

Telalarm HF-2WMT & HF-2CWM

Emergency Assistance Tower



INSTALLATION and OPERATIONAL INSTRUCTIONS



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INTRODUCTION

This manual contains all the information required to install and program the TRIGON HF-2WMT. If you are using this manual to install this unit, it is very important to read all the sections in order.

You should read these instructions before you begin installation. This will insure that everything is done efficiently.

If you are using this manual as a programming guide after the initial installation, you may find the TABLE OF CONTENTS useful in locating the particular programming procedure you need.

PRODUCT OVERVIEW

The Telalarm HF-2WMT(Wall Mount Tower) and HF-2CMT(Compact Wall Mount) are multi-number Emergency auto dialers housed in 56" & 38" steel towers.

The HF-2WMT & HF-2CWM (referred to in this manual as HF-2WM) come standard with 1 output relay. An optional second relay is also available and can be programmed to operate in several different ways. It can be set to pulse momentarily for camera call-up, or it can be set to operate for a timed duration.

There are two Modes of Operation incorporated in the HF-2WM:

1. Standard Emergency Mode:

When the call button is pressed, the unit engages its primary relay for the duration of the call, activating the emergency strobe light. The HF-2WM begins dialing according to its programming (up to 10 number rollover). This call may only be terminated only by the called party. If the number dialed is busy or does not answer, the HF-2WM will hang up and dial the next programmed number, up to a maximum of 10. If the last programmed number is busy or does not answer, the HF-2WM will rollover and start the dialing process again with the first phone number. The Standard emergency mode is set to utilize "Called Party Disconnect". The HF-2WM will hang up within 8 seconds after the called party hangs up.

2. Optional Ring Down Mode:

When call call button is pressed, the unit engages its primary relay for the duration of the call, activating the emergency strobe light. The HF-2WM seizes the telephone line and waits for the PBX to dial a preprogrammed number. This call may only be terminated by the called party. The optional ring down mode is set to utilize "Called Party Disconnect". The HF-2WM will hang up within 8 seconds after the called party hangs up.

A Site I.D. code feature provides for unit identification. The Site I.D. code is a programmable four digit code that is transmitted by the HF-2WM when it receives a command from the called party. This code, when interpreted by a Trigon DTMF Decoder, will identify the calling unit. A vocal message may also be programmed for site I.D. or for instructional purposes.

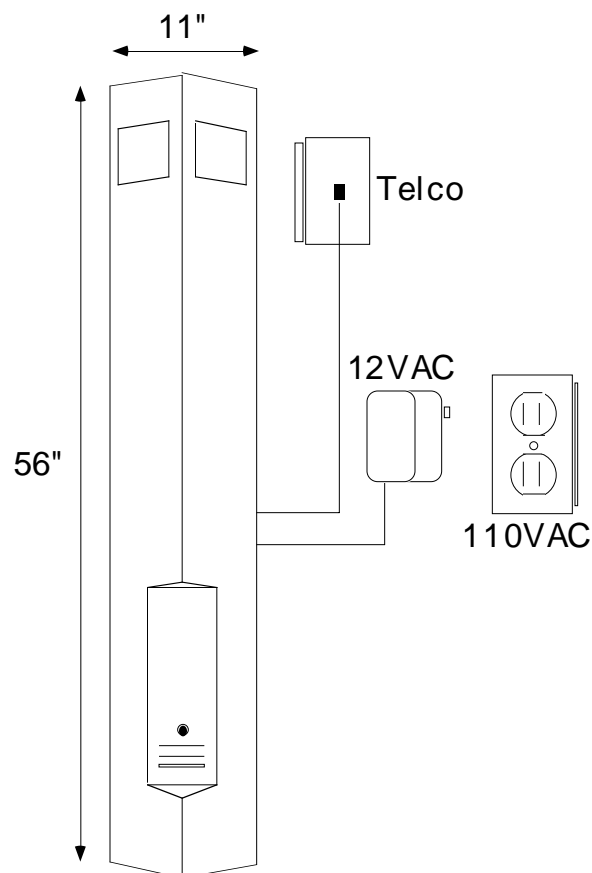


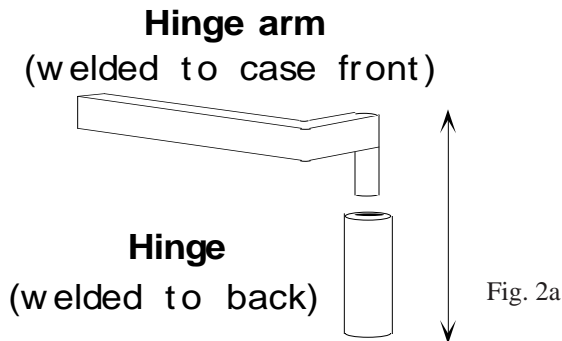
Figure 1

INSTALLATION

Arrangements must be made with the local telephone company for installation of a standard voice-grade telephone line (touch-tone or rotary) as close to the unit mounting location as possible. The telephone company may require the following information.

FCC Registration No.....1Z8898-62546-DI-T
Ringer Equivalence.....0.8B
Connector.....Terminal Block

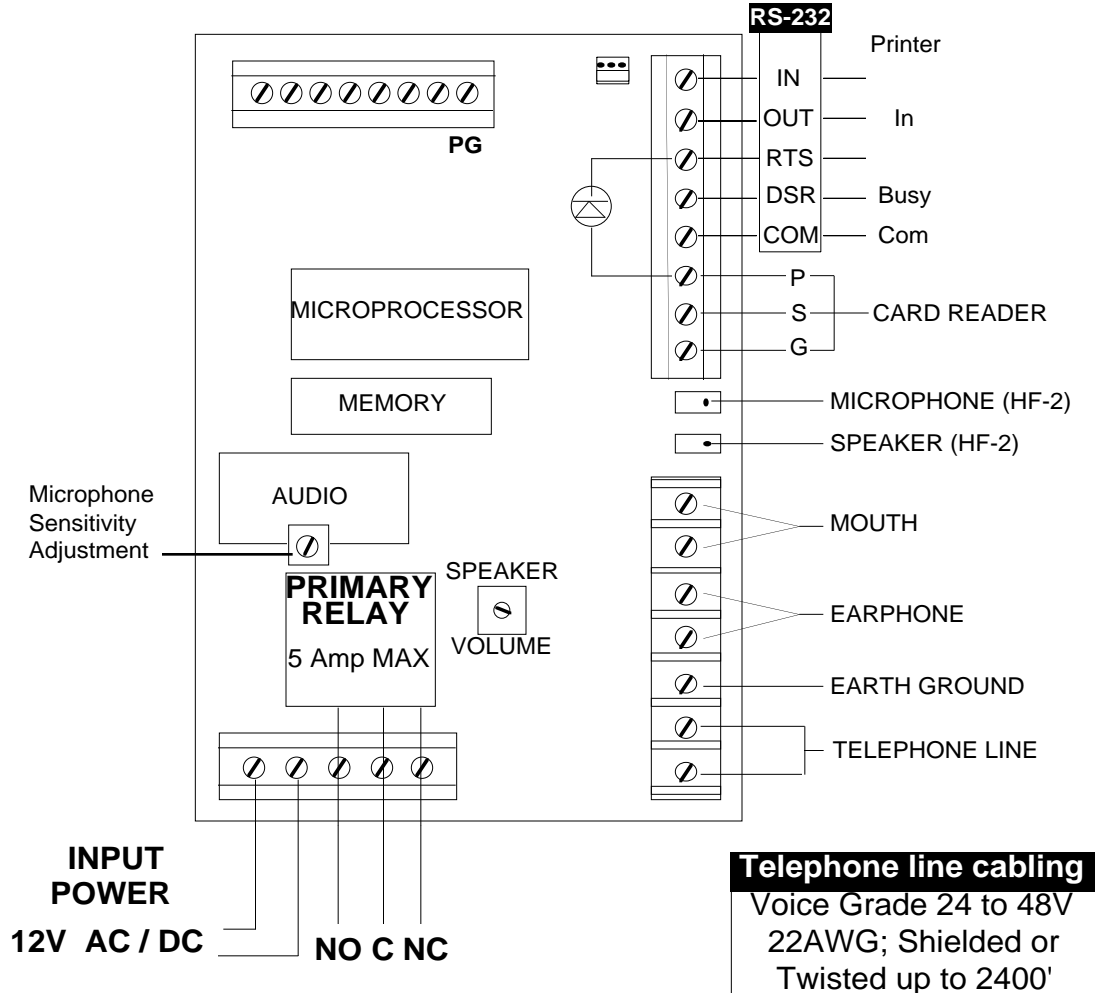
In order to make mounting more manageable, separate the back by lifting the front case so the hinge pins clear the back mounted hinge (Fig.2a) . It will now be easier to lift the back into position. Mount the back plate through the six .3125 holes provided (use the back as a template for marking their location). Feed the wiring through the access holes located at the bottom of the case. At this point, the wiring should NOT be live (energized).



WIRING

1. Use the wiring diagram (Fig. 3) for wire connection information.
2. Do not power any other device from the Trigon's 12 VAC transformer. If a substitute transformer is used, be sure it is rated 12 VAC, 40VA, UL Class 2 listed. The 12 VAC input power wires should be 18AWG, 600V, insulated wire. This should be sufficient for distances up to 200 feet.
3. Do not energize wires until installation is completed.
4. Ground the unit by attaching a separate 12 AWG ground wire to the ground location on the terminal block. This ground wire should go to a grounding rod or grounded metal conduit.
5. Trigon recommends that an EMI filter (Cornell-Dubilier Model APF 1021 or equivalent) be mounted between the 12 VAC transformer output and the unit. EMI/RFI filters are available from Trigon. Mount the filter as close to the unit as possible. Ground the filter to the same point as unit ground.
6. Shielded cable is recommended. Ground the shielding to the same point as the unit and filter. To avoid ground loops, do not ground the shield at both ends. Use 600V insulated wire for this installation.
7. Isolate the Telco phoneline from 12 VAC power wires. This will prevent 60 Hz hum from occurring on the phoneline. Use 22 AWG wire on Telco line run distances of up to 2400 feet. Consult the factory for distances greater than 2400 feet.
8. If all wiring and grounding is completed, close the front case.

WIRING DIAGRAM



Telephone line cabling
 Voice Grade 24 to 48V
 22AWG; Shielded or
 Twisted up to 2400'

Input power cabling	
0-250'	18 AWG; Shielded
250 to 500'	16 AWG; Shielded
500' +	14 AWG; Shielded

TELALARM HF-2

PROGRAMMING INFORMATION

General Programming Information

The "Initial Setup" for the HF-2WM has been programmed at the factory. These factory default settings may be changed to better suit your particular application. If you decide to alter these settings, follow the instructions below. It is important that each programming step be taken in order. When reprogramming a specific feature, you must always enter the programming mode first. You may then go to the appropriate procedural steps for the changes desired.

Record below the autodialed numbers to be programmed into the HF-2WM.

Autodialed Numbers

Primary Auto dial Number (16 digit max)

Second Auto dial Number (16 digit max)

Third Auto dial Number (16 digit max)

Fourth Auto dial Number (12 digit max)

Fifth Auto dial Number (16 digit max)

Sixth Auto dial Number (16 digit max)

Seventh Auto dial Number (16 digit max)

Eighth Auto dial Number (16 digit max)

Ninth Auto dial Number (16 digit max)

Tenth Auto dial Number (16 digit max)

Site ID Number-if required Number (4 digits)

PROGRAMMING

(A) To Enter Program Mode:

1. Call the telephone number of the unit.
2. Listen for the two second tone.
3. Enter '#' then the unit's Program Code. If the unit is new, use the preset factory code. **(Factory code is 9753).**
4. If desired, exit Program Mode by pressing '#' (wait for two second tone).
5. To terminate call, press '7'.

(B) Setting Primary and Backup Telephone Numbers:

1. Unit must be in Program Mode.
2. Press '2' then press '1' (wait for tone) and enter the first phone number. Press '#' when complete. Press '2' then '2' (wait for tone) and enter the second phone number. Press '#' when complete. If mor numbers are needed press '2' then '3' (wait for tone) and so on up to 10 phone numbers. Press '#' when complete.
3. If desired, exit Program Mode by pressing '#' (wait for 2 second tone).
4. To terminate call, press '7'.

(C) Verifying Telephone Numbers:

1. Unit must be in Program Mode.
2. Press '*' then press '1' to verify first phone number entered.
3. Press '*' then press '2' to verify second phone number entered etc. Press '#' when complete.
4. If desired, exit Program Mode by pressing '#' (wait for 2 second tone).
5. To terminate call, press '7'.

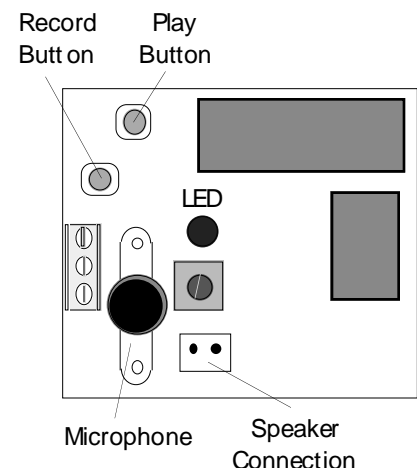
(D) Setting the Site ID Number:

This number identifies the unit upon request from a central office.

1. Unit must be in Program Mode.
2. Press '1'.
3. Enter the four digit number.
4. If desired, exit Program Mode by pressing '#' (wait for 2 second tone).
5. To terminate call, press '7'.

(E) Programming the optional Voice Module:

1. Press and HOLD the 'Record' Button. Speak into the Microphone. Adjust volume as needed for distance / clarity.
2. Press the 'Play' button to play message .



PROGRAMMING, Cont.

(F) Changing the Program Access Number:

This will change the factory preset number of '9753'.

1. Unit must be in Program Mode.
2. Press '3'.
3. Enter a four digit number.

You will hear two 'beeps' indicating command accepted.

4. If desired, exit Program Mode by pressing '#' (wait for two second tone).
5. To terminate call, press '7'.

(G) Changing the Incoming Ring Count:

This will change the factory preset ring count of '3'.

Entering a digit value of 1 to 9 will set the number of rings the unit will count before answering an incoming call.

1. Unit must be in Program Mode.
2. Press '5'.
3. Enter the desired number of rings (1 to 9).

or

4. Enter '0' if an audible ring is desired from the unit.
5. If desired, exit Program Mode by pressing '#' (wait for two second tone).
6. To terminate call, press '7'.

Note: If '0' was programmed for an audible ring, the call may be answered by pressing the 'Call' button on the face of the unit, otherwise the unit will auto-answer after 10 rings.

(H) Setting the Dial Mode:

This will select Rotary or TouchTone dialing.

1. Unit must be in Program Mode.
2. Press '6'.
3. Press '1' for Rotary + play message when answered.

or

4. Press '0' for TouchTone + play message when answered

You will hear two 'beeps' indicating command accepted.

5. Press '3' for Rotary + no message when answered.
6. Press '2' for TouchTone + no message when answered.
7. If desired, exit Program Mode by pressing '#' (wait for two second tone).
8. To terminate call, press '7'.

(I) Setting Call Length.

This is the period of time allowed for conversation before time-out. The time desired is measured in seconds, and entered using a 3-digit number. (060= 1 minute, 180= 3 minutes, etc.)

1. The unit must be in Program Mode.
2. Press '8'.
3. Enter call length in seconds (001 to 999) .

You will hear two 'beeps' indicating command accepted

5. If desired, exit Program Mode by pressing '#' (wait for two second tone).
6. To terminate call, press '7'.

(J) DTMF Echo Test:

1. Press '9'.

The unit will send a tone sequence 1 thru 0 ,*, #, and then echo any tones received from the caller.

2. To stop test. press '#' (wait for two second tone).
3. To terminate call, press '7'.

OPERATION

STANDARD EMERGENCY MODE

When a CALL button is pressed, the HF-2 WM activates the primary relay for the duration of the call, dials a pre-programmed phone number, and monitors the line for the following signals:

Busy Signal: The HF-2 WM will hang up and redial the number after approximately three (3) busy tones.

Ring Signal: The HF-2 WM will hang up and redial the number after approximately six unanswered rings (36 seconds).

Voice or Touch-tones: This indicates an answer. The unit then enters the Talk Mode and plays the prerecorded message.

Answering the Call From the HF-2 WM

Answer the HF-2 WM's incoming call with a short phrase **at least 3 seconds long**. The unit may fail to recognize a short greeting such as "Hello" and may not turn on the microphone.

Once voice communication has been established you may then press keys on your touch-tone telephone to do any of the following:

1. To **Deactivate the Optional Secondary Relay**, press '0'.
2. To **Activate the Optional Secondary Relay**, press '5'.
3. To **Terminate the Call**, hang up or press '7'.
4. To **Reset the HF-2 WM's Call Length Timer**, press '8'.

Note: The unit will beep twice to warn of auto-call termination in 10 seconds.

5. To **Toggle on/off the Primary Relay**, press '9'. The unit will respond with one tone to verify that the relay is deactivated, or two tones to indicate the relay has been activated.
6. To **Retrieve the HF-2 WMT's Site ID number**, press '*'.
7. To **Enter the Program Mode**, press '#', followed by the four digit Program Code.
8. To **play the stored voice message / sote I.D.**, press '6'.

When the HF-2 WM is in the Standard Emergency Mode, the call can only be terminated by the called party hanging up or when they press '7' on their telephone keypad.

Note: If the wrong Program code is entered, the unit will immediately hang up. If the program code or other information is not entered completely, the HF-2 WM will time-out and hang up.

OPTIONAL RING DOWN MODE

When a CALL button is pressed, the HF-2WM dials a PBX pre-programmed phone number:

Voice or Touch-tones: This indicates an answer. The unit then enters the Talk Mode.

Answering the Call From the HF-2WM

Answer the HF-2WM's incoming call with a short phrase **at least 3 seconds long**. The unit may fail to recognize a short greeting such as "Hello" and may not turn on the microphone.

Once voice communication has been established you may then press keys on your touch-tone telephone to do any of the following:

1. To **Activate the Secondary Relay** and hang up after time-out, press '1' or '6'.
3. To **Terminate the Call**, hang up or press '7'.
4. To **Reset the HF-2 WM's Call Length Timer**, press '8'.

Note: The unit will beep twice to warn of auto-call termination in 10 seconds.

5. To **Toggle on/off the Optional Secondary Relay**, press '9'. The unit will respond with one beep to indicate that the relay has been deactivated, or two beeps to indicate that the relay has been activated.
6. To **Retrieve the HF-2 WM's Site ID number**, press '#'.

TROUBLE SHOOTING GUIDE

NO DIAL TONE

1. Check input power at unit. Should be 12 VAC.
2. Check that unit is properly grounded to a good Earth ground.
3. Current starved. Increase AC input wire size.
4. Remove power, wait 5 seconds, restore power. Check for dial tone.
5. Check for phone line. Should be 48-52 VDC across phone line terminals (on hook).
6. Check VOLUME adjustment on PC board.
7. Check "SPKR" plug on PC board. Make sure speaker is properly plugged in (Handsfree units).
8. Verify that contacts and wires are clean and tight.

CANNOT PROGRAM

1. Incorrect/lost program code.
2. Not entering '#' before program code.
3. Try 'NO DIAL TONE' troubleshooting procedures.
4. Keypad damaged. Check for vandalism.
5. Check that Program Prom/Microprocessor is fully seated.
6. Unit is in the wrong Operational Mode

LOSES MEMORY

1. Electrical noise on power line. Install EMI/RFI filter.
2. Excessive electrical noise from strike. Use low current strike.
3. Unit transformer shared with another device (i.e. door strike).

RESIDENT CANNOT ACTIVATE STRIKE/GATE

1. Tenant not pressing correct number on phone.
2. Strike/gate operator not wired correctly.
3. Missing or incorrect power to strike or gate operator.
4. Current starved. Increase wire size.
5. Tone may be too brief in duration (cordless phones, etc.).

AC HUM IN SPEAKER

1. Phone wires running in same conduit as AC power.
2. Unit not properly grounded.
3. Defective microphone.

RESIDENT CANNOT HEAR VISITOR

1. Defective handset/microphone.
2. Person receiving the call answers in too short a duration to activate the HF-2 (person must speak a minimum of 2 seconds to be detected).
3. Excessive background noise.

CONDENSED GUIDE TO USE and PROGRAMMING

General

Data between [] is a mandatory program key stroke sequence. Data between { } is to be supplied by the programmer. Unit responses are shown between ().

Legend:

d	Dial mode (0= Touch, 1= Rotary)‡	pppp	Program Code
f	Five second relay duration time (1, 2,...9)	r	Ring Count (1, 2, ...9)
iiii	Site ID number (always use four digits)	*	The “star” key of the telephone
lll	Call Length Time in seconds (001, ...999)	#	The “pound sign” key of the telephone
nnn nnnn	Phone Number (up to 12 digits)	☎	Tones returned by the unit

SECURITY DEPT. OPERATION

When Security personnel receive a call from the unit, they press key [X] on their telephone to:

STANDARD MODE

- [0] Deactivate Secondary (Camera) Relay
- [5] Operate Secondary (Camera) Relay
- [6] Play Message
- [2] Factory Tone Test (answer tone)
- [7] Force disconnect (hang up)
- [8] Extends current Call Timer 3 minutes
- [9] Toggle on/off Primary Relay (☎ = off, ☎☎ = on)
- [*] Requests Site ID Number
- [#{pppp}] Enter Program Mode

PROGRAMMING THE UNIT

Enter the Programming Mode: **Call the unit, then press [#{pppp}] ☎☎**

- [0{f}]☎☎ Set unit's Gate Open time
- [1{iiii}]☎☎ Set unit's Site ID number
- [2 then 1-0] ☎ [nnn nnn#] ☎☎ Set unit's Auto dial numbers
- [3{pppp}]☎☎ Set unit's Program Code
- [5{r}]☎☎ Set Ring Count before auto answer
- [6{d}]☎☎ Set Dial Mode‡
 - ‡ Dial Mode
 - 0 = Tone dial only+play message on answer
 - 1 = Rotary 2 =Tone and no message played when answered
 - 2 = Tone dial with Secondary Relay pulse
 - 3 = Rotary
- [7{x}]☎☎ Set Operation Mode, where x = :
 - 1 = Standard Emergency mode
 - * 3 = Multiple HF-2's share same phone line
 - 4 = Ring Down Emergency mode (Seizes phone line, waits)
- [8{lll}]☎☎ Set Call Length Time Limit
- [9(tones)#] Echo Test.
- [] then 1-0] Verifies primary or backup telephone numbers
- [#] Return to Normal Mode

