

WHELEN[®]

ENGINEERING COMPANY INC.

Route 145, Winthrop Road,
Chester, Connecticut 06412

Phone: (800) 63SIREN

Phone: (860) 526-9504

Fax: (860) 526-4078

Internet: www.whelen.com

Sales e-mail: iowsales@whelen.com

Customer Service e-mail: iowserv@whelen.com

E-969 ENCODER

Installation & Operating Manual

ON/OFF

RESET

E-969 -- STAND BY MODE
MONDAY 01:45:02

PRECHECK

SEND

COMMAND GROUP

WARNING TONES	VOICE MESSAGES
ROTATING DIRECTION	TEST & MISC

SCROLL

▲	▼
UP	DOWN

SIREN ADDRESS

1	2	3
4	5	6
7	8	9
#	0	ALL

CALL KEYS

C1	C2
C3	C4

WHELEN[®]

E-969

Outdoor Warning

WHELEN ENGINEERING COMPANY

E-969 ENCODER

INSTALLATION & OPERATING MANUAL

The purpose of this manual is to provide operation and installation information about the use of a Whelen Engineering Company, Inc. Model E-969 Encoder.

Prior to reading this manual or using this product you should be familiar with Whelen Engineering Company's family of High Power Voice and Siren Systems.

Document # 04-0113056-01D

PIONEERS IN WARNING SIGNALS
WHELEN®
ENGINEERING COMPANY, INC.
Route 145, Winthrop Rd., Chester, CT 06412-0684
Tel.: (800) 63SIREN • Fax: (860) 526-4784

The information contained herein is proprietary to the Whelen Engineering Company, Inc. No part of this manual may be reproduced, recorded or stored in a retrieval system, or transmitted, in any form without prior permission of Whelen Engineering Company, Inc.

All materials and specifications contained in this document are subject to change without notice.

Table of Contents

Introduction	page 5
Operation	
General	page 5
Call Keys	page 7
Remote Inputs	page 8
Precheck	page 8
Programming	page 8
Programming Examples	page 10
Programming A Call Key	page 11
Programming Remote Inputs (for “One Shot” activation)	page 14
Programming Remote Inputs (for “Call Key” activation)	page 16
Time Of Day Function (programmed for “One Shot” activation)	page 18
Time Of Day Function (programmed for “Call Key” activation)	page 21
Programming The Clock	page 24
Installation	page 26
Optional Automotive (or 12VDC) Installation	page 27
Specifications	page 28

Introduction

The E-969 Encoder is full function, easy to use activation unit for Whelen's family of High Power Voice and Siren System products. The E-969 output is Whelen's standard, reliable 10 digit DTMF protocol.

The E-969 is an attractive, desktop unit designed for simple connection to a base station transmitter. The E-969 has a sealed membrane keypad and low power liquid crystal display. The warning activation sequence consists of:

1. Select a **Command Group**
2. **Scroll** to the desired function.
3. Enter the four digit **Address**.
4. Press the **Send** button.

The user may select from 35 different command or control functions. In addition, the E-969 supports up to 10,000 unique addresses.

There are also eight Call Keys, which allow the user to program and execute predefined scenarios. Four of the Call Keys are switch accessible, while the other four are accessed through Time Of Day inputs or Remote Activation inputs (as described in a later section).

The liquid crystal display (LCD) is a 2 line by 24 character configuration. The display is backlit for easy reading in low ambient light. When the E-969 is not in use, a running 24 hour clock, day of the week and a stand by message are displayed.

Internal batteries are continuously "trickle" charged, to provide long life. The E-969 will maintain its internal clock for up to 3 months after being unplugged. The E-969 comes with a UL listed plug in AC adaptor.

A rear panel, two-piece, screw terminal connector is available for field wiring to a base station transceiver. This connector supports transformer coupled audio, a Push To Talk closure, Squelch monitor input (active high or low), and Channel Grant input for trunking systems.

Operation

General

Remember, the E-969 must be ON, as indicated by the Stand By message on the display!

Operation of the E-969 is a 3 step procedure, as described on the following pages. The basic flow is from left to right. **RESET** returns operation to the Stand By mode.

Step 1 and **Step 2** involve the left hand portion of the keypad, as shown. Select the Command Group by pressing the appropriate button. The display will show the first entry in the selected group. Use the **UP** or **DOWN** arrows to scroll through the functions, within the selected group, stopping at the desired function.

WARNING TONES

CANCEL	Terminates all siren activity.
WAIL	Activates the Wail Tone.
ATTACK	Activates the Attack Tone.
ALERT	Activates the Alert Tone.
PUBLIC ADDRESS	Enables the Public Address mode.
AIR HORN	Activates the Air Horn Tone.
HI-LO	Activates the Hi-Lo Tone.
WHOOP	Activates the Whoop Tone.
NOON TEST	Activates the Noon Test function.

VOICE MESSAGES

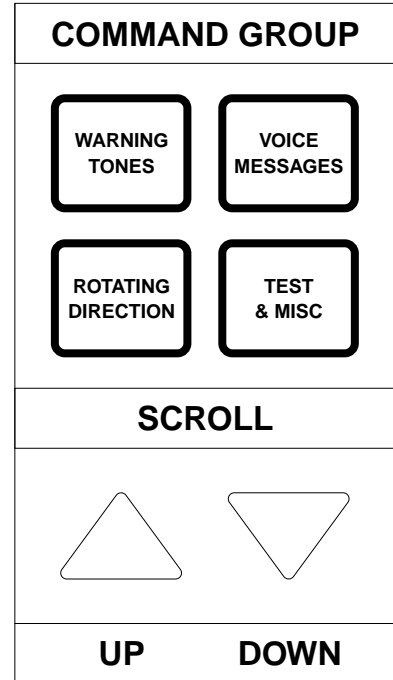
MSG 1	Activates Digital Voice Message 1.
MSG 2	Activates Digital Voice Message 2.
MSG 3	Activates Digital Voice Message 3.
MSG 4	Activates Digital Voice Message 4.
MSG 5	Activates Digital Voice Message 5.
MSG 6	Activates Digital Voice Message 6.
MSG 7	Activates Digital Voice Message 7.
MSG 8	Activates Digital Voice Message 8.
MSG 9	Activates Digital Voice Message 9.
MSG 10	Activates Digital Voice Message 10.
MSG 11	Activates Digital Voice Message 11.
MSG 12	Activates Digital Voice Message 12.
MSG 13	Activates Digital Voice Message 13.
MSG 14	Activates Digital Voice Message 14.
MSG 15	Activates Digital Voice Message 15.
MSG 16	Activates Digital Voice Message 16.

ROTATING DIRECTION

NORTH	Positions a 4000 Series Siren to North.
EAST	Positions a 4000 Series Siren to East.
SOUTH	Positions a 4000 Series Siren to South.
WEST	Positions a 4000 Series Siren to West.
CLOCKWISE	Increments a 4000 Series Siren 45° CW.
COUNTER CLOCKWISE	Increments a 4000 Series Siren 45° CCW.

TEST & MISC

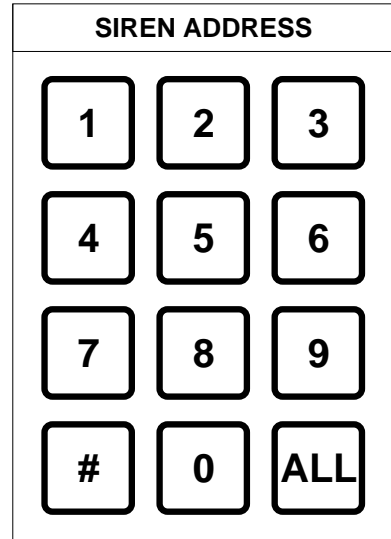
SILENT TEST	Initiates the Silent Test function.
TEST CLEAR	Clear LEDs.
STROBE ON	Activates an external strobe light.
STROBE OFF	De-activates an external strobe light.
PROGRAM ENCODER	Enters E-969 programming mode.



Step 3 involves the center portion of the keypad, as shown. Enter the four digit address of the target siren. The address is entered with the most significant bit first. The # sign represents a “wildcard” or all values 0 to 9. **ALL** is a quick way to enter four # signs, to select all sirens in the system.

Example: To enter the address 1234, the user presses 1 first, then 2, then 3, and 4 is last. The display will change as shown below.

```
ADDR = 1???  
ADDR = 12??  
ADDR = 123?  
ADDR = 1234
```



Note that entering more than four values will “bump” the address to the left. For instance, assume the user pressed the 5 key at the end of the previous example. The address will change to 2345.

Step 4 consists of deciding whether or not to send the selected command. Pressing the **SEND** key will send the command.

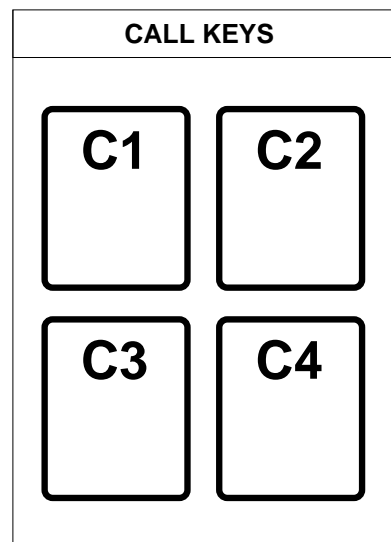


There is no second chance!!

The user may select **PRECHECK** instead of **SEND**. Refer to a later section for information on using the **PRECHECK** function.

Call Keys

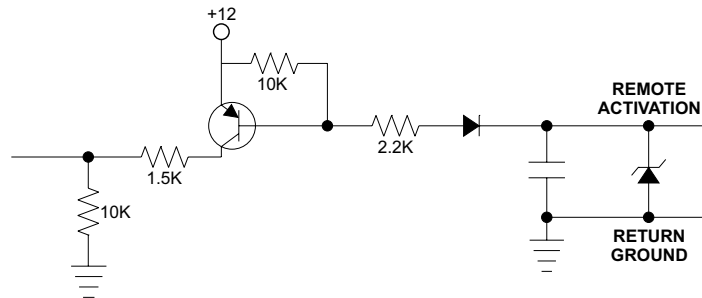
There are 8 Call Keys. Call Keys 1-4 are located on the right side of the keypad, as shown. C1 is Call Key 1, C2 is Call Key 2 and so on. Call Keys 5-8 are “hidden” keys that can be accessed by the remote inputs and timed transmissions. Each Call Key may have up to 100 sequences (00-99). All of the Call Keys combined can use a maximum of 256 sequences. When a Call Key is selected and sent, it starts with sequence 00 and continues until the next sequence can not be found. A Call Key can not activate another Call Key. When a Call Key is active, the key number, active sequence, command that was sent, the address and the amount of time until the next sequence is sent, are displayed.



Refer to the Call Key Programming section for more information about Call Keys.

Remote Inputs

The E-969 may be activated from two remote inputs. The typical remote input circuit is shown. A contact closure to ground or a low sequence signal, capable of sinking more than 5 mA, will activate the E-969. The closure must remain active for a minimum of 1/2 a second.



The remote input may be programmed two different ways. It may activate a predefined Call Key or it may be set for an individual command and address.

Precheck

Precheck is a Whelen High Power Voice and Siren System function which allows the user some flexibility in operating their warning system. Certain Whelen product, such as, the System Status Map, use the Precheck digit to preview a command without actually activating any sirens. Refer to other Whelen product manuals, or contact the factory, for additional information on the use of the Precheck function.

Note that in the E-969 Keypad Programming mode, the **PRECHECK** key acts like a personal computer “Enter” button.

Programming

The E-969 encoder has eight call keys. Four of those call keys can be accessed from the “C” keys located on the keypad (labeled C1, C2, C3 and C4). The other four call keys (C5, C6, C7 and C8) can only be accessed by way of the two “Remote Inputs” and two “Time of Day” activations.

The intended use of a Call Key is to simplify and minimize the users time when siren system activation is required.

Call Keys C1 – C4 require direct user selection. Once one of these keys is selected, the user must press the “Send” button in order start the call key sequence of activations. This makes this a two button operation.

The two “Remote Inputs” can be programmed for any one call key (C1, C2, C3, C4, C5, C6, C7 or C8). Additionally, the “Remote Inputs” can be programmed as a “One Shot” single command activation without the use of a call key. To initiate a “Remote Input” activation, a single momentary 500ms dry contact closure must be made between the selected “Remote Input” and the E-969 ground point. This makes for a one button operation. A remote momentary push button can be located away from the E-969. If this button will be located in a different building away from the E-969, then an isolation relay should be used.

The two “Time of Day” functions can be programmed to activate any one call key (C1, C2, C3, C4, C5, C6, C7 or C8). Additionally, the “Time of Day” functions can be programmed to activate a single command without the use of a call key. The “Time of Day” Function can only be programmed for a repeating seven day calendar.

To enter the Keypad programming mode, select Test & Misc. Scroll to the Program Encoder screen and press Precheck. The display will show the word Clock. Use the Scroll arrows to select a parameter. The list of parameters are:

- Clock
- Call Key
- Timed Trans. 1
- Timed Trans. 2
- Remote Input 1
- Remote Input 2
- Tmx Warm Up
- Area Code
- Base I.D.
- Precheck Digit
- Precheck Duration
- Channel Grant Wait
- Channel Grant Delay
- Reset Programming

Press Precheck, after scrolling to the desired parameter, to select that parameter. Not all parameters are programmed the same way. The following describes programming for each parameter.

Clock: First enter the day of the week. Use the numeric keys to select the day as follows: 1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 = Saturday. Next, enter the time using a 24-hour format (e.g. 1:00 AM would be 01:00:00; 1:00 PM would be 13:00:00). Enter hours first (use leading zeroes), then minutes, then seconds. Press Precheck to enter. Press Reset to return to the Stand By display.

Call Key: Use the numeric keypad to select the Call Key number (0-7) and press **PRECHECK** to enter. Next use the numeric keypad to select a two digit sequence number (00-99) and press **PRECHECK** to enter. Now select the command or function by using the COMMAND GROUP keys and the arrows. Press **PRECHECK** when the desired function appears on the display. Use the numeric keypad to select the Address and press **PRECHECK** to enter. Finally use the numeric keypad to select a delay time (000 to 255 seconds) and press **PRECHECK** to enter. Press **PRECHECK** to save.

Repeat for each sequence of the Call Key.

Timed Trans. 1 or 2: Use the numeric keypad to select the time and press **PRECHECK** to enter. Now select the command or function by using the COMMAND GROUP keys and the arrows. Press **PRECHECK** when the desired function appears on the display. Use the numeric keypad to select the Address and press **PRECHECK** to enter. Finally use the numeric keypad to select the days to be skipped by this activation. As described earlier, 1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 = Saturday. Note that the day changes to lower case if it is a skipped day. Press **PRECHECK** to enter. Press **PRECHECK** to save.

- Remote Input 1 or 2: Select the command or function by using the COMMAND GROUP keys and the arrows. Press **PRECHECK** when the desired function appears on the display. Use the numeric keypad to select the Address and press **PRECHECK** to enter. Press **PRECHECK** to save.
- To set the Remote Input equal to a Call Key, press Call Key **C1** at the command prompt. Then enter the appropriate Call Key number through the numeric keypad. Press **PRECHECK** to enter. Press **PRECHECK** to save.
- Tmx Warm Up Use the numeric keypad to select a value (0.0-9.9). The decimal point is fixed. Press **PRECHECK** to enter. Press **RESET** to return to the Stand By display or an **UP** or **DOWN** arrow to scroll to a different parameter.
- Area Code: Use the numeric keypad to select a value (000-999). Enter three digits. Press **PRECHECK** to enter. Press **RESET** to return to the Stand By display or an **UP** or **DOWN** arrow to scroll to a different parameter.
- Base I.D.: Use the numeric keypad to select a value (0-7). Press **PRECHECK** to enter. Press **RESET** to return to the Stand By display or an **UP** or **DOWN** arrow to scroll to a different parameter.
- Precheck Digit: Use the numeric keypad to select a value (0-9). Press **PRECHECK** to enter. Press **RESET** to return to the Stand By display or an **UP** or **DOWN** arrow to scroll to a different parameter.
- Precheck Duration: Use the numeric keypad to select a value (0-9). Press **PRECHECK** to enter. Press **RESET** to return to the Stand By display or an **UP** or **DOWN** arrow to scroll to a different parameter.
- Channel Grant Wait: Use the numeric keypad to select a value (1-9). Press **PRECHECK** to enter. Press **RESET** to return to the Stand By Display or Scroll to a different parameter.
- Channel Grant Delay: Use the numeric keypad to select a value (.0-.9). Press **PRECHECK** to enter. Press **RESET** to return to the Stand By Display or an **UP** or **DOWN** arrow to scroll to a different parameter.
- Reset Programming: Press **PRECHECK** to reset all of the programmable parameters.

Programming Examples

Before beginning any programming it is important to write down what will be programmed. Be sure to make note that a minimum of a 2 second delay time is required.

Example:

<u>Key#</u>	<u>Sequence#</u>	<u>Command</u>	<u>Address</u>	<u>Delay</u>
1	00	Wail	####	030
1	01	Cancel	####	002

Programming a Call Key

1. Press the **TEST & MISC** button.
The display will read:

```
SILENT TEST
FRIDAY          16:00:00
```

2. Press the **DOWN** arrow one time.
The display will read:

```
PROGRAM ENCODER
FRIDAY          16:00:02
```

3. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER
CLOCK
```

4. Press the **UP** arrow one time.
The display will read:

```
PROGRAM ENCODER
CALL KEY
```

5. Press the **PRECHECK** button.
The display will read:

```
ENTER KEY #-KEY-? SEQ-##
```

6. Select the desired call key number (1 – 8) to be programmed by pressing number key in the SIREN ADDRESS key pad location.
For call key number 1, the display will read:

```
ENTER KEY #-KEY-1 SEQ-##
```

7. Press the **PRECHECK** button.
The display will read:

```
ENTER SEQ #-KEY-1 SEQ-##
```

8. Select sequence 00 by pressing number key **0** twice in the SIREN ADDRESS key pad location. The display will read:

```
ENTER SEQ #-KEY-1 SEQ-00
```

9. Press the **PRECHECK** button.
The display will read:

ENTER CMD • KEY-1 SEQ-00

10. Press the desired COMMAND GROUP button and scroll to desired command.

Note:

Press **WARNING TONES** for CANCEL, WAIL, ATTACK, ALERT, PUBLIC ADDRESS, AIR HORN, HI LO, WHOOP, NOON TEST

Press **VOICE MESSAGES** for digital voice message commands MESSAGE 1 to MESSAGE 16

Press **ROTATING DIRECTION** for WPS4000 series speaker directions NORTH, EAST, SOUTH, WEST, CLOCKWISE, COUNTER CLOCKWISE

Press **TEST & MISC** for SILENT TEST, TEST CLEAR, STROBE ON, STROBE OFF

For **SILENT TEST** the display will read:

ENTER CMD • KEY-1 SEQ-00
SILENT TEST

11. Press the **PRECHECK** button.
The display will read:

ENTER ADDR • KEY-1 SEQ-00
SILENT TEST • ???? •

12. Enter the desired siren address or all call by pressing the buttons in the SIREN ADDRESS key pad location.

For "All Call" address, the display will read:

ENTER ADDR • KEY-1 SEQ-00
SILENT TEST • #### •

For "1001" address the display will read:

ENTER ADDR • KEY-1 SEQ-00
SILENT TEST • 1001 •

13. Press the **PRECHECK** button.
The display will read:

ENTER DELAY • KEY-1 SEQ-00
SILENT TEST • 1001 • ### SEC

14. Enter the delay time in three digit seconds by pressing the buttons in the SIREN ADDRESS key pad location.
For 15 seconds, the display will read:

```
ENTER DELAY *KEY-1 SEQ-00  
SILENT TEST *1001*-015 SEC
```

15. Press the **PRECHECK** button.
The display will read:

```
SAVE DATA? *KEY-1 SEQ-00  
SILENT TEST *1001*015 SEC
```

16. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER  
CALL KEY
```

17. Repeat steps 5 to 16 and increment sequence number for each additional call key sequence, 00, 01, 02, etc.

18. Once complete, press the **RESET** button to exit programming.

Programming Remote Inputs (for "One Shot" activation:)

1. Press the **TEST & MISC** button.
The display will read:

```
SILENT TEST
FRIDAY          16:00:00
```

2. Press the **SCROLL DOWN** arrow one time.
The display will read:

```
PROGRAM ENCODER
FRIDAY          16:00:02
```

3. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER
CLOCK
```

4. Press the **SCROLL UP** arrow four times.
The display will read:

```
PROGRAM ENCODER
REMOTE INPUT 1
```

5. Press the **PRECHECK** button.
The display will read:

```
ENTER CMD  *REM.  INPUT1
COMMAND    *????
```

6. Press the desired **COMMAND GROUP** button and scroll to desired command.

Note:

Press **WARNING TONES** for *CANCEL, WAIL, ATTACK, ALERT, PUBLIC ADDRESS, AIR HORN, HI LO, WHOOP, NOON TEST*

Press **VOICE MESSAGES** for *digital voice message commands MESSAGE 1 to MESSAGE 16*

Press **ROTATING DIRECTION** for *WPS4000 series speaker directions NORTH, EAST, SOUTH, WEST, CLOCKWISE, COUNTER CLOCKWISE*

Press **TEST & MISC** for *SILENT TEST, TEST CLEAR, STROBE ON, STROBE OFF*

For NOON TEST the display will read:

```
ENTER CMD  ·REM. INPUT1  
NOON TEST  ·????
```

7. Press the **PRECHECK** button.
The display will read:

```
ENTER ADDR  ·REM. INPUT1  
NOON TEST  ·????
```

8. Enter the desired siren address or all call by pressing the buttons in the SIREN ADDRESS key pad location.

For "All Call" address the display will read:

```
ENTER ADDR  ·REM. INPUT1  
NOON TEST  ·####
```

For "1001" address the display will read:

```
ENTER ADDR  ·REM. INPUT1  
SILENT TEST ·1001
```

9. Press the **PRECHECK** button.
The display will read:

```
SAVE DATA  ·REM. INPUT1  
NOON TEST  ·####
```

10. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER  
REMOTE INPUT 1
```

11. Press the **RESET** button to exit programming.

Programming Remote Inputs (for “Call Key” Activation)

1. Press the **TEST & MISC** button.
The display will read:

```
SILENT TEST
FRIDAY          16:00:00
```

2. Press the **DOWN** arrow one time.
The display will read:

```
PROGRAM ENCODER
FRIDAY          16:00:02
```

3. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER
CLOCK
```

4. Press the **UP** arrow four times.
The display will read:

```
PROGRAM ENCODER
REMOTE INPUT 1
```

5. Press the **PRECHECK** button.
The display will read:

```
ENTER CMD  ·REM. INPUT1
COMMAND    ·????
```

6. Press the **C1** button in the CALL KEYS section.
The display will read:

```
ENTER CKEY  ·REM. INPUT1
CALL KEY #
```

7. Select the Call Key number that the remote input is to activate by using the SIREN ADDRESS buttons.
For Call Key #4 the display will read:

```
ENTER CKEY  ·REM. INPUT1
CALL KEY 4
```


8. Press the **PRECHECK** button.
The display will read:

```
SAVE DATA?  -REM. INPUT1  
CALL KEY 4
```

9. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER  
REMOTE INPUT 1
```

10. Press the **RESET** button to exit programming.

Time of Day Function (programmed for "One Shot" Activation)

1. Press the **TEST & MISC** button.
The display will read:

```
SILENT TEST  
FRIDAY          16:00:00
```

2. Press the **DOWN** arrow one time.
The display will read:

```
PROGRAM ENCODER  
FRIDAY          16:00:02
```

3. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER  
CLOCK
```

4. Press the **UP** arrow two times.
The display will read:

```
PROGRAM ENCODER  
TIMED TRANS. 1
```

5. Press the **PRECHECK** button.
The display will read:

```
ENTER TIME  *TT1*##:##:##  
COMMAND     *????*SMTWTFS
```

6. Enter the desired time using the SIREN ADDRESS buttons.
For 12:00pm (noon), the display will read:

```
ENTER TIME  *TT1*12:00:00  
COMMAND     *????*SMTWTFS
```

7. Press the **PRECHECK** button.
The display will read:

```
ENTER CMD   *TT1*12:00:00  
COMMAND     *????*SMTWTFS
```

8. Press the desired **COMMAND GROUP** button and scroll to desired command.

Note:

Press **WARNING TONES** for *CANCEL, WAIL, ATTACK, ALERT, PUBLIC ADDRESS, AIR HORN, HI LO, WHOOP, NOON TEST*

Press **VOICE MESSAGES** for *digital voice message commands MESSAGE 1 to MESSAGE 16*

Press **ROTATING DIRECTION** for *WPS4000 series speaker directions NORTH, EAST, SOUTH, WEST, CLOCKWISE, COUNTER CLOCKWISE*

Press **TEST & MISC** for *SILENT TEST, TEST CLEAR, STROBE ON, STROBE OFF*

For NOON TEST the display will read:

```
ENTER CMD   · TT1 · 12:00:00
NOON TEST   · ????.SMTWTFS
```

9. Press the **PRECHECK** button.
The display will read:

```
ENTER ADDR  · TT1 · 12:00:00
NOON TEST   · ????.SMTWTFS
```

10. Enter the desired siren address or all call by pressing the buttons in the **SIREN ADDRESS** key pad location.

For "All Call" address the display will read:

```
ENTER ADDR  · TT1 · 12:00:00
NOON TEST   · ####.SMTWTFS
```

For "1001" address the display will read:

```
ENTER ADDR  · TT1 · 12:00:00
NOON TEST   · 1001.SMTWTFS
```

11. Press the **PRECHECK** button.
The display will read:

```
ENTER SKIPS · TT1 · 12:00:00
NOON TEST   · 1001.SMTWTFS
```

12. Select the days for no activation by using the SIREN ADDRESS buttons.

Note:

Sunday = 1
Monday = 2
Tuesday = 3
Wednesday = 4
Thursday = 5
Friday = 6
Saturday = 7

*Days with upper case letters are days configured **to activate**.
*Days with lower case letters are days configured **not to activate**.

For Monday, Wednesday, Friday activations, the display will read:

```
ENTER SKIPS • TT1 • 12:00:00  
NOON TEST   • 1001 • sMtWtFs
```

13. Press the **PRECHECK** button.
The display will read:

```
SAVE DATA   • TT1 • 12:00:00  
NOON TEST   • 1001 • sMtWtFs
```

14. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER  
TIMED TRANS. 1
```

15. Press the **RESET** button to exit programming.

Time of Day Function (programmed for "Call Key" activation)

1. Press the **TEST & MISC** button.
The display will read:

```
SILENT TEST
FRIDAY          16:00:00
```

2. Press the **DOWN** arrow one time.
The display will read:

```
PROGRAM ENCODER
FRIDAY          16:00:02
```

3. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER
CLOCK
```

4. Press the **SCROLL UP** arrow two times.
The display will read:

```
PROGRAM ENCODER
TIMED TRANS. 1
```

5. Press the **PRECHECK** button.
The display will read:

```
ENTER TIME  *TT1*##:##:##
COMMAND     *????*SMTWTFS
```

6. Enter the desired time using the **SIREN ADDRESS** buttons.
For 12:00pm/noon time the display will read:

```
ENTER TIME  *TT1*12:00:00
COMMAND     *????*SMTWTFS
```

7. Press the **PRECHECK** button.
The display will read:

```
ENTER CMD   *TT1*12:00:00
COMMAND     *????*SMTWTFS
```

8. Press the **C1** button.
The display will read:

```
ENTER CKEY ·TT1·12:00:00
CALL KEY #          SMTWTFS
```

9. Select the call key number that the remote input is to activate by using the SIREN ADDRESS buttons.

For call key #4 the display will read:

```
ENTER CKEY ·TT1·12:00:00
CALL KEY 4          SMTWTFS
```

10. Press the **PRECHECK** button.
The display will read:

```
ENTER SKIPS·TT1·12:00:00
CALL KEY 4          SMTWTFS
```

11. Select the days for no activation by using the SIREN ADDRESS buttons.

Note:

Sunday = 1
Monday = 2
Tuesday = 3
Wednesday = 4
Thursday = 5
Friday = 6
Saturday = 7

*Days with upper case letters are days configured **to activate**.
*Days with lower case letters are days configured **not to activate**.

For Monday, Wednesday, Friday activations, the display will read:

```
ENTER SKIPS·TT1·12:00:00
CALL KEY 4          sMtWtFs
```

12. Press the **PRECHECK** button.
The display will read:

```
SAVE DATA ·TT1·12:00:00
CALL KEY 4          sMtWtFs
```

13. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER  
TIMED TRANS. 1
```

14. Press the **RESET** button to exit programming.

Programming the Clock

1. Press the **TEST & MISC** button.
The display will read:

```
SILENT TEST
FRIDAY          16:00:00
```

2. Press the **SCROLL DOWN** arrow one time.
The display will read:

```
PROGRAM ENCODER
FRIDAY          16:00:02
```

3. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER
CLOCK
```

4. Press the **PRECHECK** button.
The display will read:

```
PROGRAM ENCODER
ENTER TIME, DAY ##:##:##
```

5. Enter the day of the week using the SIREN ADDRESS buttons.

Note:

Sunday = 1
Monday = 2
Tuesday = 3
Wednesday = 4
Thursday = 5
Friday = 6
Saturday = 7

For Monday the display will read:

```
PROGRAM ENCODER
ENTER TIME, MON ##:##:##
```


6. Enter the current time in 24 hour format using the SIREN ADDRESS buttons.

Example: 9:00PM will be entered as 21:00:00

The display will read:

```
PROGRAM ENCODER  
ENTER TIME, MON 21:00:00
```

7. Press the **PRECHECK** button.

The display will read:

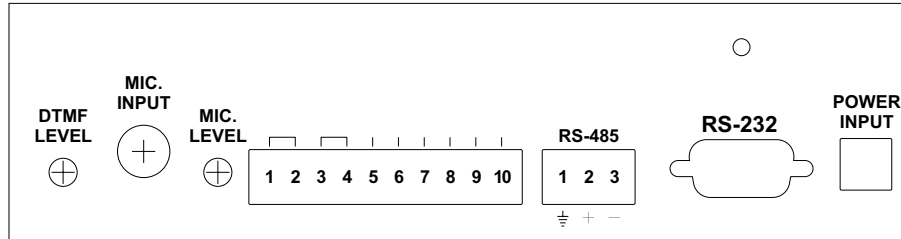
```
PROGRAM ENCODER  
CLOCK
```

8. Press the **RESET** button to exit programming.

Installation

This step-by-step procedure for installing the E-969 is intended for use by a qualified radio technician.

1. Inspect the E-969 for any physical damage.



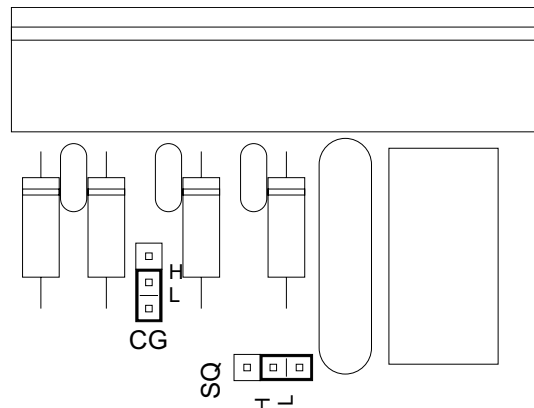
2. Look at the rear panel. From left to right are the following:

- DTMF output level adjustment.
- Microphone input jack.
- Microphone level adjustment.
- Input/output connector J4.
- RS-485 connector.
- RS-232 connector.
- AC/DC wall adaptor power input plug.

3. Make the transceiver connections at J4, pins 1 through 6. Channel Grant applies to trunking systems only. Note that there may be more than one wire per Ground input, depending on the use of the inputs. The pinouts are as follows:

Pin	Signal	
1	Push To Talk	Output
2	Push To Talk	Output
3	Audio	Output
4	Audio	Output
5	Squelch In	Input
6	Ground	
7	Channel Grant	Input
8	Remote Input 1	Input
9	Ground	
10	Remote Input 2	Input

4. The Squelch signal and the Channel Grant signal (Channel Grant is for trunking radio transceiver only) may be active high or active low. The active states must be set by two jumpers inside of the E-969. Remove four Phillips Head screws from the bottom of the unit to access the circuit board. Determine the active state of the radio transceiver Squelch signal, and the Channel Grant signal (if applicable) and set the jumpers, as shown to the right. Place the jumper in the "H" position for active high or "L" for active low. Factory settings are active high.



5. Plug the AC wall adaptor into a 115 volt AC source. Press the ON/OFF button to turn the E-969 on. Program the desired parameters. The DB-9 (J1) pinouts are listed below:

<u>Pin</u>	<u>Signal</u>	
2	Transmit Data	Output
3	Receive Data	Input
5,6	Ground	
7	Clear To Send	Output
8	Request To Send	Input
9	Port Connected	Input

6. Locate the recessed DTMF LEVEL and MIC VOL adjustments on the E-969. A small flat bladed screwdriver is needed for adjustment.
7. Set the DTMF Tone level. With the E-969 on, send the CANCEL Command using the **PRECHECK** button to siren address 0001. While the tone is transmitting, adjust the DTMF LEVEL potentiometer for 50% of max. deviation. Repeat this step as needed to adjust the level.
8. Set the microphone level. Plug the microphone into the MIC jack. Key up the microphone and adjust the MIC VOL potentiometer for 4 KHz deviation wide band or 2KHz narrow band, while speaking into the microphone.

Note: The microphone is not included. Refer to Model WPSNCMIC (P/N 01-0245719-00).

Optional Automotive (or 12 VDC) Installation

Follow the procedure, as described above, with the following exception at Step 5. Instead of plugging into AC, cut the cable from the wall mount transformer, or supply a cable with the appropriate plug. The white stripped wire is the positive DC lead. Connect the positive DC lead to a nominal 12 VDC source through a 1 Amp fuse. Connect the ground wire to the 12 VDC Ground. The VDC range may be 11 to 15 VDC.

Specifications

GENERAL -

Input Power:	12 volt DC nominal, 85 mA typ., 300 mA max. UL listed wall mounted transformer.
Physical:	Desktop design, almond color. 4.3" H x 10.0" W x 8.0" L. 1.1 pounds.
Environmental:	Operating temperature, 0°C to +60°C. Storage temperature, -20°C to +60°C. Humidity, 0-95%, non-condensing.
Audio:	2 wire, 600 Ω transformer balanced, adjustable.
Control:	Normally open relay for Push To Talk. Contact rating, 1/2 A @ 120 VAC, 1 A @ 24 VDC.
Signaling:	DTMF format, 2 of 8, Whelen 10 digit protocol.

REAR PANEL -

DTMF Tone Level:	Variable, 0-4 Vpp.
Microphone Volume:	Variable, 0-6 Vpp.
Microphone Jack:	Ground, Signal, PTT.
Connectors:	Two part, screw terminal, Phoenix brand or equivalent.