected. *See the 'Notices' section in this manual.*

**Q What if I set my alarm off by accident?**

A The alarm can be cancelled while the alarm is sounding by pressing the CANCEL button on the dialler. If the call goes through don't worry, just tell them you are OK.

# Questions and Answers

**Q Can I use the alarm in an electrical storm?**

**A** Yes, unlike your telephone, there is no danger in using the pendant to call for help during a storm. However, avoid touching the wires or the Dialler. Only use the pendant.

After a severe storm it is always a good idea to test the telephone for dial-tone and also test the alarm. *See 'Testing' in this manual.*

**Q From what distance will the pendant operate?**

**A** In most situations, anywhere in the apartment or villa and in the garden. The pendant range can vary widely depending on the type of construction of the building and other environmental factors. The pendant range should be tested as described in the section 'Checking Pendant Range' in this manual. *Also see the 'Notices' section in this manual.*

**Q Will the pendant battery ever need replacing?**

**A** Not normally. The pendant battery is designed to last for many years, even if the pendant is used every day. The battery is automatically tested every time the pendant button is pressed. If the yellow Pendant Reminder light on the front of the Dialler Unit is flashing, the pendant battery is getting low. Contact the alarm provider for a replacement pendant.

**Q What should I do with the pendant when I'm in the shower or bath?**

**A** The pendant is designed to be waterproof to international environmental standard IP67, so it can be taken into the shower or bath. However, if you do this, just to be safe, make sure the pendant is tested regularly.

**Q Will the alarm still work with “broadband” (also known as ADSL, DSL or Internet) connected to my telephone line?**

**A** Yes, but an ADSL filter must be installed in the telephone line.

*See the section on ‘ADSL filters’*

**Q My telephone company wants to change my type of telephone service to a wireless, cable, or Internet service. Will this affect my medical alarm?**

**A** It may. Please see the section ‘Compatibility with other equipment’ in this manual and call your alarm provider for assistance.

**Q I am changing my telephone company. Will this affect the Alarm?**

**A** Not normally. If you are keeping the existing telephone connection (PSTN) it should not affect the alarm. If the new telephone company is changing the telephone connection over to a wireless, Internet or cable-TV connection, it may well affect the operation.

*See the section ‘Compatibility with other equipment’ in this manual.*

**Q The NBN is about to be installed in my area. Will this affect my medical alarm?**

**A** The MK9s Carephone will work with the NBN, however it is vitally important that the NBN customer equipment is correctly configured.

**IMPORTANT** - Call your alarm provider for assistance before you enter into any NBN contract.

# Notices

## **Telephone network performance**

This equipment makes telephone calls in order to summon help. If unsuccessful on the first attempt, the equipment will re-try to the maximum number of calls allowed by Government telecommunication regulation. Although modern telephone networks are very reliable, there are times when, due to network congestion, fault conditions or other causes beyond our control, the telephone calls may not be successful.

*If a call is not made or help does not arrive as expected, use another method to call for help.*

## **Extension telephones or other telephone equipment**

If there is other equipment on the telephone line such as extension phones, fax machines, modems, answering machines, or any other device, the telephone line should be wired correctly in Mode-3. If the telephone line is not wired correctly in Mode-3, an emergency call will not be made if any other telephone equipment is off-hook or in use. We strongly advise that the telephone line is wired correctly in Mode-3 by a suitably qualified person.

Note: In Australia the correct wiring mode is called Mode-3, however the equipment will also work in Mode-5.

## **This equipment can be connected to:**

A two-wire exchange line (PSTN). All newer and most older PSTN wiring arrangements found in Australian homes are compatible with this equipment.

Most models of two-wire analogue PABX lines requiring a **0** or **9** access digit to select an exchange line. (The standard PABX digit is 0. If another digit is required, consult your alarm provider).

The NBN when the dialler is connected to an analogue telephone port on NBN customer equipment.

*See the section 'Compatibility with other equipment' in this manual.*

## **Moisture**

The Dialler Unit is resistant to accidental spillage on its top surface only. The pendant is designed to be waterproof to international environmental standard IP67. Do not put the pendant into a washing machine or leave immersed for long periods, or leave the pendant in damp locations.

## **Life Support Policy**

The MK9s Carephone provides an effective response system. However, this equipment is not a life saving device and cannot provide a guaranteed level of performance beyond what can be expected from technology of this kind. To ensure that the system performs as designed, it must be installed, operated, maintained, and regularly tested in accordance with the information contained in this guide and other supporting documentation.

### **Caution**

**For safety reasons, only connect approved telephone equipment to the rear terminal.  
No user serviceable parts are inside.**

### **Warning**

**This equipment has been tested to show compliance with the relevant regulations, which are designed to provide reasonable protection against electromagnetic interference. If this equipment causes interference due to localized environmental conditions, the user shall, at their own expense be required to take appropriate measures to correct the interference.**

This equipment was manufactured by:

VC International Pty. Ltd. (VCI)

Unit 26, 34-36 Abel Street

Penrith NSW 2750 Australia

[www.vcint.com.au](http://www.vcint.com.au)



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Revision 3.01 8/11/2011