



SERIES 3600
Wireless Visual-Paging®
Multi-Number Capable
INSTALLATION & SPECIFICATION GUIDE



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Microframe Corporation | 604 South 12th Street | Broken Arrow, OK 74012
Local: 918-258-4839 | Toll Free: 800-635-3811
www.microframecorp.com | support@microframecorp.com



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. Place Unit in a sturdy box with sufficient packing material.
2. If requested, include the AC power adapter. It is not necessary to return the cable and connectors unless they are the problem.
3. 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 3600

Installation and Specification Guide

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Series 3600 Visual-Pager® Displays

Features and Operation

The Model 3520 Visual-Pager® Display is designed to show and rotate through one 2-digit number at a time. It has 5.5" tall digits viewable from 125 feet, and is encased in an aluminum extrusion case. Optional ceiling mounts are available in a single, double, or triple cluster for easy mounting in the center of or around the peripheral of a large retail area. Outdoor displays are also available with high-bright LEDs for easy viewing.

The Model 3520 Visual-Pager® Display is designed to operate with the Model B3611 Multi-Number MultiPage Transmitter. An unlimited number of displays can be used with a single transmitter.

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Model 3520 Visual-Pager® Display



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Model 3530 Visual-Pager® Display



Features and Operation

The Model 3530 Visual-Pager® Display is designed to show and rotate through one 3-digit number at a time. It has 5.5" tall digits viewable from 125 feet, and is encased in an aluminum extrusion case. Optional ceiling mounts are available in a single, double, or triple cluster for easy mounting in the center of or around the peripheral of a large retail area. Outdoor displays are also available with high-bright LEDs for easy viewing.

The Model 3530 Visual-Pager® Display is designed to operate with the Model B3611 Multi-Number MultiPage Transmitter. An unlimited number of displays can be used with a single transmitter.

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Model 3620 and 3430 Visual-Pager® Displays



Features and Operation

The Model 3430 Visual-Pager® is designed to show up to four, 1- to 3-digit numbers at a time. The display can rotate up to a total of 25 different numbers that are entered in the B3611 Multi-Number MultiPage Transmitter. The display has 2.5-inch tall digits viewable up to 80 feet and is encased in an extruded-aluminum case. Unlimited wireless displays may be incorporated, and each display includes its own power adapter.

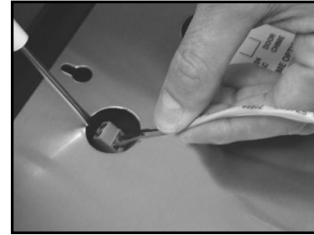
The Model 3620 Visual-Pager® is designed to show up to six, 1- to 2-digit numbers at a time. The display can rotate up to a total of 40 different numbers that are entered in the B3611 Multi-

Number MultiPageTransmitter. The display has 2.5-inch tall digits viewable up to 80 feet and is encased in an extruded-aluminum case. Unlimited wireless displays may be incorporated, and each display includes its own power adapter.

Visual-Pager® Display Installation, Operation, and Options

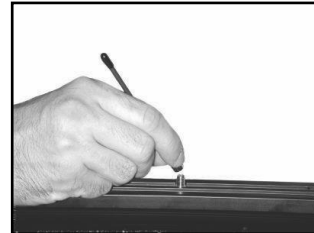
Step 1:

With the power adapter unplugged, wire in the power adapter to the display. To do this, simply place one wire from the adapter under one of the screwdown terminals and the other wire under the other screwdown terminal. Carefully tighten the screws. When you've done this, gently pull on the wires to ensure they are properly installed. They should not come loose. Please refer to the wiring diagram on the back of the display.



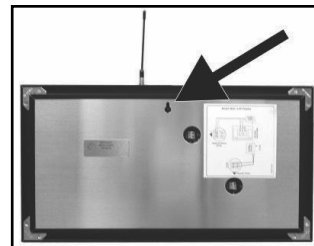
Step 2:

Attach the antenna. Then plug in the power adapter and check the display for proper operation.



Step 3:

Hang the display. The display can be hung on the wall like a picture frame on a nail or a screw from the keyhole in the back of the display.



OPERATION

If you purchased this display for use with a Model B3611 Multi-Number MultiPage Transmitter, you should be able to simply plug in the display and then enter and delete numbers as specified in the "Transmitter Operation" section.

Step 1: Entering a Number

Enter the 2-digit number in the transmitter. The number will automatically appear on the Model B3611 Multi-Number MultiPage Transmitter.

NOTE: If the display has reached its number capacity (20-40 numbers, depending on the display), it will not accept new numbers.

Step 2: Deleting a Number

Press "CANCEL," then enter the 2-digit number to delete. The number will be deleted from the transmitter and display.

DISPLAY OPTIONS

Auto Delete Setting

The display determines a number's lifespan based on the auto-delete time. NOTE: If you have a Model B3611 Multi-Number MultiPage Transmitter, use the transmitter's auto-delete rather than the display's auto-delete time. This option allows the display to clear itself automatically if the transmitter is unplugged.

Blink Alert Settings

By default, each number will automatically start to blink after a predetermined display time. There are two types of blinks: slow blink and fast blink. See programming instructions.

Application - The blink alerts are designed to convey a sense of urgency and to set time limits. As an example, perhaps a restaurant is using the display. The kitchen enters Table "14" into the transmitter. The number "14" also shows on the display, letting the server know the food for Table 14 is ready.

After three minutes (or the slow blink time), number 14 starts to blink slowly, meaning that Table 14's food has been sitting for a little while. After five minutes (or the fast blink time), number 14 will begin to blink rapidly, letting the wait staff or expediter know that Table 14's food needs to be picked up immediately.

Chime Setting

Determines the duration an external chime will sound. The chime is triggered the first time a new number is displayed. See programming instructions.

Visual-Pager® Display Programming Instructions

To change the programmable options on the display, you must transmit special codes to the display. These special codes are described below.

How to Change a Programmable Option Using the Multi-Number MultiPage Transmitter

Press [*] to get to the Pager prompt. Type 9999 [ENTER]. At the Beep Type prompt press [ENTER]. At the Message prompt, type the area to change as a two-digit number. Add a space using the [SETUP] key. Then type the value to set as a two-digit number. Press [SEND] to set the display option.

As an example we will change the Display Rollover Time to 1 second per number. The message format will be "01_01". To begin, press [*] "9999" [ENTER]. Skip the Beep Type prompt by pressing [ENTER]. At the Message prompt type in "01" [SETUP] "01" [SEND]. The transmitter will show it is sending the message. The display will reflect the change by immediately changing the delay between numbers to one second.

The following user-programmable display options can be changed using the Multi-Number MultiPage Transmitter:

- 0 – Number Source
- 1 – Rollover
- 2 – Auto-delete
- 3 – Chime
- 4 – Slow Flash
- 5 – Fast Flash

0 Setting the Display Number Source

Set area 00 to a value of 0000-9999. If the value is non-zero, the display will listen for that pager number and show the message. Otherwise, it will show the pager number paged. The default is to listen for messages (numbers) on pager 1500.

1 Setting the Display Rollover Time

Set area 01 to any value from 00-09. Each unit is 1 second. The default is 3 seconds (03). 00 means the display will only show the last number received (no rollover).

2 Setting the Display Auto-Delete Time

Set area 02 to any value from 00-42. Each unit is 1 minute. The default is 42 minutes (42). 00 means the auto-delete is disabled.

3 Setting the Display Chime Duration

Set area 03 to any value from 00-99. Each unit is 0.1 seconds. The default is 0.3 seconds (03). 00 means the chime is disabled.

4 Setting the Display Slow-Flash Time

Set area 04 to any value from 00-99. Each unit is 10 seconds. The default is 90 seconds (09) – 1.5 minutes. 00 disables the slow-flash function.

5 Setting the Display Fast-Flash Time

Set area 05 to any value from 00-99. Each unit is 10 seconds. The default is 180 seconds (18) – 3 minutes. 00 disables the fast-flash function.

CLEARING THE DISPLAY

Setting area 99 to a value of 98 will clear all numbers from the Visual-Pager® display.

RESETTING DISPLAY TO FACTORY DEFAULTS

Setting area 99 to a value of 99 will reset all program areas to factory defaults.

Visual-Pager® Display Programming Instructions continued...

SETTING THE DISPLAY OPTIONS

All display options are over-the-air programmable. By sending a properly formatted message, display settings may be changed. The command channel for programming options is pager 9999. The message format is generally AA_VV, where A is the area and V is the value. The one exception is area 00, where the format is AA_VVVV.

Special instructions for the B3611: Press the [] key to get to the pager prompt. Press the [SETUP] key to insert a space in a message.*

Area	Value	Default	Description
00	0000		Show pager # paged
00	0001-9999	1500	Show message of pager specified
01	00		Do not rotate the numbers
01	01-09	3	Rollover time (seconds)
02	00		Do not auto-delete
02	01-42	42	Auto-delete time (minutes)
03	00		Never chime
03	01-99	3	Chime duration (0.1 second interval)
04	00-99	9	Slow flash time (10 second interval) 00 disables
05	00-99	18	Fast flash time (10 second interval) 00 disables
99	98		Clear all numbers from display
99	99	N/A	Reset display to factory defaults

DISPLAY BASE ID

The Model 3620 Visual-Pager® display comes set with a base ID of 500,000. You should only have to change the base ID if you have changed the default on the transmitter. Please contact Microframe first before changing the default.

TO SET A NEW DISPLAY BASE ID:

Plug in the display. On the transmitter, page pager # 1 with a Beep Type of 2 and a Message of 7337. The display will auto learn the transmitter identity and save it. It will signify successful programming by showing horizontal bars for about five seconds. You should not have to repeat this step unless your paging system changes. Note: The display will accept this command only within the first 30 seconds after turn-on.

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B3611 Multi-Number MultiPage Transmitter Features and Specifications



Features

The Model B3611 Multi-Number MultiPage Transmitter is designed to accept numbers typed into the transmitter and display them on a Visual-Pager® display. Depending on the mode, the transmitter can either show six 2-digit numbers at a time or four 3-digit numbers.

Specifications

Desktop or Wall-Mountable

Compatible with Model 3520, 3530, 3620, and 3430 Visual-Pager® Displays.

Size: 9" x 7.5" footprint

Supplied with antenna, 12VDC power adapter, mounting wedge, and protective keypad cover.

Baud rate: 512, 1200

Range: ¼ to ½ mile typical indoors, 2 miles maximum

Transmitter Installation

Before permanent installation, we recommend that you test your entire system in one room on a table or floor. This will be beneficial in troubleshooting should you have any problem during installation.

STEP 1: CONNECT THE ANTENNA



Caution: Transmitting without the antenna can damage the transmitter. Ensure that the antenna is connected before powering the unit.

Connect the 90 degree antenna to the BNC connector located at the side of the transmitter. Maintain the antenna in an upright position; this important for optimizing the range of the transmitter.

STEP 2: CONNECT THE POWER ADAPTER

Connect the supplied AC power adapter (see Figure 2). The transmitter will automatically come on. When the transmitter is first powered up, the system will display the following screen for a few seconds:



Followed by:



The transmitter is now ready for operation.



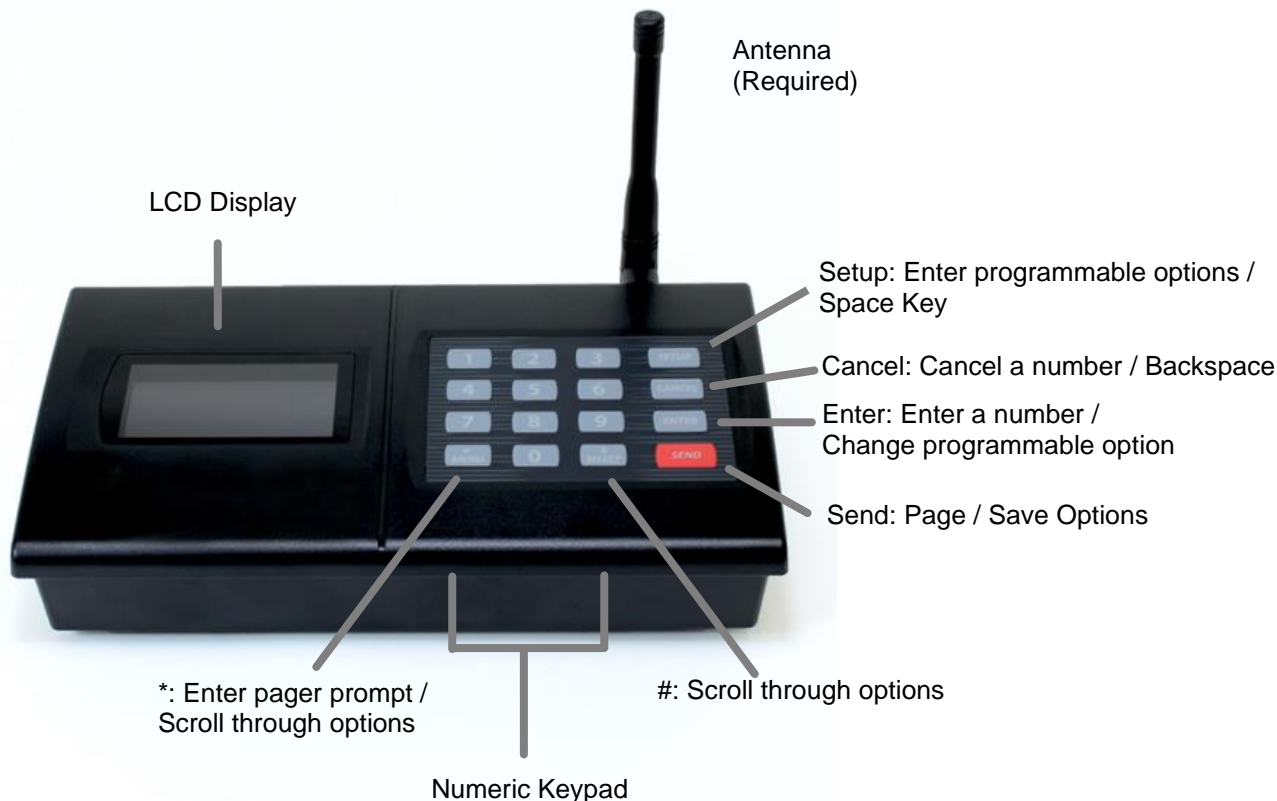
IMPORTANT NOTE:

Use only the power adapter included with your system! The use of unapproved power adapters will invalidate all warranty and service. We also recommend using a surge suppressor for protection. Power surges are not covered under the warranty.

PRECAUTIONS

Avoid placing the transmitter in the immediate vicinity of telephones, exchanges, or computer equipment. A few feet can make a great difference in avoiding interference from the radio frequency generated by the transmitter. The performance of your system will be effected by: foil backed wallboard, metal mesh, wire-reinforced glass, metal sheeting, large mirrors, suspended ceilings, elevator shafts, etc. These can all reflect and thereby reduce the signaling capability of the transmitter.

Transmitter Operation



BASIC OPERATION

This transmitter has its own built-in display so that you can view the numbers that are being entered and shown on the Visual-Pager® display. Numbers that are entered will be added to both the transmitter and display. Once the number capacity has been reached, the transmitter will not accept additional numbers.

Behavior

The transmitter can be configured for use with the 2-digit (3620 mode) or 3-digit (3430 mode) displays. The operations described below are for the 2-digit mode, (3-digit operation is similar).

Automatic Entry

When number buttons 00 to 99 are pressed, they are automatically entered into the Visual-Pager® display and also displayed on the transmitter. After you push the first number, such as "1," the transmitter display shows "Enter: 1" (see Figure 1). After you enter the second number "2," the transmitter display shows "Enter: 12" for one second and disappears. The number "12" will then appear on the Visual-Pager® display.



Fig. 1

Selective Delete

To selectively delete a number, push [CANCEL] then the number you wish to delete from the Visual-Pager® display. After you push the first number, such as "1," the transmitter display shows "Cancel: 1." After you enter the second number "2," the transmitter display shows "Cancel: 12" for one second and disappears (see Figure 2). The number "12" will be removed from the transmitter screen and the Visual-Pager® display.

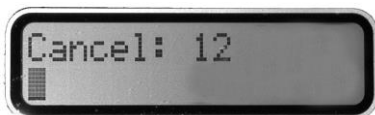
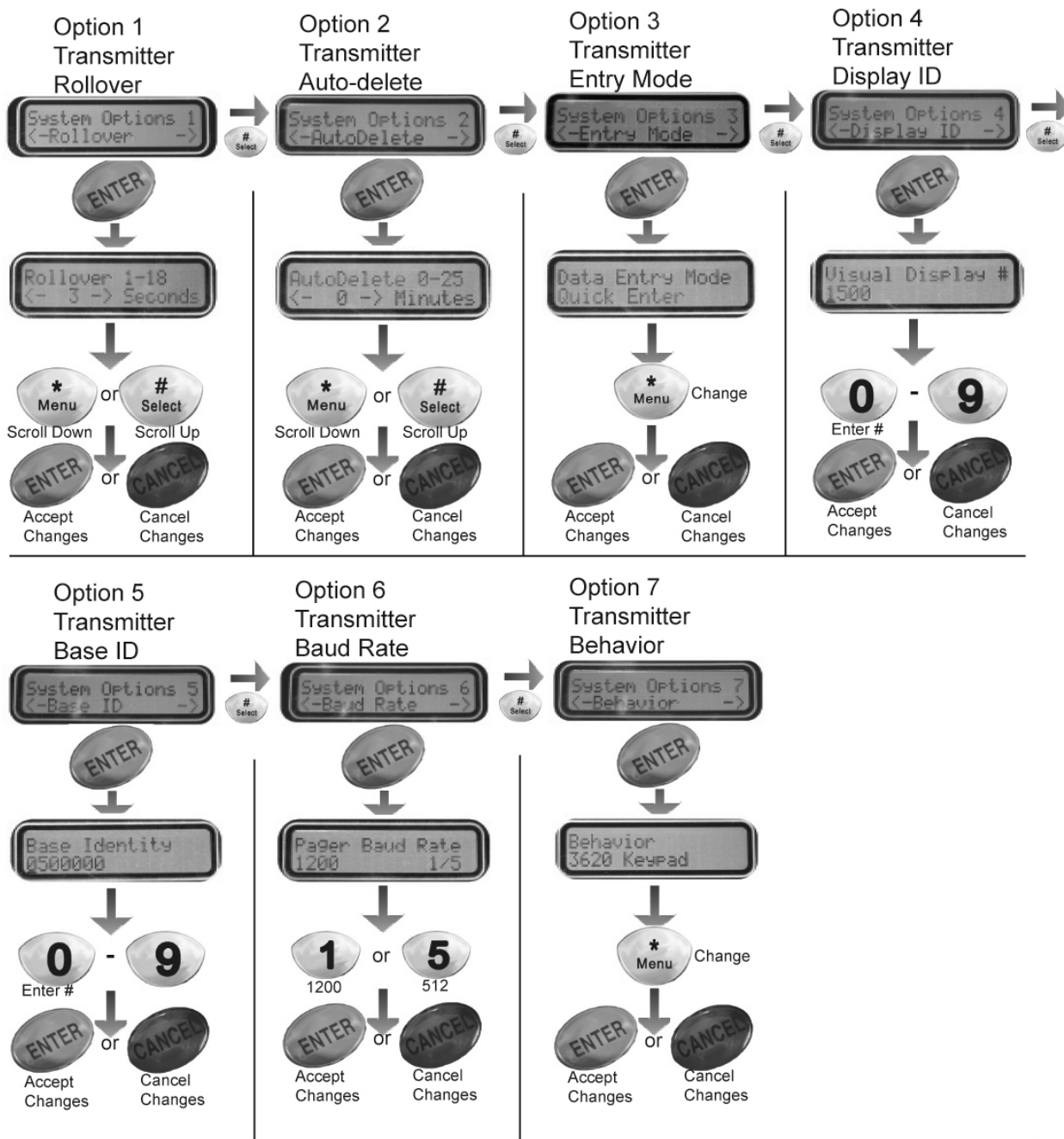


Fig. 2

Transmitter Programming Options

To access these programming options for the transmitter, press [SETUP] on the keypad to enter programming mode. You may scroll through all seven options by using the [*] or [#] buttons. Settings shown are factory defaults.



Transmitter Programming Instructions

Transmitter Configuration

To access the programmable options, press the [SETUP] button at the Ready screen. Then press the [*] or [#] buttons 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 number value. To return to the main options menu press [ENTER]. When finished making changes, simply press the [SEND] key to save the changes or the [CANCEL] key to discard your changes.

Option 1: Transmitter Rollover Time

This is the time that each number in the transmitter memory shows on the LCD screen before rotating to the next number.

NOTE: The transmitter rollover time is completely independent of the Visual-Pager® display rollover time.

Option 2: Transmitter Auto-Delete Time

The time that a number remains on the Visual-Pager® display before it is automatically deleted.

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 Visual-Pager® display delete time is 42 minutes. The reason for having an auto delete time in the display, as well as 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 when the transmitter is turned off, the numbers will remain on the Visual-Pager® display until the display's auto delete removes them.

Option 3: Transmitter Entry Mode

Causes the transmitter to assume "Enter" or "Delete" when a number is typed in.

Option 4: Display ID - Main Remote Display Address

The specific display identity (0001-9998) to which the transmitter will be broadcasting. Each display may have a different address.

Option 5: Transmitter Base ID

The common base number (* see note below) for all transmitters and Visual-Pager® displays in a system. This can be used to keep multiple systems separate. Typically changed in multiples of 100,000, changing this option will require reprogramming all displays in your system.

Option 6: Transmitter Baud Rate

The communications rate common to displays and pagers. At 512 baud rate, a transmission takes 2.1 seconds. At 1200 baud rate, a transmission takes 0.9 seconds. Changing this option will require reprogramming all units in your system.

Option 7: Behavior (2-Digit or 3-Digit)

Allows users to toggle the setting of the transmitter for use with 2-digit or 3-digit Visual-Pager® displays.

* = The Base ID of a system can be thought of as a neighborhood with house addresses corresponding to pager numbers.

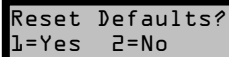
Troubleshooting

Your 3600 Series Visual-Pager® display and Multi-Number MultiPage transmitter are designed to be reliable and easy to use. This section answers frequently asked questions and contains information about the following topics:

- Error messages
- Hardware problems
- Programming problems

Problem

My Model 3611 Transmitter shows this when I turn it on:



Reset Defaults?
1=Yes 2=No

Solution

1. The [0] button is being held down during turn on. This is a deliberate reset. Press [1] for "Yes" to reset factory defaults.
2. One or more Option areas have become corrupted. It is recommended that you write down the correct settings, reset defaults, and then make any changes to settings that are necessary. (See Programming Options.)

Please call Microframe if you need assistance at (800) 635-3811. We will be happy to help you.

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.

Features

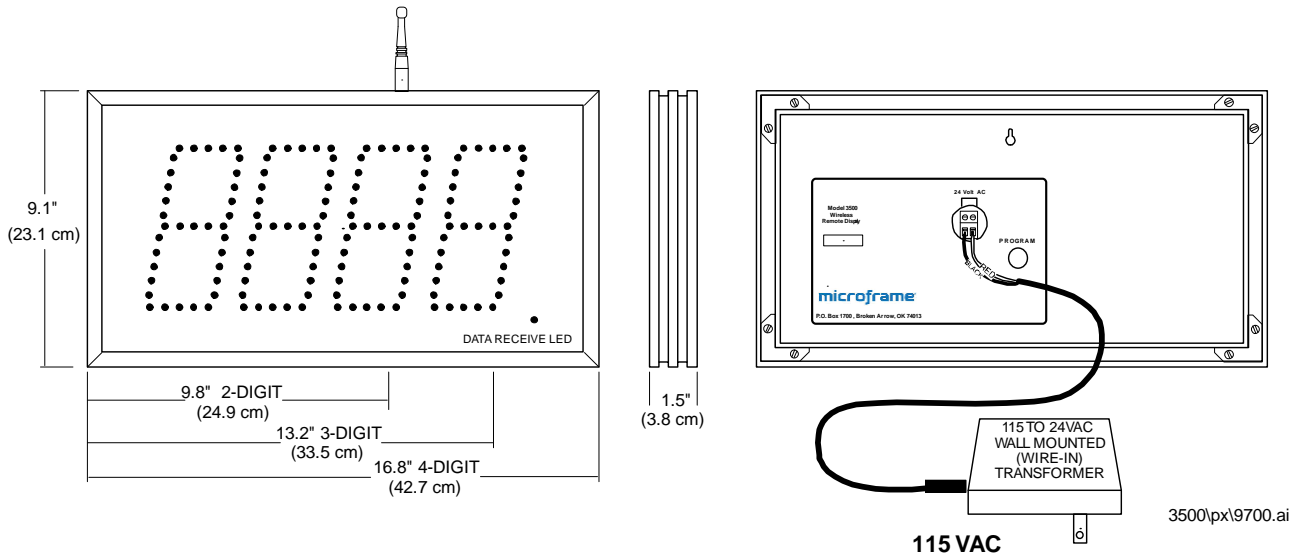
The Visual-Pager® displays are designed to work best with the Microframe MultiPage System. The displays have two modes:

- 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

Specification Sheet

Model 3430 Wireless Visual-Pager® Display

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Features

The Model 3430 multi-number, wireless Visual-Pager® is designed to show up to four, 1- to 3-digit numbers at a time. The display can rotate up to a total of 25 different numbers that are entered in the B3611 Multi-Number MultiPage Transmitter (sold separately). The display has 2.5-inch tall digits viewable up to 80 feet and is enclosed in an extruded-aluminum case. Each display includes its own power adapter.

This is part of a fully expandable Visual-Paging® system that accommodates multiple transmitters and displays.

Model 3430 Wireless Visual-Pager® Display Specifications

Operation	Works with Model 3611 Transmitter
Baud Rate	1200
Power	24 VAC 1.2A supplied by adapter which requires 115 AC @0.72 A
Range	½ Mile
Character Size	2.5" Tall
Number Capacity	Twenty-five 3-Digit Numbers (rotating)
Viewing Distance	80 Feet Indoors
Dimensions	16.8" x 9.1" x 1.5"
Weight	3.5 lbs

Related Products



**Model 3611 MultiNumber
MultiPage Transmitter**
Sold separately.



Model 3530 Visual-Pager® Display
Sold separately.

Specification Sheet

Model 3620 Wireless Visual-Pager® Display

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Features

The Model 3620 multi-number, wireless Visual-Pager® is designed to show up to six, 1- to 2-digit numbers at a time. The display can rotate up to a total of 30 different numbers that are entered in the B3611 Multi-Number MultiPage Transmitter (sold separately). The display has 2.5-inch tall digits viewable up to 80 feet and is enclosed in an extruded-aluminum case. Each display includes its own power adapter.

This is part of a fully expandable Visual-Paging® system that accommodates multiple transmitters and displays.

Model 3620 Wireless Visual-Pager® Display Specifications

Operation	Works with Model 3611 Transmitter
Baud Rate	1200
Power	24 VAC 1.2A supplied by adapter which requires 115 AC @0.72 A
Range	½ Mile
Character Size	2.5" Tall
Number Capacity	Thirty 2-Digit Numbers (rotating)
Viewing Distance	80 Feet Indoors
Dimensions	16.8" x 9.1" x 1.5"
Weight	3.5 lbs

Related Products



**Model 3611 MultiNumber
MultiPage Transmitter**
Sold separately.



Model 3520 Visual-Pager® Display
Sold separately.

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