Digi-Wave™ 400 Series
SECURITY FEATURES

The Digi-Wave™ 400 Series communication system allows users to listen and talk to one another wirelessly in a variety of scenarios. A Digi-Wave system consists of at least one transceiver (DLT 400) and various combinations of transceivers and receivers (DLR 400). Groups or channels are run and organized by a designated Master 1 DLT transceiver, and audience members can join this group or channel. If a second leader is needed, a Master 2 DLT transceiver can optionally be added to the group or channel.

The Digi-Wave system has a variety of flexible security features to ensure conversations stay as private or as accessible as the user desires. These features ensure secure transmission of the audio and that any listeners or speakers are expected.

Digital Spread-Spectrum Technology

The Digi-Wave system is a digital spread-spectrum (DSS), simultaneous two-way wireless listening system operating in the 2.4 GHz band. Due to it's frequency-hopping algorithm, it avoids interference and is a very secure method of communication. For a more detailed explanation of how Digi-Wave technology works, please visit our website and download the "Digi-Wave™ Technology White Paper".

Audience Controls

Attendee Checking

The number of DLT transceivers currently talking will be displayed in the bottom right corner of the Master 1 and 2 screen. It does not count DLR Receivers because they do not have a talk button.

Allow Join Group

If a Master 1 is already leading a Group or Channel, Digi-Wave 400 transceivers and receivers can automatically search for the group and join it. However, this feature can be blocked for the group or channel you are running.

The Master 1 can prevent other devices from seeing the group as available to join. Disabling Join Group will prevent available groups from being listed under the Join Group menu. The group or channel number can be manually entered by users who have been provided the connection information.

Number of Microphones (DLT 400 only)

The number of speakers at one time can be limited, preventing unexpected audio on the channel or group. The maximum number of speakers is 6, the minimum is 2 when this option is available. The number of microphones is not limited by the selected mode (except for in Interpretation Mode, which assumes one speaker per channel).

Locking the DLT Buttons and Screen

Basic Lock

The lock prevents unauthorized changes to the system set-up by stopping the user from accessing the menu and using the up and down arrow buttons.

NOTE: Each DLT has to be locked and unlocked individually.
   •	To enable or disable the lock, hold down the volume up button and hold the menu button at the same time for 2 seconds. The lock icon will appear

   •	When lock is enabled, the menu system will have most features unavailable with a lock icon displayed next to it.

Super Lock

NOTE: The Super Lock feature is only available in firmware version 1.0.4 or higher.
Super Lock will ignore all button input until deactivated. While the basic lock prevents the settings menu from being accessed by a user who still needs to control the volume and other functions, super lock prevents unintended button presses from making any changes, such as when the device is in a pocket.

This mode can be enabled or disabled by holding down the **up and down arrow** buttons at the same time for about three seconds. A pop up stating the super lock was turned on or off will appear.

Encryption

Extra security can be added to the transmitted signal via encryption. The "**300 Compatible**" 87-bit encryption is default. This level of encryption is backwards compatible with the DLT 300 transceiver from the previous Digi-Wave generation. The DLR 360 receiver from the previous generation cannot work with encrypted signals.

128 + 87-bit Encryption adds AES-128 encryption on top of the 87-bit encryption. This adds an additional layer of security, but is not backwards compatible and may only be used with Digi-Wave 400 devices. This method requires an Encryption PIN.

Encryption PIN:

When a group or channel has been set up with a Encryption PIN, master and guest transceivers and DLR 400 receivers without this Encryption PIN entered cannot listen in on the group. This may be desirable in private or high security-level functions. **The PIN cannot be used with DLR 400 ALK units.**

The same four digit code must be programmed into all of the Digi-Wave devices in the group. If a different secure code has been entered, participants cannot re-enter the group without re-entering the correct secure code. The only time the Encryption PIN is displayed is when it is being entered.

As the PIN is being entered, individual numbers will be replaced by the * symbol.

We recommend using a unique PIN to your group. Using PIN 0000 or other easily entered or guessed PIN will not be as effective as a unique pin.

To set the Encryption PIN:
1. Select whether or not the connection requires a PIN. If yes, you will be prompted to enter the desired PIN.
2. Choose a 4 digit numerical code; i.e. 4297. You must use the same code on each device in the group.
3. Using the up and down arrows, enter first digit of the code (0 – 9).
4. Press the menu/select button to move to the second digit. Enter the next digit and continue until all four digits have been entered.

When setting up the other transceivers or receivers for this group or channel, enter the same code into those devices.

When the Encryption PIN is set, a key icon will show on the main screen under the signal strength indicator.

To remove an Encryption PIN when using 300 Compatible mode (Pins are required in 128+87 mode):
1. Go through the menu system until you are prompted if you would like to use a PIN code.
2. Select "NO PIN CODE." The existing PIN will be removed.

For Additional Information

This is a summary of a few of the features with the Digi-Wave 400 Series. For more information, including basic configuration and other instructions, please view the full user manual on the Williams AV website.