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# EAGLE SECURITY PRODUCTS, INC.



*John*

MODEL 1225  
TWO WAY AUDIO SYSTEM  
WITH REMOTE DIAL-UP  
AND AUTO-DETECT  
INSTALLATION INSTRUCTIONS

## 1.0 GENERAL.

### 1.1 FEATURES.

The Model 1225 is the most sophisticated two way audio system on the market today. Features include:

- ⇒ Self contained speaker/microphones with quick connect/disconnect modular connectors.
- ⇒ Central station detection and automatic disconnect upon central station disconnect.
- ⇒ Compatibility with all digital communicators.
- ⇒ Microprocessor technology which provides a wide range of operating modes.
- ⇒ Activation by a new auto-trigger which requires no hard trigger from the control panel. Optionally, a trigger from the communicator and/or its built-in call back system may be used.
- ⇒ When used in the call back mode, the system has the ability to bypass any other devices such as an answering machine and/or downloadable communicator, which may intercept the call.
- ⇒ Remote volume control of the microphone from the central station.

### 1.2 DEFINITIONS.

**LINE HOLD** - The immediate turn on of the audio module which allows the module to use the phone call generated by the digital communicator when communicating with the central station.

**CALL BACK** - A procedure when the central station calls the premises after an alarm activation to initiate two way communications. This can be used with or without the LINE HOLD mode.

**MANUAL CONTROL** - The central station controls who talks and who listens with commands generated from a Touch-Tone@.

**LISTEN ONLY / TALK ONLY** - Both terms are with respect to the central station. LISTEN ONLY allows the central station to listen without talking. TALK ONLY allows the central station to talk without listening.

## 2.0 REQUIREMENTS.

### 2.1 POWER.

Operating voltage: 9 to 14 VDC.  
Current draw (standby): 80 mA max.  
Current draw (active): 180 mA max.  
Current draw (siren): 600 mA max.

### 2.2 SYSTEM.

The Eagle Model 1225 requires the following hardware:

1. A communicator/control panel to provide initial communication with the central station.
2. Connections to power (+ 12VDC & Ground) and telephone (Tip & Ring).
3. A minimum of one speaker/microphone (Eagle Model 2170). Up to two Model 2170's may be used.

### 2.3 CENTRAL STATION.

1. A receiver with listen-in or two way capability (stays on line after kiss off).
2. A Touch-Tone' phone in parallel with the receiver line if used in the line hold mode.

### 3.0 INSTALLATION.

#### 3.1 INSTALLATION SUMMARY.

1. Mount 1225 into control panel.
2. Connect RJ-31X cord from RJ-31X block to PI.
3. Connect P2 to control panel phone connections.
4. Run cable from 1225 to Eagle 2170 speaker/microphone location.
5. Connect cable from the Eagle 2170 to P3.
6. Mount one Eagle Model 2170 speaker/microphone.
7. Repeat steps 4 - 6 with a second Model 2170 if desired except connecting 2170 to P4.
8. If desired, connect external siren driver to Green and Blue wires OR connect alarm + 12V output to the GREEN wire (or ground output to the YELLOW wire).
9. Set option selection switches.

#### 3.2 OPTION SWITCH DESCRIPTION (6 position DIP switch).

The Eagle Model 1225 has many modes of operation. It can be custom configured for each installation. The following is a description of each of the option setting switches.

**IMPORTANT: When changing the Option Switches, always remove power, set switches, then re-connect power. This insures that the new options will be read by the microprocessor!**

SW1 - ON = Demo/test Mode.  
OFF = Normal operating mode.

Switch 1 should be used in the OFF position for almost all installations. This switch is only used to facilitate demonstration of the system to prospecting users.

SW2 - ON = Activate immediately with the trigger input (Line-hold mode).  
OFF = Set up the ring detector to answer after one ring.

When SW2 is in the ON position, the system will activate immediately with the trigger input. (This occurs when the digital communicator is shut down with a kiss-off from the Central Station.) A trip from the communicator/control panel or the auto trigger is required.

When SW2 is in the OFF position a trigger input will activate a five (5) minute window. The 1225 will answer the phone line as soon as it sees one ring within this window. The system will ignore any invalid phone calls (see section 4.2). When the five minute window expires, the system will ignore all phone calls.

SW3 - ON = Positive edge trigger on trigger input.  
OFF = Negative edge trigger on trigger input.

**Note: Before selecting this option, determine which type of trip will be used by measuring the DC voltage at the trigger input when connected to the communicator.**

When SW3 is in the ON position, the system will interface with digital communicators that provide a trigger input that is at 1.5 VDC or less when NOT reporting and switch to 2.5 VDC or greater when reporting.  
When SW3 is in the OFF position, the system Will interface with digital communicators that provide a trigger input that is at 2.5 VDC or greater when NOT reporting and switch to 1.5 VDC or less when reporting.

SW4 - ON = Only last minute warning tone will sound.  
 OFF = All progress tones will sound.

This enables the installer to disable all the progress tones (one per minute) except the last minute shut down warning tone. This is beneficial for use in demo kits.

SW5 - ON = Enables the CENTRAL STATION DETECTION feature.  
 OFF = Disables the CENTRAL STATION DETECTION feature. This is recommended when the subscriber has call waiting which cannot be disabled.

SW 6 - ON = Enables the AUTO TRIGGER FUNCTION.  
 OFF = Disables the AUTO TRIGGER FUNCTION. This is recommended when using a hard trigger from a control panel.

### SUMMARY OF SWITCH SETTINGS

SWITCH	ON	OFF
1	FACTORY TEST	NORMAL
2	IMMEDIATE TURN ON	SET UP RING DETECT WINDOW
3	POSITIVE EDGE	NEGATIVE EDGE
4	ALL TONES ACTIVE	LAST MINUTE TONE ONLY
5	CENTRAL STATION DETECT	DISABLED
6	AUTO TRIP ON	AUTO TRIP OFF

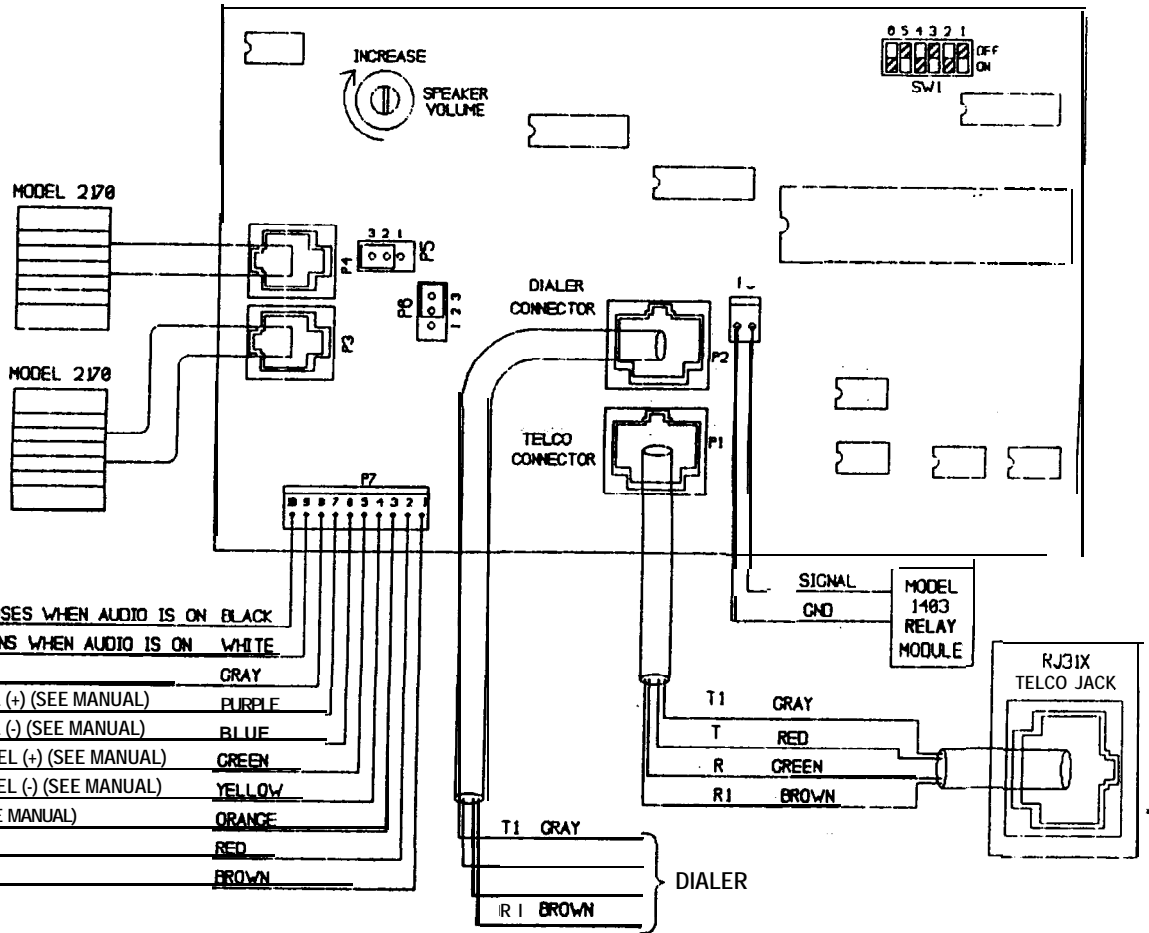
### 3.3 WIRING AND PLACEMENT.

WIRE	CONNECTION
BROWN	Negative supply input (GROUND)
RED	Positive supply input (+ 12 VDC)
ORANGE	Trigger input (see options)
YELLOW	Alarm active from control panel (Ground on alarm) see manual.
GREEN	Alarm active from control panel (+12VDC on alarm) see manual.
BLUE	External siren input (-) (set P5 & P6, Section 6.1)
VIOLET	External siren input (+) (set P5 & P6, Section 6.1)
GRAY	Common relay contact.
WHITE	Normally closed relay contact. Open when audio active.
BLACK	Normally open relay contact. Closed when audio active.

Descriptions:

**Note: Connections differ from earlier releases of Eagle Model 1225.**

- BROWN:** GROUND connection. to alarm panel auxiliary power out.
- RED:** + 12 VDC connection to alarm panel auxiliary power out.
- ORANGE:** Trigger input. Use when control panel has dedicated two way activation trip.
- YELLOW:** Connect alarm output here (negative voltage active). This activates the Model 1225's internal siren driver. Note: do not use with GREEN (positive) input.
- GREEN:** Connect alarm output here (positive voltage active). This activates the Model 1225's internal siren driver. Note: do not use with YELLOW (negative) input.
- BLUE and VIOLET:** External siren driver input. Used when it is desired to use the speaker within the 2170 speaker/microphone for siren output. Maximum current: 2 amps DC. See Paragraph 6.2.
- GRAY:** This provides the common relay contact for external control. Maximum current: 2 amps DC.
- WHITE:** Normally closed contact. During two way, this connection is opened.
- BLACK:** Normally open contact. During two way, this connection is closed.



### 3.4 ADJUSTMENTS/INSTALLATION.

SPK - Used to adjust the gain of the speaker. CCW - increases gain; CW - decreases gain.

### 3.5 SPEAKER/MIC INSTALLATION.

#### 3.5.1 LOCATION.

A microphone and speaker can cover a range of up to 2500 square feet. This is dependent on the environment in which they are installed. Installation is recommended at or near system keypads with a minimum of one per floor, excluding basement.

#### 3.5.2 QUANTITY OF SPEAKER/MICS.

Up to two (2) Model 2170 Speaker/mics may be used with the Eagle Model 1225.

### 3.6 COMMUNICATOR PROGRAMMING.

When programming the digital communicator, it is advised to begin the "TELEPHONE NUMBER" with "\*70" (tone dialing) or "\* 1 170" (pulse dialing). This will allow uninterrupted communication when the subscriber has call waiting.

### 4.0 ACTIVATION.

#### 4.1 IMMEDIATE TURN ON.

When option switch #2 is set in the ON position, the module will activate when a trigger is received on the ORANGE wire or when auto trigger is activated. This trigger must correspond with the completion of the communicator's alarm report (kiss off from the Central Station). When the two way audio module is activated in this mode, the operator, if listening at that time, will hear a two tone "beep-hop" acknowledgment generated by the module. This is the operators notification that the module is on and active.

**Note: The central station receiver must be capable of a "listen-in" function, i.e. the receiver must hold the phone line open until an operator can pick-up the line.**

The operator can control the operation of the module using a Touch-Tone' phone per Paragraph 5.0.

#### 4.2 USING RING DETECTOR.

##### 4.2.1 DESCRIPTION.

##### FIVE MINUTE WINDOW.

The Model 1225 has a call back mode which activates upon a trip. The trip can be initiated on the trip input (orange wire) or from the auto detect circuit. The sets up the system to answer an alarm which has just been reported by the digital communicator (SW2 is OFF), the operator will have 5 minutes in which to call back the system and have it answer within one ring. This feature allows call back only within five minutes of an alarm activation.

##### 4.2.2 CALL ANSWERING.

When the system detects the programmed number of rings, it will pick up the phone line and send a series of 3 "beeps" as an answer acknowledgment. The system now has the line, but two way is NOT active.

The operator has 15 seconds to press (and release) the [\*] (asterisk) key to activate TWO WAY.

If the [\*] is not sent in 15 seconds, the system will hang-up.

When the [\*] is received, the system will generate a two tone “beep-hop” acknowledgment.

The operator can control the operation of the module using a Touch-Tone phone per Paragraph 5.0.

**Note: The symbol [\*] refers to momentarily pressing the button identified within the brackets (asterisk) on a Touch-Tone phone.**

## 5.0 CONTROLLING THE MODULE.

**Note: The symbol [ ] refers to momentarily pressing the button identified within the brackets on a Touch-Tone phone.**

After the module has been successfully activated by one of the methods described above, the operator can control the operation of the system using a Touch-Tone+ phone in the following manner:

To switch to “LISTEN ONLY, HIGH GAIN”, press and release digit [3]. To switch to “LISTEN ONLY, NORMAL GAIN”, press and release digit [2]. To switch to “TALK ONLY”, press and release digit [1]. The operator can switch back and forth between these modes as often as one wishes independent of the mode in which the module was in when activated.

**CAUTION:** If there is a loud, continuous background noise, such a radio, the central station operator should not attempt to increase the gain of the Model 1225, as this may cause the system to lose the ability to recognize the tones from the central station. If the module ‘locks up’ into the “LISTEN ONLY, HIGH GAIN” mode, press and hold digit [2] for a minimum of 5 seconds. This should unlock the module. Repeat if necessary.

The Model 1225 provides five (5) minutes of two way. During two way, the module will generate a “beep” once every minute. Upon the fourth and final minute of two way the module will generate a two tone “beep bop” warning the central station that there is only one more minute of two way before the module automatically disconnects. These beeps will be heard at the premise when module is in the “TALK MODE”. These beeps will always be heard by the central station. To extend the listen in shut down time (reset to 5 minutes), press and release digit [7] at any time during the two way (before the module disconnects). Additionally, anytime a command is sent to the Model 1225 (a [1], [2], [3] or [7]) the module will automatically reset the five minute timer. The only time the [7] command need actually be sent is when the module is used in the “LISTEN ONLY” mode for the duration of the call. To shut down the module, press and release digit [9] at any time. To shut down the module and initiate the five minute call back window, press and release digit [8] at any time. This will allow the central station or any other party to call back and have an active two way session. (This is beneficial when a home or business owner wishes to have an active two way session after the central station has finished.)

Touch-Tone” command summary:

TOUCH -TONE” COMMAND	FUNCTION
1	TALK ONLY
2	LISTEN ONLY
3	HIGH GAIN LISTEN ONLY
7	RESET SHUT DOWN TIMER
8	SHUT DOWN MODULE & INITIATE 5 MINUTE CALLBACK WINDOW
9	SHUT DOWN MODULE
*(ASTERISK)	ACTIVATE 1 225 FROM:-CALL BACK MODE



## 6.0 OPTIONAL CONNECTIONS.

### 6.1 INTERNAL SIREN.

The internal siren driver requires an input from the alarm panel. This input activates the internal driver. The input is the GREEN wire on the wire harness. When this input receives + 12VDC the Model 1225 will generate a siren tone. Alternately, ground tone may be connected to the YELLOW wire on the harness to provide the siren tone. The tone will cease during two way or when the input returns to zero.

### 6.2 EXTERNAL SIREN DRIVER.

It may be desired to connect an external siren driver to the Eagle Model 1225 utilizing the speaker within the Model 2170 SPEAKER/MIC. The module must be configured to accept this input. Jumpers P5 and P6 (both) must be moved to positions 2 and 3. They are factory set for internal siren.

### 6.3 MODEL 1403 EXTERNAL RELAY MODULE.

An Eagle Model 1403 Remote Control Relay Module may be connected to P8. The Model 1403 may be connected to provide additional central station control of the premises.

## 7.0 NOTES.

The operation of the system will be greatly enhanced if amplified phone is used at the Central Station.

When using multiple microphones at the subscriber end, be aware that loud background noise picked up by one microphone will "drown out" the other microphone.

It is unwise to switch to the high gain "Listen only" mode in the presence of loud background noise as that will only make it worse.

*As with allelectronic devices, electrostatic discharges can damage the components. Handle the circuit board with care!*

Features and specifications subject to change without notification.

Use of this equipment may be in violation of local laws. Please verify and obey all local laws, Eagle Security Products, Inc. does not assume any liability for the illegal use of this equipment.

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## 8.0 FCC REQUIREMENTS:

1. The Federal Communications Commission (FCC) has established Rules which permit this device to be directly connected to the telephone network. Standardized jacks are used for these connections. This equipment should not be used on party lines or coin lines.
2. If this device is malfunctioning, it may also be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until repair has been made. If this is not done, the telephone company may temporarily disconnect service.
3. The telephone company may make changes in its technical operations and procedures; if such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the changes. You will be advised of your right to file a complaint with the FCC.

4. If the telephone company requests information on what equipment is connected to their lines, inform them of:

- a. The telephone number this unit is Connected to
- b. The ringer equivalence number
- c. The USOC jack required.
- d. The FCC Registration number

Items 'b' and 'd' are indicated on the label.

The ringer equivalence (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the RENs of all devices on any one line should not exceed five (5.0). If too many devices are attached, they may not ring properly.

5. In the event of equipment malfunction, all repairs should be performed by our Company or an authorized agent. It is the responsibility of users requiring service to report the need for service to our Company or to one of our authorized agents. Service can be obtained at:

Eagle Security Products, Inc.  
20 North America Drive  
West Seneca, NY 14224-2225  
(716) 674-9192  
(800) 447-3245

or at your local installation company.

EAGLE SECURITY PRODUCTS MODEL 1225  
Complies with Part 68, FCC Rules  
FCC Registration #: 1 SYUSA-18688-KX-N  
Ringer Equivalence : O.OB

#### LIMITED WARRANTY

Eagle Security Products, Inc. warrants that the products of its manufacture shall be free from defects in materials or workmanship to one Year from the date of invoice if such goods have been properly installed, are subject to normal proper use, and have not been modified in any manner whatsoever. Upon return of the defective product to the nearest Eagle Security Products dealer, Eagle Security Products will, at its sole discretion, either repair or replace, at no cost to the customer, such goods as may be of defective material or workmanship. Customers outside the United States are to return products to their distributor for repair.

In addition, any out of box failure will we replaced at no charge providing the unit has not be altered physically. Alterations include, but not limited to, soldering, the addition of tape/foam tape or any form of physical damage.

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