



Click2Enter-I

Operator's & Installer's Guide

Version 1.0



Click2Enter™

Click2Enter, Inc.

**Designing and Manufacturing
Access Control Technology
For the 21st Century**

Protected By United States Patent
Numbers 5,903,216 & 5,955,947
Foreign Patents (PCTs) in Application

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Contents

1. Introduction.....	3
Overview.....	3
Features.....	3
2. Operation	5
Technical Description	5
Working with Radios	7
3. Installation	9
Tips/Suggestions.....	9
4. Programming	13
Overview.....	13
Programming the Click2Enter-I	14
Logging On to the Unit.....	18
5. Configuration	25
Access Control.....	27
Test Mode	27
6. Specifications.....	29
7. Click2Enter, Inc. Limited Warranty	31
8. FCC Information	32

1 Introduction

Overview

Click2Enter-I does away with cumbersome keys, access control codes, and remote control actuators, because every emergency response vehicle and responder already carries the key—their mobile or portable radio transceiver.

Click2Enter-I was developed to provide public safety personnel (or any authorized user) immediate access to gated residences, communities, or any security-controlled mechanism. Other authorized users can use Click2Enter-I as long as they have programmed access into its frequency bank and have a radio transceiver. Click2Enter-I, compared with other emergency access control systems, will set the industry standard for many years to come.

The Click2Enter-I combines scanner/receiver technology with control technology to act as a radio-controlled key to open access control devices (gates or security control mechanisms), allowing public safety agencies (or any authorized users) immediate access for dealing with emergencies as they occur. All that is required to activate the Click2Enter-I is that the operator must be in proximity to the unit, and use two short pulses of their radio transceiver to initiate an instant activation/entry.

Features

- Scanner/receiver radio
- Externally visible power LED & activation LED
- Time/day/agency memory recall
- User-selected PIN for security of programmed frequencies
- Factory override PIN, via software
- Separate device available to perform external test/operation of Click2Enter-I
- Five year manganese dioxide lithium battery memory backup features
- CTCSS, PL/DPL private line (PL) programming capability
- Auto detect and load of sub-audible private line codes

- Able to receive talk around carriers of trunk line radio system transmissions
- Able to receive radio transmissions to include 800 MHz bands
- 20 channel capacity
- Programmable via RS-232 interface
- Two radio transmission “clicks” for activation
- Able to capture and exhibit activation data log, via software
- Relay or dry contact ready
- Extra set of relay contacts to activate a multitude of devices
- Latch open and close features. Programmable for variables 1 to 60 (as well as “instant on”) minute reset delay on each channel
- Field programmable using a palm top organizer (REVO by PSION is recommended)
- Unit enclosed in a NEMA/EEMAC Type 4 fiberglass box, with security screws supplied
- Ability to handle high power mobile transmitters and lower power hand held portable transmitters
- Compatible with most analog or digital radio transmitters (digital set to “clear mode”), using private line sub-audible transmissions
- Proprietary programming software built into each unit
- Computer software programmable using standard terminal emulation software
- Variable activation range via programming
- Retrofit kit available for extreme temperature range installations (hot & cold)
- Mutual aid compatible
- Ability to adapt and use 24V DC to 30V DC or 12V AC to 24V AC (Click2Enter power will be a regulated 12V DC)
- Lightning surge protected (current/surge limiting circuit) rated at 140 Vac and 175 Vdc. Surge current rated at 600 amps

2 Operation

Technical Description

Overview

Click2Enter-I takes advantage of state of the art electronics presently being designed into scanner radio technology. The modified scanner/radio technology provides public safety agencies a quick, safe, reliable, and stealthy means to activate gates or security control mechanisms.

Fire Departments, Police/Sheriff Departments, Ambulance/Rescue Companies and other public safety agencies are issued radio frequencies by the FCC for their restricted use only. Possession of transmitting devices for non-authorized personnel is tightly controlled and transmitting on these frequencies is against the law (Federal & State statutes). The public's right to receive these emergency agency communications is not restricted, making it legal to possess emergency response scanning devices.

How it Works

The Click2Enter-I uses technology that is inherent in most all radio broadcast equipment and adapts this technology to work as a control mechanism. We increase the security of the Click2Enter-I by requiring a verification of the FCC assigned carrier frequency and the agency assigned sub-audible communication (private line code). So it takes two separate verifications to cause an activation of the unit.

An "auto-load" feature enables the Click2Enter-I sub-audible PL (private line) code to be auto detected and auto loaded. The installer/programmer can choose to enable the auto-load feature, or can manually assign the PL code.

Click2Enter-I stores a running activation log, in memory, for operator recall. The Click2Enter system allows access by any public safety agency or authorized users as long as a frequency they use is programmed into its memory.

Activation Sequence

The entire activation sequence takes less than four seconds. The operator can either be on foot and using a portable radio, or in a moving vehicle, using a portable or mobile radio.

It's as easy as:

- Approach the Click2Enter unit
- Hold the radio key until the Activation light illuminates
- When the light shuts off, release the radio key
- When the Activation light illuminates again, hold the radio key again until the light shuts off.
- Gate Opens and/or security system deactivates

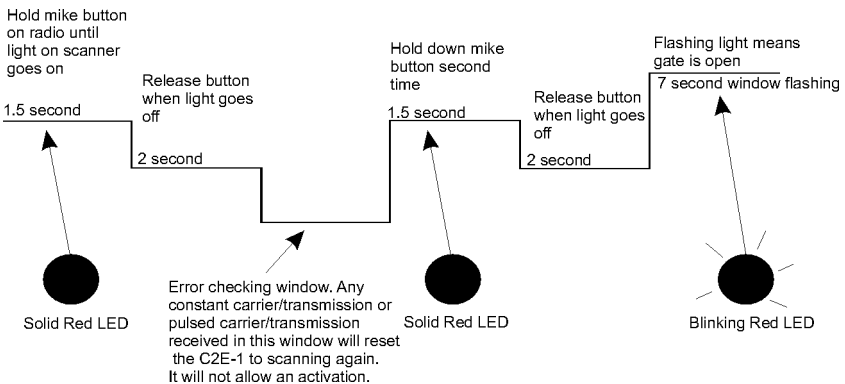


Figure 1. Activation Pulse Diagram

Note: The Activation light will blink while the gate is being opened. If the gate does not begin to open once the Activation light begins to blink, it is recommended that the Click2Enter-I be allowed to reset, then retry the activation sequence shown above.

If the Click2Enter-I still fails to activate the gate while the Activation light is blinking, a decision to force the gate will have to be made.

Working with Radios

Since the Click2Enter-I will operate on multiple frequencies, you will need to establish who will be allowed access to the system. The Click2Enter-I will allow 20 different frequencies to operate the system. This allows multiple agencies and authorized users to operate the gate.

Note: This system requires no changes to the transmitting radios.

To program the Click2Enter-I for the radio system(s) being used, a few key pieces of information are needed:

- ***What frequency does the public safety agency want to designate for the activation frequency?*** Since the system works off of two timed transmission pulses, the regular use of the frequency will not be impaired.
- ***Does the public safety agency use Private Line Coding (tone), and if so, does it use PL (analog) or DPL (digital)?*** The Click2Enter-I works with a carrier and either type of Private Line Coding. The Click2Enter-I will work with a carrier alone, but this method is not as secure as using Private Line Coding and a carrier together.
- ***Does the public safety agency use a Trunk or Digital radio system?*** If so, some accommodations must be made to the use Click2Enter-I.
 - To program the unit for a Trunk system, a talk-around or sub-channel will have to be assigned to the Click2Enter-I.
 - To program the unit for a Digital system either:
 - Program the unit to use the carrier frequency alone, knowing that this is not as secure as carrier and Private Line Coding together.
 - Reprogram one of the public safety agencies radio frequencies to the analog or clear mode and assign a Private Line Code to it.
- ***Are the carrier frequencies being used wideband or narrow band?*** The Click2Enter-I will work with most platforms being used today. See page 13 for more information on wideband and narrowband.

**Portable
Radios**

The Click2Enter-I is designed to operate most efficiently and accurately with the transmitting radio in the upright position (vertical radio antenna). The range and effectiveness of the radio will be greatly altered in any other configuration.



3 Installation

Tips/Suggestions

Temperature Range

Click2Enter-I has a minimum and maximum operating temperature specification.

Maximum Range: 140° F

For the most high temperature applications, the maximum rated temperature of the unit is 140 degrees Fahrenheit. For best operation, mount the unit in a location where it is shaded from direct sunlight. Should it be necessary to mount the unit in the direct sun, you may purchase an after-market sun bonnet retrofit device from Click2Enter, Inc. You may also add your own wood, plastic or fiberglass device to adequately shade the Click2Enter-I and expand its upper limit temperature range. The use of metal is prohibited since it may effect the operating range and make the provided gain/range setting data ineffective.

Minimum Range: 14° F

The low end operations of the Click2Enter-I is 14 degrees Fahrenheit. For installations that may subject the Click2Enter-I to a temperature range below this limit, you may purchase an after-market retrofit heater kit from Click2Enter, Inc. The heater retrofit kit will allow operations well below 0° F.

**Distance
Ranges**

The operational activation range of the Click2Enter-I can be configured in many different ways.

Note: There are many variables in transmitter output power and frequency of operation, as well as installation variables such as mounting height, mounting to a fence or cement wall, etc. that can effect the operational range of the Click2Enter-I.

A chart to assist you in assigning an arbitrary distance setting of 10 feet for installations in the field is located in Table 1 below. It is a reference for you to set the general distance based on the frequency range and 4W power output of the operating transmitters on the individual channel of assignment. These settings were made in optimal conditions. The values in your application may vary. The base range settings are not absolute. The settings in Table 1 were obtained using a 4W portable unit at a distance of 10 feet.

Should the Click2Enter-I not activate at a reasonable distance or be too sensitive causing spurious activation to occur, you may want to change this setting.

Table 1: Click2Enter-I Gain/Ranging Base Settings*

<i>Portable Radio @ 4W Output Power</i>	<i>Frequency Used</i>	<i>Click2Enter-I Gain/Range Setting</i>
<i>VHF Low</i>	51.0000 MHz	84
<i>VHF High</i>	154.445 MHz	50
<i>UHF Low</i>	464.500 MHz	50
<i>UHF High</i>	853.150 MHz	42

* The data in this table is based on a 10 foot operating range.

Power Output

Another installation concept to consider is the lower power output of the hand held portable radio compared to the higher output power of the mobile transmitter radio. Should activation of the unit only be required via the hand held portable, then it is acceptable to set the operational activation distance to that particular unit.

If both portable and mobile radios are to be used, set the operation range of the portable radio first, then test the mobile's range. It is recommended that you never enable the portable handheld transmitter to operate at a range greater than the 10 feet based on the settings shown in Table 1. In some applications, due to radio wave propagation, the portable will not work at the same ratio as the mobile. In most applications, if the mobile radio operates at a setting of 75 feet, then the portable should operate at a range of 10 feet. These are arbitrary numbers, but they show the operational difference between the two different power outputs of units working off of the same frequency.

We recommend assigning a separate frequency to be used with the portable radios if:

- The portable radios may be turned off or are beyond the distance based on the operational range of the mobile.
- It is desirable to use the portables in conjunction with the mobiles.

Assigning the portable units their own frequency will allow greater control over the range of the Click2Enter-I. Remember that if the high power mobile accesses that different channel it may open the gate at a further distance thus causing an accidental or spurious activation or opening.

Option Relay

The option relay is provided for the installer/user to be able to activate other devices when the Click2Enter-I is activated. This relay provides a short one time contact which can activate any other device which may be attached to it. For example, if there is an alarm at the residential or commercial site, the installer could assign a circuit loop from the security alarm system to the option relay contacts. This would activate the alarm whenever the Click2Enter-I was activated, adding an increased security potential to the system.

4 Programming

Overview

Having multiple-user programmability answers the mutual aid problem that presently exists with other emergency access control products.

The Click2Enter-I is programmed to work with the most commonly used frequencies used by public safety agencies. See “Specifications” on page 29.

Note: A standard carrier line radio’s frequency and tone (PL or DPL) may be entered into the Click2Enter-I to allow the property owners to open the gate with their own radio.

VHF Wide Band vs. Narrow Band

The frequency bandwidth, or stepping, is very important to the operation of the Click2Enter-I. Since the Click2Enter-I is a wide-band receiver, it will work with 100% of the allocated wide band frequencies with Private Line Code assignments.

Although very few VHF narrow band radios are in use for public safety applications, it is possible to program the Click2Enter-I for this kind of radio. A VHF narrow band frequency will contain four digits to the right of the decimal point. For example, the frequency 137.1234 is in the narrow band range. A frequency containing 3 digits to the right of the decimal point is in the wide band range. For example, the frequency 154.123 is in the wide band range.

There are some limitations in using the VHF narrow band frequency range. Using VHF narrow band, the Click2Enter-I will operate at 100% efficiency with the frequency or carrier only. The Private Line Codes will operate in only 50% of the allocated frequencies. It is impossible to predict which Private Line Codes will work, so it is highly recommended that the system be fully tested by a public safety official in your area.

UHF Wide Band vs. Narrow Band

As with VHF wideband, UHF wideband will have three digits after the decimal point and will work with all Private Line Codes.

Although very few UHF narrow band radios are in use for public safety applications, it is possible to program the Click2Enter-I for some frequencies in this band.

For UHF narrow band, the frequency can contain four or five digits after the decimal point. Four digit UHF frequencies will work with all Private Line Codes. UHF narrow band frequencies that contain five digits after the decimal point are beyond the range of the Click2Enter-I.

Note: A small number of four digit UHF frequencies (i.e. 380.1234) are in use for public safety applications, but at this time there are very few, if any at all, five digit UHF frequencies (i.e. 380.12345) being used for public safety applications.

Programming the Click2Enter-I

Any terminal emulator such as Windows HyperTerminal can be used to program the unit. If HyperTerminal is not installed on your Windows-based computer, it can be installed from the Microsoft Windows installation CD:

1. Click **Settings > Control Panel** from the **Start** menu.
2. Click **Add/Remove Programs**.
3. Click the **Windows Setup** tab.
4. Double-Click **Communications** from the component menu.
5. Select the HyperTerminal checkbox.
6. Click **OK**.

Adding Frequencies to the Click2Enter-I

1. Once the frequencies have been obtained from the proper agencies, verify that they will work with the Click2Enter-I system by comparing them to Table 1 on page 10.

2. After the programmer has determined that the frequencies are suitable for programming, the Private Line (PL) coding must be obtained.

The PL coding can be either analog (PL) or digital (DPL). The Click2Enter-I can auto-load either of these types, but the programmer must know whether the frequency is PL or DPL.

To be most effective, it is recommended that the exact PL and DPL coding be obtained from the public safety agency for verification and programmed manually into the unit.

Caution: There is a small chance that the Click2Enter-I may falsely load improper PL or DPL codings. If auto-load is used to load the PL or DPL coding, it is highly recommended that the public safety agency be encouraged to test the system within 48 hours of installation. Failure to comply could result in a defective system.

Connect and log in to the Click2Enter-I using a standard female/female serial cable and a terminal emulator program. See “Logging On to the Unit” on page 18. Type **E** at the **C2E>** prompt and enter the frequency data. See page 21 for information on entering this data.

Removing Existing Frequencies

If you need to remove a frequency from the Click2Enter-I, you must zero out the frequency from the assigned channel.

1. Enter the Click2Enter-I setup program (See “Logging On to the Unit” on page 18) and select **E – Enter Channel Data**.
2. Enter the Channel number at the Channel prompt.
3. Use the **Backspace** key to remove the entire frequency data including the leading space at the Frequency prompt.
4. Enter 0, and press Enter.

The setup program will then clear the channel of all data.

Gain Settings

5. The gain must be set while entering the frequency into the unit. The gain setting allows the programmer to set the range of operation by adjusting the unit sensitivity.

When programming the gain setting, always adjust to the **minimum distance** necessary for your application to prevent unwanted activations.

Note: In very rare circumstances, you may need to adjust the gain/range setting very low in order to accommodate the higher power output of a mobile transmitter. In doing so, the lower-powered 4W portable unit will be ranged in too closely to operate the Click2Enter-I.

The gain can be set from 0 to 255. The actual gain swing typically programmed will be between 30 and 150.

Warning: To protect the lives of people and pets, as well as to prevent property damage, do not set the gain to a level that allows for the operation of the gate to be beyond the line of sight.

Figure 2 on page 17 shows the gain/range settings of a typical 4W portable radio operating in the various frequency bands. The figure shows that the gain/range of the unit is dependent on the frequency band. It is also dependent on the radio power output and the relative placement.

These settings were derived from optimum placement of the unit. The actual settings required in your application may differ.

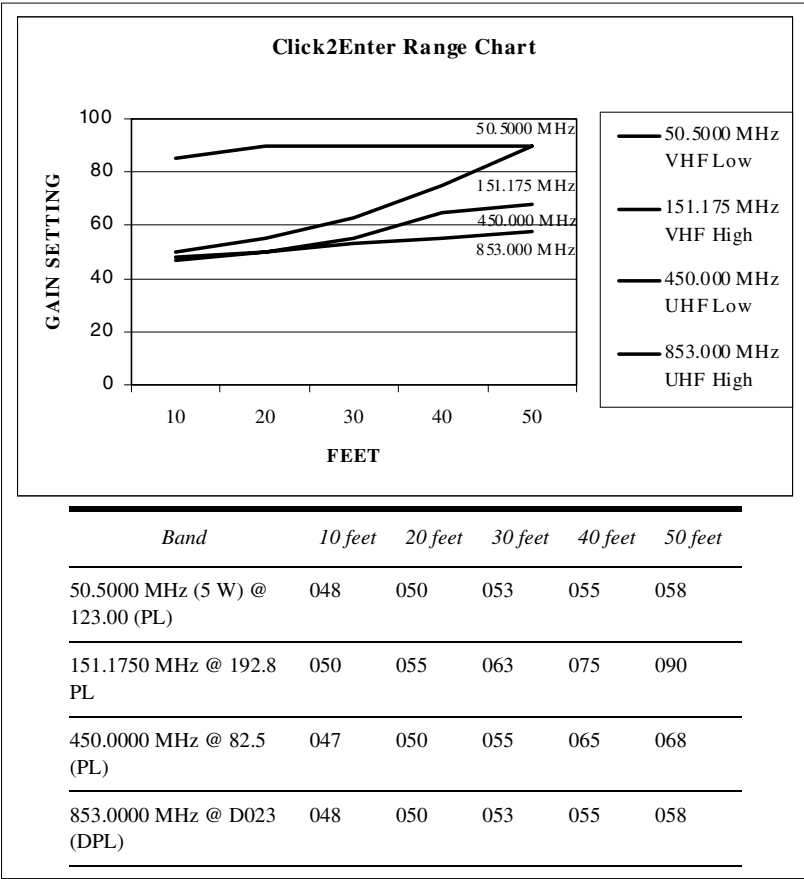


Figure 2. Ranging Chart

Programming with a Palm Top

To make programming the Click2Enter-I easier, a small PSION REVO organizer with terminal emulator software can be used to program the unit in the field. This organizer has a complete keyboard to make programming the Click2Enter-I simple. A brochure for the PSION REVO is included with the Click2Enter-I. For more information on this product, please contact Click2Enter at (877) 939-3800.

Logging On to the Unit

During Initial Power Up

Connect a PC to the Click2Enter-I serial port. The first time the Click2Enter-I is powered on, the firmware will detect that the non-volatile memory has not been initialized. The unit will enter the factory maintenance mode (level 3) and prompt the user to enter the serial number, time, and date.

After the initial installation, the Click2Enter-I will default to level 1 or level 2 mode.

Note: It is important to connect a PC to each unit when it is initially powered on to allow the serial number to be entered correctly.

During Normal Operation

To access the Click2Enter-I maintenance interface:

1. Connect a PC or serial-enabled palm top to the Click2Enter-I serial port using a standard 9-pin male to female serial cable.
2. Run a terminal emulator such as Microsoft Windows HyperTerminal.
3. The Click2Enter-I operates at:
 - 9600 bps
 - No parity
 - Eight data bits
 - One stop bit
 - Xon/Xoff Flow control
4. Press the **Enter** key.

Note: The unit will not display anything on the terminal program until you press the **Enter** key.

5. Enter the password as shown below.

Click2Enter (tm) - V1.06 - C2E-1.0 - S/N
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U.S. Patent number 5,903,216 and 5,955,947.
Foreign patents pending. All rights reserved.

Password: *Type password here. It will not show on the screen.*

Figure 3. The Maintenance Screen login prompt

Note: When the programmer leaves Click2Enter-I idle for approximately five minutes, a time-out feature causes the unit to default to asking for the re-entry of the assigned password.

If you enter the password correctly, the maintenance command prompt shown below appears:

Press ? for help.

C2E> ?

Figure 4. The Maintenance Screen command prompt

Note: If no maintenance commands are sent to the Click2Enter-I within five minutes, the maintenance mode will terminate and the unit will revert to its normal mode.

Maintenance Commands

Enter the ? command to list the following maintenance commands.

C2E> 2

C - Clear Activation History
D - Set Date & Time
E - Enter Channel Data
G - Toggle Gate Relay
H - List Activation History
L - List Channels
O - Toggle Option Relay
P - Change Passwords
R - Reset
S - Status Report
T - Toggle Test Mode
X - Exit Programming Mode
Y - Copy Test Channels
Z - Erase all Channels and History

Figure 5. Viewing the List of Maintenance Commands

- C** This command removes all entries from the activation history log.
- D** This command sets the time and date of the on-board clock chip. The data must be entered *exactly* in the form: mm/dd/yyyy hh:mm. For example, "04/18/2000 18:43."

- E This command allows the operator to enter data for a specific channel.

```
C2E> E

          Channel: 19
          Frequency: 460.125
          Mode (C/P/D): D
          DPL Code (0 = auto): D732
          Gate Open Time: 22
          Gain: 44
          Option Control (Y/N): Y

C2E>
```

Figure 6. Entering Channel Data

The channel mode is selected by entering one of the following:

- C Carrier-only operation
- P PL tone activation
- D DPL code activation

Enter a frequency at the frequency prompt. To remove or zero a programmed frequency, see “Removing Existing Frequencies” on page 15.

Note: At least three digits after the decimal point must be entered in the frequency.

Enter the DPL or PL codings that are supplied by the public safety agency. The DPL and PL codings can also be auto-loaded by selecting PL/DPL Code 0. If auto-load is selected, be sure to have the public safety agency test the unit for proper operation.

The Gate Open Time sets the length of time the gate will stay open before it automatically closes.

The typical setting for gain is 44.

Enter Y in the option control prompt to allow the option relay to activate. For more information on the option relay, see “Option Relay” on page 11.

- G** This command changes the state of the gate relay for testing purposes. This will allow the field service personnel to check the wiring of the gate relay.
- H** This command lists the 50 most current entries stored in the activation history log.
- L** This command lists the contents of the channel memory.
- O** This command changes the state of the Option relay for testing purposes. This will allow field service personnel to check the wiring of the Option relay.
- P** This command allows the user to change the passwords. At level 1, only the level 1 password can be changed. At level 2, the level 1 and level 2 passwords can be changed. See Figure 7 below.

```
C2E> P

Password level: 1
  New Password: 123456
  Enter again: 123456

C2E> 2

Password level: 2
  New Password: 234567
  Enter again: 234567

Invalid password or passwords don't
match.
Installer password must start with a
'1'.
Distributor password must start with a
'2'.

C2E>
```

Figure 7. Changing Passwords

Level 1 *must* begin with the number 1 and level 2 *must* begin with the number 2 as shown in Figure 7 above.

- R** The reset command resets the Click2Enter-I to a normal operating status as follows:
- Test Mode is cancelled
 - The gate is closed
 - The option control is deactivated
- S** This command lists the current state of the Click2Enter-I.
- T** This command toggles the test mode on or off.
- X** This command terminates the maintenance mode access to the Click2Enter-I. The maintenance mode terminates automatically if no commands are entered within approximately five minutes.
- Y** This command is for Click2Enter, Inc. use only.
- Z** This command erases all channels and history entries.

5 Configuration

The Click2Enter-I is simple to configure. The door on the waterproof case can be opened by unscrewing the security screws.

Once the door to the Click2Enter-I is open, the battery (B), serial port (C), barrier strip (① through ⑧), and test button (D) can be accessed.

Caution: DO NOT adjust the volume and squelch knobs (A) shown in Figure 8. Both of these knobs are set at the factory and adjusting them will effect the squelch and WILL adversely effect the performance of the Click2Enter-I.

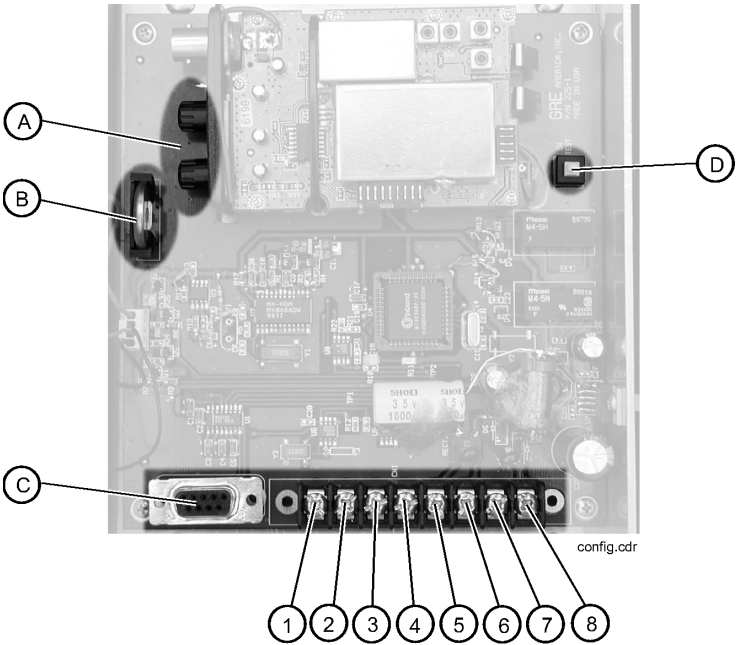


Figure 8. The Click2Enter-I System Board

Table 2: Barrier Strip Connections

<i>Terminal Connection</i>	<i>Connection Type</i>	<i>Description</i>
Lugs 1 and 2	Option Relay	Pulse on dry contact. Normally open relay
Lugs 3 and 4	Gate Relay	Normally open relay
Lug 5		Used to supply 12 Vac to the Click2Enter-I to
Lug 6		Used to supply 24 Vac to the Click2Enter-I
Lug 7 (–)		Used to supply +12 Vdc to the Click2Enter-I to
Lug 8 (+)		Used to supply +30 Vdc to the Click2Enter-I

Battery

The Click2Enter-I comes with a built in five year manganese dioxide lithium battery.

Test button

The test button tests the unit's ability to receive radio signals. Once the button is pressed, the power LED will blink to indicate test mode and for approximately five minutes the unit will activate with any of the unit's standard radio signals that are in close proximity.

Once test mode is disabled, the Click2Enter-I will revert back to using the programmed operations channels.

A suitable test radio using carrier and sub-audible private line codes can be purchased from Click2Enter, Inc. or your Click2Enter authorized dealer.

RS-232 serial port

The RS-232 serial port connects the Click2Enter-I to a computer for programming purposes.

Barrier Strip

The contact bar connects the Click2Enter-I to the devices that it will control and to its power source.

Access Control

Access to the Click2Enter-I maintenance unit is protected by three levels of passwords. The initial passwords are set when the unit is powered up for the first time. The default values for the unit are:

- Level 1: 123456
- Level 2: 234567

Level 1 is the lowest level and is used primarily by installers and other field personnel. Level 2 is intended for use by distributors or other wider use. For example, the level 2 password may be the same for all units sold from one distributor, but the level 1 password should be set to a unique value.

If the other two passwords are lost, Click2Enter, Inc. can access the unit through a factory override password. If this is necessary, please contact Click2Enter at (877) 939-3800.

Passwords can be from 1 to 15 characters in length. Level 1 **must** begin with the number 1 and level 2 **must** begin with the number 2 as shown above.

Test Mode

The Click2Enter-I has a special test mode feature. Test mode can be activated by pressing the button on the Click2Enter-I, or selecting the test mode command from the maintenance interface. Once activated, the power LED will blink until the unit returns to normal mode after approximately five minutes. Table 3 on page 28 shows the frequencies available during test mode.

Table 3: Fixed Channel Memory

<i>CH</i>	<i>Frequency</i>	<i>Channel Mode</i>	<i>Code</i>	<i>GT</i>	<i>Gain</i>	<i>Opt</i>
00	To Be Defined					
01	To Be Defined					
02	To Be Defined					
03	To Be Defined					
04	To Be Defined					
05	To Be Defined					
06	To Be Defined					
07	To Be Defined					
08	To Be Defined					
09	To Be Defined					
10	User Defined					
11	User Defined					
12	User Defined					
13	User Defined					
14	User Defined					
15	User Defined					
16	User Defined					
17	User Defined					
18	User Defined					
19	User Defined					

6 Specifications

Memory Channels

Main Bank	20
Test Bank	20

Sensitivity FM: (S+N) 20 dB, Deviation = 3 KHz at 1 KHz ***(50 Ω Load)***

29 - 54 MHz	1 μ V
137 - 174 MHz	1 μ V
380 - 512 MHz	1 μ V
806 - 960 MHz	2 μ V

Spurious Rejection

FM at 154 MHz	40 dB
---------------	-------

Selectivity

\pm 10 KHz	-6 dB
\pm 18 KHz	-50 dB

IF Interference Ration

257.5 MHz at 154 MHz	50 dB
21.4 MHz at 154 MHz	100 dB

Scanning Rate 25 channels/sec.

IF Frequencies 257.5 MHz, 21.4 MHz, and .455 MHz

<i>Frequency Coverage</i>	Freq.	Step	Mode
	29 - 54 MHz	5 KHz	FM
	137 - 174 MHz	5 KHz	FM
	380 - 512 MHz	12.5 KHz	FM
	806 - 824 MHz	12.5 KHz	FM
	849 - 869 MHz	12.5 KHz	FM
	894 - 960 MHz (Without Cellular Band)	12.5 KHz	FM
<i>Squelch Sensitivity</i>			
Threshold	less than 1.0 μV		
Tight (FM)	(S+N)/N 25 dB		
<i>Antenna Impedance</i>	50 Ω		
<i>Max. Current at Relay</i>			
Gate	1 A		
Option	1 A		
<i>Power Requirement</i>	12 to 30 Vdc 12 to 24 Vac		
<i>Current Drain</i>	Gate, Option, and LED activation = ~150 mA		
<i>Operating Temperature</i>	-10° to +60° C		
<i>Dimensions</i>	8½” x 6½” x 4¾” (HWD)		
<i>Weight</i>	~2.9 lbs.		

7 Click2Enter, Inc. Limited Warranty

Click2Enter, Inc. (Click2Enter) warrants the Click2Enter-I (Product) only to be free from defects in material and workmanship under normal use and service for a period of one year after the date of purchase by the original customer.

Click2Enter's sole obligation under this warranty is limited to repairing or replacing, at our discretion, any parts which shall be determined by Click2Enter to be defective, and is conditioned upon the original customer giving notice of any such defect to Click2Enter within the warranty period. Click2Enter reserves the sole right to make the final decision whether there is a defect in materials and/or workmanship, and whether or not the product is within the warranty period. Click2Enter is not responsible for any damages or other cost/s proximately caused by, or which may result from installation, handling, non-recommended operation abuse, or modifications not authorized by Click2Enter for any damages which may arise out of use of the Product.

This warranty shall not apply to any Click2Enter product which has been subject to misuse, neglect, accident, or to use in violation of instructions furnished including improper installation or connection to an improper voltage source, or products damaged by Acts of God (lightning strikes, power surges, floods, fire, natural disaster) or extended to units which have been repaired or altered outside of the factory.

Click2Enter, Inc. reserves the right to make changes or improvements to our products without incurring any obligation to similarly alter products previously purchased.

The warranty covers bench repairs only, and any repairs must be made at the factory or place designated in writing by Click2Enter. Any product must be returned to Click2Enter by; calling toll free **877-939-3800**; or by writing Click2Enter, Inc. P.O. Box 1532 Sonoma, California 95476; or via the world wide web at www.click2enter.net. Freight will be paid by the party seeking warranty service. Click2Enter will pay freight on our return of repaired or replaced items in warranty. Click2Enter will not be responsible for any costs incurred involving on site service calls, or for any labor charges incurred in the removal or replacement of defective units/parts.

THIS WARRANTY IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THOSE ARISING BY LAW, STATUTE, USAGE OF TRADE OR COURSE OF DEALING, AND IN LIEU OF ANY OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF CLICK2ENTER. ACCORDINGLY, CLICK2ENTER ASSUMES NO LIABILITY OR OBLIGATION WHATSOEVER IN THE SALE OF THIS PRODUCT INCLUDING ANY LIABILITY FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES TO YOU OR ANY OTHER PERSON, PROPERTY OR ENTITY RESULTING FROM THE USE OR POSSESSION THEREOF. OUR MAXIMUM AGGREGATE LIABILITY TO YOU SHALL NOT EXCEED THE AMOUNT PAID BY YOU FOR THE PRODUCT. THE LIMITATIONS IN THIS SECTION SHALL APPLY WHETHER OR NOT THE ALLEGED BREACH OR DEFAULT IS A BREACH OF A FUNDAMENTAL CONDITION OR TERM, OR A FUNDAMENTAL BREACH. WARRANTIES IMPLIED BY LAW ARE LIMITED IN DURATION TO THE ONE YEAR PERIOD DESCRIBED ABOVE.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

Warranty Registration

To validate the above warranty, the purchaser must fill out and return the enclosed warranty postcard.

FCC INFORMATION

This device complies with Part 15 of the FCC Rules. Operation is 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.

In accordance with FCC requirements, changes or modifications not expressly approved by Click2Enter, Inc. could void the user's authority to operate this product.

CAUTION: Scanning is a great pastime. You can listen to exchanges between police, fire departments, ambulances, military organizations, government agencies, private companies, aircraft and amateur radio stations. Owning and operation this scanner is legal in so far as you do not intentionally intercept the following electronic and wire communications:

- Cellular, cordless or private telephone conversations transmit communications through means of telephone signal transmissions.
- Pager transmissions.
- Scrambles of encrypted transmissions.

As amended the Federal Electronics Communication Privacy Act (ECPA) states you could be fined and/or imprisoned for intentionally listening to, using or disclosing the contents of such a transmission unless a party in the communication has consented-unless such and activity is otherwise legal.

In some areas/states it is unlawful to operate a scanner. Please check the laws in your areas as they may change from time to time. Click2Enter, Inc. assumes no liability for the operation of this scanner.

"Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.