PERS-2400B

PERSONAL EMERGENCY REPORTING SYSTEM

POWER
TROUBLE
SENDING
HOME

EMERGENCY

CLEAR

HOME

DX BY Linear

DXs BY Linear

Installation, and Operation Instructions

Linear ®
Building On Innovation.

CONTENTS

PRODUCT DESCRIPTION

The PERS-2400B Console is a supervised wireless emergency reporting product designed for medical alert applications. The table-top or wall-mount Console provides "pushbutton" emergency assistance to anyone who desires additional security and peace of mind. For the visually impaired, each button on the Console is molded with braille characters to identify the button's function.

The Console receives signals from up to 16 Linear wireless transmitters. Activating a transmitter causes the Console's digital communicator to send the appropriate alarm report to the central monitoring station via the standard telephone network. In addition to the central station report, audible and visual indications occur and the alarm relay energizes during an emergency activation.

The emergency alarm can be triggered by the large EMERGENCY button on the face of the Console or with a wireless transmitter. The fire alarm can be triggered by wireless smoke alarms.

The optional *activity timer* can be set for 8, 12 or 24 hour operation. The emergency alarm will trigger automatically if the time set elapses before an activity transmitter is triggered or the Console's HOME button is pressed.

If the optional Model VB-4B voice board is installed, the Console will "talk" to the user. The digitized voice, will sound "emergency", "fire", "CO Alarm", "timer done soon", and other system operation, setup, and supervisory prompts from a 38 word vocabulary. In addition, the voice board supports 2-way automatic, 2-way manual, and 1-way listen-only audio communications with central station monitoring personnel using the Console's built-in high-sensivity microphone and speaker.

The Console can be programmed to act as a remote controlled "speakerphone". With the speakerphone mode enabled (Model VB-4B voice board required) the Console will monitor the telephone line for an incoming call. Activating any emergency transmitter (or the Console's EMERGENCY button) while the telephone is ringing will cause the Console to seize the line and begin full duplex voice communications. Activating any emergency transmitter (or EMERGENCY button) during the call will disconnect the line. The Console will auto-disconnect after 15, 30, or 60 minutes (programmable).

Supervised transmitters regularly send status reports to the Console and low battery reports when their batteries are low. When the Console receives a low battery report, the TROUBLE indicator flashes. If the Console fails to receive a status report from a transmitter for a period of 24 hours, the TROUBLE indicator will light. All supervisory conditions can sound a local annunciation and be reported to the central station.

The Console's digital communicator can route calls to three telephone numbers: primary, secondary, and supervisory. General reporting codes and individual sensor reporting codes are programmable for the 4x2 format. Alternately, Ademco Contact ID may be selected for the communicator reporting format.

Powered by a low voltage plug-in transformer, the Console has provisions for a rechargeable backup battery for operation during AC power outages. A power switch allows for out-of-service storage of the Console without discharge of the battery. The battery is recharged and supervised by the Console. If the backup battery becomes low the POWER light will flash and the condition can be reported to the central station.

The Console is programmed using Linear's RA-2400 remote access software (available on CD and at Linear's Web site: www.linearcorp.com). Refer to the software's built-in help file for programming details.

TRANSMITTER COMPATIBILITY
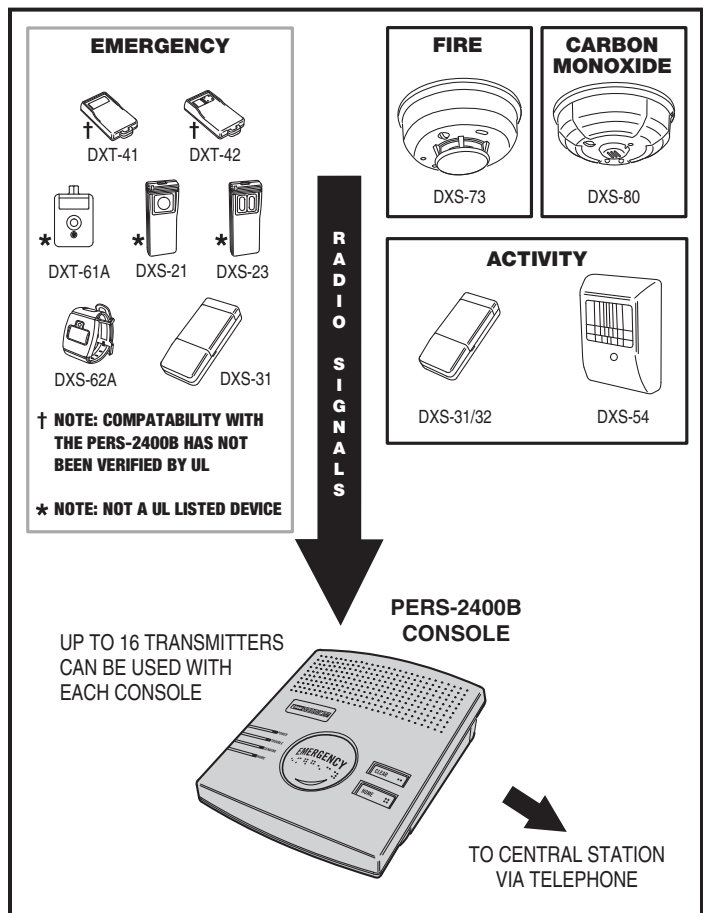
OPERATION SUMMARY

A variety of Linear's supervised DXS and non-supervised DX format transmitters can be used with the Console. Transmitters can be assigned to the following four functions:

EMERGENCY

Portable, supervised and non-supervised, pendant, belt-clip, or wristband type transmitters (Models DXT-41, DXT-42, DXT-61A, DXS-21, DXS-23, DXS-62A) and stationary, supervised Model DXS-31 transmitters are used for medical alert applications. When a medical alert transmitter is triggered, the Console sounds a two-tone siren and an emergency report is sent to the central station. The emergency alarm can also be triggered by pressing the Console's EMERGENCY button.

FIRE

Supervised Model DXS-73 wireless photoelectric smoke alarms trigger the fire alarm. When the fire alarm is activated, the Console sounds a repeated series of three beeps and a fire report is sent to the central station.

CARBON MONOXIDE (CO)

Supervised Model DXS-80 wireless carbon monoxide detectors trigger the CO alarm. When a carbon monoxide alarm is activated, the Console sounds a repeated series of four beeps and a carbon monoxide report is sent to the central station.

ACTIVITY

Supervised, switch or motion triggered transmitters (Models DXS-31/DXS-32 and DXS-54) can be used for ensuring human activity. The DXS-54 motion detector will monitor room activity. The DXS-31 and DXS-32 transmitters can be wired to a pushbutton or switch for manual activity monitoring. As long as a signal is received at least once every 8, 12, or 24 hours (programmable) an alarm will **not** be triggered. 15 minutes before the programmed time expires, the HOME indicator will start blinking and a low pitched beep will sound every ten seconds. The activity timer can be reset with a signal from one of the activity transmitters or by pressing the HOME button on the Console. Failure to reset the activity timer within the programmed time period will cause the Console to sound the two-tone emergency siren and send an inactivity report to the central station. The activity timer can be turned on or off at the Console or through programming.

1. FRONT PANEL FEATURES

TROUBLE INDICATOR
- NORMALLY OFF
- LIGHTS WHEN ANY TRANSMITTERS ARE MISSING (SUPERVISORY)
- BLINKS SLOWLY WHEN ANY TRANSMITTERS HAVE A LOW BATTERY

POWER INDICATOR
- LIGHTS WHEN AC IS PRESENT
- BLINKS SLOWLY WHEN BATTERY IS CHARGING
- BLINKS QUICKLY WHEN AC IS ABSENT (CONSOLE ON BATTERY POWER)
- OFF IN TEST AND SETUP MODES

EMERGENCY BUTTON
- PRESS AND HOLD TO TRIGGER THE EMERGCNY ZONE
- PRESS DURING RING FOR SPEAKERPHONE MODE
- PRESS DURING SPEAKERPHONE MODE TO DISCONNECT

CLEAR BUTTON
- STOPS ALARM
- ADDS CANCEL TO AN ALARM REPORT IN PROGRESS
- PRESS IMMEDIATELY AFTER EMERGENCY TO PREVENT REPORT
- CLEARS INDICATORS
- STOPS TROUBLE BEEPER
- PRESS FOR 5 SECONDS TO ADD A TRANSMITTER

HOME BUTTON
- PRESS TO RESET ACTIVITY TIMER
- PRESS FOR 5 SECONDS TO TURN ACTIVITY TIMER OFF
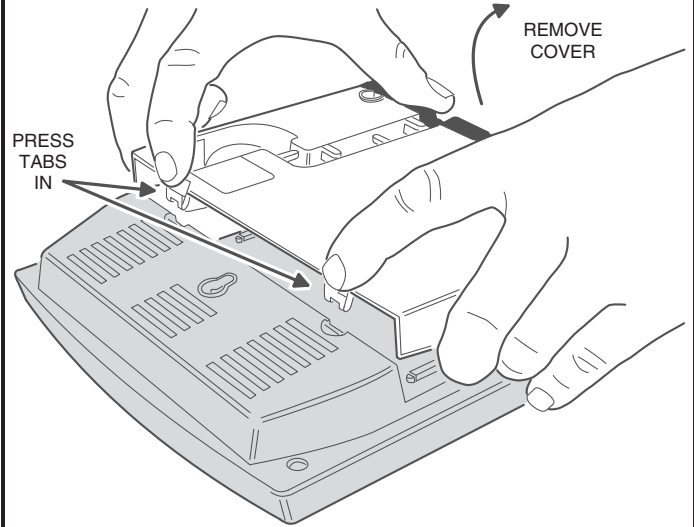- IF ACTIVITY TIMER IS OFF, PRESS FOR 5 SECONDS TO TURN ACTIVITY TIMER ON

HOME INDICATOR
- LIGHTS WHEN ACTIVITY TIMER IS ON
- BLINKS SLOWLY WHEN LESS THAN 15 MINUTES REMAIN ON THE ACTIVITY TIMER
- BLINKS QUICKLY WHEN THE ACTIVITY TIMER HAS EXPIRED

SENDING INDICATOR
- NORMALLY OFF
- FLASHES WHEN CONSOLE IS PLACING A CALL

HOME BUTTON COVER
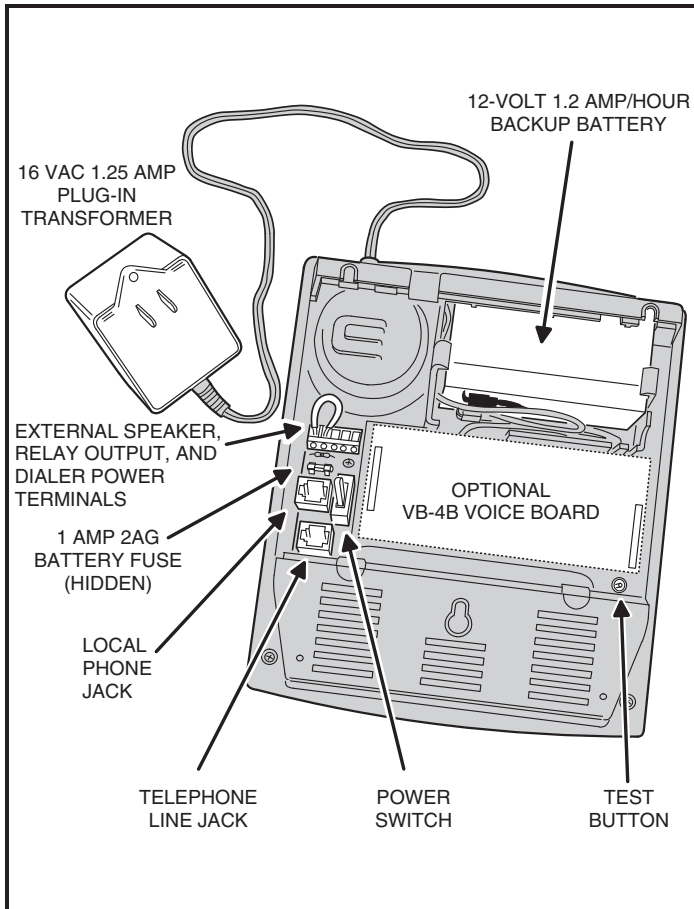- ADHESIVE BACKED PLATE TO HIDE THE HOME BUTTON IF THE ACTIVITY TIMER IS NOT USED
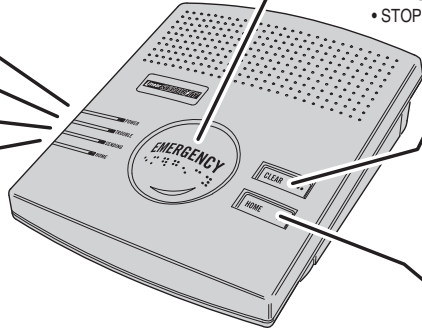
2. REMOVING BOTTOM COVER

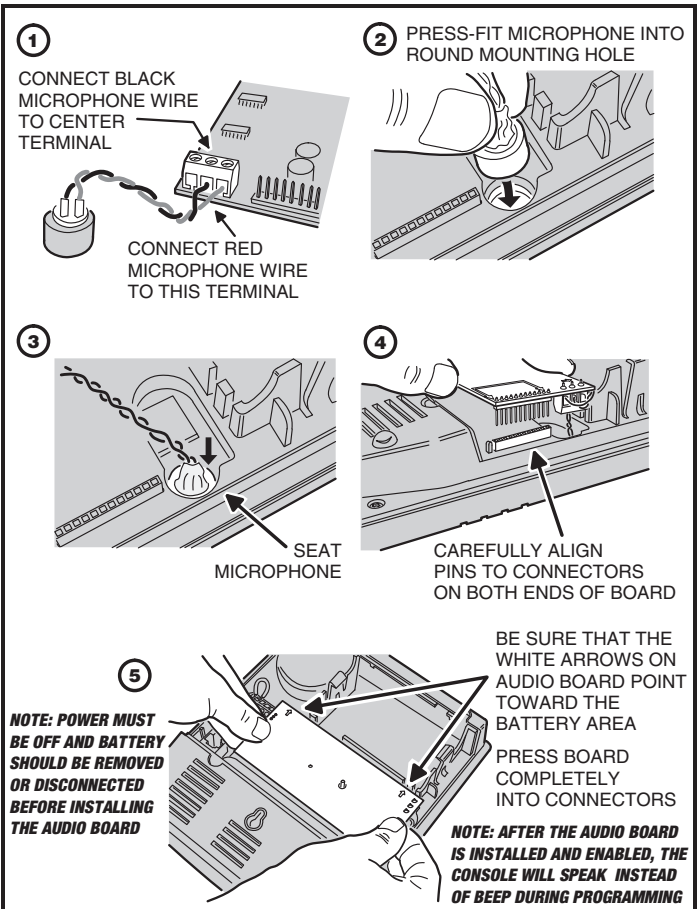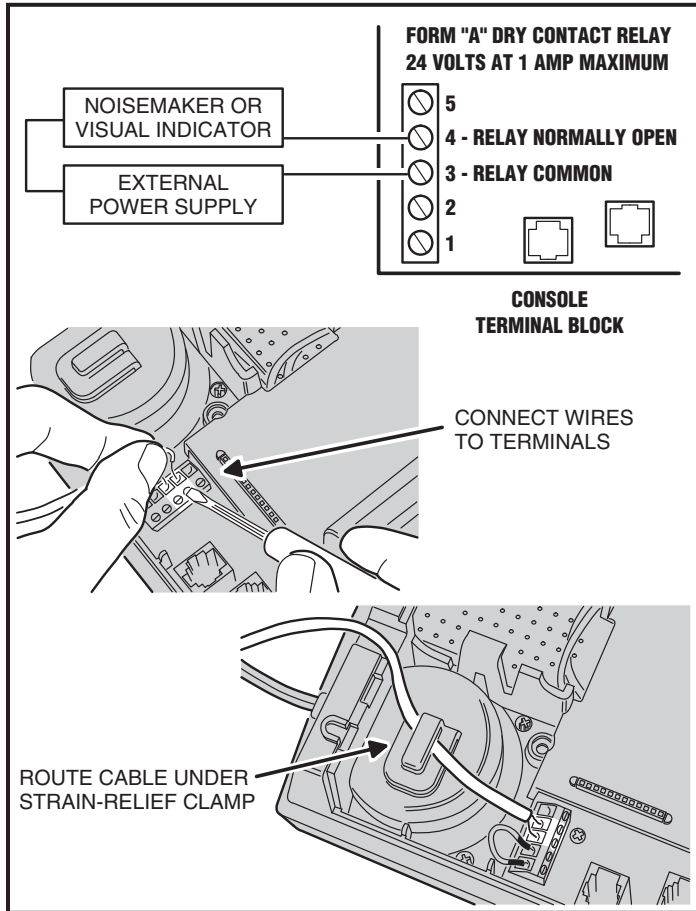TO ACCESS THE INSIDE OF THE CONSOLE PRESS THE TWO LOCKING TABS IN AND REMOVE THE CONSOLE'S BOTTOM COVER

REMOVE COVER

PRESS TABS IN
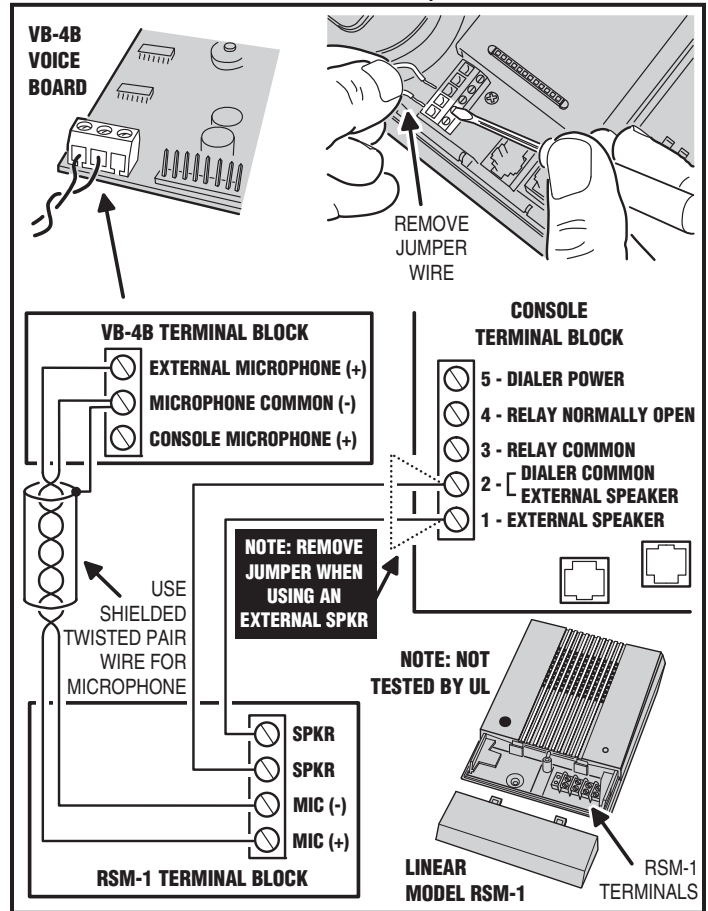
3. CONSOLE BOTTOM FEATURES

12-VOLT 1.2 AMP/HOUR BACKUP BATTERY

16 VAC 1.25 AMP PLUG-IN TRANSFORMER

EXTERNAL SPEAKER, RELAY OUTPUT, AND DIALER POWER TERMINALS

1 AMP 2AG BATTERY FUSE (HIDDEN)

LOCAL PHONE JACK

OPTIONAL VB-4B VOICE BOARD

TELEPHONE LINE JACK

POWER SWITCH

TEST BUTTON

4. OPTIONAL VB-4B VOICE BOARD INSTALLATION

① CONNECT BLACK MICROPHONE WIRE TO CENTER TERMINAL

CONNECT RED MICROPHONE WIRE TO THIS TERMINAL

② PRESS-FIT MICROPHONE INTO ROUND MOUNTING HOLE

③ SEAT MICROPHONE

④ CAREFULLY ALIGN PINS TO CONNECTORS ON BOTH ENDS OF BOARD

⑤

NOTE: POWER MUST BE OFF AND BATTERY SHOULD BE REMOVED OR DISCONNECTED BEFORE INSTALLING THE AUDIO BOARD

BE SURE THAT THE WHITE ARROWS ON AUDIO BOARD POINT TOWARD THE BATTERY AREA

PRESS BOARD COMPLETELY INTO CONNECTORS

NOTE: AFTER THE AUDIO BOARD IS INSTALLED AND ENABLED, THE CONSOLE WILL SPEAK INSTEAD OF BEEP DURING PROGRAMMING

5. OPTIONAL RELAY OUTPUT CONNECTIONS

**FORM "A" DRY CONTACT RELAY
24 VOLTS AT 1 AMP MAXIMUM**

NOISEMAKER OR VISUAL INDICATOR

EXTERNAL POWER SUPPLY

5
4 - RELAY NORMALLY OPEN
3 - RELAY COMMON
2
1

CONSOLE TERMINAL BLOCK

CONNECT WIRES TO TERMINALS

ROUTE CABLE UNDER STRAIN-RELIEF CLAMP

6. OPTIONAL REMOTE SPEAKER/MIC CONNECTIONS

VB-4B VOICE BOARD

REMOVE JUMPER WIRE

VB-4B TERMINAL BLOCK

EXTERNAL MICROPHONE (+)
MICROPHONE COMMON (-)
CONSOLE MICROPHONE (+)

CONSOLE TERMINAL BLOCK

5 - DIALER POWER
4 - RELAY NORMALLY OPEN
3 - RELAY COMMON
2 - DIALER COMMON / EXTERNAL SPEAKER
1 - EXTERNAL SPEAKER

NOTE: REMOVE JUMPER WHEN USING AN EXTERNAL SPKR

USE SHIELDED TWISTED PAIR WIRE FOR MICROPHONE

NOTE: NOT TESTED BY UL

SPKR
SPKR
MIC (-)
MIC (+)

RSM-1 TERMINAL BLOCK

LINEAR MODEL RSM-1

RSM-1 TERMINALS

7. BACKUP BATTERY

① TURN POWER SWITCH OFF

② CONNECT RED LEAD TO POSITIVE AND BLACK LEAD TO NEGATIVE BATTERY TERMINAL

ON ↓ OFF

BATTERY TYPE: 12-VOLT, 1.2 AMP/HOUR

③ FIT BATTERY INTO CONSOLE

SLIDE DOWN ↓ THEN BACK

8. INSTALL TRANSFORMER

① PLUG TRANSFORMER INTO AN UN-SWITCHED 117 VAC OUTLET

② SECURE TRANSFORMER WITH SCREW

9. APPLY POWER - SELECT DIALING METHOD

TURN POWER
SWITCH ON

ON

NOTE: THE DEFAULT DIALING METHOD IS TONE DIALING

IF REQUIRED, CHANGE THE DIALING METHOD
BY PRESSING AND HOLDING THE HOME & CLEAR
BUTTONS WHILE SWITCHING THE POWER ON

• 7 BEEPS SOUND FOR PULSE DIALING
• 8 BEEPS SOUND FOR TONE DIALING

10. TRANSMITTER INSTALLATION OPTIONS

FOR ALL TWO-BUTTON TRANSMITTERS

WHEN IT IS
INSTALLED
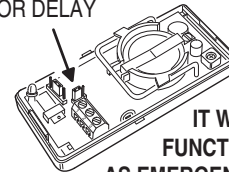WITH THE
LEFT BUTTON

IT WILL
ACTIVATE
USING
EITHER
BUTTON

WHEN IT IS
INSTALLED
WITH THE
RIGHT BUTTON

IT WILL ONLY
ACTIVATE
USING BOTH
BUTTONS

FOR DXS-31 STATIONARY TRANSMITTERS

WHEN IT IS INSTALLED
WITH THE JUMPER SET
FOR DELAY

WHEN IT IS INSTALLED
WITH THE JUMPER SET
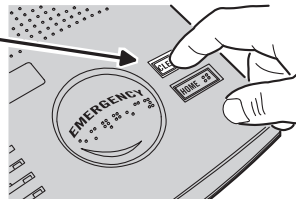FOR INSTANT

**IT WILL
FUNCTION
AS EMERGENCY**
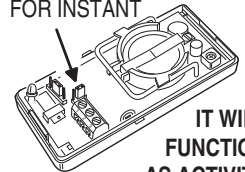
**IT WILL
FUNCTION
AS ACTIVITY**

**FOR MODEL DXS-32: CUT JUMPER (INSTANT TX) FOR USE
AS AN ACTIVITY TX. SEE DXS-32 INSTALLATION INSTRUCTIONS**

11. INSTALLING SINGLE TRANSMITTERS

ADDS ONE TRANSMITTER AT A TIME

① PRESS CLEAR BUTTON
FOR 5 SECONDS
• 5 BEEPS SOUND
(TX ADD MODE)

② ACTIVATE TRANSMITTER
• 1 BEEP SOUNDS
(TX ADDED)
CONSOLE REVERTS
TO OPERATE MODE

*NOTE: IF THE CONSOLE'S MEMORY
IS FULL, ONE LONG BEEP SOUNDS WHEN
TRYING TO ADD A TRANSMITTER*

DXS-62A

③ REPEAT STEPS 1 & 2 FOR ADDITIONAL
TRANSMITTERS (UP TO 16 TOTAL)
*NOTE: PRESS CLEAR BEFORE TRANSMITTING TO RETURN
TO OPERATE MODE WITHOUT ENTERING A TRANSMITTER*
• 2 BEEPS SOUND WITH ACTIVITY TIMER ENABLED
*• 3 BEEPS SOUND WITH ACTIVITY TIMER DISABLED*
THE CONSOLE WILL RETURN TO OPERATE MODE
AUTOMATICALLY AFTER 30 SECONDS

*NOTE: WRITE DOWN EACH TRANSMITTER'S TYPE AND ZONE NUMBER
WHEN THE TRANSMITTER IS ADDED. THE CENTRAL STATION WILL NEED
TO KNOW THE TYPE AND REPORTING ZONE FOR EACH TRANSMITTER.*

12. INSTALLING MULTIPLE TRANSMITTERS

ADDS MULTIPLE TRANSMITTERS

① PRESS TEST BUTTON
• 4 BEEPS SOUND
(TEST MODE)
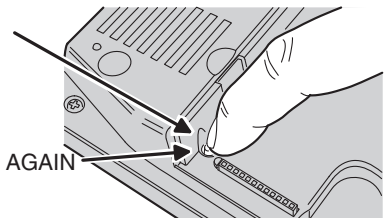
② PRESS TEST BUTTON AGAIN
• 5 BEEPS SOUND
(ADD TX MODE)
*NOTE: EACH TIME THE TEST BUTTON IS PRESSED IN THE ADD TX MODE,
THE CONSOLE WILL BE READY TO INSTALL A TRANSMITTER IN THE NEXT
AVAILABLE SENSOR ZONE LOCATION. IF THE VB-4B VOICE BOARD IS
INSTALLED, THE CONSOLE WILL ANNOUNCE THE SENSOR ZONE LOCATION
NUMBER.*

③ ACTIVATE TRANSMITTER
• 1 BEEP SOUNDS
(TX ADDED)
*NOTE: IF THE CONSOLE'S MEMORY
IS FULL, ONE LONG BEEP SOUNDS
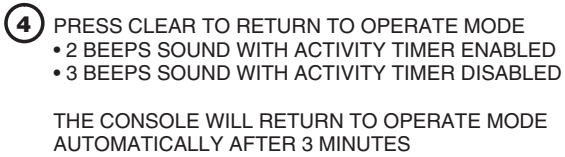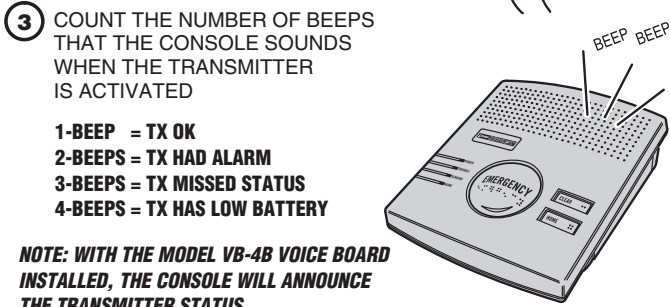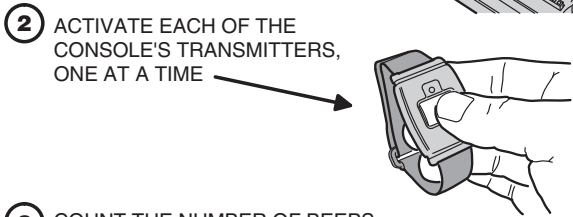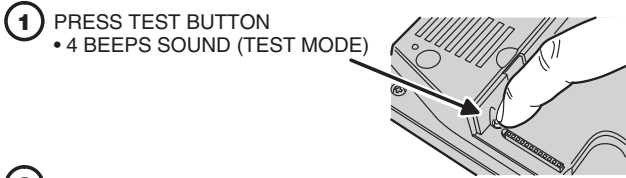WHEN TRYING TO ADD A TRANSMITTER*

DXS-62A

④ REPEAT STEPS 2 & 3 FOR
ADDITIONAL TRANSMITTERS
(UP TO 16 TOTAL)

⑤ PRESS CLEAR TO RETURN TO OPERATE MODE
• 2 BEEPS SOUND WITH ACTIVITY TIMER ENABLED
• 3 BEEPS SOUND WITH ACTIVITY TIMER DISABLED

THE CONSOLE WILL RETURN TO OPERATE
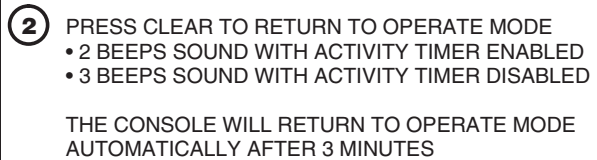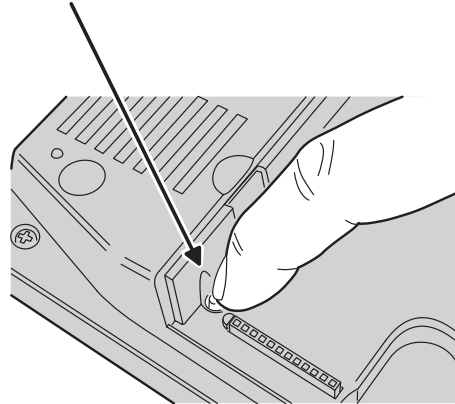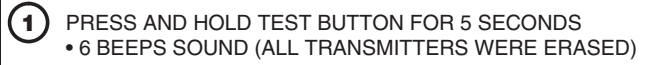MODE AUTOMATICALLY AFTER 3 MINUTES

*NOTE: WRITE DOWN EACH TRANSMITTER'S TYPE AND ZONE NUMBER
WHEN THE TRANSMITTER IS ADDED. THE CENTRAL STATION WILL NEED
TO KNOW THE TYPE AND REPORTING ZONE FOR EACH TRANSMITTER*
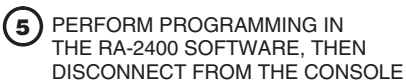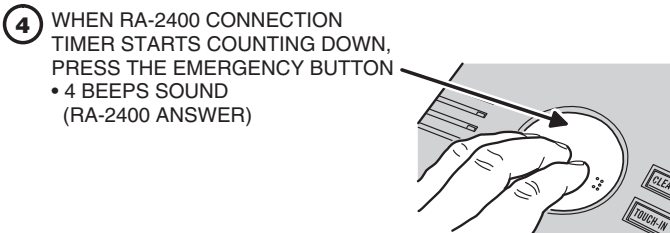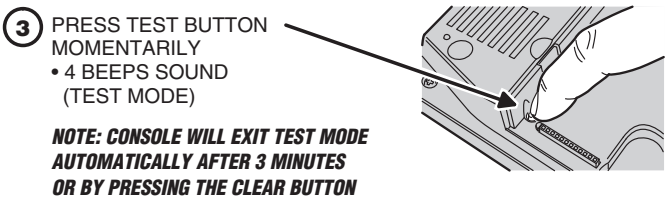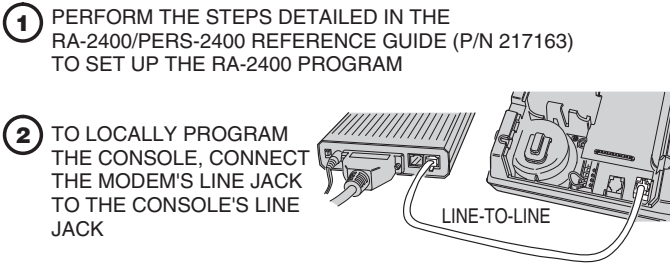
13. TESTING TRANSMITTERS

(1) PRESS TEST BUTTON
• 4 BEEPS SOUND (TEST MODE)

(2) ACTIVATE EACH OF THE CONSOLE'S TRANSMITTERS, ONE AT A TIME

(3) COUNT THE NUMBER OF BEEPS THAT THE CONSOLE SOUNDS WHEN THE TRANSMITTER IS ACTIVATED

BEEP BEEP

1-BEEP = TX OK
2-BEEPS = TX HAD ALARM
3-BEEPS = TX MISSED STATUS
4-BEEPS = TX HAS LOW BATTERY

NOTE: WITH THE MODEL VB-4B VOICE BOARD INSTALLED, THE CONSOLE WILL ANNOUNCE THE TRANSMITTER STATUS

(4) PRESS CLEAR TO RETURN TO OPERATE MODE
• 2 BEEPS SOUND WITH ACTIVITY TIMER ENABLED
• 3 BEEPS SOUND WITH ACTIVITY TIMER DISABLED

THE CONSOLE WILL RETURN TO OPERATE MODE AUTOMATICALLY AFTER 3 MINUTES

14. ERASING TRANSMITTERS

CAUTION: ALL TRANSMITTERS WILL BE ERASED!

(1) PRESS AND HOLD TEST BUTTON FOR 5 SECONDS
• 6 BEEPS SOUND (ALL TRANSMITTERS WERE ERASED)

(2) PRESS CLEAR TO RETURN TO OPERATE MODE
• 2 BEEPS SOUND WITH ACTIVITY TIMER ENABLED
• 3 BEEPS SOUND WITH ACTIVITY TIMER DISABLED

THE CONSOLE WILL RETURN TO OPERATE MODE AUTOMATICALLY AFTER 3 MINUTES

15. LOCAL PROGRAMMING WITH RA-2400

(1) PERFORM THE STEPS DETAILED IN THE RA-2400/PERS-2400 REFERENCE GUIDE (P/N 217163) TO SET UP THE RA-2400 PROGRAM

(2) TO LOCALLY PROGRAM THE CONSOLE, CONNECT THE MODEM'S LINE JACK TO THE CONSOLE'S LINE JACK

LINE-TO-LINE

(3) PRESS TEST BUTTON MOMENTARILY
• 4 BEEPS SOUND (TEST MODE)

NOTE: CONSOLE WILL EXIT TEST MODE AUTOMATICALLY AFTER 3 MINUTES OR BY PRESSING THE CLEAR BUTTON

(4) WHEN RA-2400 CONNECTION TIMER STARTS COUNTING DOWN, PRESS THE EMERGENCY BUTTON
• 4 BEEPS SOUND (RA-2400 ANSWER)

(5) PERFORM PROGRAMMING IN THE RA-2400 SOFTWARE, THEN DISCONNECT FROM THE CONSOLE

16. TELEPHONE CONNECTIONS

LOCAL TELEPHONE

TELEPHONE JACK

CONSOLE WITH REAR COVER INSTALLED

ROUTE CABLES UNDER STRAIN-RELIEF TABS

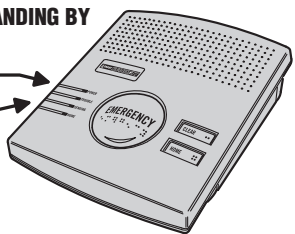CONNECT LOCAL TELEPHONE TO THIS JACK

CONNECT TELEPHONE LINE TO THIS JACK
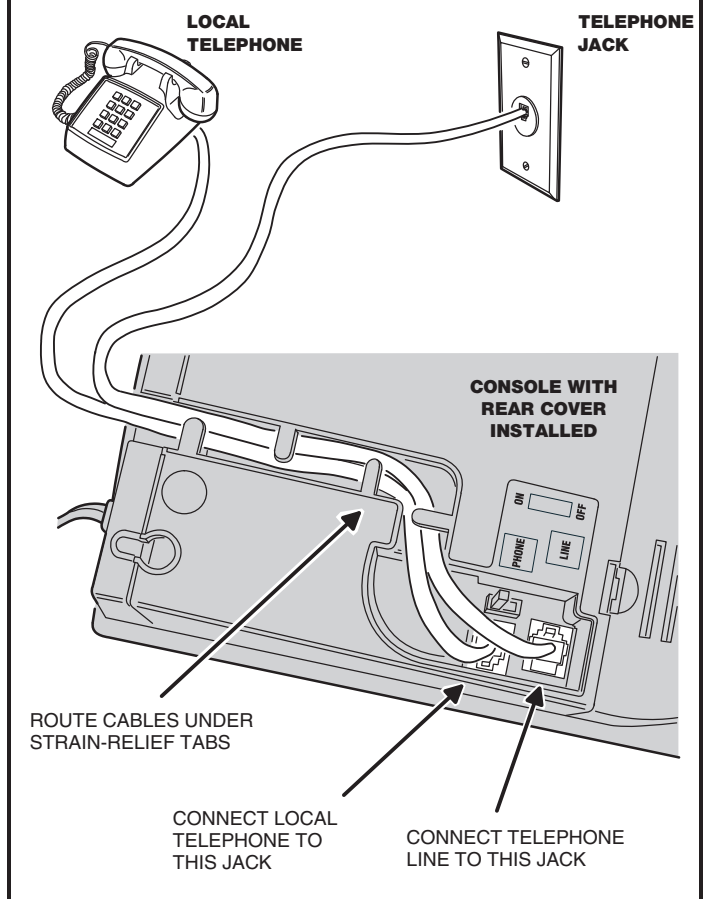
17. SYSTEM OPERATION

CONSOLE STANDING BY
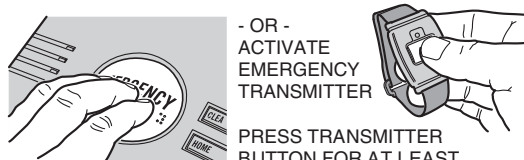
POWER LIGHT IS ON

OTHER LIGHTS ARE OFF

- IN CASE OF EMERGENCY -

PRESS AND MOMENTIARLY HOLD EMERGENCY BUTTON

- OR - ACTIVATE EMERGENCY TRANSMITTER
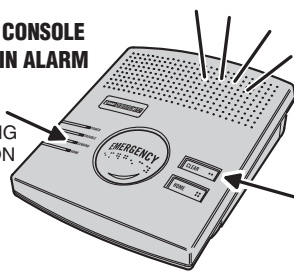
PRESS TRANSMITTER BUTTON FOR AT LEAST 2 SECONDS

CONSOLE IN ALARM

SENDING LIGHT FLASHES DURING COMMUNICATION

SIREN SOUNDS UNTIL CLEAR BUTTON IS PRESSED, CENTRAL STATION REPORT IS COMPLETE, OR SIREN TIME EXPIRES

PRESS CLEAR TO STOP SIREN (ADDS CANCEL TO ALARM REPORT IN PROGRESS)

18. ACTIVITY TIMER

① ENABLING THE ACTIVITY TIMER
PRESS THE HOME BUTTON FOR 5 SECONDS TO TURN THE ACTIVITY TIMER ON

NOTE: THE ACTIVITY TIMER CAN BE ENABLED FOR 8, 12, OR 24 HOURS, OR DISABLED BY PROGRAMMING

NOTE: TO TURN THE ACTIVITY TIMER OFF, PRESS THE HOME BUTTON FOR FIVE SECONDS

② ACTIVITY TIMER RUNNING
THE HOME INDICATOR WILL LIGHT, SHOWING THAT THE ACTIVITY TIMER IS ENABLED

③ TIME RUNNING OUT
THE HOME INDICATOR WILL BLINK & A SHORT BEEP SOUNDS EVERY 10 SECONDS WHEN LESS THAN 15 MINUTES OF TIME REMAIN

④ RESETING ACTIVITY TIMER
THE SUBSCRIBER NEEDS TO PRESS THE HOME BUTTON OR TRIGGER AN ACTIVITY TRANSMITTER BEFORE THE TIMER EXPIRES TO PREVENT AN INACTIVITY REPORT

PRESSING THE HOME BUTTON RESTARTS THE TIMER

19. AUDIO BOARD OPERATION

① PROGRAM THE CONSOLE FOR THE DESIRED AUDIO MODE:
- LISTEN-ONLY
- 2-WAY MANUAL
- 2-WAY FULL DUPLEX

② AFTER THE CENTRAL STATION OPERATOR ACKNOWLEDGES THE COMMUNICATOR'S REPORT, THE CONSOLE WILL STOP ITS SIREN AND SWITCH TO THE AUDIO MODE FOR 90 SECONDS

③ CENTRAL STATION OPERATOR:

USE THESE KEYS ON A TELEPHONE SET CONNECTED TO THE CENTRAL STATION LINE TO CONTROL THE AUDIO MODULE

ALL AUDIO MODES { **WXY 9** **PRESS "9" TO DISCONNECT THE CALL**

2-WAY MANUAL AUDIO MODE { **DEF 3** **PRESS "3" TO LISTEN**

1 **PRESS "1" TO TALK**
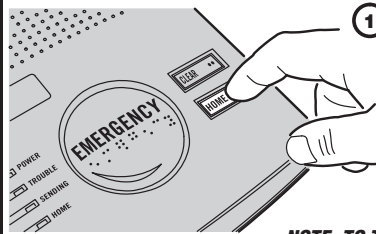
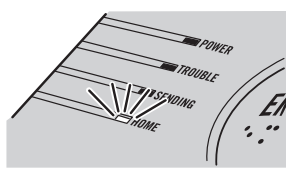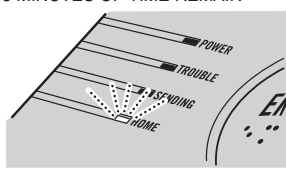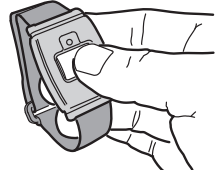THE "1" AND "3" KEYS ARE NOT USED IN LISTEN-ONLY AUDIO MODE

THE "1" AND "3" KEYS CAN BE USED IN FULL DUPLEX MODE. THE MODULE WILL SWITCH TO 2-WAY MANUAL MODE. PRESSING "8" RESTORES FULL DUPLEX MODE.

PRESSING ANY KEY OTHER THAN "9" WILL EXTEND THE AUDIO TIME 90 MORE SECONDS

NOTE: TO USE THE AUDIO MODES, THE MODEL VB-4B AUDIO MODULE MUST BE INSTALLED IN THE CONSOLE

20. SPEAKERPHONE OPERATION

① PROGRAM THE CONSOLE TO ENABLE SPEAKERPHONE MODE

NOTE: SPEAKERPHONE MODE CAN ONLY BE USED ON INCOMING CALLS AND WILL NOT FUNCTION WHEN THE CONSOLE IS OPERATING FROM BACKUP BATTERY POWER. ATTEMPTING TO ANSWER WHILE THE CONSOLE IS ON BACKUP POWER WILL CAUSE AN EMERGENCY ALARM.

② WHILE THE TELEPHONE IS RINGING, ACTIVATING AN EMERGENCY TRANSMITTER OR PRESSING THE EMERGENCY BUTTON WILL SEIZE THE TELEPHONE LINE

③ THE AUDIO BOARD WILL BEGIN 2-WAY FULL DUPLEX MODE FOR AUDIO COMMUNICATIONS

⚠ **WARNING: THE CONSOLE WILL NOT BE ABLE TO REPORT AN EMERGENCY WHILE THE SPEAKERPHONE MODE IS ACTIVE**

NOTE: TO REPORT AN EMERGENCY WHEN THE SPEAKERPHONE IS IN USE, PRESS EITHER THE EMERGENCY BUTTON OR THE BUTTON ON AN EMERGENCY TRANSMITTER TO END THE PHONE CALL AND THEN PRESS ONE OF THESE BUTTONS AGAIN TO REPORT THE EMERGENCY.

④ THE AUDIO BOARD WILL END AUDIO COMMUNICATIONS WHEN EITHER:

- THE EMERGENCY BUTTON IS PRESSED
- ANY EMERGENCY TRANSMITTER IS ACTIVATED
- THE AUTO-DISCONNECT TIMER RUNS OUT

NOTE: TO USE THE SPEAKERPHONE MODE, THE MODEL VB-4B AUDIO MODULE MUST BE INSTALLED IN THE CONSOLE

21. SUPERVISORY CONDITIONS

TRANSMITTER LOW BATTERY TROUBLE

WHEN A TRANSMITTER SENDS A LOW BATTERY SIGNAL THE CONSOLE'S TROUBLE INDICATOR WILL BLINK SLOWLY.

TRANSMITTER SUPERVISORY TROUBLE

IF A TRANSMITTER PROGRAMMED AS SUPERVISED FAILS TO REPORT STATUS IN A 24 HOUR PERIOD, THE CONSOLE'S TROUBLE INDICATOR WILL LIGHT.

CONSOLE BACKUP BATTERY TROUBLE

THE CONSOLE WILL TEST ITS BACKUP BATTERY EVERY 8 HOURS. IF THE BATTERY TESTS LOW, THE POWER INDICATOR WILL BLINK SLOWLY WHILE THE CONSOLE CHARGES THE BATTERY.

WHEN TROUBLE EXISTS, THE CONSOLE WILL BEEP EVERY HOUR UNTIL CLEARED:
2-BEEPS = CONSOLE LOW BATTERY
3-BEEPS = TRANSMITTER SUPERVISORY
4-BEEPS = TRANSMITTER LOW BATTERY

ERROR – LOW SENSOR BATTERY
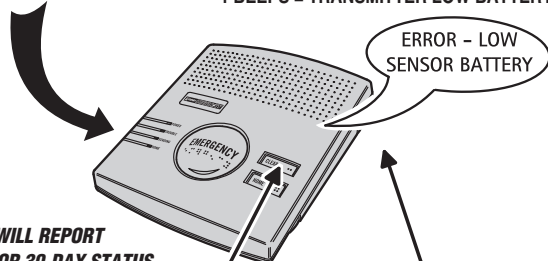
THE CONSOLE WILL REPORT TROUBLE AND/OR 30-DAY STATUS TO THE CENTRAL STATION IF ENABLED IN THE COMMUNICATOR PROGRAMMING
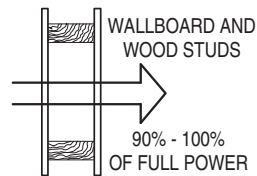
NOTE: THE CONSOLE WILL ANNOUNCE THE SUPERVISORY CONDITIONS WITH THE OPTIONAL MODEL VB-4B VOICE BOARD INSTALLED. THE VOICE CAN BE DISABLED THROUGH PROGRAMMING
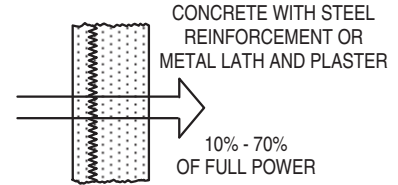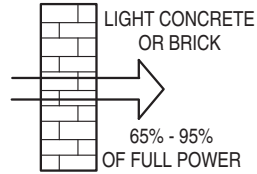
CLEARING TROUBLE INDICATIONS

PRESS THE CLEAR BUTTON TO STOP TROUBLE INDICATORS AND SOUNDERS

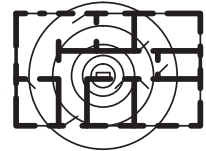*NOTE: THE TROUBLE CONDITION WILL LIKELY OCCUR AGAIN UNTIL THE PROBLEM IS FIXED*

SPECIFICATIONS

CODING FORMATS

DX CODE 24-BIT A1D PPM	1,048,567 CODES	
DXS CODE 24-BIT A1D PPM	1,048,567 CODES	

POWER REQUIREMENTS

PRIMARY SUPPLY	16 VAC 1.25 AMP PLUG-IN TRANSFORMER
BACKUP SUPPLY	12 VOLT 1.2 AMP/HOUR BATTERY
NORMAL OPERATING CURRENT	80 mA
ALARM OPERATING CURRENT	120 mA
BACKUP OPERATION DURATION	32 HOURS MINIMUM
BATTERY LIFE EXPECTED	3 YEARS
BACKUP SUPPLY OPERATING CURRENT	32 mA

RF CHARACTERISTICS

RECEIVER TYPE	DUAL-DIVERSITY SUPERHETERODYNE
RF SENSITIVITY	-100 dBm TYPICAL
RADIO FREQUENCY	315 Mhz
MAXIMUM RANGE	400 FEET LINE-OF-SIGHT, OPEN RANGE UL LISTED FOR 150'

COMMUNICATOR

COMMUNICATOR FORMATS	4 BY 2 (GENERAL OR POINT-TO-POINT), ADEMCO CONTACT ID UL TESTED WITH SURGARD SGMLRG-DG CENTRAL STATION RECEIVER
DIALING	TONE OR PULSE
DIALING DELAY	0 OR 15 SECONDS
REMOTE ACCESS PASSWORD	6 DIGITS
ACCOUNT NUMBER LENGTH	4 DIGITS
PRIMARY TELEPHONE NUMBER	20 DIGITS
SECONDARY TELEPHONE NUMBER	20 DIGITS
SUPERVISORY TELEPHONE NUMBER	20 DIGITS
CONSOLE STATUS REPORT	OPTIONAL 1, 7 OR 30 DAY REPORT

NOTE: THE INSTALLER MUST VERIFY COMPATIBILITY BETWEEN THE PERS-2400B AND THE UL LISTED DIGITAL ALARM COMMUNICATOR RECEIVER

CONSOLE

OPERATING TEMPERATURE	32°-100° F (0-50° C)
EMERGENCY ALARM DURATION	1-30 MINUTES
ACTIVITY TIMER PERIOD	8, 12, OR 24 HOURS
AUDIO	LISTEN-ONLY, 2-WAY MANUAL, 2-WAY DUPLEX, SPEAKERPHONE
RELAY OUTPUT	N.O. @ 24 VOLT AC/DC 1 AMP MAXIMUM, NEC CLASS II CIRCUITRY

22. WIRELESS INSTALLATION TIPS

WALLBOARD AND WOOD STUDS
90% - 100% OF FULL POWER

CONSTRUCTION MATERIALS WILL AFFECT RADIO RANGE

LIGHT CONCRETE OR BRICK
65% - 95% OF FULL POWER

CONCRETE WITH STEEL REINFORCEMENT OR METAL LATH AND PLASTER
10% - 70% OF FULL POWER

CENTRALLY LOCATE CONSOLE

CONSOLE LOCATION WILL AFFECT RADIO RANGE

RIGHT

TRANSMITTERS AT THE OTHER END OF THE HOUSE MIGHT BE TOO FAR AWAY

WRONG!

LINEAR LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for twelve (12) months. This warranty extends only to wholesale customers who buy direct from Linear or through Linear's normal distribution channels. Linear does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. **There are no obligations or liabilities on the part of Linear LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.** All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until the warranty expires. **This Linear LLC Warranty is in lieu of all other warranties express or implied.**

All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-421-1587 for an RPA# and other important details.

IMPORTANT WIRELESS INFORMATION

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signaling. However, there are some limitations which must be observed.

- For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.
- A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- Changes or modifications to the device may void FCC compliance.
- Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.