



DEPENDABLE EMERGENCY COMMUNICATIONS

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—A—
HALMA
GROUP
COMPANY

T9000

Emergency Telephone

Installation and Operation

INSTALLATION & PROGRAMMING INSTRUCTIONS FOR T9000 EMERGENCY PHONE

1. INSTALLATION: MECHANICAL AND ELECTRICAL

1.1 MECHANICAL

The T9000 is mounted in a yellow enclosure using (6) 8-32 spanner head screws.

If the A700 enclosure has been shipped prior to the telephone panel for advance mounting: (6) screws (part no. 68415) and a tool have been provided for assembly of the front panel to the A700 yellow enclosure.

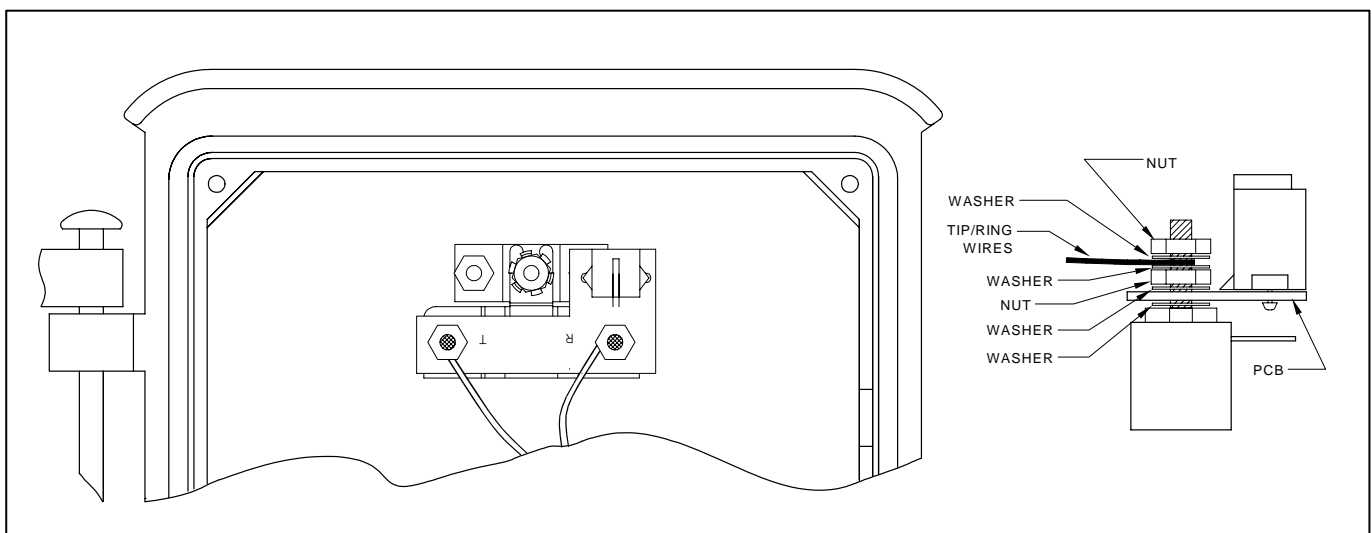
If the T9000 is replacing a T900, follow this procedure to set up the yellow enclosure to accept the front panel and then continue with Mechanical installation, otherwise skip this procedure and move to the Case Assembly Procedure.

Lightning Arrestor Reversal Procedure:

1. Using a Nut Driver remove the two top nuts holding the TIP/RING wires to the PC Board on the lightning arrestor.
2. Remove the two washers and the TIP/RING wires from the arrestor.
3. Remove the last two nuts holding the PC Board in place, then the washers on the PC Board.
4. Flip over the PC Board and place back on the lightning arrestor so it looks like the figure below.

Note: do not remove the washers under the PC Board.

5. Place a washer over each post, then a nut and tighten into place.
6. Put two washers over each post and put the wires back in place between them.
7. Place the last nuts and tighten into place. The case is now ready for the T9000



Case Assembly Procedure:

1. Place the assembled front panel into the enclosure, making sure that the RJ11 cable (roughly 20") is plugged into the lightning arrestor.
2. Screw down the front panel using 68415 tamper resistant screws. (Be careful, the tips of the spanner bit breaks easily. If the screws are tight going in, use an 8-32 tap to clean out the holes.)
3. Verify that the enclosure door is easy to open and shuts firmly. Do not let the sides of the latch hit the enclosure. Adjust set screw if necessary. When correct, fill the set screw hole with RTV sealant and smooth. Do not let it smear around the outside of the case. Wipe with a clean rag.

1.2 ELECTRICAL**Connections**

There are two required connections to the T9000. They are telephone TIP and RING wires. They are not polarity sensitive.

2.0 OPERATION**2.1 OVERVIEW**

The T9000 is a microprocessor based programmable, full-duplex telephone with automatic diagnostic capabilities. The factory default settings allow for calls to be made and received from the telephone with simple keystrokes or codes on the part of the calling or receiving party. Additional features can be activated by calling the T9000 from any touch-tone phone, entering a password, and the two or three digit **program codes**, along with the information to be changed or entered.

2.2 OUTGOING CALLS

When someone picks up the handset and holds down the press-bar, the T9000 goes off-hook. A call can then be made by entering in the number to be reached by using the keypad. Two-way conversation can begin immediately. No keypad entry is required from the agent. You can adjust the handset speaker volume by tapping on the button of front of the faceplate to 3 different levels: Low, Medium and High.

Once the connection is established, the T9000 will hang up if any of 3 things happen:

1. The answering party hangs up and the telephone system is capable of transmitting a momentary drop in line current (CPC, positive disconnect), which the T9000 senses.
2. The answering party transmits a "#" DTMF tone.
3. The calling party releases the press-bar on the handset.

2.2 INCOMING CALLS

Incoming calls to the T9000 have a number of purposes. You may be calling the T9000 to talk to someone at that end, to program the T9000, or to run the diagnostics. You will need to know the telephone number to which the T9000 is connected. Dial that number as you would any other number. If you are off site from the T9000 and not within its area code, the area code and possibly a 1 will be required.

The person receiving the call on the T9000 must pick up the handset and hold down the press-bar to answer the call. For programming and diagnostics, see section 3.0 Programming.

3.0 PROGRAMMING

3.1 CALLING TO THE PHONE FOR PROGRAMMING

Call the string of phones, listen for one ring-back tone and then hang up. After nine seconds, call again. All the phones on the string will go off hook and wait for a serial number. To enter one wait for 5 seconds and then, dial the header sequence *****#**, followed by the serial number of the phone you want and then a pound sign. That phone will respond with a pound sign, after which you enter **2#** or **2** then the programming password (if it was changed with code 57) then **#**. Example: If the password is 12345, you would enter **2 12345 #**.

Do not use the sequence *****#** during programming because the other phones will take that as the header sequence (It doesn't make sense in the context of programming, anyway).

When you are done programming a phone, dial **#** to terminate that phone's programming. The phone will then join the others in listening for the beginning of a header sequence and the selection of another phone extension.

To tell the phones to hang up, dial the header sequence followed by another pound sign *****##**.

If you have only one phone per line you can simplify this process with a programming option that makes the header sequence optional (programming Code 301). When the simplification is selected, the phone emits a **"#"** as soon as it is ready to enter programming mode. You can either enter the header sequence, as above, or skip directly to **2#**, which will take you into programming. When you are done programming you can press **"#"** and then *****##** to hang the phone up.

3.2 PROGRAM CODE FORMATS

Each entry begins with a two or three digit program code. Each Program Code is described in section 3.4. The simplest entries consist entirely of the two-digit program code. Examples include the diagnostic command (**02#**) and the factory default reset (**90#**). By simply entering the program code, the feature is selected, or in some cases disabled. Other entries require the two or three digit program code to be followed by a string of digits, and possibly a pound sign (**#**).

3.3 DIAGNOSTIC CALLS PLACED BY THE PHONE

When the phone places a call in response to an outgoing diagnostic alarm (set by programming code **62**), it dials the first of the three phone numbers set by programming code **55**. It then waits a maximum of twenty seconds to hear a DTMF pound sign (no password is required, since the phone is dialing an authorized number). If it gets that, it enters programming mode; if not, it hangs up and dials the second number, then the third.

When the phone is placed in programming mode this way, a pound sign instructs it to hang up.

This type of call is known as "diagnostic" because it's normally used for routine calls into an automated maintenance system, which issues the Diagnose command (programming code **02#**). But in fact all programming codes are available.

The phone can generate a similar call, Known as an “event” call, to report new problems as they occur. The phone can be programmed so that after any action that starts with the handset being removed from its cradle – an accident, vandalism, or normal voice call – the phone will perform an event check. The phone waits for the termination of the call or press-bar to timeout, sets the timer for a programmable number of minutes, and then checks for error conditions like a stuck button or handset still out of the cradle. If it finds any error condition, the phone places a diagnostic call.

3.4 INDEX OF PROGRAM CODES

The value set by the most recent entry of each command can be played back as DTMF digits for troubleshooting purposes. Simply precede the command code with a zero. Command 047, for example, plays back the last valid transmit volume that was set by command 47.

To replay a command as beeps, rather than as DTMF digits, use a leading asterisk instead of a zero. When you do this, zeros are played back as ten beeps, and asterisks are played back as long beeps.

If a value set by a command is overwritten by the Set Factory Defaults command (code 90#), the value played back for the individual command will not reflect a change.

All programming codes require a termination pound sign (“#”);

02#: Diagnose. The phone responds with six DTMF digits, representing the answers to six true-or-false questions. In each case, “0” means “false”, “1” means “true”. The six questions are:

1. Is the emergency call button pressed (and, presumably, stuck)?
2. Is the volume button pressed (and, presumably, stuck)?
3. Is the handset Press-bar pressed (and, presumably, stuck)?
4. Is the handset off hook?
5. Is the handset missing or broken?
6. Is a Keypad digit Pressed (and, presumably, stuck)?

057#: Play back the unit serial number as DTMF tones.

***57#:** Play back the unit serial number as beeps. Zeros are played back as 10 beeps, and asterisks are played back as long beeps.

19#: Play back version number.

300# or 301#: Serial number on entry is required (300) or optional (301)

47nn or 47n#: Set transmit volume (0 to 100 with 50 as nominal).

48nn or 48n#: Set receive volume (0 to 100 with 50 as nominal).

511(followed by up to 20 DTMF tones)#: Store autodial number. An asterisk represents a two-second pause. This command is implemented only in models that have an autodial button, like the T9001 or that autodial without prompting like the T9000/CRO153.

55n (n = 1 to 4, followed by up to 16 DTMF tones)#: Store diagnostic call-out number n.

57 (followed by up to 16 DTMF tones)#: Store programming password.

60yymmdd#: Set the date. The year is first, followed by the month. Each element must be represented with two digits.

61ddhmmss#: Set the day of the week and the time. Each element, even the day of the week, must be represented with two digits. Days of the week are 01, for Sunday, to 07, for Saturday.

62ddhmmss#: Set the day of the week and the time of the next outgoing diagnostic alarm. Each element, even the day of the week, must be represented with either an asterisk or two digits. The asterisk means "every". To set the alarm to call out each day at 1 p.m., for example, use **62*130000#**. Days of the week are 01, for Sunday, to 07, for Saturday. To disable outgoing diagnostic calls, enter the code without operands (**62#**).

63n# or 63nn#: Set the call timeout to nn minutes. Setting the value to zero disables call timeouts. The default value is 10 minutes.

64n# or 64nn#: Set the post-call check interval to nn minutes. After the end of a patron-originated call, the phone waits through this interval and then checks for an abnormal condition such as handset off hook or a stuck button. If any of these conditions prevail, the phone places an event call to report the problem. Setting this value to zero disables post-call checks and event calls. The default value is 10 minutes.

65n# or 65nn#: Set the switch hook-to-pressbar interval to nn seconds. After a patron lifts the handset, the phone will go off hook for this period of time. If the pressbar is not present during the interval, the phone will go on hook and schedule an event check. Setting this value to zero disables the event call and sets the interval to ten seconds. The default value is 10 seconds, with event calls enabled.

90#: Set factory defaults. This command sets both volume levels to 25 and the call timeout to 10 minutes, the post-call check interval to 10 minutes, and the switch hook-to-pressbar interval to 10 seconds. It also makes serial number entry mandatory (command 300).

FCC Notice:

This equipment complies with Part 15 and part 68 of the FCC Rules. Operation subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. On this unit is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this number must be provided to the telephone company.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

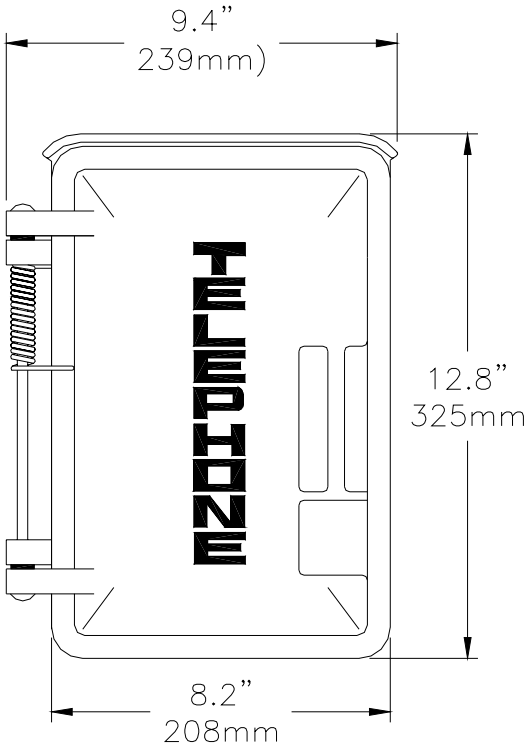
The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment, for repair or warranty information, please contact EMS 1-800-527-9156. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

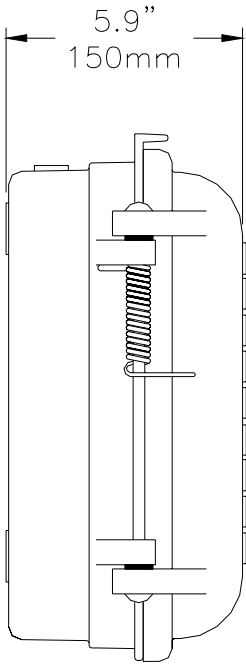
Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

**WHEN PROGRAMMING EMERGENCY NUMBERS AND
(OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:**

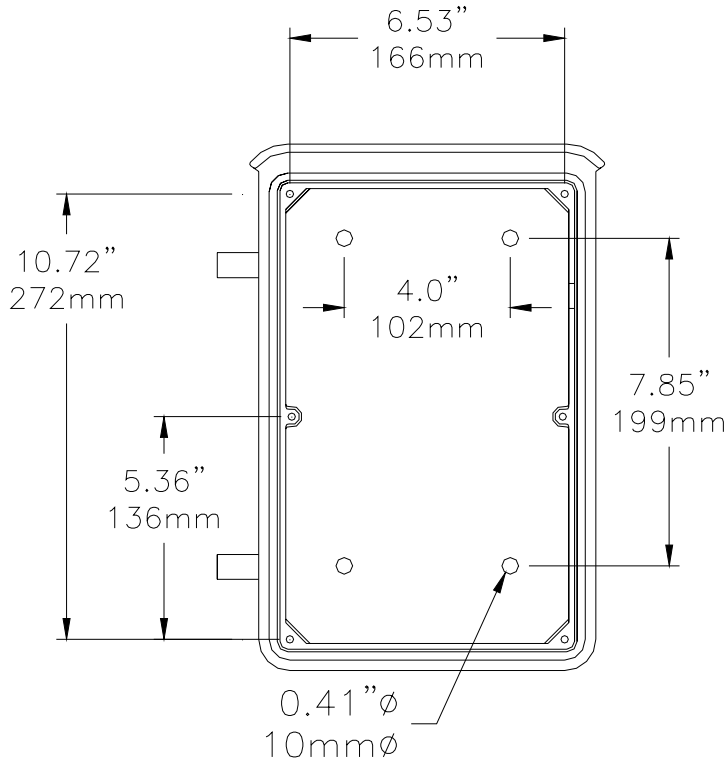
- 1) Remain on the line and briefly explain to the dispatcher the reason for the call.
- 2) Perform such activities in the off-peak hours, such as early morning or late evenings.



FRONT VIEW



SIDE VIEW



FRONT VIEW W/ DOOR REMOVED

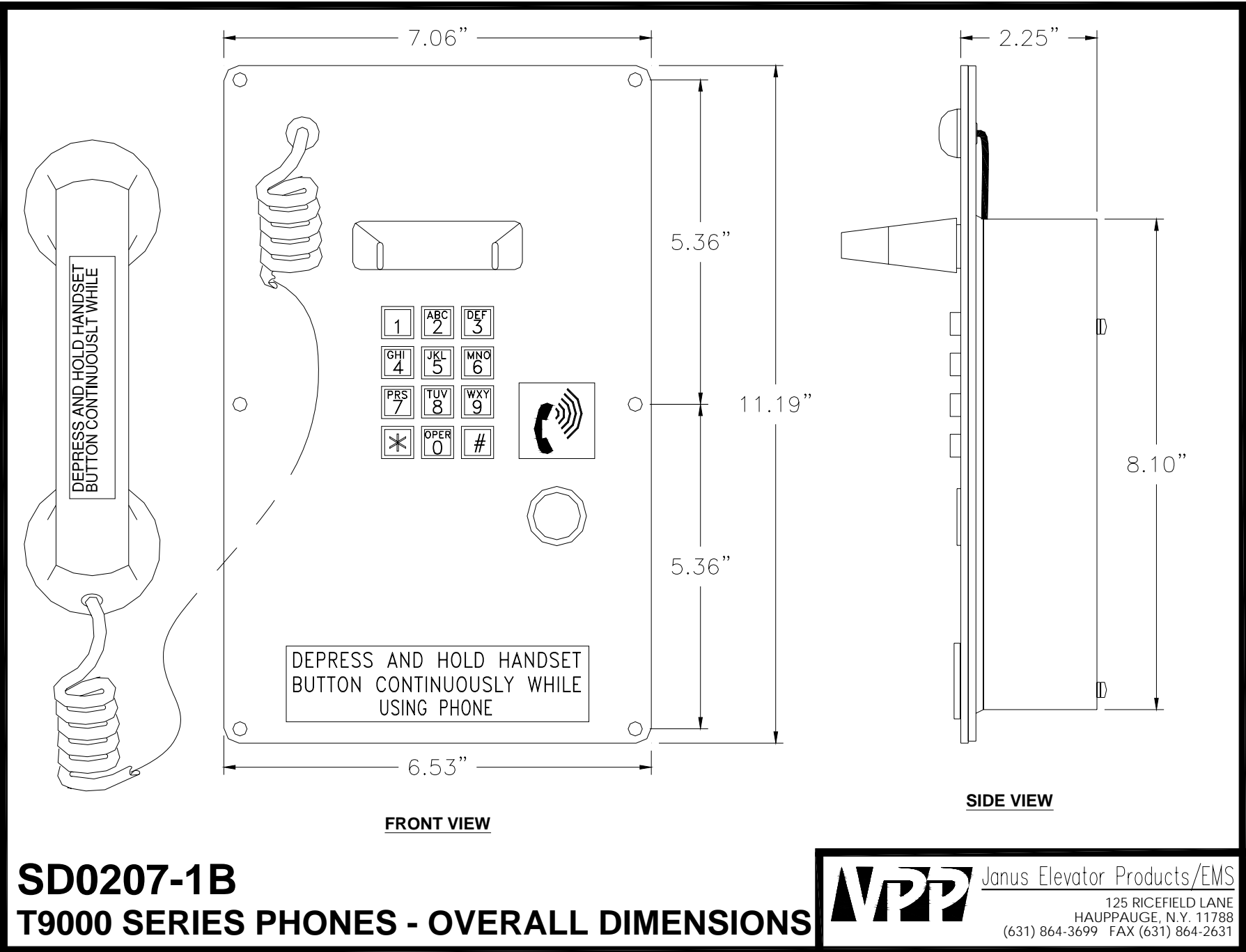
- 1. MATERIAL: ALUMINUM ALLOY
- 2. 0.25" (6.4mm) WALL THICKNESS
- 3. YELLOW POWDER COAT W/ BLACK LETTERING
- 4. 3/4" (19mm) NPT HOLES (CAN BE REDUCED TO 1/2" (13mm) NPT WITH THREADED INSERT)
- 5. NON-LOCKING, SELF LATCHING ROLL-TYPE LATCH.

AE700 ENCLOSURE OVERALL DIMENSIONS

SD9805-3D



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SD0207-1B

T9000 SERIES PHONES - OVERALL DIMENSIONS



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