K-TECH EMERGENCY SPEAKERPHONE INSTRUCTION BOOK

Please Read Carefully before Installation and Operation

Sentry II ET901A
Fortress II ET1901A
Commander II ET901A-OEM
Liberator II ET901A-LP

ATTENTION! Please read the following important information before proceeding with the installation.

WARNING: K-Tech International, Inc. does not represent this product to be waterproof. DO NOT expose this unit to rain or moisture. For more information on moisture resistant units, contact K-Tech.

NOTICE: IMPORTANT NiCad BATTERY DISPOSAL INFORMATION

The rechargeable nickel cadmium batteries used in this phone may require special handling when disposed of in your state.

- Do **not** dispose of in fire or flame as explosion could result.
- Do **not** short circuit the battery.
- Contact your local authorities for proper disposal information.

After installation is complete, place this booklet with the phone or somewhere nearby for future reference.

For questions and support, call: 1-800-993-9399

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QUICK START: Had prior experience in installing phones? Skip to page 9 for a quick installation summary and guide for two number dialing and one voice message programming and testing.

1. INTRODUCTION

The K-Tech International's Series II family of AC powered emergency speakerphones are designed to provide reliable communication in the event of an emergency. They are available in four mounting styles (see below). Please note that the same model would be used for single and multiple phone installations (up to 6 per telephone line). Each unit features a non-volatile memory tone autodialer capable of dialing multiple numbers, a voice activated location announcer with 2 non-volatile 16-second messages, remote programming capability via the telephone line, as well as on-site and off-site programming with the integral keypad.

The Series II phones activate with a single press of the push-button, which initiates automatic dialing of the programmed emergency telephone number(s) until a called party answers. The voice activated location announcer replays the first recorded message, after which two-way communication begins or both messages can be replayed. The visual indicator of the Series II illuminates to indicate the unit is activated; this light can be made to flash by the called party to indicate that help is on the way. When the call is completed, the phone will shut off automatically, or, can be remotely shut off. The Series II can be called back to establish two-way communication from any telephone at any time

All models are constructed from heavy duty steel or aluminum (Commander II only) to resist damage and provide years of trouble-free service. All ET901A K-Phones operate on a standard, two-wire telephone line .

Four mounting styles (models) are available to meet your particular installation requirements (See SECTION 9 SPECIFICATIONS for dimensional information):

⇒ **Sentry II** (ET901A)
- Box/Cabinet mount fits into existing phone boxes

⇒ **Fortress II** (ET1901A)
- Flush mount stainless steel or bronze faceplate

⇒ **Commander II** (ET901A - OEM)
- Flush/Surface mount to back of COP panel

⇒ **Liberator II** (ET901A-LP)
- Low Profile (1 inch thin) surface mount

2. FEATURES

- **Multiple phones (up to 6 per line)** minimizes installation cost and monthly telephone line billing. Concentrator feature in each phone provides for "all page" (microphone off), "all conference", or individual phone access.
- **Simplifies phone selection and installation** since the Series II phones can be used for multiple and single phone installations on a single phone line.
- **AC Power** makes phone operation and features independent of phone line conditions.
- **Battery back-up** provides four hours of emergency on-time in case of AC interruption.
- **Optional power input** allows phone to operate off of a 6V, 12V or 24V emergency power system.*
- **Built-in keypad** allows programmable features to be easily set or modified both **on-site** and **off-site** (with power) without special tools or extra parts. Programmed features are retained without power.
- **Remote programming** with **voice prompting** allows all programmable features to be easily and accurately set through the phone line.
- **Voice activated location announcer** with one or two **non-volatile** 16-second messages can be recorded to give the location of the elevator for occupants who cannot confirm the emergency verbally. The answering party can replay either message simply by touch-tone.

- **Multiple number autodialer (five standard, five additional available*)** using a **non-volatile** number storage means the phone will sequentially dial each of the numbers when busy or no answer.
- **Braille plates** and **raised lettering** for ADA.
- **On-time** can be 1 to 99 minutes, or stay on (0).
- **Automatic shut off** at the end of a call (hang-up).
- **Automatically answers and activates** when call is placed to the elevator.
- Full **FCC** (Parts 68 and 15) and **IC compliance.**
- **ETL** (UL1950 Third Edition) for UL /CSA approval.

***Note:** Option available. Call K-Tech.

3. PRE-INSTALLATION CHECKLIST

PHONE LINE SPECIFICATION

Standard - While the K-Phone is designed to operate over a wide range of telephone line conditions, the better the phone line quality the better the performance will be. The line from the CO or private (PBX) should be the standard 2-wire type with the following nominal specifications:

⇒ 24-48 VDC “on hook” voltage +/- 3V

⇒ 12 mA min. total current with 6 phones “on line” (less current may affect multiple phone operation).

Ringdown - The K-Phone will also work on “ringdown” circuits. These operate by automatically calling the answering location as soon as the phone goes “off hook”. This is done without dialing.

WIRING REQUIREMENTS

Please refer to Figure 1 - System Wiring Diagram for details on the wiring required to the CO or PBX in your installation.

⇒ Phone Line: **20 AWG shielded twisted pair** with **shield continuous** from the phone location to the input line. For elevators, this would be from the car

station **through** the controller to the phone line interface board, **grounded at the phone end only**.

⇒ AC Wiring: **24 (or 22) AWG** wire. Distance should be 12 feet or less.

TOOLS REQUIRED

- Small flat-head screwdriver
- Phillips-head screwdriver (Sentry, Liberator)
- Wire cutters and strippers
- Drill and bit for #8 sheet metal screw (Sentry, Liberator, and Fortress)
- 1/4" nut driver (Fortress)
- Live telephone wire from CO or PBX system, installed and terminated at the elevator machine room or location where the phone will be installed.
- Pencil or scriber for marking location of holes.

INSTALLATION KITS

Each phone comes with an installation kit which contains any screws and other parts needed for your installation. Compare the parts you have with the following list to be sure your kit is complete.

Sentry II (ET901A) and Liberator II (ET901A-LP)

- 3/32" Allen wrench
- Screw Packet with 2 - #8 X 1/4" sheet metal screws and grounding lug.

Fortress II (ET1901A)

- Spanner bit
- Screw packet with 4 - #8 X 1" spanner screws

Commander II (ET901A-OEM)

- Packet with PSB Bulb, label and instructions.

INSTALLATION TIME ESTIMATE

Typically, in an elevator system, you should allow anywhere from 1/2 hour to 3 hours for the installation of each phone depending on whether you are installing in an existing location (Sentry in a door accessible phone box), or into an unprepared car station panel (Fortress).

Note: Before installing the phone, you should wire your site according to the recommendations given in the following Figure 1 - Series II Wiring Diagram. While it shows up to 6 phones, the information also applies to a single phone installation.

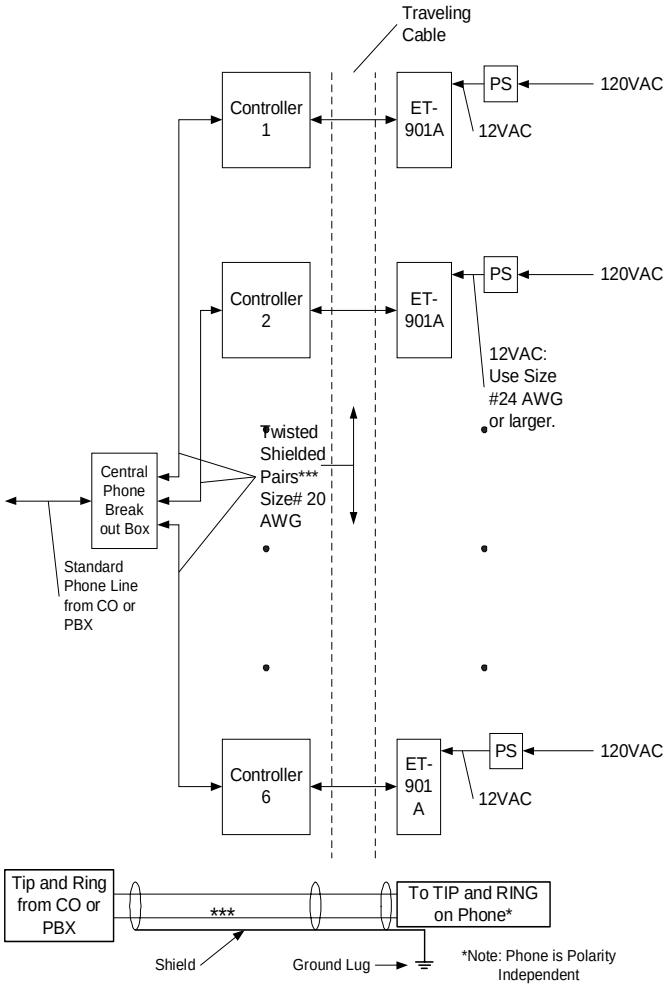

Figure 1 - Series II Wiring Diagram

4. INSTALLATION INSTRUCTIONS

QUICK START GUIDE

1 Check that you have all parts needed pages 6-8.
2 Mechanically install the phone following the instructions in this section for your phone on pages 10-17.
3 Program the phone using the charts on pages 18 and 21 (copy chart at 200% for easier reading).
4 Test the phone. See instructions on pages 30-32.
5 Any problems? See page 32 HELPFUL HINTS and page 33 TROUBLESHOOTING GUIDE.

EXAMPLE:TWO NUMBER DIALING AND ONE VOICE MESSAGE

PROGRAM PHONE NUMBER 1 IN LOCATION 1:

1 Enter *7 (STAR SEVEN): enters programming mode
2 Enter 1234: enters the factory security code (NOTE 1)
3 Enter *3 (star three): enters phone number programming
4 Enter 1: to access phone number memory location 1
5 Enter phone number (Ex: 1-860-489-9399)
6 Enter # (pound) to store number

PROGRAM PHONE NUMBER 2 IN LOCATION 2:

⇒ Repeat steps above substituting *2 in step 4 and enter alternate phone number in step 5. NOTE: See chart on page 25 for details about multiple number dialing.

PROGRAM VOICE ANNOUNCEMENT 1:

Speak clearly into phone (or microphone if on site).

1 Enter *7 (Star seven): enters programming mode
2 Enter 1234: enters the factory security code
3 Enter *1(star one): for voice announcement 1
4 Hit # (pound) when ready to record
5 Record your announcement up to 16 seconds

TEST

1 Hit *1 to play voice announcement 1
2 Hit *3, then 1 to hear phone number 1
3 Hit *3, then 2 to hear phone number 2

NOTE 1 (For more info see pages 28-29)
At this time you may want to program in your own **security code** and/or **ID number**. Hit ***7**, then enter **1234**, then enter ***8**, then enter your own **2 digit ID** code, hit **#** to accept. For a new security code the sequence is ***7**, **1234**, ***9**, your **new 4 digit security code**, **#** to accept.

MOUNTING, WIRING, and SET-UP

Sentry II (ET901A) - Please refer to Figure 1 - Series II Wiring Diagram, Figure 2 - Sentry II Phone and Figure 7 - Series II Phone Board Controls and Connections for the following installation.

- Using the enclosed Allen wrench, unscrew the fasteners and remove the phone's rear enclosure.
- Using the rear enclosure as a template mark the mounting screw hole locations.
- Drill holes for the #8 screws (included).
- Mount the cover to the mounting surface placing

Figure 2 - Sentry II Phone (ET901A)
with Braille Plate

the **ground lug** (included) **under** one of the screws.

- If not already installed, connect the battery to the phone by plugging it in to the location labeled “Battery (7.2V)” (Figure 7).
- Check all other plugs to be sure they are seated: **LED, speaker, button,** and **microphone**.
- Remove the terminal block by pulling straight up.
- Refer to Figure 7. Connect the **telephone line** to the terminal block (polarity does not matter).
- Connect the output of the **transformer** to the two terminals provided.
- Plug the connector into the phone board.
- **Connect the transformer to 120VAC.**
- **Program the phone** according to the instructions in Section 5, PROGRAMMING INSTRUCTIONS (page 18 and page 21).
- **Test the phone** according to test instructions in Section 6 OPERATIONAL TEST PROCEDURE.
- Unplug the connector and **route it through one of the cutouts** in the back cover (already mounted). It is recommended that the lower or back hole be used to prevent debris from falling into the phone after installation. Plug it into the board.
- Carefully remount the front cover and board back onto the back enclosure using the two Allen screws removed in the first step.
- Once everything is completed, test the phone again for correct operation as described in Section 6, OPERATIONAL TEST PROCEDURE.

******This completes the Sentry installation******

Fortress II (ET1901A) - Please refer to Figure 1 - Series II Wiring Diagram, Figure 3 - Fortress II Phone (ET1901A) and Figure 7 - Series II Phone Board Controls and Connections for the following installation.

- Determine the location for the K-Phone front plate on the car station panel or other suitable surface.
- Cut out a 7" X 10" hole to allow for the dust cover.
- Position the unit in the hole and use the face plate as a template to locate the mounting screw holes.
- Drill holes for the # 8 screws (included).
- Remove the dust cover from the back of the Fortress plate by removing the two nuts and lockwashers that secure it.
- Connect the 12 VAC power lines from the power

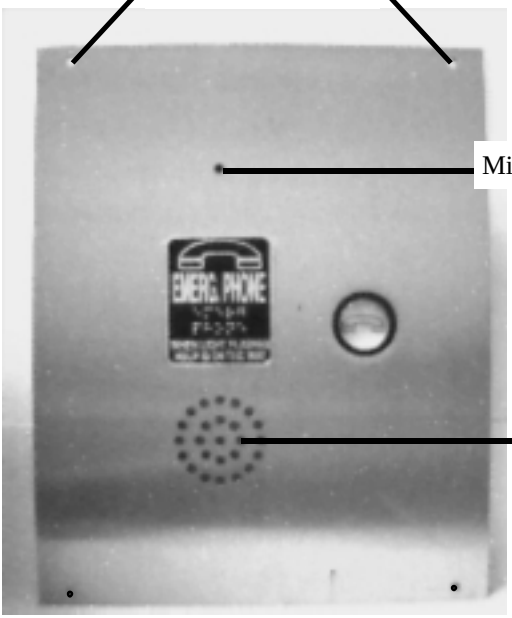

Figure 3 - Fortress II Phone (ET1901A)

transformer **(disconnected from 120VAC power)** and **phone line wires** to the appropriate connector screws on the terminal block. See Figure 7.

- Check to be sure the **push-button, LED, speaker, microphone, and battery** are all plugged into their receptacles (labeled on the board). See Figure 7.
- **Apply 120 VAC power** to the transformer.
- **Program the phone** according to the instructions in Section 5. PROGRAMMING INSTRUCTIONS.
- **Test the phone** according to instructions in Section 6. OPERATIONAL TEST PROCEDURE.
- Remount the dust cover to the back of the phone.
- Mount the phone and plate using the # 8 vandal proof (spanner) screws and the included spanner bit with the wires routed through one of the two cutouts.
- Close the car panel and test the phone's operation. See Section 6 OPERATIONAL TEST PROCEDURE.

******This completes the Fortress Installation******

Commander II (ET901A-OEM) - Please refer to Figure 1 - Series II Wiring Diagram, Figure 4 - Commander II Phone and Figure 7 - Series II Phone Board Controls and Connections for the following installation.

- Typically, this phone is mounted to a car station panel which has been pre-studded to accept the OEM plate. If studs are not present, use the plate as a template to mark the stud locations.
- Install studs.
- Mount the OEM plate to the panel. Make sure the

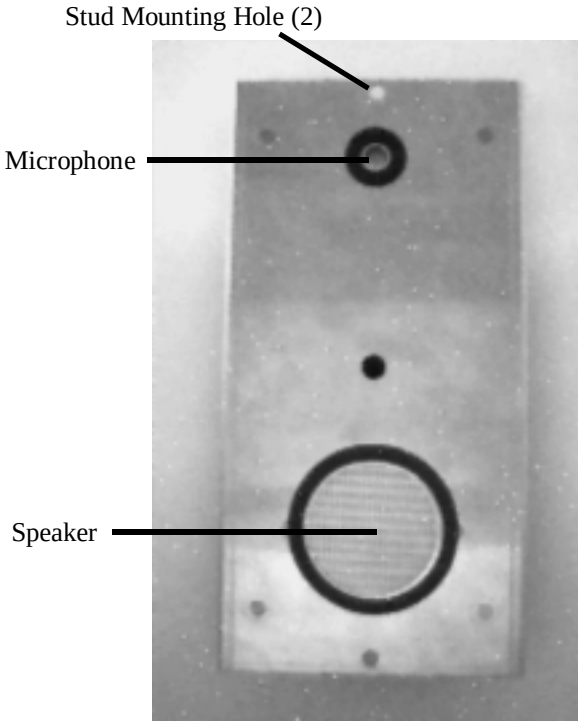

Figure 4 - Commander II Phone (ET901A-OEM)

cover is as tight to the panel as possible to avoid feedback and oscillations (squealing) between the microphone and speaker.

- Connect the remote push-button (not included) to the appropriate terminals on the phone board connector (terminal strip), or, if equipped with the proper connector, plug it into the pc board receptacle marked BUTTON. See Figure 7.
- Install the included PSB bulb into the push-button. Connect the remote light to the appropriate location on the terminal strip following the correct polarity (Figure 7).
- Mount the power transformer in an appropriate location within 12 feet of the phone but **do not connect it to 120VAC** at this time.
- Connect the 12 VAC power lines from the power transformer **(disconnected from 120VAC power)** and phone line wires to the appropriate connector screws on the terminal block. See Figure 7.
- Check to be sure the **push-button, LED, speaker, microphone, and battery** are all plugged into their receptacles (labeled on the board). See Figure 7.
- **Apply 120 VAC power** to the transformer.
- **Program the phone** according to the instructions in Section 5. PROGRAMMING INSTRUCTIONS.
- **Test the phone** according to instructions in Section 6. OPERATIONAL TEST PROCEDURE.

NOTE: Programmed features may be done or changed later at the site, or, done remotely using the remote programming capability when the OEM phone is being pre-mounted at the factory in a panel by a panel manufacturer.

******This completes the Commander Installation******

Liberator II (ET901A-LP) - Please refer to Figure 1 - Series II Wiring Diagram, Figure 5 - Liberator II Phone and Figure 7 - Series II Phone Board Controls and Connections for the following installation.

- Using the enclosed Allen wrench, unscrew the fasteners and **carefully** remove the phone's rear enclosure which is slotted at the bottom edge.
- Using the rear enclosure as a template mark the mounting screw hole locations.
- Drill holes for the #8 screws (included).
- Mount the cover to the mounting surface placing the **ground lug** (included) **under** one of the

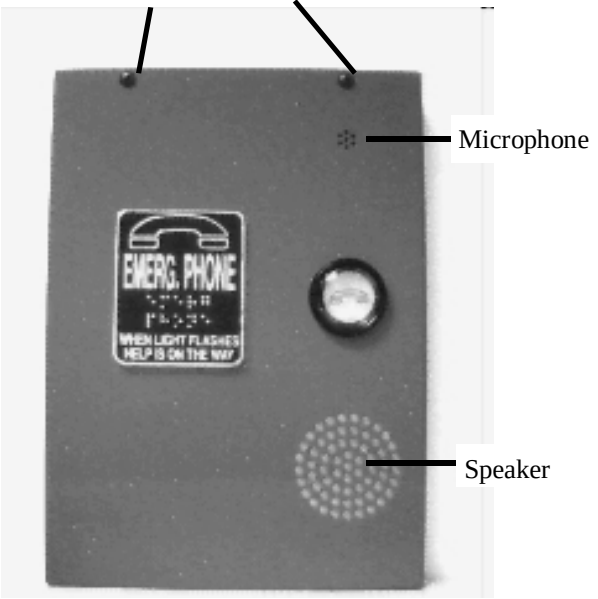

Figure 5 - Liberator II Phone (ET901A-LP)

screws.

- Check all plugs to be sure they are seated: **LED, speaker, button,** and **microphone**. DO NOT connect the battery yet.
- Remove the **terminal block** by pulling straight up.
- Insert the front cover's hinges into the back cover so that it is resting in a horizontal position supported by the hinges.
- Refer to Figure 7 for proper connections. Connect the **telephone line** to the **terminal block** (polarity does not matter). Note that the screws are toward the outside. (**Note**: Flat telephone cable is not appropriate here as it is too thin to provide a reliable connection without breaking. See Figure 1.)
- Connect the output of the **transformer** to the two terminals provided as shown by Figure 7.
- Plug the connector into the phone board with the wires towards the edge of the board.
- **Connect the transformer to 120VAC.**
- **Program the phone** according to the instructions in Section 5, PROGRAMMING INSTRUCTIONS.
- **Test the phone** according to test instructions in Section 6 OPERATIONAL TEST PROCEDURE.
- Unplug the connector and carefully route it through the cutout in the back cover.
- Carefully plug it back into the receptacle on the board as before.
- Plug the battery into its receptacle.
- Check that all the recorded information is correct by using the commands provided.

******This completes the Liberator Installation******

5. PROGRAMMING THE SERIES II (ET901A, ET1901A and ET901A-OEM)

General: The Series II Speakerphone can be programmed using the same technique on site (or off-site) via the integral keypad, or, through the phone lines using the remote programming capability.

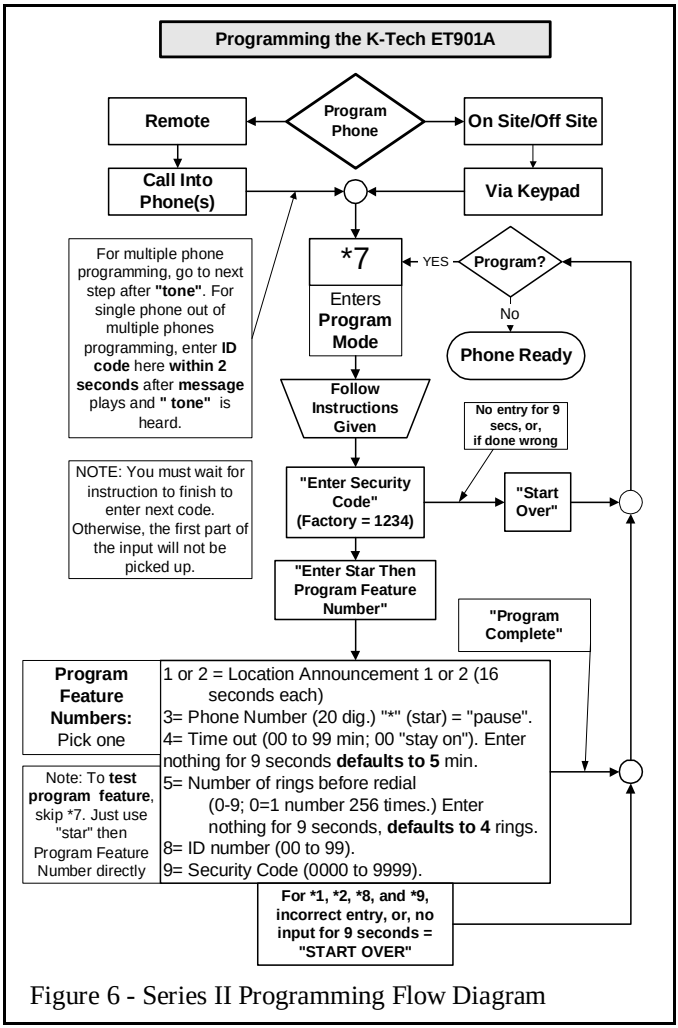

Figure 6 - Series II Programming Flow Diagram

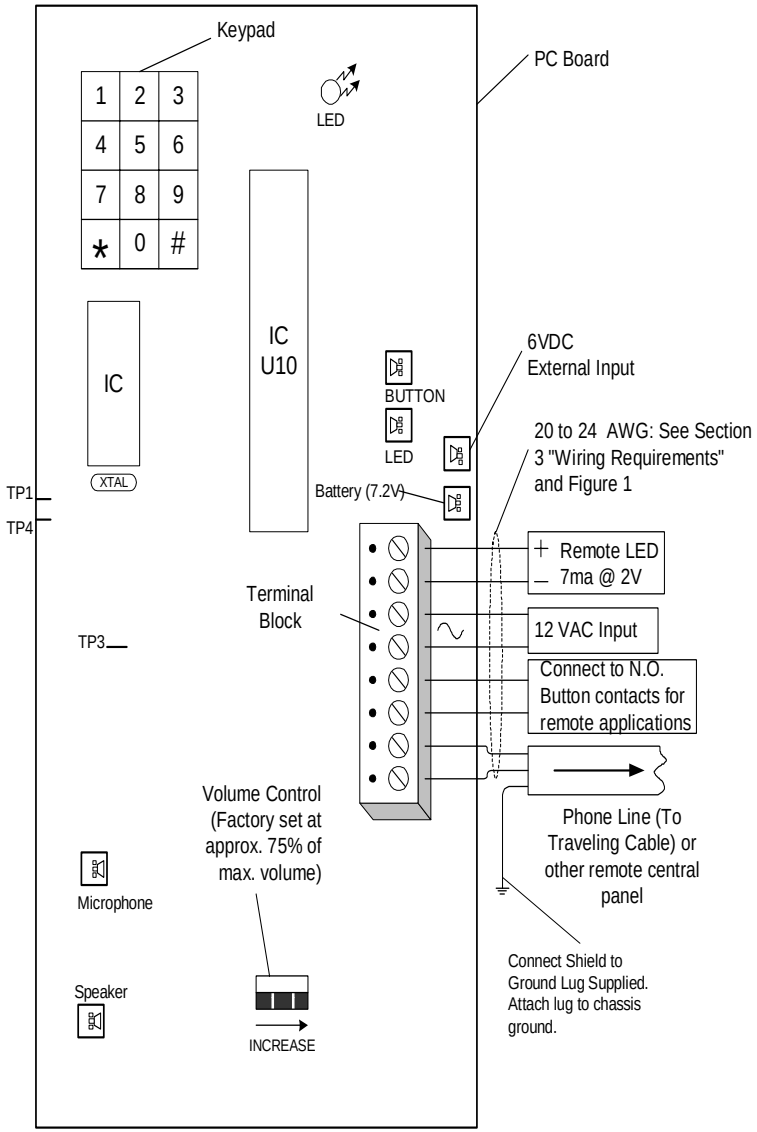

Figure 7 - Series II Phone PC Bd Controls and Connections

PROGRAMMING NOTES

Please keep the following in mind as you go through the programming of the ET901A Series II.

1. In general, if no input is received within **9** seconds after a step is completed, the program will say "**start over**" and return to normal operation.
2. For the phone number** only, the program will proceed to the next step after entering numbers if
    a) you press pound, or,
    b) you enter twenty digits

otherwise, it will wait for one or the other or an invalid input after which it will say "**start over**".

****NOTE: "phone number" is *either* phone number** to be dialed**,** or, **location code** to be decoded by the caller using a computerized system. For information, call K-Tech.

3. For **timer** (timeout), and, **number of rings**, if no input is received after requested for 9 seconds, the phone will **default** to **5 minutes**, and, **4 rings** respectively. If an input is received, but "#' (pound) is not pressed the phone will revert to previous stored value.

4. If programming the phone "off-site" before it is installed, be sure power is supplied to the phone either through a fully charged 7.2V battery, **or**, the AC transformed connected to 120VAC power. If battery power is used, disconnect it immediately after programming to conserve power.

5. If you are on a PBX and have **no "wink" (shut-off) signal**, you can shut the phone off by sending a "***#"** ("star pound"), or wait for it to time out.

6. In multiple phone installations, you will have to give each phone a separate **ID# (**two-digit code) to allow **individual access** when calling in.

COMMAND SUMMARY

The same commands are used for **verify** (Test Mode) and **program** (Program Mode). To program, see chart on page 18. On the pages that follow this chart are detailed programming instructions which you should r**efer to only if you have a problem**. The **verbal feedback** will simplify programming and testing which can be done with the chart on page 18.

Command	Description 1 = Test Mode; 2 = Program Mode
* 1	1. Play **Location Announcement 1** 2. Record **Location Announcement 1**
* 2	1. Play **Location Announcement 2** 2. Record **Location Announcement 2**
* 3	1. Verify **Phone Numbers** Programmed in 2. Program **Phone Number(s)**
* 4	1. Verify **Timer Minutes** Programmed in 2. Program **Automatic Time-out**
* 5	1. Verify **Number of Rings** programmed in 2. Program **Multiple Number Dialing # Rings**
* 6	[Reserved for Test mode.]
* 7	1. **Gain Access** (Put in **Program Mode)**
* 8	1. Verify individual phone **ID Number** 2. Program individual phone **ID Number**
* 9	1. Verify **Security Code** (only kidding) 2. Program phone **Security Code**
* #	1. **Terminate Call** (remotely if no "wink" signal is available)
#	1. **Blink LED Remotely** [Use to indicate **"Help is on the Way"**]
*	1. Multiple uses, see above 2. **Pause of 1.5 seconds** in phone number programming. Some PBXs may need two pauses.

PROGRAMMING INSTRUCTIONS

The same instructions apply for all methods of programming. When you first call in you will hear a message that says, “At the tone you will be connected to all phones, or, for one phone enter phone ID number”. With multiple phones on one line, you must preprogram individual ID numbers into each phone to be able to access any one phone from a remote location. Initially, access the programming feature of the phone(s) by using the factory security code (1234) default. After programming is completed, then change the factory security code to your own.

ACTIVITY	STEP	ENTER	PHONE RESPONSE	NOTES
GAIN ACCESS	1. Enter Program Mode	***7**	**“Enter Security Code”**	
	2. Enter four digit security code	**1234** (Factory Default)	**“Enter Star then Program Feature Number”**	If done incorrectly, **“Start Over”.** Return to step 1

Note: You are now in the mode to program, or reprogram, the phone. Set or change one or more of the programmable features on the following pages. See page 18 for a summary list.

FEATURE	STEP	ENTER	PHONE RESPONSE	NOTES
1. LOCATION ANNOUNCE-MENT	1. To program a new (location) voice announcement	***1** or ***2**	**"Press Pound to Start Recording"**	After 9 seconds of no entry, response will be "**Start Over'.**
	2. To record, press "#" and then speak your announcement up to 16 seconds long.	**# your announce ment**	**"Stop Program Complete"** after 16 seconds, then—>	Phone now goes out of program mode and back to step 1 ready for use or new program feature change.
	3. To test your announcement	****, *1, or, *2**	Announcement will be played, then—>	Phone is ready for use or new program feature change.

NOTE: It is best to record the location announcement through a remote handset phone. It will provide the best quality on a good phone line. Be sure to speak clearly with adequate volume directly into the handset microphone. However, you may also record the announcement using the microphone in the phone. In a **noise free environment s**peak moderately loud about 6-9" away from the microphone in the ET901. In both cases, you may have to experiment a little at first to get the best quality playback.

FEATURE	STEP	ENTER	PHONE RESPONSE	NOTES
2. PHONE NUMBER(S)	1. To program a phone number	***3**	**"Enter Location of Phone Number"**	
	2. Enter memory location for phone number: 1,2,3,4, or 5.	**1**	**"Enter Phone Number, Then Press Pound"**	For memory location 1
	3. Enter your phone number up to 20 digits 0 through 9) including pauses ("*").	**9*1860 4899399** (See Note 2)	**"Please Verify"**, phone then reads (NOTE 1 below) out digits to be stored one by one including pauses after which it will say, **"Press Pound to accept Number"**	If you don't press # for 9 seconds, or press the wrong button, response will be "**Start Over".** Previous number remains stored.

Continued on next page.

NOTES: 1. These read out digits are the numbers input by the installer not the ones stored in the dialer.
2. The phone number used in step two is for illustration purposes only. Use your own number here.

FEATURE	STEP	ENTER	PHONE RESPONSE	NOTES
(2. Phone number programming continued.)	4. To store the number in memory, press #.	#	**"Beep Beep Beep"** followed by one **"Beep"** for each digit including "pause" plus one delayed **"Beep"** at the end, and **"Program Complete".**	Phone ready for use. To program another feature, go back to **Step 1** under GAIN ACCESS
	5. Test (verify) number stored.			See Section 6, OPERATIONAL TEST PROCEDURE

This completes the programming of the number in position 1 in the dialer. To program a second or more numbers just repeat the process for each location. The phone will then dial each number in order until a number is answered. **Please Note** that when the phone accesses the location above the last stored number you will hear a dialtone for 2-3 seconds, the it will go back on hook and recycle back to location #1 automatically. It will make 12 total attempts to dial numbers stored and then shut off. For example, if two numbers are stored in positions 1 and 2, it will dial both six times. If three are stored, all three four times. If you wish to store a code for computer access, store it in a location above the phone number(s) so that at least one blank memory location exists between the numbers to be dialed and the stored code.

FEATURE	STEP	ENTER	PHONE RESPONSE	NOTES
3. AUTOMATIC TIME-OUT	1. To program a new "Time-out" time.	***4**	**"Enter Timer Minutes"**	
	2. Enter time desired from 01 to 99 for minutes, or, 00 for maximum (See Specifications)	**08**	**"Zero Eight Press Pound To Accept Number"** (Note: if you fail to enter anything, it will default to 5 minutes. Single digits will store as two with a "0" in front after 9 seconds of waiting.)	Sets timer for 8 minutes of "on" time **after activation. Maximum** time depends on battery life if AC power is not available.
	3. To store the new programmed time, press "#"	**#**	**"Program Complete"** (Note: If you fail to push # after entering a new time, phone reverts to previously stored time after "**Start Over"**.)	Time is stored and phone is ready for use or the next program step.

FEATURE	STEP	ENTER	PHONE RESPONSE	NOTES
4. NUMBER OF RINGS	1. To program number of times the called number rings before phone switches to next number	***5**	**"Enter Number of Rings"**	Number of rings before switching over to next number.
	2. Enter number of rings desired from 1 to 9, or, for a single number dialer enter 0 (won't switch over).	**6**	**"Six Press Pound to Accept Number"** (Note: If you do nothing for 9 seconds, the number will default to 4 and be accepted.)	If not correct or you don't want 4, wait for the message, **"Start Over"** and begin again.
	3. Press "#" if correct.	**#**	**"Program Complete"**. If # is not pressed after new number is entered, phone will retain previous number after **"Start Over"**	Phone ready for use or another program feature change.

FEATURE	STEP	ENTER	PHONE RESPONSE	NOTES
5. CHANGE ID NUMBER	1. To program in a new ID number	***8**	**"Enter Phone ID Number"**	If no entry for 9 seconds, phone will respond, **"Start Over"**
	2. Enter your new two-digit code from 00 to 99	**11**	**"One One Press Pound to Accept Number"**	If no entry for 9 seconds, phone will respond, **"Start Over"**
	3. To store the new programmed ID number press "#"	**#**	**"Program Complete" (**end of programming indicator).	ID number is stored and phone is ready for use or the next program step.

Note: When programming the ID number (or Security Code), if you input less than the required number of digits, the phone will respond with "**Enter**" for the missing digits after 9 seconds. For example, if you enter 1 for the ID code, the phone will respond with "**One Enter**" after 9 seconds. Another example, if you input 123 for the Security Code the response will be "**One, Two, Three, Enter**' If you don't want to accept 1 for the ID code, or, 123 as the Security Code, hit any other key after it asks for the pound key to accept or wait 9 seconds, and start over.

FEATURE	STEP	ENTER	PHONE RESPONSE	NOTES
6. CHANGE SECURITY CODE	1. To program in a new Security Code	***9**	**"Enter Security Code"**	After 9 seconds with no input, phone will respond "**Error Abort**'
	2. Enter your new four-digit code from 0000 to 9999 (For example, 1258)	**1258**	**"One Two Five Eight, Press Pound to Accept Number"**	After 9 seconds with no input, phone will respond "**Error Abort**'
	3. To store the new programmed Security Code press "#"	**#**	**"Program Mode Complete" (**end of programming indicator).	Security Code is stored and phone is ready for use or the next program step.

6. OPERATIONAL TEST PROCEDURE

CHECKING PROGRAMMED FEATURES

Generally, to check a feature (determine what is programmed), enter the code shown on the Command Summary (page 18). For example,

- Number or Rings (***5**)
- Timeout in minutes (***4**)
- Location Announcements (***1, *2**), and
- ID code (***8**)

just hit **"star number"** for the feature you wish . The phone will read out the stored number(s) or announcement. To check the phone numbers,

1. Enter ***3**

⇒ Phone response should be "**Enter Location of Phone Number**"

2. Enter location of phone number **[1,2,3, etc.]**

⇒ Phone response should be: Number will be dialed and DTMF **tones** will be heard.

⇒ This will be followed 9 SECONDS LATER (if less than 20 digits) by **"Please Verify"** and a **verbal readout** of the phone (or other) number sequence, OR, press # (pound) right after the DTMF tones to **hear the verbal readout immediately**.

3. Phone now returns to its normal operating mode and is ready for use, or to check another number.

FIELD TESTING

Once the phone has been installed, programmed and checked, it can be tested by using some or all of the following test procedures:

1. Press the activating push-button. The phone will "click", the light will turn on, then dial tone will be heard for 2-3 seconds. .

2. The first phone number will dial; you will hear the ringback signal.

3. If the call is answered within the programmed number of rings, the voice announcement will play and

the light will be on. **OR**, **for multiple number dialing...** If the call is not answered within the programmed number of rings, the phone will go back on hook (drop the line), get a new dial tone, and dial the next number. If the second number is not answered, the phone will drop the line and dial the next (more than two), until it sees no stored number. It then returns to phone #1. It will make 12 total (all numbers) attempts.(See page 25.)

4. The phone will automatically shut off 10-15 seconds after the answering party hangs up, or by the programmed automatic time-out.

5. Have the answering party call the elevator back. The phone will turn on and the LED will light AND the following message will be heard: **" At the tone you will be connected to all phones, or, for one phone enter phone ID number now".** To hear voice announcement 1, activate it with **"*1"** (**"star one"**). As before, the phone will automatically shut off 10 seconds after the "wink" signal, or, when the programmed automatic time-out occurs. Also, you can stop the voice announcement with "#" (pound), or, shut the phone off with "***#**" (star pound).

MULTIPLE PHONE TESTING

1. Activate one phone. Immediately activate a second phone while dial tone is present. The first one should dial out while the second remains on the line. When the call is answered, both voice announcements will play. (**Note:** Multiple number dialing with **more than one phone off hook** is not possible. However, each phone will still multiple number dial if it is the only one activated. Multiple number dialing with multiple phones is in development as of this printing. Contact K-Tech to see if it is available.)

ATTENTION: In this case this is the **actual number stored in the dialer.** The phone number read out in step 3. of Feature 2 (page 21) is the number input before storage, NOT the actual stored number.

2. Activate each phone individually while others are off.
3. To **talk to one OR all phones on the line**, have the answering party call back. They can then talk to one phone, activate an "all page" , or wait for "party line":

⇒ **SINGLE PHONE:** Within 2 seconds after the message (before the tone), dial the **ID number** of the phone you want. It will remain on, the others will go off. Or...

⇒ **ALL PAGE:** Within 2 seconds after the message, dial "*** 0**" ("**star zero"**). Only speakers will be on.

⇒ **PARTY (Confer.) LINE: Do nothing**, all speakers and mikes will come on after the tone (2 secs.)

7. HELPFUL HINTS

⇒ Do not leave the rechargeable battery connected to the phone without the power supply or other power connected. Charge battery for 48 hours before use as emergency backup.

⇒ Check the **telephone line** before installing phone (s) to verify its operation and quality. This can be done with a known working phone.

⇒ See the list of **factory defaults** to be sure the phone is set up the way you plan to use it. [K-Tech will consider any special requirements.]

⇒ When using the "**auto answer**" feature with multiple phones, more than one phone will answer connecting the phones in a party line manner. Upon answering, all instructions* will go off at the same time. (* For One Phone, All Page, or Party Line.)

⇒ To **minimize** AC and motor **noise** in the system, always use **shielded grounded** (at phone end only) **wire** as indicated. Be sure ground is a good return.

⇒ With phones equipped with a **ringer**, the number of phones on one line that will ring depends on the frequency, since the REN goes up with frequency. You may need to check your special requirements.

8. TROUBLESHOOTING GUIDE

Problem	Cause or Solution
Phone line doesn't seem to work correctly when installed into the phone box or car station panel	◊ Phone line wires may be touching something conductive. ◊ Phone line is not "live". Check with voltmeter. ◊ Loose connection or damaged wire. Disconnect from phone line, check with ohmmeter.
Dialer does not dial programmed number or miss dials	◊ Incorrectly programmed. Reprogram. See Section 5.
Can hear "hum" or "static" through speaker over voice.	◊ Bad phone line connection and/or bad ground. Check to be sure shield is grounded and runs back to the control room.
Phone makes a "howling" or feedback when on.	◊ Try decreasing volume (see Section 6). For OEM phone be sure speaker and mic are **flush** (tight) against faceplate.
LED does not light (OEM models only).	◊ Make sure polarity is correct.
Voice announcement is hard to hear.	◊ Re-record message in a quiet environment louder and closer to the microphone on the phone, or mouthpiece on your telephone.

9. SPECIFICATIONS

Physical Dimensions

* **Sentry II:**
  -Box 9.5" (24.1 cm) X 4.75" (12.1 cm) X 2.0" (5.1 cm)
* **Liberator II:**
  -Box 9.5" (24.1cm) X 6.875" (17.5cm) X 1.0" (2.6cm)
* **Fortress II:**
  -Front Plate: 12.5" (31.8cm) X 10" (25.4cm) X 0.125" (0.3 cm)
  -Rear Enclosure: 9.7" (24.6cm) X 6.6" (16.8cm) X 2.3" * (5.8cm*)
  (* Including projecting hardware = 0.2".)
  -Rough cut: 7" X 10" (17.8cm X 25.4cm)
* **Commander II:**
  -Front mounting plate: 9.5" (24.1cm) X 4.75" (12.1 cm) X 2.0" (5.1cm) with quarter inch mounting holes to clear the stud base on your plate.
  -Sub-plate or mounting plate mounts behind grille pattern supplied in the elevator fixture.

Weight **-***Sentry II: 2.5 pounds (5.5 kg)*
-Liberator II: 3.2 pounds (7 kg)
-Fortress II: 6.5 pounds (14.3 kg)
-Commander II: 1 pound (2.2 kg)

Power Requirements
-12VAC @ 0.5A from a 120VAC transformer
-Emergency back-up power for up to 4 hours from an internal battery NiCad rechargeable battery.
-Optional: 6 VDC (connector on board), 12VDC or 24VDC

Dialer *Five* numbers standard, up to ten optional.

Ringer None. *Optional* electronic piezo ringer available [REN=0.8].

LED *Can be blinked* by answering party to let emergency location know "help is on the way".

Factory Defaults
Rings = 4 (outgoing); 2 (incoming, not adjustable)
Attempts before shutoff = 12 total for all numbers
Timeout = 5 minutes
Security Code (Number) = 1234
ID Code (Number) = 01
Phone Number= Blank. You must enter number(s)
Voice Announcements = Blank. You must put one in
LED = blink when on line and "star" tone is sent

REN [0] (70 to 30 Hz) [0.8] with ringer.

FCC Class A Registration Number: 10MUSA-

Note: The electronics in these products has been tested to Class B of Part 15 of the FCC rules. However, it has not been formally registered as a Class B device.

10. CODE COMPLIANCE

K-Tech has taken great care in ensuring that our telephone equipment meets all code requirements. There are however additional requirements that have to be met in order for the installation and operation to pass code. We will attempt to list requirements pertaining to the installation of our telephone equipment. The ultimate responsibility is however, yours. Consult local codes to be sure your installation complies.

1. Telephone equipment must be mounted at the proper height for people who use wheel chairs.
2. Make sure the answering operator knows how to make the indicator light flash. This signal is for the hearing impaired and means that help is on the way.
3. Make sure the answering operator has a way to determine where the call is coming from i.e. elevator car location. This is accomplished by programming a location code into the dialer and supplying the answering operator with a Location Code Display model ET-LCD or by using the integral Digital Voice Location Announcer . This function is used when the occupant of the elevator is speech or hearing impaired. This can also be accomplished by programming computer codes into the phone and reading them at the answering end with a computer.
4. When installing K-Phones inside an elevator phone cabinet you should install a sign with raised letters and Braille (part #LB014) on the outside. A door handle allowing the physically impaired to open the door (such as model ET-TBH) should also be installed.

11. WARRANTY POLICY

K-TECH INTERNATIONAL, INC. warrants equipment of its own manufacture to be free from defects in material and workmanship for a period of one year from date of shipment from factory or appointed distributor to original user.

This warranty does not apply to any products which have been damaged, neglected, altered, abused, used for a purpose other than the one for which they were manufactured, repaired by the customer or any party without K-Tech's authorization, or used in any manner inconsistent with K-Tech's instructions.

K-Tech's entire obligation under this warranty shall be limited (at K-Tech's option) to repair or replacement of any parts which prove to be defective within the warranty period. Defective products must be returned by customer to K-Tech's factory in its original, unaltered form, transportation prepaid.

K-Tech will not be liable for any costs incurred by its customers in removal or replacement of defective products.

K-TECH INTERNATIONAL, INC.'s liability under this warranty, or any other warranty, whether expressed or implied in law or fact, shall be limited to the repair or replacement of defective material or workmanship, and in no event shall be liable for consequential or indirect damages. No representative or person is authorized to assume for us any of the liability in connection with the sale of our products.

Repair Policy:

K-Tech International has a Customer Return Policy which requires that all customer repairs have a pre-assigned Return Authorization (RA) number. This system assists us in better serving our customers by ensuring accurate identification and prompt turnaround for returned product. If you need to return product for repair, please contact our Customer Service Department at (860) 489-9399 for a Customer Return number. Please have the following information available when requesting this RA number:

1. Bill To and Ship To addresses
2. Name and phone number of person requesting the RA
3. Purchase Order # for repair authorization
4. Quantity
5. K-Tech Model number(s)
6. Serial number(s) - (if available)
7. Brief description of the problem experienced with item(s)

Shipping:

Please reference the RA number on all cartons and on all paper work enclosed with the product. Our new computerized material management system cannot handle undocumented returns and they run the risk of being lost and are untraceable. All material must be shipped on a Freight Prepaid basis. Collect shipments will be refused.

12. FCC NOTICE FOR PART 68

This device has been granted a registration number by the Federal Communications Commission, under Part 68 rules and regulations for direct connection to the telephone lines. In order to comply with these FCC rules, the following instructions must be carefully read and applicable portions followed completely.

1. This equipment complies with Part 68 of FCC rules. A label located on an outside surface of this equipment contains, among other information, the FCC registration number and ringer equivalency number (REN). If requested, this information must be provided to the telephone company.
2. The recommended jack (USOC connecting arrangement) for this equipment is listed below.
3. The ringer equivalence number (REN) is used to determine the quantity of devices which may be connected to the telephone line. Excessive REN's on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the REN's should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total REN's, contact the telephone company to determine the maximum REN for the calling area.
4. If this equipment causes harm to the telephone network, the telephone company will notify you in advance. 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 FCC if you believe it is necessary.
5. 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 the necessary modifications to maintain uninterrupted service.
6. If trouble is experienced with this equipment, please contact the service center for repair and/or

warranty information. If the trouble is causing harm to the telephone network, the telephone company may request that you remove the equipment from the network until the problem is resolved. User repairs must not be made; doing so will void the user's warranty.

7. This equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state tariffs. (Contact your state public utilities commission for information.) If so required, this device is hearing-aid compatible (HAC).

JACK (USOC): RJ11C

RINGER EQUIVALENCE = [0; optional ringer = 0.8]]

13. FCC NOTICE FOR PART 15

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.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. (See also 9. SPECIFICATIONS.)

14. NOTES

Date Installed_____

Serial Number_____

Installer_____

Location_____

Phone Line No_____

Stored Numbers

1_____
2_____
3_____
4_____
5_____
6_____
7_____
8_____
9_____
10_____

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