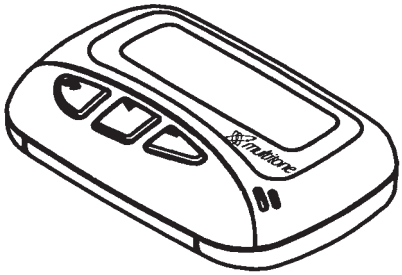
9261-6366 iss 2 21/11/02 9:04 am Page 1

multitone



USER GUIDE FOR ALPHANUMERIC RECEIVER FLA 870 AND SECURE PAGING VARIANTS

FCC Statement Of Compliance

This device complies with FCC Part 15 regulations.
Operation is subject to the following two conditions:
(1) this device may not cause harmful interference and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Unauthorised modification to this equipment, will void the user's authority to operate the device under the terms of the above regulations.

9261-6366 iss 2 21/11/02 9:04 am Page 3

Contents

Introduction and Getting Started 1
Switching the Pager On 1
Status and Operating Symbols 2
Setting the Time and Date 4
Setting the Alarm 6
Selecting the Alert 8
Selecting Display Options 10
Receiving a Message 11
Reviewing Stored Messages 12
Archiving Messages 13
Reviewing Archived Messages 14
Deleting a Message 15
Deleting all Messages 15
Reviewing information Service messages .. 17
Secure Messaging Options 18
Z-Page: Activation and Protection 19
Reading Z-Page Messages 19
Z-Page: Notes of Caution 20

9261-6366 iss 2 21/11/02 9:04 am Page 4

KeyPage Operation 21
KeyPage Message Access..... 22
KeyPage PIN Changes..... 23
KeyPage PIN Reset 24
KeyPage Barred Access 24
Caring for your Pager 25
Fault-Finding 25

9261-6366 iss 2 21/11/02 9:04 am Page 5

Introduction and Getting Started

Congratulations on selecting the FLA870 alphanumeric pager from Multitone. Your pager has all the features you expect from a top class product yet it retains simplicity of operation through the superbly designed user interface and icon menu selection. This guide will describe the operation of the product and ensure that you receive the full benefits of paging with the FLA870.

On the back of your pager you will find the battery cover. Slide the cover in the direction of the arrow to remove. Insert the battery matching the **+** to **+**.

Carefully slide the cover back into position.

Switching the pager ON

To turn the pager ON press and hold the **•>** button for one second. A short alert will sound and the pre programmed Switch On message will be displayed.

After one second the time and date will be shown. This is the standby display.

Standby Screen

Status and Operating Symbols

The standby display shows the current time and date. It also shows if there are unread messages, whether audible or vibrate alert is selected and, if appropriate, gives low battery and out of Range warnings by displaying the following symbols:

Status Symbols

The status symbols are as follows:

Unread Messages	Low Battery
Audible Alert	Out-of-Range
Vibrate	Memory Full

From the standby display press •> to enter the pager options screen. The following symbols are displayed:-

Pager Option Screen

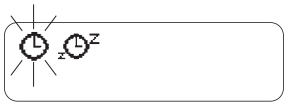
Alarm Function	Alert Selection
Backlight	Off
Time Setting and Timed Off Setup	Delete All Messages
Pager Menu Options	Secure Pin entry

To turn the pager OFF press •> to show the pager options and then press < or > several times until $_zZ^Z$ is flashing. Press •> and the display will show $_zZ^Z$ plus flashing ?.

Press •> again to turn the pager off.

Setting the Time and Date

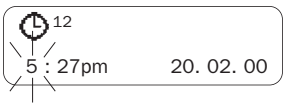
The pager standby screen will normally show the time and date. To set the current time and date press •> once to display the pager options and then press < or > several times until the 🕒 flashes. Press •> twice to display the time function edit screen.



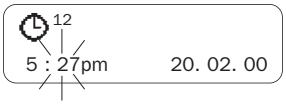
Time Function Screen

The clock symbol will flash. To set the clock press •> and the clock symbol will appear

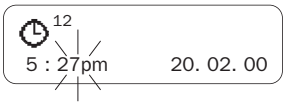
with 12 or 24 hour mode indicated. The hour will flash and the correct value may be selected by pressing either **<** or **>**.



Once the hour is correct press **•>** and the tens of minutes will flash.



Press **<** or **>** until the correct number is shown and then press **•>** .



Press **<** or **>** until the correct number is shown and then press **•>** to set the minutes.

The date is set with the same method.

Once the display shows the correct time and date the 12 or 24 hour mode can be selected by pressing the **<** or **>** buttons to change as required.

Press and hold **•>** for one second to return the pager to the standby screen.

Setting the Pager Alarm

The pager has a daily alarm feature and it may be set by pressing the **•>** to show the pager options and then selecting symbol using **<** or **>** buttons.

Press the **•>** to display the alarm options screen.

To turn the alarm on press **<** or **>** until 🔔 symbol shows and the time that the alarm is set to sound is displayed.

To turn the alarm off press **<** or **>** until 🔕 symbol shows and the alarm time is turned off.

To change the alarm time press **•>** and the hour will flash. Press **<** or **>** to change the numbers and when the correct value is set press **•>** and the tens of minutes will flash.

Press **<** or **>** to change the numbers and when the correct value is shown press **•>** .

Press **<** or **>** until the minutes display is correct and then press **•>** for one second to return to the standby screen.

The display will show indicating that the alarm is set. When the alarm time is reached the pager standby screen will show the flashing and the alert will sound for eight seconds. Pressing any button within the eight-second period will stop the alert.

Selecting the Pager Alert

To set the alert on the pager press **•>** to show the pager options and then press **<** or **>** several times until symbol is flashing.

Press **•>** to display the alert options screen which allows you to select the type of alert that the pager produces when a call is

received. The FLA870 has nine possible alert settings. These are numbered 0 for no alert, 1 for vibrate alert and 2 to 8 for the seven audible alerts. Press **<** or **>** to change the alert and the pager gives you a sample of the numbered alert.

To stop the alert press any button.

If the vibrate alert is required then press the **<** or **>** until the ≈ symbol is displayed and the pager will vibrate for one second. The pager will now vibrate discreetly when a call is received.

Once the desired alert has been selected press **•>** for one second to return to the standby screen. In the standby screen the pager will now show the 🔊 if an audible alert has been selected.

The ≈ symbol will be displayed if the vibrate alert has been selected and the symbol will be displayed if the no alert option has been selected.

It is also possible to toggle rapidly between the chosen alert and no alert by pressing and holding the •> button for three seconds.

Selecting Display Options

The user may select the character size, enable the backlight or alter the display contrast on the FLA870. From the options screen press **<** or **>** buttons to select and confirm by pressing **•>** . The ABC will flash. Toggle between ABC and ÄBC by pressing **<** or **>** buttons and select regular or double height characters by pressing **•>** .

The symbol will now flash and the backlight can be chosen to be on or off using

the **<** and **>** buttons. Confirm the selection by pressing **•>** .

Finally the ◑ symbol will flash. The **>** button can be used to darken the display background and the **<** button lightens the background. When the desired contrast is obtained, press **•>** briefly to return to the character selection option or press and hold **•>** for two seconds to return to the standby screen.

Receiving a Message

When receiving a message your pager will either alert you audibly or vibrate as selected. The alert will continue for 8 seconds or until you acknowledge receipt of the message by pressing any of the buttons on the front of the pager. The received message will also be displayed during this initial alert. If you are away from your pager the alert will continue for 8 seconds after which the ✉ symbol will

be shown to indicate you have an unread message. A reminder alert will sound every 5 minutes during the following hour.
To display the message press the **>** button. If the message length exceeds one screen you can scroll through to the end of the message by pressing **•>**. A ■ symbol marks the end of each message. Each message is time and date stamped when received. This information can subsequently be seen when the messages are reviewed.

Reviewing Stored Messages

When the pager has received a new message the standby display will show the ✉ symbol. To scroll through received messages starting with the newest message press **>**. To read a particular message select it using **<** or **>** and if the message occupies more than one screen pressing **•>** allows subsequent screens to be viewed.

To return to the standby display at any time press •> for one second.

Once the pager has received 40 messages its memory will be full and the standby screen will show the . If a new message is received when the pager memory is full then the oldest message will be deleted. However, if there are no read messages then the oldest unread message will be deleted.

When the end of message block has been viewed press •> to enter the message options screen which contains the message timestamp.

Archiving messages

Archive messages by transferring them to the pager archive store. To do this press > followed by < or > several times to select the message to be archived and then view the

9261-6366 iss 2 21/11/02 9:04 am Page 18

complete message by pressing •> so that the ■ symbol is seen.

Press •> again to enter the message option screen and press < or > until the 🖫 is flashing. Press •> and the display will show the 🖫 plus flashing ?. Press •> to transfer the message to the archive memory. If the archive memory is full 🖫 will flash and a message must be deleted from the archive memory before a new one can be archived.

Reviewing Archived Messages

To view the contents of the archive message memory starting with the most recent message press the •> twice. Press < or > to scroll through the messages. To view a long message press •> to read subsequent screens.

Deleting Messages

To delete messages from either the pager message or archive memories first select the message to be deleted using **<** or **>** and then read the message using the **•>** button. When the last screen of the message is displayed press **•>** and press **<** or **>** until is flashing. Press **•>** and the display will show plus flashing . Press **•>** to delete the message.

Deleting All Messages

The pager message memory (but not the archive store) may be completely erased by pressing **•>** to show the pager options and then pressing either the **<** or **>** until the is flashing. Press **•>** again and the display will show plus flashing . Press **•>** to delete all of the messages.

Timed OFF

The pager may be switched off and on at preset times (e.g. overnight). To set the off and

9261-6366 iss 2 21/11/02 9:04 am Page 20

on times press •> when in the standby display and then press either < or > until is flashing. Press •> then press the < or > until the is flashing. Then press •> to display timed off edit screen.

To disable the timed off feature press < or > until the off and on times are not shown.

To enable the timed off feature press < or > until the off and on times are shown.

The off and on times may be set by pressing •> to select the hours or minutes and < or > to adjust the values. Once the desired times are displayed press •> for one second to return to the pager standby display and the will show indicating that the timed off feature is active.

9261-6366 iss 2 21/11/02 9:04 am Page 21

Reviewing Information Service Messages

The Information services menu is reached by pressing the **<** button when in the standby display. Each enabled service has a number symbol.

Press **<** or **>** until the number symbol of the service you require is flashing then press **•>** to display the service message.

To review other messages received on the same service press **<** or **>** buttons until the required message is displayed.

The 'history depth' of each service has been programmed at manufacture to optimise the memory allocation for the services provided.

To return to the information services menu press **•>** repeatedly until the information service menu is displayed.

To archive an information service message use the same method as described for archiving messages.

9261-6366 iss 2 21/11/02 9:04 am Page 22

Secure Messaging Options

FLA870 is also available as a secure messaging pager where encrypted incoming messages are decrypted, so providing security in transmission. Such messages can only be read by entering daily passwords and PINs into the receiver.

Multitone have produced two secure paging products:-

1. Z-Page, which can be used for the transmission of HMG traffic to 'restricted' level using a CESG approved algorithm.

2. KeyPage which uses the Digital Encryption Standard (DES) algorithm and is intended for commercial use. KeyPage provides effective protection from off-air message interception. Secure pagers do not support Information Services.

Z-Page: Activation and Protection
In order to decrypt and display encrypted messages your secure pager needs to be 'validated' or loaded with its decryption key before being put into service. Unvalidated pagers can be used for normal paging only. On the Z-Pager validation is performed using a pager programming pocket (P669) connected to the PC which is to be used to send the encrypted messages.
Z-Pagers require that a password is entered once each day. The password is generated by the host PC at the time of validation. To access encrypted messages an additional PIN must be entered at the time of viewing.

Reading Z-Page Messages,
An unread Z-Page message is indicated on the display by the ✉ symbol as for normal messages however pressing the **>** key will not access the Z-Page message. To read the message press the **<** button. If the pager is

being used for the first time that day then the display will show two blocks of asterisks. The first block of 6 asterisks is for the message access password which must be entered daily. The second group of 4 asterisks is for the PIN entry. Use the **<** and **>** buttons to select the first digit. Then press **•>** and the second asterisk will flash. Use the **<** and **>** buttons to select the second digit and enter again by pressing **•>**. Select and enter the remaining numbers in the same way. If the password and PIN have been entered correctly the pager will decrypt and display the received messages. As subsequent messages are received during the day, they can be read by entering the PIN again.

Notes of Caution

On the Z-Pager only three attempts are allowed at entering the correct password and PIN. If they are entered incorrectly then the receiver will immediately delete all security

features and messages. The Z-Pager cannot then be used for secure messaging without revalidation on the host PC. If the battery is allowed to discharge fully then all security feature programming will also be deleted and the product will revert to non secure pager operation.

KeyPage Operation

On the KeyPager a randomly generated decryption key is already programmed during production and the key material is loaded from a diskette into the chosen message entry PC. The encryption key diskettes should be carefully stored by your KeyPage system administrator. When KeyPage encrypted messages are generated from within a networked environment, the encryption keys are stored in the network server.

9261-6366 iss 2 21/11/02 9:04 am Page 26

KeyPage Message Access

The KeyPager has no daily password and requires only a PIN to be entered in order to read encrypted messages. An unread encrypted message is indicated on the display by the symbol. To read the message press the **<** button to reveal the PIN entry screen and enter the number for each asterisk in turn using the **<** , **>** and **•>** buttons.

Up to 4 attempts are allowed to enter the PIN after which the pager will reset, deleting all secure messages and further PIN entry is barred for four hours. If PIN entry is attempted the pager will display the symbol. The PIN entry lockout cannot be shortened by removing the battery. NB: Secure messages may be received in this period but may not be read. No revalidation is required on the host PC following false PIN entry nor is the secure messaging facility lost when the cell is discharged.

KeyPage PIN Changes

KeyPage offers the additional facility of being able to enter ones own preferred PIN. To do so press •> from the standby screen and use < or > buttons to select . From the sub menu select the symbol. The security control screen is displayed containing four asterisks. Enter the current PIN using the < and > buttons and confirm each digit by pressing the •> button. If the PIN is correctly entered the pager will display four zeros for an alternative new PIN. Use the < or > buttons to step each digit to the required number and confirm it by pressing •>. After confirming the fourth digit the pager will display the new PIN with an arrow, symbol and flashing ?. Press •> again and the arrow will flash to confirm acceptance of the new PIN. The pager will then revert to the standby screen.

KeyPage PIN Reset

If the KeyPager PIN has been forgotten it is possible for the system to remotely reset the PIN to that which was first programmed in the factory. This requires that a special control code be transmitted to the KeyPager to reset the PIN. A method of verifying the user identity must be agreed with the system administrator who will supply an additional authorisation code which must be entered to restore the PIN.

KeyPage Barred Access

When the symbol is displayed it is not possible to change the PIN. If this is attempted the pager will display and the symbol.

If the PIN has been incorrectly entered four times it will not be possible to change the PIN until the four hour lockout period has elapsed. If this is attempted the pager will display the and symbols

9261-6366 iss 2 21/11/02 9:04 am Page 29

Caring for your Pager

Protect your pager from strong magnetic fields, liquids, extreme temperatures and long periods of exposure to strong sunlight. Clean the exterior of your pager using a clean, soft, non-abrasive cloth. If necessary, dampen cloth with water only. Avoid contact with solvents.

Fault Finding

If your pager appears to have a fault please check the following:

- Is the pager switched on?
- Is the battery dead?
- Is the battery fitted correctly?
- Is the +ve sign on the battery aligned with the moulded +ve sign in the battery compartment?

If you have checked the above and are still having problems please contact your Multitone dealer.

9261-6366 iss 2 21/11/02 9:04 am Page 30

9261-6366 iss 2 21/11/02 9:04 am Page 31

9261-6366 iss 2 21/11/02 9:04 am Page 32

© Multitone Electronics plc 1999

Multitone Electronics plc
Multitone House
Beggarwood Lane
Kempshott Hill
Basingstoke
Hampshire
England RG23 7LL Part No. 9261-6366 Issue 2

Printed and published in England