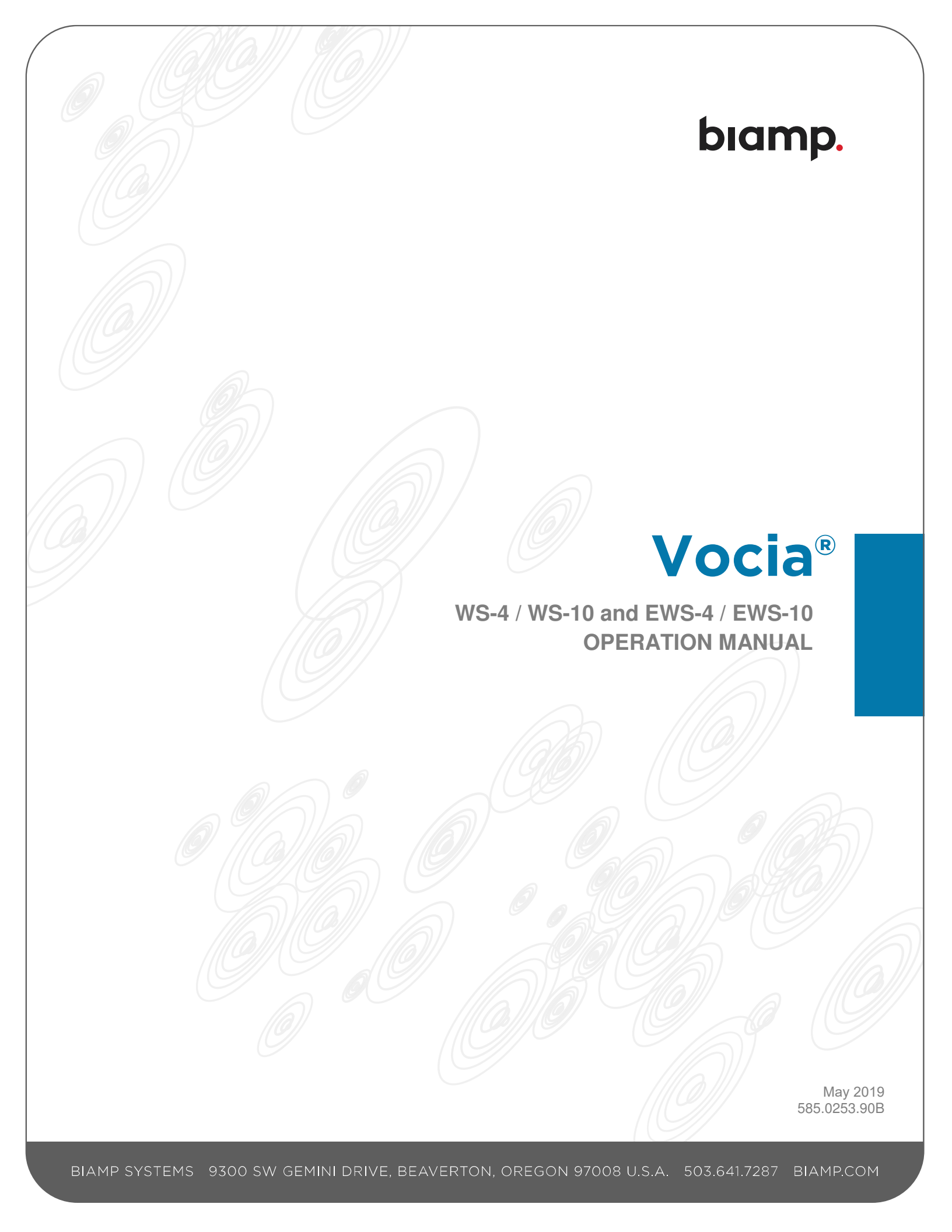




biamp.

Vocia[®]

**WS-4 / WS-10 and EWS-4 / EWS-10
OPERATION MANUAL**

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(E)WS Product Description

The WS-4 is a wall-mounted networked paging station featuring embedded DSP and on-board memory to support both standard and advanced public address functionality. All device-specific configuration information is stored locally, which means the WS-4 does not rely on a centralized controller for processing and page routing

The WS-10 is a wall-mounted networked paging station featuring embedded DSP and on-board memory to support both standard and advanced public address functionality. All device-specific configuration information is stored locally, which means the WS-4 does not rely on a centralized controller for processing and page routing

The EWS-4 is the emergency, wall-mounted networked paging station used in an EN 54-16 certified life safety system. It features all the same configurable page codes, memory and features as the WS-4 paging station.

The EWS-10 is the emergency, wall-mounted networked paging station used in an EN 54-16 certified life safety system. It features all the same configurable page codes, memory and features as the WS-10 paging station.

WS-4 / WS-10 and EWS-4 / EWS-10 Setup and Installation

Setup and Use

The Vokia software provides an intuitive interface for configuration, DSP equalization and programming of the WS-4 and WS-10 components. The information supplied by this manual relates to physical connections and assignment. For more details on software setup, please consult the Vokia Help File.

NOTE

Vokia software can configure the WS-4 or WS-10 for dedicated use as an Emergency Paging Station. When so configured, the WS-4 or WS-10 is referred to as an EWS-4 or EWS-10.

Vokia Installations designed to comply with the requirement of EN54-16 must be installed in accordance with Biamp recommendations detailed in this Use Manual and in the Vokia VACIE Guide (download from www.biamp.com)

Installation

Install the unit away from heat sources, such as vents and radiators, and in rooms with adequate ventilation. Ensure that air can circulate freely behind, beside, and above the unit. Do not exceed the maximum ambient operating temperature of 32°-113° F (0° -42°C). Be aware of conditions in an enclosed rack that may cause the temperature to exceed ambient room conditions.

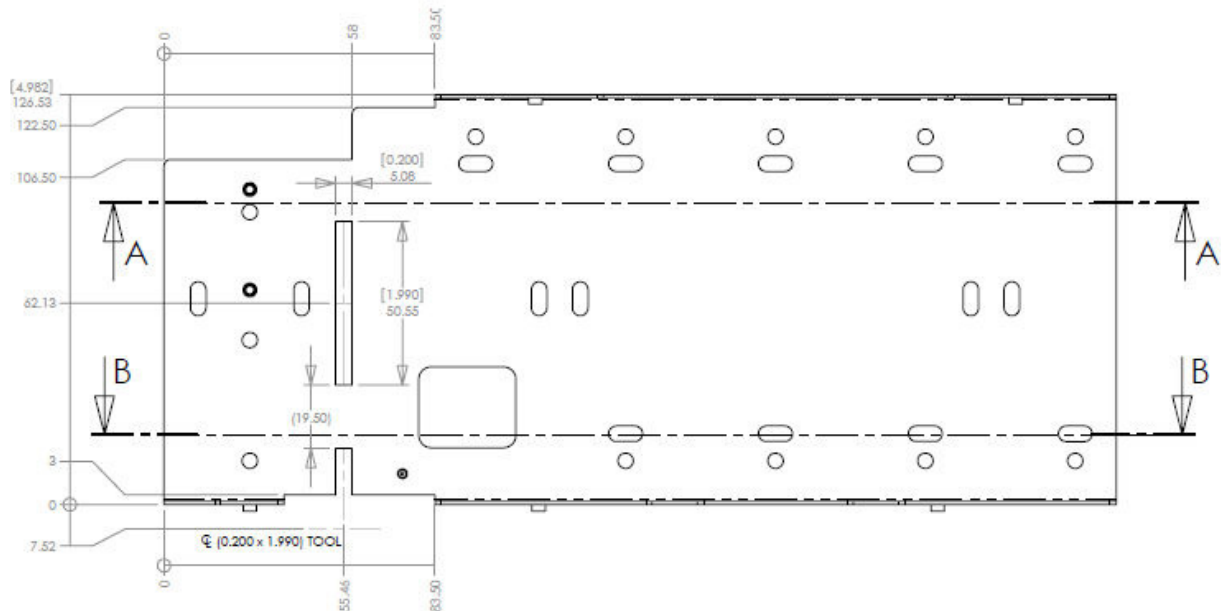
Installation

Any combination of the screw holes shown in the rear view diagram can be used to mount the bracket to the wall (do not fit a screw to the hole marked no screw). A minimum of four screws should be used.

Please note: the maximum screw head height is 0.157 inches (4mm) (dimension from top of installed screw head to inside of mounting bracket). Screws with larger heads may damage the unit.

The paging station must be cabled and its Device ID set before mounting it to the bracket. Please use the four M3 x 8mm countersunk screws supplied to secure the paging station to the bracket.

The following diagrams have been provided for guidance in installing this product.



Display

The paging station features a backlit displays that provide an easy-to-read display of paging information.

Microphone

The microphone has a hypo-cardioid polar pattern. Correct operation of the microphone is essential for good speech intelligibility. The recommended distance between the user's mouth and the microphone is between 1 and 3 inches (25 and 75mm). Closer use may cause unwanted bass boost and compromised speech intelligibility, while more distant use may result in inadequate sound level. Monitoring of the microphone capsule and signal path ensures that damage or failure is reported as a fault.

Soft Key Buttons

Two soft key buttons are located to the right of the display. In the default state they are used as "Next" and "Previous" buttons to browse through the Page Codes assigned to the unit. If PIN security is enabled (see PIN Security section of this document for more information), the soft key buttons are used to "Clear" or "Enter" PIN entries. During a delayed page, the soft key buttons are used to cancel the delayed page if required.

Destination Buttons

The WS-4 has four buttons located below the display which are used to select from one of four predetermined Page Codes.

The WS-10 has a ten-digit keypad located below the display which can be configured in the Vocolta software to operate either Page Code based assignment or Button based assignment.

- Page code based assignment mode enables the user to select from one of 999 predetermined Page Codes.
- Button based assignment allows the user to select from one of ten predetermined Page Codes.

For stations that are PIN-enabled (see PIN Security section of this document for more information), these buttons are also used for PIN entry.

Push-to-Talk Button

The Push-to-Talk (PTT) button, represented by the speaker icon, triggers the action associated with the selected Page Code (generally a live page, delayed page or recorded message).

**Status LEDs**

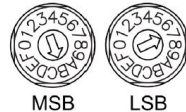
The status LEDs (located directly above the PTT button) inform the user of the state of the paging station after the PTT button is pressed. The left amber LED "Wait" indicator illuminates while the system establishes audio paths, checks for Zone availability, and plays the preamble chime (if selected). The right green LED "Please Talk Now" indicator illuminates once the audio path is live.



Device ID

The rotary ID switches give the unit a unique Device ID. The switches are in hexadecimal format. All units of the same device type must have a unique Device ID to function properly within a Vocia Paging World. The Factory Default Device ID is 01. A Device ID of 00 is invalid and cannot be used.

To assign a Device ID of hex 07, leave the MSB switch on 0 and turn the LSB switch to 7. Device ID switches should be set using a 0.1 inch (2.5mm) to 0.12 inch (3.0mm) flat blade screwdriver. More information on setting IDs and the hexadecimal numbering scheme can be found in the Vocia Help File.



NOTE
Changes made to the Device ID while connected to the network require a power cycle in order to take effect.

Aux Power Connector

This two-way connector may be used to power the EWS-4 or EWS-10 from an auxiliary 24V DC power supply. When this connector is used, Links CN11 and CN12 must be removed (default configuration for EWS-4 and EWS-10). Conversely, when PoE is used, links CN11 and CN12 must be installed (default configuration for WS-4 and WS-10).

CobraNet

The Paging station is a CobraNet devices. All CobraNet routing and bundle assignments are processed by the Vocia devices locally. Vocia devices are not interoperable with non-Vocia devices.

Connections

Each device has two RJ45 connectors. These are labeled Audio Network and Auxiliary.

WS-4 / WS-10 and EWS-4 / EWS-10 Audio Network Connections

Audio Network Connector

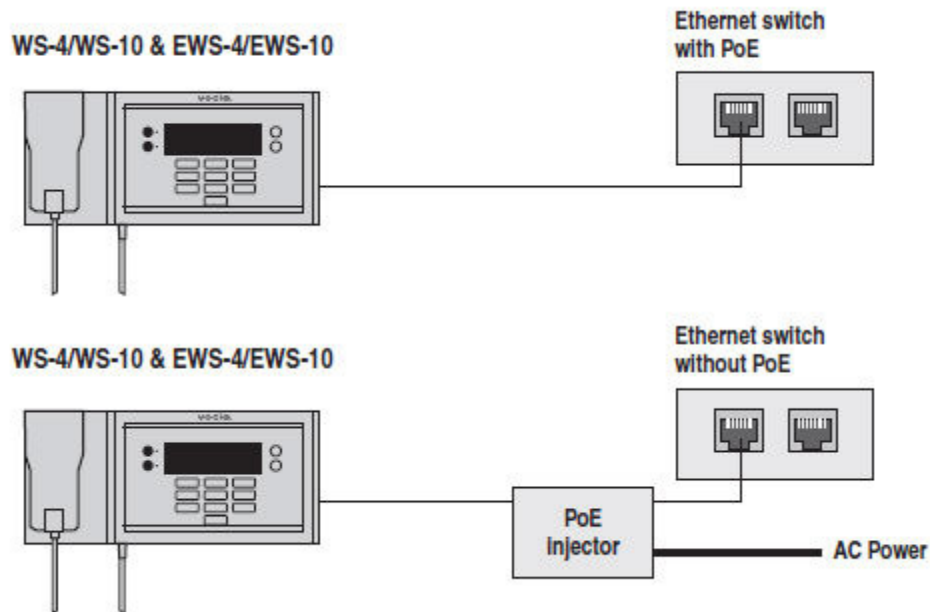
The Audio Network connector should be wired using shielded CAT5, 5e, 6 or 7 cable cabling to interface to a Vocola system via a Ethernet network switch. This connection carries control data, power and digital audio over CobraNet.

PoE-enabled network switches or PoE midspan adapters must be used to power the unit. These must be 802.3at Type 1 (class 2) compliant. The maximum cable distance between any unit and an Ethernet switch is 328 feet (100 meters) when using copper cabling. Additional Ethernet switches and/or fiber-optic cable can be used to further extend distances between units on a network. Please note that CobraNet limits network extensions to seven hops (one-way transmissions) within a 100Mb network. If other network traffic shares an Ethernet switch with the Vocola network, a managed switch should be used with separate VLANs.

The connector provides two LEDs that indicate Ethernet link and network activity (see table below).

Left LED	Right LED	Description
None	None	No power or data connectivity. Please check the PoE network connection.
Amber	Flashing Green	Link established and CobraNet activity detected (normal operation).
Flashing Amber	Flashing Green	Link established and CobraNet activity detected (normal operation). Unit is operating as CobraNet Conductor
Flashing Amber	None	CobraNet Fault. Check Cabling and Configuration for errors

The following diagrams illustrate valid Audio Network connections.



Auxiliary Connection

The Auxiliary RJ45 connector allows the connection of the Vocia Auxiliary Microphone (VAM-1) or the Vocia Paging Station Interface (VPSI-1). Vocia software is used to enable and configure these accessories.

The Paging station acts as a host device to these accessories. Although the VAM-1 can use Ethernet standard cable and connectors it is not an Ethernet device and as such should never be connected directly to an Ethernet switch or network. Please review the VAM-1 and VPSI-1 Operation Manuals for more information.

PS-VTP control of the EWS paging stations is not permitted for use in EN54-16 systems unless the connected control system is EN 54-16 certified

Personal Identification Number (PIN) Security

Any Paging Station can be configured for PIN security protection. Pin security is disabled by default. See the sections below for directions based on a specific model.

4 button Paging station PIN Security

If PIN security is enabled via the Vocia software, the four Page Code buttons may be used to enter the required four-digit PIN (see button labeling examples below). To enter a number, the user may need to press a button multiple times (as in SMS messaging). During PIN entry, the two “Next” and “Previous” soft key buttons on the right side of the display act as a “Clear” and an “Enter” key respectively. Input the four-digit PIN sequentially, followed by the “Enter” key or the PTT button. Each digit will be shown briefly on the display and subsequently replaced by an asterisk for security purposes. If the entered PIN is correct, the station will unlock and be ready for use. To lock the wall station on the initial set up, enter the PIN and push both the “Clear” and “Enter” button simultaneously.



10 button Paging station PIN Security

If PIN security is enabled via the Vocia software, the ten-digit keypad may be used to enter the required four-digit PIN. During PIN entry, the two “Next” and “Previous” soft key buttons on the right side of the display act as a “Clear” and an “Enter” key respectively. Input the four-digit PIN sequentially, followed by the “Enter” key or the PTT button. Each digit will be shown briefly on the display and subsequently replaced by an asterisk for security purposes. If the entered PIN is correct, the station will unlock and be ready for use.

After a period of inactivity (no pages made and no buttons pressed), the unit will revert back to a locked state. This length of time (at a default of 180 seconds) is set using the Vocia software. To lock the station instantly, the user can press and hold down the “Next” and “Previous” buttons at the same time.

WS-4 / WS-10 and EWS-4 / EWS-10 Display Messages

Display Status Messages

The following messages are used to display the state of the Paging Station during normal operation. More information on display status messages can be found in the Vocolia Help File.

- **No Network:** The paging station is not connected to a functioning network or is not participating in a Vocolia configuration. Please check network connections and settings.
- **Destination Idle:** The paging station is ready and there are no busy zones among the destinations selected by the Page Code.
- **Destination Busy:** Signifies that at least one of the destination zones is busy with a lower priority page. When paging into a busy zone, the lower priority message will be lost.
- **Destination Delay:** At least one of the destination zones is busy with a page of equal priority. When paging into a busy zone at an equal priority, the message will be recorded in the DS-4 or DS-10 locally and played when the busy zones become available.
- **Not Available:** The selected Page Code is not available. The message “Code Barred” or “Undefined” will appear in the top left corner of the display. Please choose a different Page Code or assign the selected Page Code to the desk station.
- **Please Wait:** The PTT button has been pressed and the system is assigning paging resources and playing the chime. Simultaneously, the amber LED below the “Wait” icon will illuminate.
- **Request Failed:** The PTT button has been pressed and the request has failed. If a recorded message is associated with this Page Code, please check that an MS-1 is online and configured to play the announcement.
- **Please Talk Now:** The PTT button has been pressed, the page has been correctly set up in the system, any assigned chime has finished playing, and the audio path is open. This status message corresponds with the green LED illuminated below the “Please Talk Now” icon.
- **Request Queued:** The selected Page Code represents a request to play a recorded announcement. When the zone(s) are ready to receive the announcement, the message will be played and the DS-4 or DS-10 will return to the Destination Idle state.
- **Cancel Request?:** The selected Page Code is a Delayed Release page. Once the PTT button is released, the “Cancel” prompt will flash on the display. The “Cancel Request?” message is displayed for five seconds. If the user presses the Cancel button within this five-second period, the recorded page will be discarded and the system will return to idle status. If five seconds elapses and the user does not press the Cancel button, the message will be released for playback as soon as all destination zones are available.
- **Page Will End in “x” Secs:** This message is displayed when a page termination is imminent (either due to lack of memory or a timeout). The “x” signifies a value in seconds.
- **Security :** If PIN access is enabled the paging station will display a ‘Security access required’ message.

Device Information

To access the Device Information Screen, simultaneously press and hold three buttons. The Device Information Screen shows the Device ID, the system time, and the running firmware Version.

Device ID : 02 16:27:01

FW: Jun 26 '14 16:52:09