

# TeachLogic® Feature Update

IMA-520 Maxim III™

May 6, 2019

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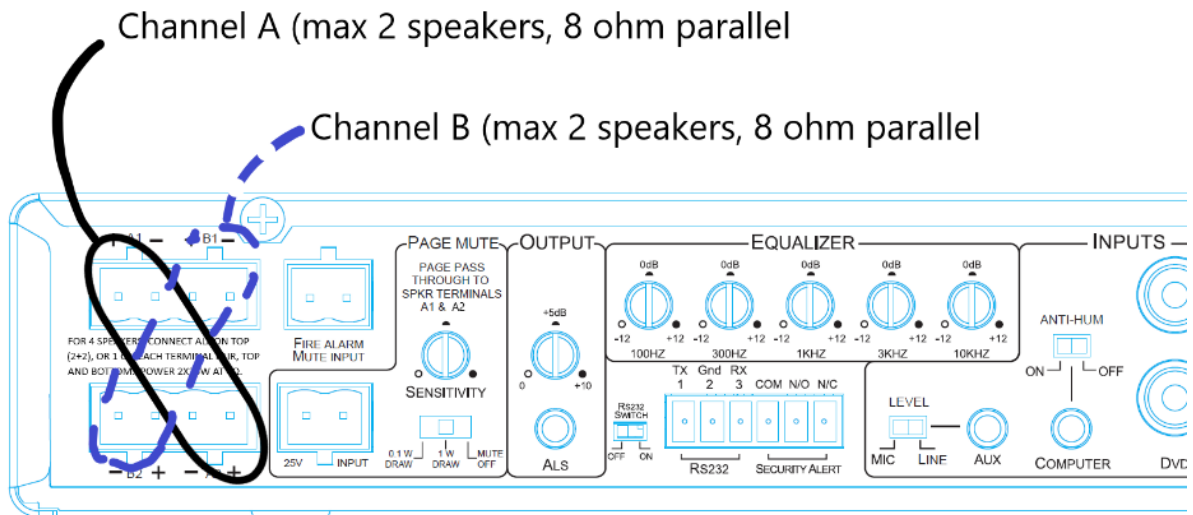
## 1. Rear panel speaker connection guideline

These guidelines are effective for all Maxim III units, and this notice is a correction to manuals or documentation issued in the past.

The IMA-520 (and IMA-524) has two channels of amplified audio, rated for a minimum 4-ohm speaker load. There are two blue Phoenix style speaker connectors on the back panel, each providing two pairs of speaker terminals.

The top connector provides connection to both channels as does the bottom connector. Each is wired in parallel to the other as shown in Diagram A.

### Diagram A

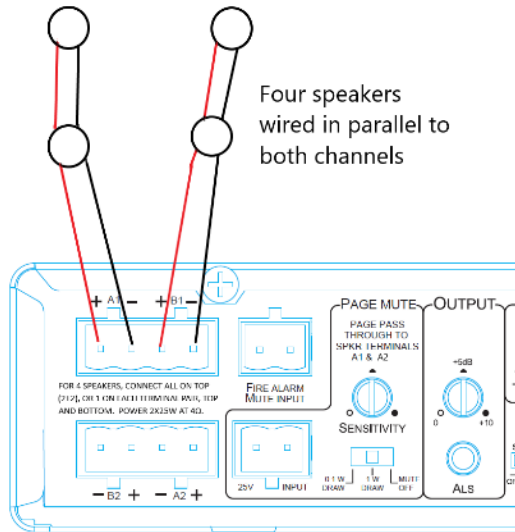


### Recommended connection of 4 speakers

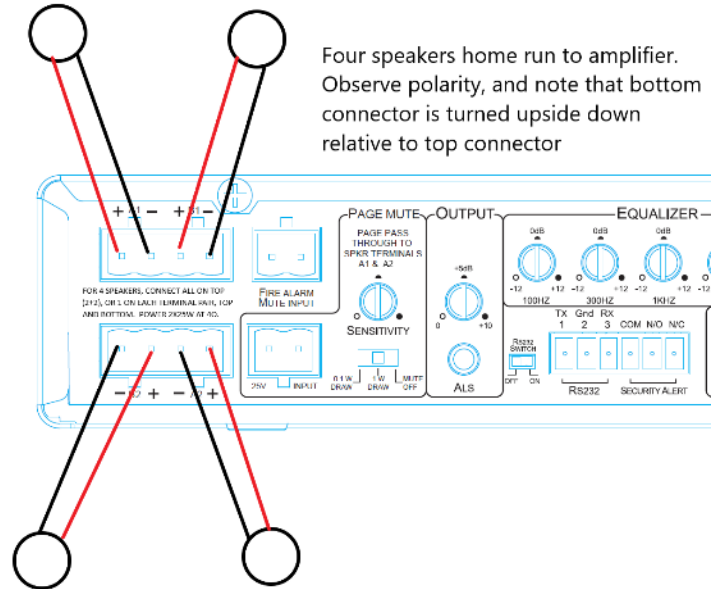
**Diagram B:** You may connect two speakers in parallel to each side of the top *or* bottom terminal, but not both. Or,

**Diagram C:** You may connect one speaker to each side of both top and bottom terminals (this assumes all speakers are 8-ohm impedance speakers).

**Diagram B**



**Diagram C**



Additional novel connection of multiple speakers is certainly possible and supported, but the combined networked impedance of all speakers shall not be less than 4 ohms on each channel.

## 2. Page Mute and Page Pass Through specification and setting

Effective for shipments after 4/1/19 of new units; serial numbers beginning with A19 and later (letter or number is A, B, C... and number is 19, 20, ...). For older units see notes at the end of this section.

**New units:** A paging system may be connected to the Maxim III. The panel labeling is based on a 25-volt paging input signal.

The Page Input impedance switch has three labeled positions (based on power draw at 25V):

- 0.1W DRAW
- 1.0W DRAW
- MUTE OFF

MUTE OFF disconnects the page input from the Maxim III. The other two settings select transformer taps inside the Maxim III for the speakers connected to the top left and lower right connections. These two connections are labeled A1 and A2 in Diagram D below.

**ADVISORY:** These two speaker terminals are internally wired in parallel. **DO NOT** connect more than two 8-ohm speakers to either or both of these terminals such that the total load is less than 4 ohms.

## System behavior for Page Mute

When a signal of adequate level (voltage) is sensed on the page mute input terminal, all other audio inputs to the Maxim III are muted to allow the building-wide page to be heard. The muting is applied to wireless microphones as well as computer, DVD, and all other line inputs.

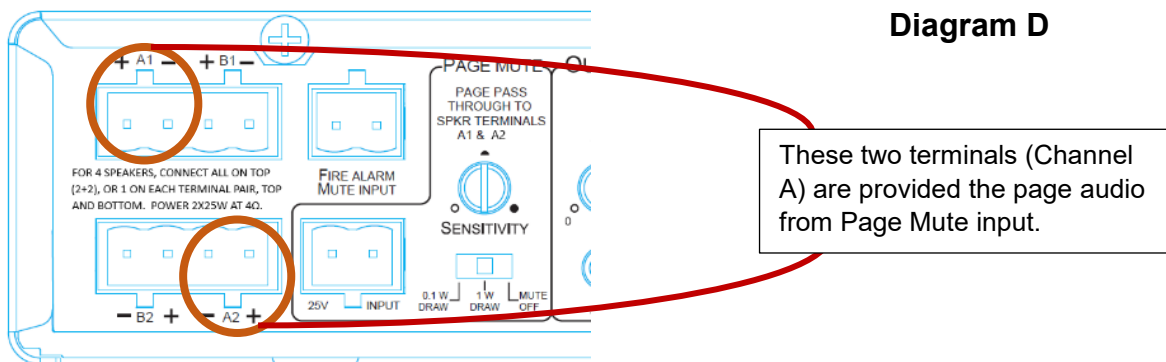
Adjust the sensitivity control to ensure the Maxim III senses the page signal noting that some pages with quiet voices will require greater sensitivity settings. The system will maintain its mute until about 11 seconds after the page signal falls below the threshold for sensing. Thereupon, the wireless mics are unmuted and other audio levels are ramped up gradually to their prior volume (before mute).

## Page Pass Through Feature

An additional feature of the Maxim III is Page Pass Through. The paging signal present at the Page Mute input will be connected under either of two conditions and via an internal transformer to the speaker(s) on the upper left and lower right (see Diagram D with these terminals A1 and A2 circled).

The Page Pass Through feature is active when the amplifier is switched "Off" or when not connected to a power source. This is the first condition. The second condition is when the Maxim III is powered on and the page signal exceeds the threshold voltage set by the Page Mute sensitivity control on the back panel.

The volume of the page is determined solely by the paging system level and the power draw and impedance selector switch. The page volume is not amplified by the Maxim III.



### New Models:

Switch Setting:	0.1W DRAW	1W DRAW	MUTE OFF
Impedance	5000Ω	620Ω	Open circuit
Power Draw <u>at 25V</u>	0.1W	1.0W	0W
Power Draw <u>at 70V</u>	1.0W	7.9W	0W

### Older Models:

On older models of Maxim III, the power draw selection switch position was labeled 100V-70V-25V, and on these models, there was no disconnection or OFF position. The impedance and power draw with two speakers on each side of the top terminal block is:

Switch Setting:	100V	70V	25V
Impedance	5000Ω	620Ω	115Ω
Power Draw <u>at 25V</u>	0.1W	1.0W	5.3W
Power Draw <u>at 70V</u>	1.0W	7.9W	42W

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## 3. Security Alert settings and status lights

Effective for shipments after this date of new or reprogrammed units. Serial numbers beginning with A19 and later (letter or number is A, B, C... and number is 19, 20, ...).

The Maxim III security alert feature, when triggered by an IRT-60 sapphire mic on Channel A, creates a relay contact closure or opening. The back panel connection is a normally closed and normally open terminal paired with the common terminal.

Note: the wireless channel B does not trigger security alert.

The Maxim III may be set to provide either 4- or 1-pulse signal at the relay. This new feature allows the user to change from 1 to 4 pulses, or 4 to 1 pulse. Different monitoring systems may require one or the other.

The steps below describe how to select either the 1-pulse or 4-pulse mode and how to determine/confirm the Maxim III's selected mode.

Ordinarily, the Maxim III will arrive new with the 4-pulse mode selected by default. Installers should nevertheless confirm the mode upon installation if the security alert feature will be employed. Once set, the mode is active and should remain set until such time as it is manually changed as detailed below.

## To check the mode

Note the LED color on the power button at the TL logo.

- If power state is ON (Blue LED at power button), press once to set power state OFF (Red LED).
- If Red, then you may start the process.

1. Press and hold the power button (in Red state) for the entire process.
2. After 4 seconds, the LED will change colors.
3. Note the number of RED flashes AFTER the GREEN flash.

If one RED after GREEN, then mode is 1-pulse mode. (This will repeat 3 times.)



If four RED after GREEN, then mode is 4-pulse mode. (This will occur 1 time.)



The important part of the sequence is the number of red flashes that follow one green flash.

## To change the mode

Whether mode is 1-pulse or 4-pulse, the steps below will change it to the other mode.

1. If power state is ON (Blue LED at power button), press once to set power state OFF (Red LED). If Red, then you may start the mode switching process.
2. Locate the RS-232 on/off switch on the back panel.
3. Press and hold the front panel power button (in Red state) for the duration of the mode switching process.
4. Move the RS-232 switch from ON to OFF and back again FIVE times. Then release the front panel power button.

Using the previous process, **check the mode** to confirm that the Maxim III is in the desired 1-pulse or 4-pulse mode. If not, repeat the steps above to **change the mode**. The process requires 5 full cycles of the RS-232 switch while the power button in Red off state is held in.

