

Veermount Technology Limited

TeleHawk

Door entry system

INSTALLATION MANUAL

(For product supplied after January 1st, 2006)

IMPORTANT NOTE.

Long term system reliability and low maintenance costs can only be realised if the panel is installed competently and as detailed in this manual. Veermount Technology Limited Ltd will not accept liability for any problems arising from non-compliance with the information as contained in this document.

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INSTALLATION MANUAL

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Overview

TeleHawk is a security door entry system that utilises a telephone line to connect the point of entry to the required person (via a telephone number – including mobiles). For convenience, within this document, the required person is called the SUBSCRIBER.

TeleHawk is powered from the telephone line and simply requires an externally powered door release mechanism to complete the installation.

TeleHawk provides for either one or two subscriber calling buttons and may be fitted with a camera.

TeleHawk has the facility for two numbers to be held in the data base for each SUBSCRIBER. When the caller press the CALL button of the required SUBSCRIBER the system calls the first telephone number and, if no reply is obtained, the call is cleared and the second number is then called

When the SUBSCRIBER receives a telephone call from the door unit he is then able to ascertain that the caller is genuine by talking to the caller. If the caller is to be let in the SUBSCRIBER simply enters a predetermined number into his telephone keyboard to release the door mechanism. If included in the supply, a camera may be connected to the TV system to allow the called flat to see who is at the door.

The TeleHawk allows for control of two separate entrances with different release codes for each.

An external source of power is required for the door release mechanisms and +12V DC required if the camera is fitted. **This must be a regulated power unit having mains filtering for noise suppression. In case of doubt please ask Veermount for more information. Use of an unregulated power supply will invalidate the TeleHawk warranty.**

An 'egress' feature allows for a release switch, or switches, to be wired into the unit to allow the user to open the controlled door(s) from an internal location.

The equipment is available in either flush mounting or surface mounting form.

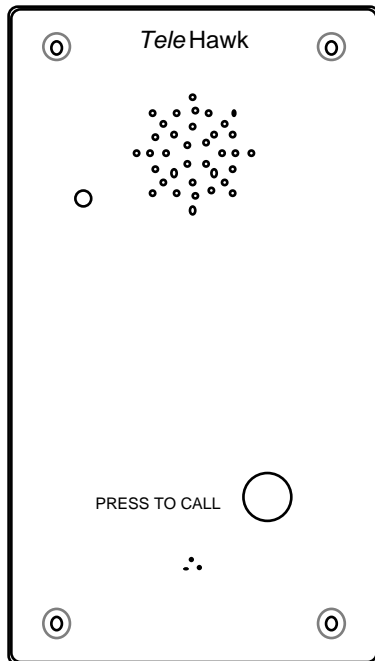
This document provides the necessary information to install, program and operate the unit.

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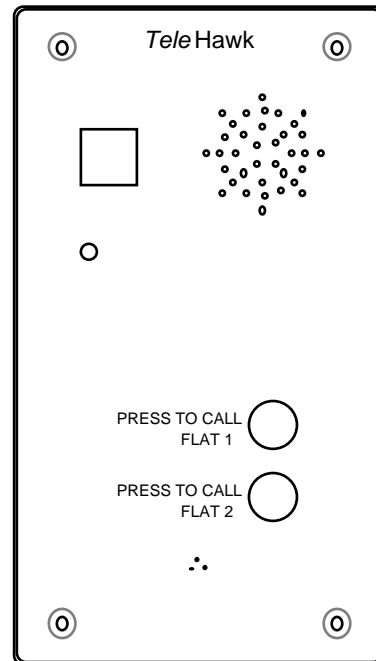
2.

Summary Specification

Panel layout



Single flat system



Two flat system
with camera

Features

1. Tone dialling
2. Loud speech at the panel
2. Automatic clear down
3. Microphone inoperative until called party answers
4. On line indicator
5. Programming via the telephone line of required telephone number(s)
6. Clean contact relay output to drive door release mechanism
7. Egress switch input (from clean contact switch)
8. Non volatile memory of programmed information.

The programming feature requires an incoming call to the panel from a DTMF telephone to program the facilities. See Section 4 for details.

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3.

Installation details

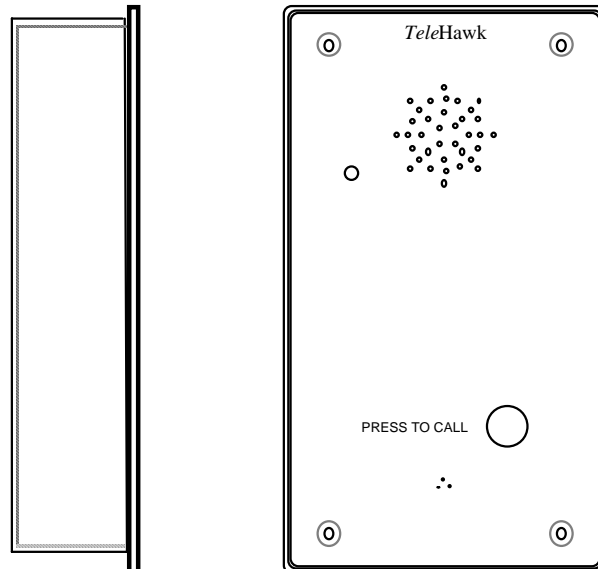
The TeleHawk unit is designed to be built into (Flush version), or fixed onto (Surface mounted), a solid structure e.g brick or stone. It should be positioned so that the Fascia panel is easily accessible for use by visitors, and installed at a suitable level for the visitor to talk into the Microphone (lower half) and hear through the Speaker (upper half).

For pedestrian use it is recommended that the unit be installed at a nominal height of between 1625mm and 1725mm from finished ground level to the top of the back box.

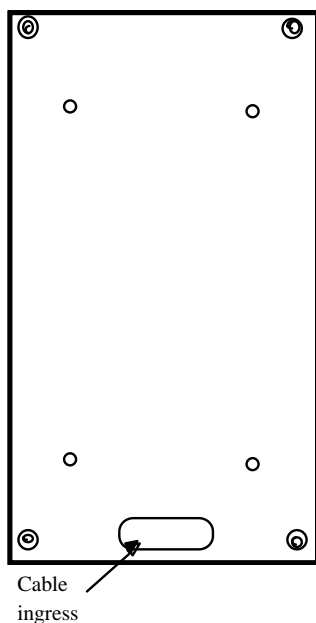
This level will need to be reduced for disabled access where applicable and compromise may be needed concerning installed height.

For use from normal vehicles this measurement should be reduced to a height of approximately 1300mm. For use from high sided vehicles the operational level will need to be increased accordingly.

1 button flush mount unit



Mounting holes are centralised in the back box as shown:



Dimensions:

120 wide x 50 deep x 220 high (nom)

4.

TELEPHONE LINE REQUIREMENTS

TeleHawk2 is designed to be connected to a single **analogue** telephone line. This can be a dedicated, PSTN line (preferably ex directory) or a PABX extension line.

NOTE : The system will not work with digital exchanges unless connected to a specially provided analogue port, supplied by the PABX manufacturer.

EXCHANGE LINE CONNECTION - It is the responsibility of the customer to contact British Telecom or the chosen line provider to arrange for the installation of the ex - directory line. Do not use this exchange line for any other reason.

EXTENSION LINE CONNECTION - It is the responsibility of the customer to ensure that there is compatibility between TeleHawk2 and the PABX or other telephone system to which it is connected (see 'Required PABX Characteristics'). Do not use the chosen extension line for any other reason.

In either case it is the responsibility of the Installer to liaise with and assist the customer regarding provision of the line and to contact Veermount if in any doubt.

PSTN Line Connection

For PSTN line service, a standard BT line jack master socket will need to be provided and sited not far from the point of installation. The TeleHawk2 must be terminated at this socket. It is recommended also that the BT type master socket be fitted into a protected location and that the distance between the master socket and the TeleHawk2 panel is less than 20 metres.

It may be necessary to request the gain balance of the BT line to be set to 3. If so, Call BT on 151 (domestic line) or 154 (business line) to arrange for this to be done.

PABX line connection

For PABX service the TeleHawk2 can be connected via a suitable extension telephone socket.

The PABX analog line specification must meet the following standards:

Ring Voltage	>35v rms 25Hz or 50Hz
Current in the telephone (off hook)	25mA minimum
Dialling system	DTMF
Dialling Tone	Continuous Tone Frequency: 270 – 540Hz
Busy Tone Beep/Pause sequence for more than 10 secs	Frequency: 300 – 500 Hz Beep: 100 – 600 ms Pause: 100 – 600 ms
Distant Ringing Tone Beep/Pause sequence until far end off hook	Frequency: 350 – 500 Hz Beep: 0.2 sec – 1.6 sec Beep + Pause sequence < 6seconds
Ring Voltage Transmitted by the Switch Ringing duration: Pause Duration:	Frequency: 25Hz to 50Hz 1.5s Plus or minus 0.5s 3s plus or minus 2s

Basically the TeleHawk is designed to meet TBR21 a copy of which may be had on request.

CONNECTIONS

The connection block is mounted internally within the unit and is found by removing the front panel from the back box. The connections are as shown in the circuit diagram section below.

Telephone line

The TeleHawk itself is powered from the telephone line and does not require a separate power supply. The connection is made with the telephone pair to the right hand terminals (Tele Line 1) as indicated. It is recommended to make the telephone connection last.

Door/Gate Release.

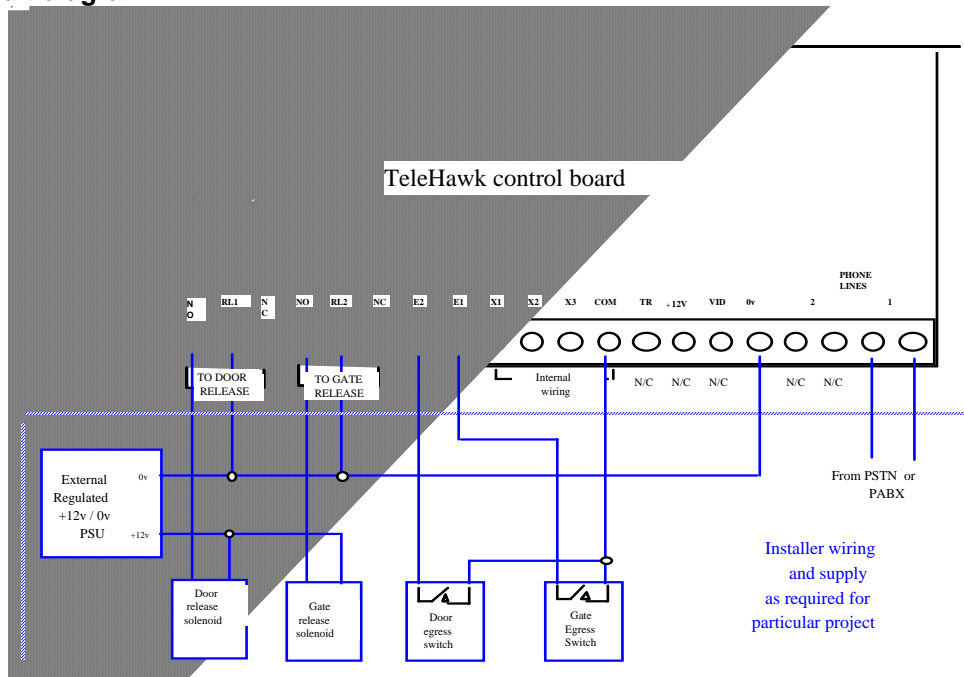
The release relays provides volt free outputs. The relay contacts provide a changeover facility with common, normally open and normally closed connections as shown below.

The maximum ratings for the relay contacts are 25v DC and 2A or 12v AC and 2A.

Egress switch

Egress switch(s) may be connected into the TeleHawk as shown. These terminals require a clean, volt free, contact closure to be received when the user requires the door to open, as shown in the diagram..

Circuit diagram



Earth connection

It is necessary to provide the wall box with a good earth connection and ensure that the front panel is connected to the back box with the earth wire provided.

Completion of installation.

Connect the telephone pair to the terminals provided. After a second or so the panel should respond with a 'bong' to indicate that it is powered and operational.

Dial into the unit from another telephone. Typically this is via a mobile 'phone so that the installer can check locally to the panel that the installation has been correctly undertaken.

The panel should answer after approximately three cycles of ringing and will respond with a beep to the calling telephone.

Clear down the call on panel by pressing the CALL key or enter # & * from the handset.

The installer should then program the unit as explained in the next section.

When programming is completed, check door operation by linking the egress terminals (even if this facility is not being used) - (E1 to Com and / or E2 to COM). This will operate the appropriate release relay so that that function can be proven.

Ensure that the earth connections are correctly made and then the panel should then be mounted into the back box and the security screws inserted and tightened.

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PROGRAMMING THE TELEHAWK

General

The unit is programmed by using DTMF tones from an external telephone.

Note that a number of different sounds are generated by the TeleHawk to indicate various information. In the following text those sounds are described in a way in which they can be recognised by the programmer.

Factory default settings

The unit has a number of pre-settable parameters included in the design and these may be changed by the user. Detailed information on how to change these values is given in the separate handbook. The factory default settings are as follows:

Item	Preset to	Possible Values
Default security code	1234	Any four digit number
Door open time	10 seconds	1 to 255 seconds
Maximum call duration	240 seconds	1 to 255 seconds
Speaker volume	10	0 - 15 (0=min, 15 = max)
Microphone sensitivity	0	0 - 15 (0=min, 15 = max)
Door open code (at telephone)	1*	First digit 0-9, or * Second digit 0-9, * or nothing
Gate open code (at telephone)	2*	First digit 0-9, or * Second digit 0-9, * or nothing

Programming Sequence

First dial into the panel and listen for the two tones indicating the TeleHawk has answered and is waiting for Program entry.

Key in

Security code entry

Once the TeleHawk has answered correctly and to protect the unit from unauthorized interference the first entry to be keyed in is the security code. This code is set to be 1234 at the factory but can be changed at any time to any other code sequence (see below).

IMPORTANT : Do not forget what the personal security code is or you will not be able to subsequently change the programmed number(s) should you wish to do so.

Therefore firstly key in the security code starting and finishing with *

1234

The panel should respond with a single 'beep' back to the calling handset.

Subsequent sequence

Once the panel has responded correctly to the security code the program update can begin. Note that the security code does not need to be entered again during this call.

To enter or change the master telephone number for flat 1

The number can be up to 18 digits. Enter only as many as necessary
Once the security code has been entered and accepted - key in **21#nnnnnnnnn***
(Where 21 is the flat 1 code and nnnnnnnn etc is the number required

(Note that 22 is the flat 2 code).

If you make an error in the entry

If you realise you have made an error and wish to cancel or discard the
information keyed in, then -key in **# ***
This will discard the command you have typed, and the unit will respond
as below.

System verification

The TeleHawk will respond with either one 'boing' for accepted entry or three
'bongs' followed by one or two 'bongs' more for rejected entry. If rejected, simply
start again and enter the data again. It is often worth writing down the required
sequence so that it is easier to enter correctly. Details on interpreting rejection
tones is given in the programming manual.

To enter or change the secondary telephone number

The number can be up to 18 digits. Enter only as many as necessary
Once the security code has been entered and accepted - key in **41#nnnnnnnnnn***
Where 41 is flat 2 code and nnnnnnnn etc is the number required
(Note that 42 is flat 2 code).

Second flat (for two button version)

To set up the second flat follow the above but key in **22#nnnnnnnnnn***
And **41#nnnnnnnnnn***
as appropriate.

Change master security code

To change the master security code first dial into the TeleHawk and enter the
current security code as above. Once the unit has responded with the
confirming beep key in the new code required as follows. The code must be
between 4 and 6 (four and six) digits long.
To ensure correct change of number the chosen code must be entered twice.
Assume it is to be changed to 4321 then the sequence of programming would
be to - key in **30041#4321#4321***
Remember the new code - once entered it must be used for future programming.

To complete the programming

If no other programming required - key in **# ***

This is the same as cancelling a command, but as no command has been
keyed in it terminates the whole programming process. It will also clear down
the call in progress.

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Operating Details

1. At The Door panel

The caller simply presses the call button of the required flat. The panel LED will illuminate, showing that the telephone line has been seized.

The unit will dial out and the caller will hear ringing tone in the loudspeaker.

When the caller answers a 'bing bong' sound will be heard indicating the call has been answered.

If the line is busy press the call button again to clear the call.

If the call is answered as above then conversation may then take place.

If the called party chooses to open the door or gate, the caller will hear a sequence of 'beeps' while the door or gate relay is energised.

When the relay is released, the LED indicator will go out and the call cleared.

2. At the owner's telephone

The incoming call is received as for any other incoming call except that a 'bing bong' tone will be heard, indicating the receipt of a call from the door panel.

The conversation then takes place to identify the caller and the owner may press **1*** to open the door if he so requires. (The default code 1* may be changed if necessary, see programming manual). 2* is normally used to open a gate facility.

The owner will hear a sequence of beeps while the door or gate relay is energised to open the door and then the call will clear automatically. The phone may be replaced on hook at any time.

3. Egress button

If fitted, the egress button will be adjacent to the outside door or gate being controlled by the TeleHawk. This will release the door or gate catch to allow the user to exit. The LED indicator on the door panel will light while the relay is energised.

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Common problems at installation

The TeleHawk system is basically simple to install but, as a result, it is easy to make mistakes which then create a major problem when functioning the installation. The following notes cover some of the more common snags found and are provided to assist the Installation Engineer to complete the task with the minimum of problem.

Problem	Check	Comments
Can't call into the panel to program it	The correct telephone line number is being used. (See also 'dead panel below)	The line must be capable of both way calling - i.e. both setting up and receiving calls.
Dead panel	Is the telephone line connected to the TeleHawk line 1 pair?	The second line pair is only used for specialised applications.
	Does panel 'bong' within a few seconds from when telephone line connected?	This confidence sound is generated when the panel becomes active after connecting to the telephone line
	Check line pair is an 'analogue' line - see specification table in Section 3 above.	TeleHawk is designed to work on an analogue line only.
	Check voltage across telephone line pair?	Should be between 24V DC and 55V DC open circuit.
Call button doesn't call the subscriber	Does the panel LED light when the button is pressed?	This LED is in series with the unit and therefore indicates it has responded to the button push.
	Is the panel calling the correct number	If ring tone heard after the button press then its probably calling the wrong number
	Is 'busy' tone heard?	The called party is already on the line.
	Is the Hawk connected to a PABX rather than an exchange line	If dialling through the exchange to PSTN has the leading digit 9 (or as required) been included?
	If working into a PABX has it been checked for compatibility	See requirement in Section 3 above.
Door / gate operates incorrectly	RL1 or RL2 Relay output condition	If telephone connection is lost while door / gate is set to open the latching relay may be left in the wrong state. Disconnect telephone line wait a few seconds and then re-connect.
Any other problem		Call Veermount for advice.

What next

Call Veermount engineering support on 0208 241 6161 or 01258 471 773.

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Statutory Information

The TeleHawk constitutes a hands free line powered telephone call point to a single, pre-programmed, telephone number.

The design meets the European safety requirements of EN14003 and EN60950 with respect to TNV and as required by the Low Voltage Directive (LVD 73/23/EEC) when it is correctly installed and maintained.

All other normal telephone facilities are provided as necessary from PSTN/PABX equipments.

The apparatus **MUST NOT** be used with other series connected apparatus and if any other apparatus is connected in parallel, due account must be taken of the REN loading and the possibility of the line being busy when the door entry system is required.

The connection is a simple 2 wire (A-B) connection. There is no provision for a third, shunt, wire and as such the apparatus must not be connected to main apparatus requiring a shunt wire.

The REN equivalent of an individual TeleHawk panel is 1. The maximum REN that is allowed on any PSTN circuit is four. It is the responsibility of the Installer to ensure that if any equipments of other manufacture are connected in parallel with TeleHawk, they do not cause this REN to be exceeded, and that they do not interfere with the satisfactory operation of the TeleHawk panel.

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Fault check table

	Problem	Check	Comments
1.0	Can't call into the panel to program it	Check that the correct telephone line number is being used. (See also 'dead panel below)	The line must be capable of both way calling - i.e. both setting up and receiving calls.
1.1		Use a test telephone across the incoming telephone pair	Does the telephone receive the incoming test call? If so move to 2.0 If not then the telephone line is not working or the wrong number is being dialled.
2.0	Dead panel	Is the telephone line connected to the TeleHawk line 1 pair?	The second line pair is only used for specialised applications.
2.1		Does panel 'bong' within a few seconds from when telephone line connected?	This confidence sound is generated when the panel becomes active after connecting to the telephone line
2.2		Check line pair is an 'analogue' line (i.e. not from a digital exchange)	TeleHawk is designed to work on an analogue line only.
2.3		Check voltage across telephone line pair?	Should be between 24V DC and 55V DC open circuit.
2.4		Disconnect all wires to control board and wait one minute.	After waiting connect the telephone pair ONLY. Wait a few seconds to see if the panel 'bong's. If it doesn't - call Veermount for advice.
2 .5		If 2.4 works reload each circuit to the terminal block individually	Possibly managed to connect up incorrectly first time round
3 .0	Call button doesn't call the subscriber	Does the panel LED light when the button is pressed?	This LED is in series with the unit and therefore indicates it has responded to the button push.
3 .1		Is the panel calling the correct number	If ring tone heard after the button press then its probably calling the wrong number
3 .2		Is the sound heard 'busy' tone	The called party is already on the line.
3 .3		Is the TeleHawk connected to a PABX rather than an exchange line	If dialling through the exchange to PSTN has the leading digit 9 been included?
3 .4		If working into a PABX has it been checked for compatibility	See requirement in previous section.
4 .0	Any other problem		Call Veermount for advice.

Declaration of conformity

We : ***Veermount Technology Ltd***

of: 15, Ancaster Crescent,
New Malden,
Surrey UK

Declare under our sole responsibility that the product:

Name: TeleHawk Door Entry system

to which this declaration relates is in conformity with:

The following Common Technical Regulations
and/or normative documents

73/23/EEC Low Voltage Directive
89/336/EEC EMC Directive
91/263/EEC Telecommunications Terminal Equipment Directive
EN60950:1992 Electrical Safety
Including amendments A:1993, A2:1993, A3:1995,
A4:1997, A11:1997

EN50081:1992 EMC
EN55022:1998 EMC

February 19th, 2005

Signed... *R S Athill*

Position : Director



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