

microframecorp.[®]

3500 series multipage system installation and specification guide



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Limited Warranty Agreement

Your Microframe System is warranted against failure due to defects in workmanship or material for a period of one (1) year from the date of purchase. Microframe Corporation will repair or replace any defective unit. Obvious abuse or mishandling of the unit is NOT covered by this warranty.

Merchandise Return

If your Unit does not work satisfactorily, please give us a call. We may be able to clear up the problem by phone. If it becomes necessary to return your Unit to the factory, please observe the following:

1. Call Microframe for an RMA number. This will authorize you to return the unit.
2. Place Unit in a sturdy box with sufficient packing material.
3. If requested, include the AC power adapter. It is not necessary to return the cable and connectors unless they are the problem.
4. Return the system insured and prepaid. Microframe is not responsible for shipping damages and losses on returned Units.

Warranty Service

For warranty service, please contact Microframe toll-free at 800-635-3811. One of our technicians will be glad to assist you.

Assistance

For any product assistance or maintenance help, contact Microframe by either calling 800-635-3811 or e-mailing us at: support@microframecorp.com.

Safety

Do not install substitute parts or perform any modification to the product without first contacting Microframe.

Disclaimer

We constantly strive to improve our products. Specifications are subject to change without notice.

Warning

All power adapters, line cords, and electrical equipment should be kept out of the reach of children and away from water. (If you are installing cable in an air plenum area, such as a drop ceiling used for air return, you must use plenum-rated cable. The cable supplied from Microframe is rated CL2 and is approved for indoor installation everywhere except plenum areas.)

Life Support Policy

Microframe's products are not authorized for use as components in life support devices or systems without the express written approval of the President of Microframe Corporation. As used herein:

1. Life support devices or systems are defined as systems which support or sustain life, and whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user or any one depending on the system.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

FCC Notice (for wireless products only)

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Series 3500 Installation and Specification Guide

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MultiPage System Overview

The MultiPage System is a “plug and play” paging solution that consists of a transmitter and a display or pager. The system may have more than one transmitter, and more than one display or pager, or any combination of these items. With this system you may page vibrating pagers and/or send assigned numbers to a Wireless Microframe Visual-Pager®.

System Components, Features, and Quick Operation

- **MultiPage Transmitter**

The MultiPage Transmitter is unique in that it can transmit to both Wireless Microframe Visual-Pager® displays and vibrating pagers. The top line of the transmitter LCD screen shows the numbers being paged, while the bottom line shows the pagers waiting to be re-paged.

To operate the system, simply plug the power adapter into the back of the MultiPage Transmitter and into a power receptacle, and it is ready to use.

- **Wireless UHF Visual-Pager® Display**

The Wireless UHF Visual-Pager® Display has been designed to receive signals from the MultiPage Transmitter. The display is available in a 2-, 3-, 4-, or 6-digit model, each of which has 5.5” tall red LED numbers.

Numbers sent to the display will be saved and shown on both the transmitter and the display until manually deleted or auto-deleted depending upon user preference.

To enter a number on the Visual-Pager® display, type the number on the transmitter keypad and press [ENTER]. To remove numbers from the display, press [CANCEL] followed by the number(s), then press [ENTER].

- **Vibrating Pagers**

The MultiPage Transmitter can be used to send messages to vibrating pagers. The transmitter can re-page these pagers at user-defined intervals. The transmitter will show on its screen the list of pagers being re-paged.

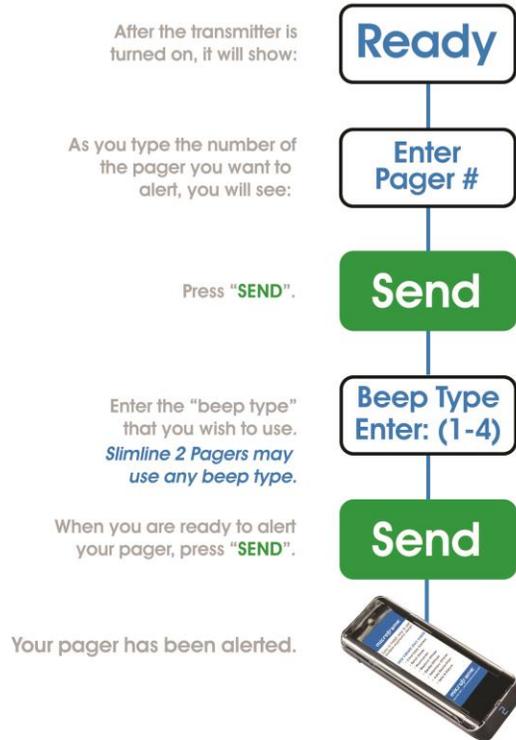
To send a page to a vibrating pager, type the number of the pager you wish to page on the transmitter keypad and press [SEND], then follow the transmitter’s on-screen prompts. To remove numbers from the re-paging queue, press [CANCEL], and type the pager number followed by [SEND].

MultiPage System Instructional Diagram

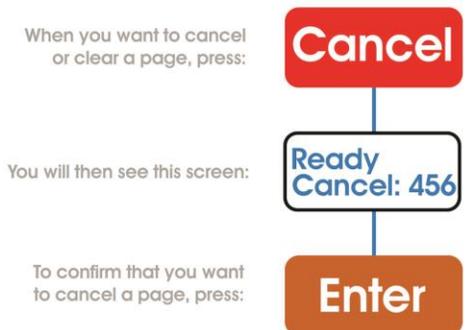
Sending Numbers to a Visual Pager:



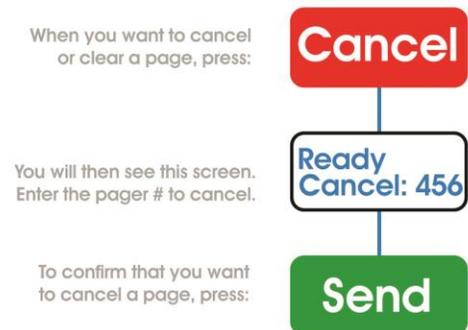
Sending a Page to a Handheld Pager:



Cancel Numbers on a Visual Pager:



Cancel a Page to a Handheld Pager:



Installation

The MultiPage Transmitter is designed to set on a flat surface or wall mounted. It includes a removable mounting wedge. To use the transmitter, simply plug the 12-volt DC power adapter into the back of the transmitter and then plug the adapter into the wall. The transmitter is now ready to use.

Operation

The MultiPage Transmitter has two primary operations. It can be used to send numbers to both pager and Visual-Pager® displays.

Sending Numbers to Visual-Pager® Displays

- To send a number to a display, simply type the number that you want to display, i.e. "1234" and then press [ENTER].
- To delete a number from the display, press [CANCEL] then type the number, i.e. "1234" then press [ENTER].

Paging Slimline Pagers

- To send a page to a vibrating pager (i.e. pager #4), type the pager number "4" then press [SEND].
- You will then be prompted for the Beep Type. Slimline pagers accept any beep type - press [ENTER] to accept the default.
- Press [SEND]. If re-page is "ON," you will see the pager number re-paging on the bottom line. To stop the re-page, press [CANCEL], type the number of the pager (e.g. "4") and then press [SEND].

Programmable Configurations

The MultiPage Transmitter has eight programmable options. To access these options press [SETUP] on the keypad, then press the "*" or "#" keys to move through the list of options. When you come to an option you would like to change, press [ENTER]. Depending on the option, you can either press the "*" and "#" keys to change the value of the option, or you can type in the desired value. To return to the main options menu press [ENTER]. Once options are set, press [SEND] to save changes or [CANCEL] to discard changes. Each of the eight options are described in detail below.

OPTION 1 – Transmitter Rollover Time

The "Rollover" Time is the amount of time that each number in the transmitter memory shows on the LCD screen before rotating to the next number. For example, with the transmitter Rollover Time set to three seconds, and the transmitter with "123" and "456" in its memory, the transmitter will show "123" for three seconds and then show "456" for three seconds and then back to "123." To change the transmitter Rollover Time, simply use the "*" and "#" keys to select a time from 1 to 16 seconds. When the desired time is reached press [ENTER].

NOTE: The Transmitter Roll-Over Time is completely independent of the Display Roll-Over Time.

NOTE: For "Hymn Mode", set rollover time to 0. See below for details.

OPTION 2 – Auto Delete Time

The Auto Delete Time is the time that a number remains on the transmitter before it is automatically deleted. This time can be set using the "*" and "#" keys to select the desired value from 1 to 25 minutes. Once the desired value is reached, press [ENTER] to return to the main menu.

NOTE: The Visual-Pager® Display has an independent Auto Delete Time which is set following the instructions in the Visual-Pager® Display Section.

The factory default for the display Auto Delete time is 45 minutes. The reason for having an auto delete time in both the display and the transmitter is best understood by the following example: At the end of the day, a user may unplug the transmitter to turn it off. If there are numbers being shown on the display, they will remain on the display until the display's auto delete removes them.



Programmable Configurations, Options continued...

OPTION 3 – Re-Page Time for Pagers

This is the time between re-pages for pagers. For example, if the re-page time is set to one minute, then the pager will be re-paged every minute. Using the "*" and "#" keys, you may choose between 0 and 25 minutes for the re-page time. A re-page time of 0 disables the re-paging feature. When you have selected your desired re-page time, press [ENTER] to return to the main menu.

OPTION 4 – Set Display ID Address

This option is used to tell the transmitter the address of the display. The factory default is 1500. If you change this address, you will also have to set up the display to respond to your new address (see Display Options.)

OPTION 5 – Base ID

The Base ID is the digital identification in which all components of a system run. The factory default for this number is 0500000. This number may be changed to avoid "cross talk" with other nearby systems. It is recommended that users do not change this setting. If you change this ID number, then the display and pager settings will have to be changed accordingly.

NOTE: Slimline Pager Base ID can be re-programmed at the base station.

OPTION 6 – Baud Rate

This is the rate at which the digital communications takes place in your system. It is recommended that users do not change this setting. If you change this number, the display and pager settings will have to be changed accordingly.

NOTE: Slimline Pager Baud Rate can be re-programmed at the base station.

OPTION 7 – Out of Range

This feature works with Slimline pagers. When the out-of-range option is activated, the transmitter will periodically send a page telling everyone that they still are in range. If the pager also has its out-of-range feature activated, it will sound an alert within 1 minute of leaving the transmitter's coverage area.

OPTION 8 – Behavior

The behavior option exists to accommodate those users who are more familiar with older DataPage Lite interface and do not need the display or re-paging capabilities of the MultiPage. The behavior setting can be toggled between "MultiPage" and "DataPage Lite." In DataPage Lite mode, the re-page feature is disabled and the transmitter will simply wait for a pager number and then page a pager. The screen and button behavior will revert to the DataPage Lite operation.

HYMN MODE

Overview: Hymn Mode allows the operator to pre-load a list of numbers. Uses: Hymn lists, etc.

Initial Setup:

- To activate "Hymn Mode", set the rollover time option to 0.
- We recommend setting the rollover time on the display to 0 as well.

Usage:

- Enter each number in the order desired, pressing [Enter] after each one. The first number will show on the transmitter, but the number won't show on the display yet.
- Press [Enter] to send the number currently on the transmitter screen to the display.
- Press "#" to show the next number in the hymn list.



Visual-Pager® Display Detailed Operation

Installation

1. Connecting the power adapter
 - a. Place one wire from the adapter under one of the screwdown terminals and the other wire under the other screwdown terminal. Refer to the wiring diagram decal on the back of the display.
 - b. Plug in the power adapter and check the display for proper operation.
2. Mounting
 - a. Microframe displays can be hung on the wall similar to a picture frame.
 - b. There is a keyhole in the back of the display for this purpose.

Operation

If you purchased this Display for use with a MultiPage Transmitter, you should be able to simply plug in the display and then enter and delete numbers as specified in the "MultiPage Operation" section. If you are using this display with another transmitter, please read "Using the Display with Alternate Transmitters" that is located on the following page.

Configuration

The display configurations fall into two basic categories. The first is "Display Communication Settings," and the second is "Display Behavior Settings." However, under normal circumstances, you will not need to change the display configuration.

- **Display Communications Settings**

The display comes from the factory ready to communicate with a MultiPage Transmitter (Base ID 0500000, Baud Rate 1200). The display will intelligently communicate with other settings by doing the following: Press the button on the back of the display one time. The display will show vertical bars. Next, page Pager number 1 with a beep type of 2 and message 7337. The display should change to horizontal bars to signify that it has learned the transmitter identity (Base ID and Baud Rate). If the display does not receive a valid transmission within 90 seconds, it will show "EE".

- **Display Behavior Settings**

The display's behavior can be changed by sending special codes to Pager 9999. All codes are indicated by the form XX_XX or XX_XXXX where "_" is a space. Use the [SETUP] key to insert a space in a message. There are five settings that can be changed using the 9999 command as seen below.

- **Mode Settings** - The display has two possible Modes:

Mode 1 displays the messages sent to a specific vibrating pager.

Mode 1) To program the display to show all messages sent to Pager 300. Send a page to Pager 9999 with the message "00_0300."

NOTE: You must use the [SETUP] key to insert the space in the message between 00 and the Pager number. The Display will now show all messages sent to Pager 300.

Mode 2 displays all pager numbers paged by the transmitter.

Mode 2) To program the display to show all pages sent by the transmitter, send a page to Pager 9999 with the message "00_0000."

Visual-Pager® Display Detailed Operation

Configuration, Mode Settings continued...

- **Roll-Over Time Setting**

The Roll-Over Time is the length of time each number in the display memory is shown before changing to the next number. This time can be set from 1 to 9 seconds. To set this time, send a page to Pager 9999 with the message "01_0X" where X is a number 1-9 representing the number of seconds. If you set this option to 0, the display will only show the last number received.

- **Auto Delete Setting**

The display can be set to automatically delete a number from its memory after a preset time. NOTE: If you have a MultiPage Transmitter, use the transmitter's auto delete rather than the display's auto delete time. To set the auto delete time, send a page to Pager 9999 with the message "02_XX" where XX is a number from 1 to 42 representing the number of minutes to wait before auto deleting.

- **Chime Setting**

If you have purchased an optional triac circuit, it can be activated every time a new number is sent to the display. The duration of the triac output can be controlled by changing this option. To change this option, send a page to 9999 with the message "03_XX" where XX is a number from 00 to 99 representing the number of 0.1 second intervals that you want the output to be on (i.e. 99=9.9 seconds). Sending a 00 will cause the triac circuit to be disabled.

- **Clear All Numbers Command**

There are occasions when you may want to clear all numbers from all displays. To clear all numbers, send a page to Pager 9999 with the message "99_98."

- **Reset Factory Defaults**

To change the display settings back to factory defaults send a page to Pager 9999 with the message "99_99."

- **Using the Display with Alternate Transmitters**

The Visual-Pager® Display has been designed to work optimally with the MultiPage Transmitter. However, in rare cases you may want to use the display with a transmitter other than the MultiPage. If so, you can control the display's basic functions by sending pages to the display's address with beep types and messages to control the function.

Beep Type "4" enters the number contained in the message into the display.

Beep Type "3" removes the number contained in the message from the display.

Example: to add "123" to display ID 1500, do the following. Send a page to Pager 1500 with beep type 4, message 123.

Programming the Pagers

To begin using your paging system, you will first need to program the pagers. To do this, place all pagers in the charging base securely. Press and hold the "PROG" button until it beeps (about 10 seconds). The base will show "WRT", and the pagers will flash multiple values. It has now programmed the pager settings to match the base station.

Sending a Page

Please see the diagram in the MultiPage section of this manual for detailed instructions on sending a page.

Sending a Group Page

All pagers respond to call number "1244". To page all pagers, simply enter "1244" and "SEND". Then, press "SEND" again at the beep type prompt.

Renumbering the Pagers

Place pagers securely in the base station. Press and hold the "UP" button until it beeps (about 3 seconds). The pagers will be programmed to the associated slot number. See photo on right.

Changing the Alert Mode

Pagers may be programmed to respond to a page by a combination of vibrating, flashing and beeping. By default the pagers are programmed to flash and vibrate for 2 minutes. See below to set a new alert mode.

Out of Range

These pagers can be programmed to alert continuously once they get out of range of the transmitter. To use this feature, first activate the option on the transmitter (see MultiPage Transmitter, Option 7 – Out of Range), then set option "9494" (below).

Setting Pager Options

Unplug the charging base or remove all pagers from the base. [Pagers cannot receive programming changes when they are charging.] Wait for the demo page to stop (about 7 seconds). Press "1248" followed by "SEND", then "ENTER". Enter the desired option (see below), then press "SEND". For example, if you want the pagers to flash only, press "1248-SEND-ENTER-9797-SEND". After sending the code, all the pagers should light up to indicate the programming was received. Plug in the charging base or return all pagers to the base.

Vibrate Only	"9292"
Out of Range Off	"9393"
Out of Range On	"9494"
Flash & Beep	"9595"
Flash & Vibrate	"9696"
Flash Only	"9797"

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SLIMLINE 2 PAGER



**Slimline 2 Pager Numbering:
Top to Bottom then Left to Right**

Finding Lost Pagers

To find lost pagers, you can press "1249" and "SEND". This will cause the pagers to flash, vibrate, and beep for 3 minutes. (The beeping will start after 10 seconds.)

Programming the Base Station

The base station is used to program the basic pager identities. These options should be set at the factory. Here's how to change them.

Button operation while in program mode:

PROG – Enter / Hold to save

DOWN ARROW – Exit

UP ARROW – Selects next option

Program mode will automatically exit after about 15 seconds without activity.

First place the base station into program mode by holding down the "PROG" and UP arrow simultaneously until it beeps (about 3 seconds). You will see "STNO" on the screen. Press the up arrow to cycle through the available options:

STNO – Starting Pager Number

BASE – Base Identity

ALT – Reserved

ALTT – Reserved

When you have selected the option you want, press "PROG".

Setting Starting Pager Number

You can change the starting pager number for this base station. For instance, starting with pager 31 for a secondary base station.

Put the base station in program mode and select the "STNO" option. Press "PROG". Use the up/down arrows to set your desired starting number. Hold down the "PROG" button to save (about 3 seconds). Press "Down" to exit.

See "Renumbering the Pagers" to update your pagers.

Setting The Base Identity

The identity for this base station must match the transmitter. By default this base has an ID of "050", which matches the transmitter's Base ID of "0500000".

Put the base station in program mode and select the "BASE" option. Press "PROG". At the "SB1" option, press "PROG" again. Use the up/down arrows to set your new Base ID. Press and hold the "PROG" button to save your changes. Press "Down" to exit.

See "Programming the Pagers" to update your pagers.

Caution

The pager is made up of precision elements. Avoid water and high temperature. If the pager is not working properly, do not dismantle or repair it yourself. Call Microframe for technical service.

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SLIMLINE 2 PAGER (CONTINUED)



Appendix A: Changing the Transmitter Type

The B3011 and B3611 transmitters are now supported by the same hardware platform. When you order a B3011 or B3611, it should come pre-programmed to the correct type.

To change the transmitter type

- Unplug power
- While pressing “*”, 0, and “#” buttons, plug in power.
- At the password prompt, type “0320” [Enter].
- Select 1) 3500 or 2) 3600.
- Press [Enter] to save.

**Model 3500 Specifications
Visual-Pager® Display**

Features

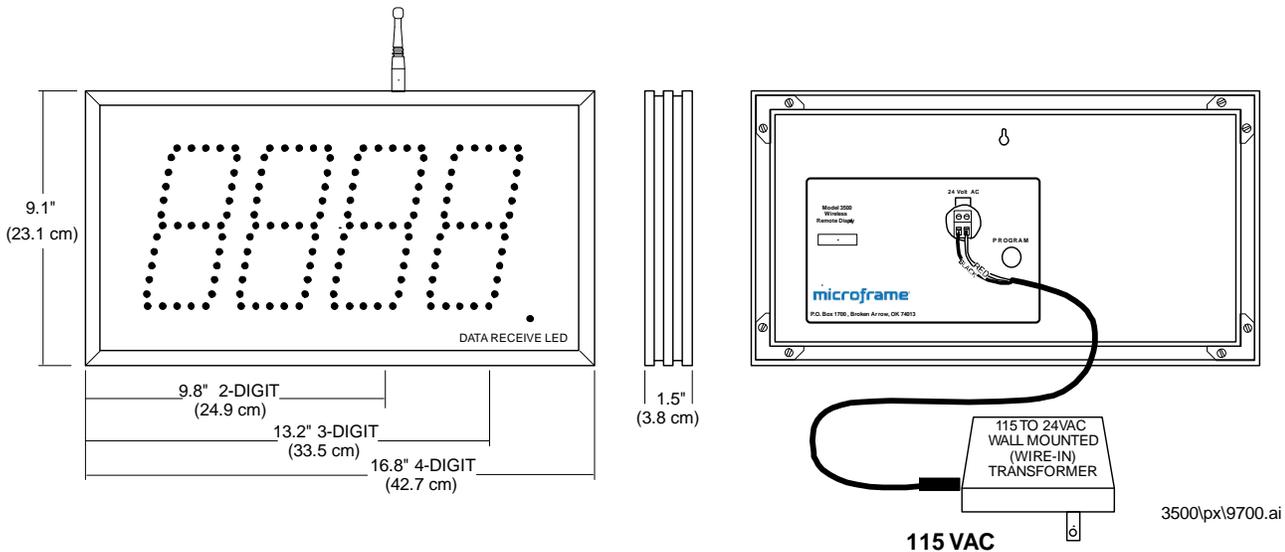
The Visual-Pager® displays are designed to work best with the Microframe MultiPage System. The displays have two modes:

- 1) As a "Visual-Pager®," the display will store and rotate up to 20 numbers at a time. Numbers can be entered and deleted from the display using the MultiPage Transmitter.
- 2) The display can also be used as a "Pager Confirmation System." In this mode, the display shows the number of every vibrating pager that has been paged.

Operation

Mode 1) Using the MultiPage Transmitter, simply type in a number and press [ENTER] to send that number to the display. To delete a number from the display, simply press [CANCEL] then type the number followed by [ENTER].

Mode 2) The number of any pager that is paged shows on the display. No operator intervention is required.



Model 3500 Specifications				
Voltage Input Requirements.....	18V - 28V AC or DC			
Character Height.....	5.5 inches			
Character Viewing Distance.....	125 feet indoors			
Temperature Parameters.....	-20°C to 40°C (-4°F to 158°F)			
Frequency.....	457.575 Mhz			
TX Baud Rate.....	512 or 1200			
Environment.....	Indoor use (Outdoor cases available)			
Display Size	2-Digit	3-Digit	4-Digit	6-Digit
Power Requirements	2.9 watts	3.5 watts	4.6 watts	6.8 watts
Weight	2.5 lbs	3.2 lbs	3.9 lbs	5.25 lbs
Width "A" Dimension Inches	9.8"	13.2"	16.8"	24"
Width "A" Dimension Centimeters	24.9 cm	33.5 cm	42.7 cm	61.4 cm

MultiPage Transmitter Specifications

Features

This transmitter is designed to work out of the box with Multipage displays and Slimline pagers.

Operation

Mode 1) Using the MultiPage Transmitter, simply type in a number and press [ENTER] to send that number to the display. To delete a number from the display, simply press [CANCEL] then type the number followed by [ENTER].

Mode 2) The number of any pager that is paged shows on the display. No operator intervention is required.



B3011 & B3611 Specifications

Voltage Input Requirements.....	12VDC @ 5A (Power adapter requires 100-240V)
Paging Protocol.....	POCSAG (512 or 1200 baud)
Frequency.....	457.575 Mhz
Max TX Power.....	2 Watts
FCC ID.....	WDC-ISTATION-N. Complies with Part 90 of FCC Rules.
Coverage Area.....	Typically 1/2 miles indoors. Max 2 miles.
Mounting.....	Desk or Wall Mount
Dimensions.....	9.5" x 6" x 2.5" (Excludes antenna)
Max Numbers Shown on Display.....	20
Max Pagers in Re-Page Queue.....	30