

# Talk-A-Phone Co.

## Model **ETP-402K** Hands Free Emergency Keypad Phone Architectural & Engineering Specification rev. 1/29/03

### 1 General Description

- 1.1 The Emergency Phone shall consist of an outdoor-rated, vandal resistant and ADA-compliant hands-free speakerphone communications device with a stainless steel faceplate and enclosure and metal buttons.
- 1.2 The Emergency Phone shall be Talk-A-Phone model ETP-402K, no substitutions, and have one red anodized aluminum tactile button labeled "EMERGENCY", one black anodized aluminum tactile button labeled "CALL", an all metal 12-button keypad and one 0.375" diameter red light emitting diode (LED) labeled "LIGHT ON INDICATES CALL RECEIVED". The unit shall be programmable from a remote location and have a two number dialing capability, reverting to the second number if the first is busy or does not respond. Using the keypad, the unit shall be capable of dialing any number authorized by the telephone line. The unit shall be totally hands-free on both sides after connection is initiated at site or by attendant. The unit shall be phone line powered, requiring no outside power source or battery back-up. DIP switch programming, push to talk devices, and devices requiring external power are not acceptable. The unit shall have a dedicated communication line.

### 2 Construction

- 2.1 Chassis, enclosure and faceplate shall be constructed of stainless steel. Keypad shall be all metal.
- 2.2 Faceplate shall be 12 gauge #4 brushed stainless steel, enclosure shall be 16 gauge.
- 2.3 Enclosure shall measure 6.81" W x 9.94" H x 2.88" D.
- 2.4 Unit shall weigh approximately 9 lbs.
- 2.5 Signage shall be constructed of cast metal with lettering and Braille raised approximately 3/32" for ADA compliance.
- 2.6 Word "EMERGENCY" and top button shall be red. Word "CALL" and lower button shall be black.
- 2.7 Each push button and switch shall be a single assembly rated for 1,000,000 cycles.
- 2.8 Speaker and microphone shall be protected by non-ferrous metal screen to provide a barrier against vandalism, rain and snow.

### 3 Features

- 3.1 Unit shall be capable of operating on standard phone lines or analog PBX extensions.
- 3.2 Unit shall dial at approximately 10 tones per second.
- 3.3 Keypad shall allow unit to call any number that phone line permits.
- 3.4 Output sound level shall be greater than 80 dB at one meter for normal conversation.
- 3.5 All programming shall be stored in non-volatile EEPROM memory.
- 3.6 Buttons shall provide tactile feedback.
- 3.7 Unit shall be programmable from a remote telephone via keypad entry.
- 3.8 Call timer shall be programmable from 1 to 4320 minutes.
- 3.9 LED for the hearing impaired shall illuminate to indicate when calling party may speak (when receiving party is silent).
- 3.10 Unit shall be programmable with two different telephone numbers of up to 18 digits each including pauses for each button. If first number does not answer or is busy, unit shall automatically call the second number. If that number is busy or does not answer, unit shall call the first number again. Unit shall continue alternating until call is answered or call timer limit is reached.
- 3.11 If a call has been initiated by pressing the lower button and dialing a number on the keypad, the unit shall seize the line when the upper button is pressed.
- 3.12 Unit shall include two auxiliary outputs and one auxiliary input that are opto-isolated from the telephone line to 1,000 volts. Outputs shall be activated, providing a dry contact closure, either automatically when top button is pressed, AUX input is activated or manually by guard keypad operation. Input shall allow unit to be activated by any device or switch that provides a contact closure. AUX outputs shall not be initiated by use of lower button and keypad.
- 3.13 Incoming and outgoing volume shall be adjustable separately.
- 3.14 Unit shall be capable of automatically notifying attendant of location via programmable 6 digit ID.
- 3.15 Unit shall be capable of silent monitoring.
- 3.16 Unit shall utilize tone dialing.
- 3.17 When call is finished, unit shall automatically shut off.
- 3.18 Unit shall answer any call placed to it from any other telephone.
- 3.19 Two levels of programmable passwords shall be available.

- 3.20 Unit shall be varistor lightening suppressed and full wave polarity guarded.
- 3.21 Unit shall have parallel tip and ring connected to an RJ-11 connector for quick installation.
- 3.22 Unit shall be compatible with Talk-A-Lert® diagnostics/base-station package, model ETP-TAL.
- 3.23 Unit shall comply with Part 68 of the FCC rules for the United States.

#### 4 Environmental

- 4.1 Speaker: Unit shall have a 3.5 inch waterproof speaker with a vinyl-impregnated cloth cone. Magnet and solid aluminum voice coil area shall be protected from ferrous and non-ferrous particles by a special sealed design. The speaker shall be capable of operating without deterioration of sound quality after total immersion in water for 96 hours. Speaker shall operate at temperatures of -55°C to +85°C. Steel basket shall have a zinc dichromate finish for protection against corrosion.
- 4.2 Microphone: Unit shall include a gold, water-resistant microphone.
- 4.3 Push Button/Switch: Button and switch shall be a single assembly. Epoxy seals shall protect contacts and terminals from hostile environments and solder flux. Unit shall be waterproof and submersible to 3 feet in water. Unit shall have a mechanical life of 1,000,000 cycles. Case shall be moisture-proof, dust-tight and designed to accommodate the high shock military specifications of MIL-STD-202, method 207. Case shall be aluminum alloy, anodized clear. Button shall be red anodized aluminum. Switch shall be rated to operate from -55°C to +80°C.
- 4.4 PC boards and Other Electronic Components: Boards and components shall withstand a corrosive atmosphere of 90% H<sub>2</sub>S for 16 hours. PC boards shall be rated R4. Unit shall be designed to operate at temperatures from -20°C to +65°C and humidity levels up to 95% relative humidity at 49°C.
- 4.5 Protective Sealing of Completed PC Boards: Once the unit has been wave soldered and inspected and the completed boards tested, the entire circuit board apparatus shall be conformally coated by dipping rather than spraying (Mil-I416058C amend 6). The microprocessor chip shall then be installed in its socket and sealed in place with a special electrical grade RTV type sealant. At this point the boards can be sprayed with water without affecting the operation of the unit.

#### 5 Electrical

- 5.1 Unit shall be fully phone line powered, requiring no external power or battery back-up.
- 5.2 One dedicated, twisted-shielded communication pair shall provide a minimum of 24VDC and 20mA while off hook.

#### 6 Mounting

- 6.1 Unit shall be designed for surface mounting on an existing front return or side wall.
  - 6.2 Surface Mount Extension, model ETP-SME, shall be used to connect conduit from below.
- 7 Options
- 7.1 Unit shall be available with a single EMERGENCY button as model ETP-401.
  - 7.2 Unit shall be available with a second button as model ETP-402.
    - 7.2.1 There shall be one red anodized aluminum tactile button labeled "EMERGENCY" on top and one black anodized aluminum tactile button labeled "INFO" on the bottom.
    - 7.2.2 Each button shall be capable of dialing two unique phone numbers.
    - 7.2.3 If a call has been initiated by pressing the lower button, the unit shall be capable of seizing the line when the upper button is pressed.
  - 7.3 Unit shall be available with a keypad but no EMERGENCY button as model ETP-402KS.
    - 7.3.1 There shall be one black anodized aluminum tactile button labeled "CALL" on the bottom with a 12-button keypad.
    - 7.3.2 The button shall take the phone off-hook in order to dial using the keypad.
  - 7.4 All units shall be available with a primary casting that reads "TO CALL" instead of "EMERGENCY" (add "C" to model number, e.g. ETP-402KC or ETP-402KCV).
  - 7.5 Units shall be available with Intelli-Voice Location Identifier (add "V" to model number, e.g. ETP-402KV).
    - 7.5.1 Message shall transmit as soon as call is answered.
    - 7.5.2 Message shall be repeatable upon request of operator.
    - 7.5.3 Message duration shall be programmable as 5, 10 or 16 seconds.
    - 7.5.4 Location identifier message and duration shall be programmable from remote location.
  - 7.6 Unit shall be available with built-in pinhole camera (add "OPT 3" to model number for color camera, "OPT 3BW" for black and white camera, e.g. ETP-402K OPT 3). For full specifications of Face Plate Cameras, contact Talk-A-Phone Co.
  - 7.7 Surface Mount Extension, model ETP-SME, shall allow conduit connection from below.
  - 7.8 Unit shall be compatible with a radio frequency interface, model ETP-WTR, to create a private radio frequency system that can accommodate up to 200 Emergency Phones.

7.9 Unit shall be compatible with a cellular interface to allow the use of any compatible cellular provider to provide wireless phone connection.

7.9.1 Transmission shall be tri-mode 800MHz TDMA/1900 MHz PCS/800 MHz AMPS, model ETP-CI.

7.9.2 Transmission shall be 1900Mhz GSM, model ETP-CI/GSM.

7.10 Unit shall be compatible with a fiber optic interface available from International Fiber Systems (IFS).

8 Warranty

8.1 Equipment shall be warranted against any defects in material and workmanship, under normal use, for a period of twelve months from date of installation. In the event system is found by manufacturer to be defective within the warranty period, manufacturer shall repair and/or replace any defective parts, provided the equipment is returned to manufacturer.

9 Manufacturer

9.1 The Manufacturer shall be Talk-A-Phone Co. (773) 539-1100, 5013 N. Kedzie, Chicago, Illinois 60625, www.talkaphone.com. THERE ARE NO EQUIVALENTS.