K-TECH EMERGENCY SPEAKERPHONE INSTRUCTION BOOK

Please read carefully before installation and operation

Sentry Plus (ET201A)
Fortress Plus (ET1201A)
Commander Plus (ET201A-OEM)
Liberator Plus (ET201A-LP)

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INTRODUCTION

The Plus model phone from K-Tech is a vandal resistant speakerphone and touch-tone autodialer combination designed to provide reliable communication in the event of an emergency. The Plus model is powered by a standard analog two wire telephone line. When activated, the unit will automatically dial the programmed number (up to 20 digits including pauses) and allow hands-free operation during the call. It will be automatically shut off by the disconnect (CPC) signal (common on CO lines and some PBX's) when the called party hangs up, or by the built in 2 1/2 minute timer.

The Plus model also features an auto-answer function. This allows the called party to call back to the location of the emergency by dialing the telephone number the unit is installed on.

The Sentry Plus (ET201A), Fortress Plus (ET1201A), and Liberator Plus (ET201A-LP) have lighted push-buttons; the Commander Plus (ET201A-OEM) provides outputs that will support a lighted push-button. This light can be caused to flash by the called party to indicate that "Help is on the way".

KEY FEATURES SUMMARY

- Fully powered by the telephone line
- Automatically dials a preprogrammed emergency number when activated
- Hand free operation
- Automatically shuts off at the end of the call with disconnect (CPC) signal or by built in 2 1/2 minute timer
- Automatically answers when a call is placed back to the emergency speakerphone
- Visual indicator can be caused to flash by the answering party

PRE-INSTALLATION CHECK-LIST

Tools Required:

- multimeter
- small flathead screwdriver
- wire cutters
- long-nosed pliers
- drill and pilot bit for #8 sheet metal screw
- a “live” telephone line (CO or PBX) installed and terminated at the elevator machine room

TELEPHONE LINES

For best operation and ADA code compliance, we recommend a single, touch-tone telephone line dedicated for each Plus model telephone. Compatible line types are standard analog, two-wire central office lines from the local telephone company, or most internal PBX systems.

Plus model phones are compatible with Ringdown and Hot Line dialing configurations. If the telephone line is set up to automatically connect to the emergency number, the integrated dialer in the Plus model phone is simply not used.

The telephone line will be assigned a telephone number which allows the called party to call back to the location of the emergency. Take care to note this number and supply it to the called party.

RECOMMENDED TELEPHONE LINE SPECIFICATIONS

Line Voltage	24 or 48 VDC on-hook voltage (may vary slightly)
Loop Current	30 mA minimum (lower current will cause low volume and mis-dialing)

WIRING

We **strongly recommend** that the wires used to supply the telephone line to the Plus model phone be **20 AWG shielded, twisted** pair. This shield should be continuous from the Plus model phone through the traveling cable to the incoming telephone line termination. Make sure the shield is connected to a **true earth ground** at **ONE end ONLY!** This will minimize interference from AC inductance and RF.

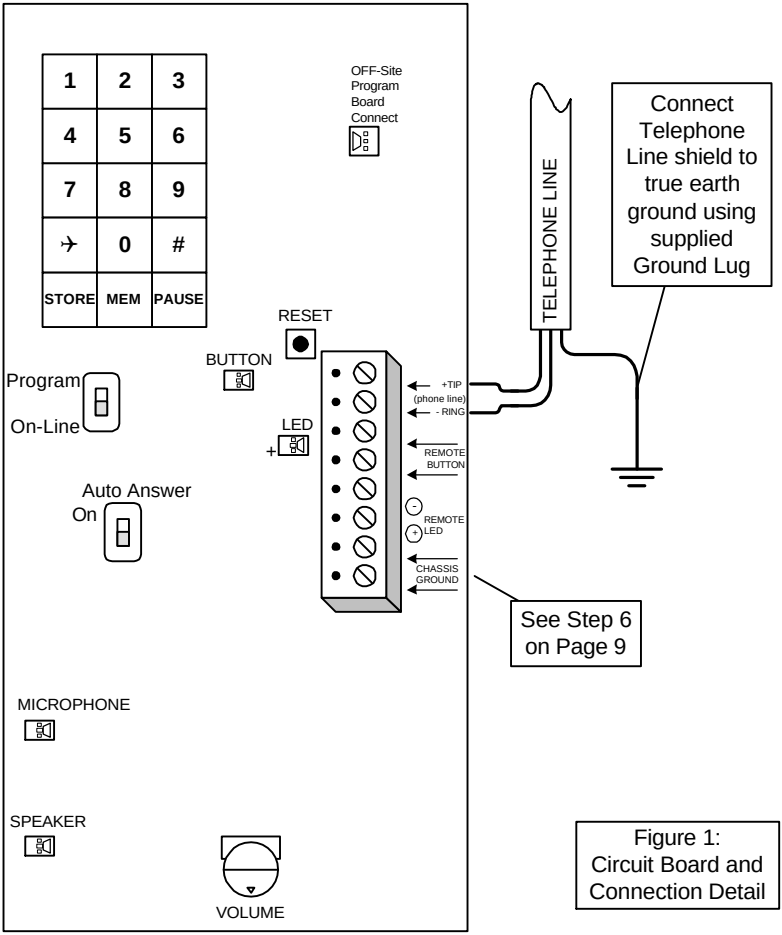

Figure 1:
Circuit Board and
Connection Detail

Note: Maintain proper Tip/Ring polarity throughout the installation. Use a multimeter to verify the polarity at the phone: Tip is (+); Ring is (-).

Note: We emphasize the use of a dedicated telephone line for each Plus model emergency speakerphone because these units are telephone line powered. If more than one is connected to the same line, problems such as low volume, mis-dialing, and unreliable call-back may occur.

DESCRIPTION/INSTALLATION

Sentry Plus (ET201A)

- steel enclosure and faceplate mounts in existing phone box
- one-touch activating push-button with visual indicator
- emergency label with raised and Braille lettering
- coarse and fine grills for protection of microphone and speaker
- vandal resistant screws
- dimensions: 9 1/2” (24.1 cm) H x 4 3/4” (12.1 cm) W x 2” (5.1 cm) D

1. Use the 3/32” Allen wrench (provided) to unscrew the fasteners and remove the rear enclosure
2. Using the rear enclosure as a template, mark the mounting screw hole locations
3. Drill holes for the #8 screws (included)
4. Mount the rear enclosure placing the Ground Lug under one of these mounting screws
5. Proceed to *PROGRAMMING* on page 8

Fortress Plus (ET1201A)

- stainless steel (or optional bronze) brushed #4 faceplate with enclosure mounts over phone box (door removed) or similar wall cut-out
- one-touch activating push-button with visual indicator
- emergency label with raised and Braille lettering
- coarse and fine grills for protection of microphone and speaker
- vandal resistant screws
- dimensions:
  faceplate: 12 1/2” (31.8 cm) H x 10” (25.4 cm) W x 1/8” (0.4 cm) D
  enclosure: 9 5/8” (24.5 cm) H x 6 1/2” (16.5 cm) W x 2 1/2” (6.4 cm) D

1. Determine the mounting location and cut out a 10” H x 7” W opening to allow for the enclosure
2. Using the faceplate as a template mark the mounting screw hole locations
3. Drill holes for the #8 screws (included)
4. Remove the enclosure by removing the two nuts that secure it
5. Proceed to *PROGRAMMING* on page 8
6. Re-mount the enclosure placing the Ground Lug under one of the nuts that secure it

Commander Plus (ET201A-OEM)

- mounts to studs on back of COP behind existing grill pattern
- requires remote activating push-button and visual indicator (PSB type LED included)
- fine grills for protection of microphone and speaker
- dimensions: 9 1/2” (24.1 cm) H x 4 3/4” (12.1 cm) W x 1 3/4” (5.1 cm) D

1. Using the faceplate as a template, mark and install the mounting studs
2. Mount the faceplate tightly against the back of the COP to avoid feedback between the microphone and speaker
3. Connect the Normally Open contacts of the remote push-button to the terminal labeled *REMOTE BUTTON*
4. Connect the remote visual indicator to the terminals labeled *REMOTE LED* taking care to follow the correct polarity
5. Proceed to *PROGRAMMING* on page 8

Liberator Plus (ET201A-LP)

- steel enclosure and faceplate mounts on flat surface or in existing phone box
- one-touch activating push-button with visual indicator
- emergency label with raised and Braille lettering
- coarse and fine grills for protection of microphone and speaker
- vandal resistant screws
- dimensions: 9 1/2” (24.1 cm) H x 6 5/8” (17.5 cm) W x 1” (2.6 cm) D

1. Use the 3/32” Allen wrench (provided) to unscrew the fasteners and remove the rear enclosure
2. Using the rear enclosure as a template, mark the mounting screw hole locations
3. Drill holes for the #8 screws (included)
4. Mount the rear enclosure placing the Ground Lug under one of these mounting screws

PROGRAMMING

Programming is done after the K-phone is connected to a live telephone line. If the unit is being used on a ringdown system, skip this section.

1. Connect telephone line following Tip and Ring polarity
2. Place *Program/On-Line* switch to *Program* position
3. Press the activating push-button
4. Press *STORE*, then *MEM*, then *"0"*
5. Enter the emergency telephone number to be dialed
6. Press *STORE*
7. Press the *RESET* button to shut the K-phone off
8. Place *Program/On-Line* switch to *On-Line*

Note: some internal telephone (PBX) systems require an "access digit" to secure an outside telephone line (e.g. "9"). A PAUSE *may be needed between the "9" and the rest of the telephone number.*

Examples:	*long distance:*	*9 PAUSE 1-234-567-8900*
	local:	*9 PAUSE 123-4567*

Note: for ringdown systems, leave or put the* PROGRAM/ON-LINE *switch to the* PROGRAM *position.

TESTING

1. **Press the activating push-button.** The visual indicator will turn on, dial tone will be heard for a few seconds, then the automatic dialing will commence.
2. **When the call is answered, verify two-way communication.** Adjust the volume control to a satisfactory level.
3. **Have the called party press the pound key (#)** on their telephone to cause the visual indicator to start to flash; have them press zero (0) on their telephone to cause the visual indicator to stop flashing.
4. **Have the answering party hang up.** The K-phone will automatically shut-off via the telephone line disconnect (CPC) signal. If this signal is not present on the line, it will shut off via the automatic time-out (approximately 2 1/2 minutes).
5. **Have the answering party call back the K-phone.** It will automatically turn on, dial, and the visual indicator will turn on.
6. **Mount the faceplate** into the rear enclosure and/or elevator panel using the vandal resistant screws, then re-test.

Note: Make sure wiring does not interfere with components and keypad when finalizing installation.

Note: This equipment should be tested on a periodic basis

TROUBLE SHOOTING

1. **When the activating push-button is pressed, there is no response from the K-phone (i.e. no dial tone is heard, the visual indicator doesn't light).**
   - Check the connections to the MICROPHONE, SPEAKER, LED, and BUTTON (N.O. contacts).
   - Check that there is a "live" telephone line connected to the K-phone. Connect a multimeter across Tip and Ring; you should read between 24 VDC and 48 VDC on-hook.
   - If there is no telephone line voltage in the elevator car, check for line voltage in the machine room and verify the connection.
2. **When the K-phone is activated dial tone is heard, but the emergency number is not dialed.**
   - Check to be sure the *Program/On-Line* switch is in the *On-Line* position.
   - Try reprogramming the number to be dialed.
3. **When activated, the K-phone dials, but the dial tone never goes away.**
   - Check with the telephone company to be sure that the telephone line is not a rotary (pulse) dial line. Line must be touch-tone compatible.
4. **The K-phone dials but doesn't connect. Get a message from the CO or a fast busy signal.**
   - Verify that the correct emergency telephone number is programmed, and the number is working.
   - If dialing from an internal (PBX) system, verify that the proper access number (typically "9") is dialed, and that there is a *PAUSE* inserted between it and the phone number to allow for proper dialing sequence.
5. **When the called party hangs up the K-phone stays on.**
   - Check to see if the telephone line connected to the K-phone supplies a disconnect (CPC) signal. If this signal is not present on the line, it will shut off automatically by the 2 1/2 minute internal timer.
6. **The K-phone false activates and calls out when the elevator moves, when the doors open/close, when the floor buttons are pushed, etc.**
   - The K-phone should be installed on shielded, twisted pair. The shield wire should be continuous from the elevator through the controller and grounded to a true earth ground at one end only.
   - In some cases, grounding the shield is not enough or there is no shielded pair available. Under these conditions, the problem may be helped by bridging together the terminals labeled *CHASSIS GROUND* and connecting it to a true earth ground. (Figure 1, Page 5)

SPECIFICATIONS

Power Requirements	Unit is phone line powered (Page 4)
Programming	Integral keypad entry.
Dialing Mode	Tone (DTMF) only
Digit Capacity	Up to 20 digits (including pauses) can be stored (pause duration is 1 1/2 seconds)
“On” Time	2 1/2 minutes (approximately) or auto shut-off with disconnect (CPC) signal (if provided)
Connection	Parallel - Tip and Ring (screw terminals)
Circuit Protection	Varistor lightning suppressor and full wave polarity guard
Accessories	Mounting screws, 3/32” Allen wrench
Auto Answer	Automatically activates on incoming ring signal
Visual Indicator Activation	Called party presses pound key (#) on their telephone
FCC Registration #	10MUSA-18075-MT-E
IC (Canada) Reg. #	1643 4093 A

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, however, is yours. Consult local codes to be sure your installation complies.

1. Telephone equipment must be mounted at the proper height for people who use wheelchairs.
2. Make sure the called party knows how to make the visual indicator function. This signal is for the hearing impaired and means that help is on the way. (See our “Answering Phone Instructions” card, BOKANS 3/97, #3)
3. Make sure the called party can determine the origin of the call without interaction from its occupants. This is accomplished by a caller-ID type system, or by installing an El-Tell Voice Location Announcer (ET-DA20) on the telephone line. This function is used when the occupant of the elevator is speech and/or hearing impaired.
4. When installing K-Phones inside an elevator phone cabinet you should install a sign with raised and Braille lettering (model LBL014) on the outside. A door handle allowing the physically impaired to open the door (model ET-TBH) should also be installed.

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, Inc. 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 a product for repair, please contact our Customer Service Department at 800-993-9399 or 860-489-9399 for a Repair Authorization (RA) number. Please have the following information available when requesting authorization:

1. Bill To and Ship To addresses
2. Name and telephone number of contact person for this Repair Authorization (RA)
3. Purchase Order # for this Repair Authorization (RA)
4. Quantity, model number(s), and serial number(s)
5. Brief description of problem experienced with the unit(s)

Shipping:

Please reference the Repair Authorization (RA) number on the outside of all cartons and on all paperwork enclosed with the product. Undocumented returns run the risk of being lost and are untraceable. All material must be shipped on a Freight Prepaid basis. Collect shipments will be refused.

FCC NOTICE

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 that may be connected to the telephone line. Excessive REN's on the telephone line may result in the devices not ringing in response to and incoming call. In most, but not all areas, the sum of the REN's should not exceed five (5.0). To be certain 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 you remove the equipment from the network until the problem is resolved. User repairs must not be made, and 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 = 0.0B

NOTES

Date Installed: _____

_____

Serial Number: _____

_____

Installer: _____

_____

Location: _____

_____

Phone Line Number: _____

_____

Phone Number Dialed: _____

_____

Service/Security Company Dialed: _____

_____

_____

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