LINE 6 ®

RELAY® G70 / G75

ADVANCED GUIDE ▶

An Advanced User's Guide to the Features and Functionality of
Line 6 Relay G70 & G75 Wireless Systems

TABLE OF CONTENTS

QUICK START

We always recommend reading through the manual first, but if you want to get started right away with your Line 6 Relay® system, please follow the steps below.
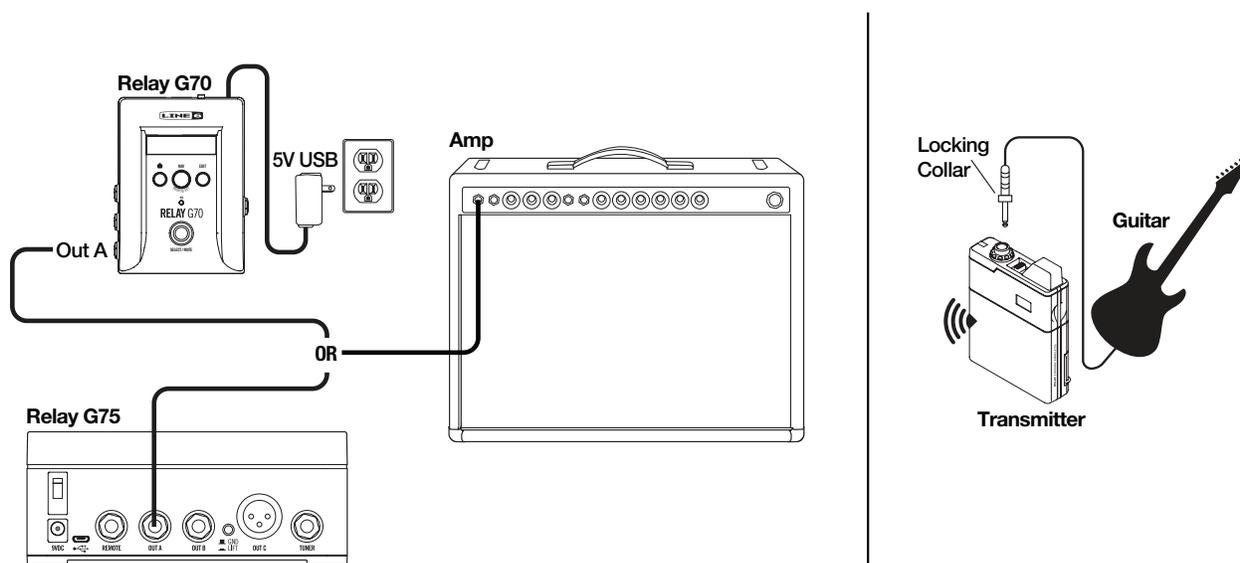
Quick start hook up diagram

Quick Start Steps

1. Remove the Receiver, Transmitter, power supply and guitar cable from the packaging.

2. Place the Receiver in a location where the top of the unit is not obstructed by any metal, computers, mobile phones or tablets. Ensure that there are no Transmitters other than the **Relay TB516 G** in use within 6 feet (2 meters) of the Receiver.

3. Use the supplied USB cable to connect the 5V power supply to the Micro-USB connection on the Receiver and plug the power supply into an AC outlet.

4. Connect the Receiver's **Output A** (1/4") to your amplifier input or the input of the next pedal on your pedalboard.

5. Turn the power switch on the rear of the Receiver On.

6. Insert 2 fresh AA batteries in the Transmitter.

7. Plug the supplied guitar cable into the Transmitter's locking connector Input, turning the locking collar until it is snug (do not over-tighten - the collar just needs to be secured).

8. Plug the other end of the guitar cable into your guitar.

9. Turn On the Transmitter, check for a green light (yellow or red indicate low battery) and start playing and enjoying wireless freedom!

Factory Default Settings

The factory default settings for the Receiver and Transmitter are already configured as follows, allowing them to work together right out of the box. In the following chapters we show how you can customize these settings and create your own additional "Scenes" as well.

- **Name:** SCENE1
- **Channel:** 1
- **Cable Tone:** OFF
- **Active Output:** A+C (outputs A and C both active)
- **Gain:** 0dB (0 = unity gain)
- **Switch Color:** Green
- **Add Scene:** CH. 1
- **LCD Brightness:** High
- **Aux In:** Always On

SYSTEM OVERVIEW

Welcome to the *Relay G70/G75 Advanced Guide*. This guide contains details on the features and functionality of the Line 6 Relay® G70 & G75 Receivers and TB516 G Wireless Transmitter. Please also visit <u>http://line6.com/support/manuals/</u> for all the latest Line 6 product documentation, including the *Relay G70/G75 Pilot's Guide*.
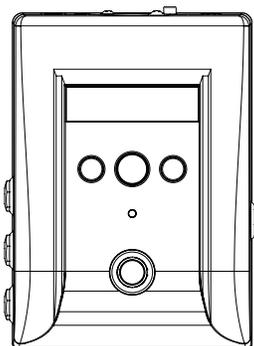
Relay G70 Receiver
Model RS516
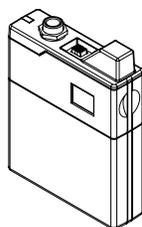
Relay TB516 G Guitar
Transmitter
Model TB516G
P/N 98-033-0069
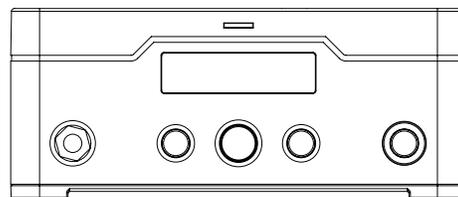
Relay G75 Receiver
Model RT516

The Relay G70 and G75 Receivers and TB516 G Transmitter components

Key Features

- Up to 16 channels of lossless 24-bit audio for uncompromised tone

- Industry-leading audio quality proven on major tours worldwide

- Use multiple Transmitters and switch guitars with ease*

- Best-in-class dynamic range with less than 1.5ms of latency

- Noise-free, full-frequency operation up to 200 feet from Receiver

- Locking 1/4" guitar input on Transmitter—no special cables required

  *Extra Transmitters sold separately

- Choice of compact "stomp box" or "amp-top" style Receiver, for the utmost flexibility in cable routing and access to the user interface

- Two selectable 1/4" guitar outputs with configurable On/Off, Gain, and Cable Tone per guitar or Scene

- Additional dedicated 1/4" "always on," Output jack for direct connection to your tuner

- A breakthrough configurable XLR direct output greater than 120dB dynamic range, 24-bit accuracy audio performance and wireless freedom

- 1/4" Auxiliary Input jack on Receiver to connect a wired guitar for ultimate performance flexibility

- Use of Alkaline (provided) or Rechargeable AA batteries (available separately).

- Rugged metal Transmitter and Receiver construction.

What's in the Box

- Relay TB516 G Guitar Transmitter
- Stomp-style Receiver (Relay G70 only)
- Amp-top Receiver (Relay G75 only)
- 24" Guitar Cable 1/4" to 1/4" Straight TS, with collar lock
- USB-A to Micro-USB cable
- Universal USB Power Supply (5V-1A) kit with international adapter kit.
- Pack of 6 color-coded Transmitter ID hex nuts (Green, Blue, Orange, Purple, Aqua, White: 1 each)
- 2 AA Batteries
- Pilot's Guide and Warranty documentation

Suggested Accessories

- Additional Relay TB516 G Transmitter for each guitar used
- Line 6 DC-1g or DC-3g 9V power adapter (for optionally powering Receiver via its 9VDC connection)
- Right angle guitar cable with locking plug
- Replacement or spare straight guitar cable with locking plug
- Custom Line 6 Transmitter pouch
- Replacement Transmitter belt clips
- Replacement Transmitter ID hex nuts

RELAY TB516 G TRANSMITTER

This Chapter provides details on the Line 6 Relay® TB516 G Wireless Transmitter unit. A TB516 G is included in the retail box with each Relay G70 or G75 system. It can also be purchased individually, allowing you to expand your wireless setup with individual Transmitters for as many instruments as you like. Be sure to check out the "How To..." Chapter for tips on configuring Transmitters for use with your Relay Receiver.

Transmitter Features
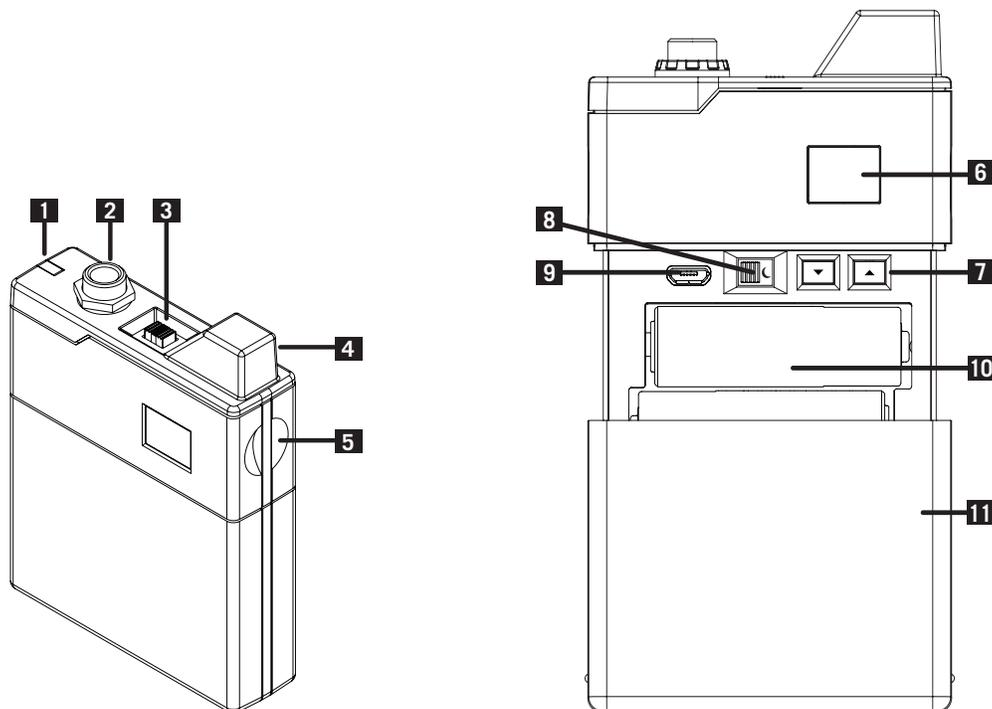
The Relay TB516 G Transmitter

1. **Battery Status –** This LED illuminates green when the Transmitter is powered On, and more than 1 hour of battery operation time remains. It flashes yellow when less than 1 hour, and flashes red when less than 30 minutes of battery operation time remain.

    Note: Battery operation time is calibrated for 2x AA Alkaline batteries - actual times may vary when using non-alkaline batteries.

2. **Guitar Input –** Plug in the included guitar cable here.* To lock the cable, simply plug in the end with the locking collar and gently twist so that it fastens onto the exposed thread of the Transmitter's input jack. DO NOT OVERTIGHTEN. To unlock, spin the collar counter-clockwise and pull the plug out.

    * Note: You can use regular ¼" guitar cables as well.

If you own more than one Transmitter, it's a good idea to use one of the different colored hex nuts included in the box to help you easily identify each Transmitter at a glance. Your Relay Receiver's Scenes allow you to configure a matching LED color as a reminder for which Transmitter is in use - see .
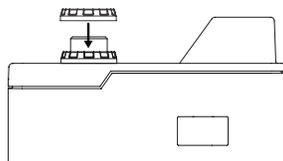
Remove the existing black nut and replace it with one of the included 6 colored hex nuts

3. **Power On/Off –** Turns power On when working batteries are installed. The Transmitter will automatically sync with the Receiver in about 1 second.

4. **Antenna –** The calibrated internal antenna avoids damage or deformity in normal use. Avoid covering the antenna with metallic fabrics or accessories, and avoid direct contact with parts of the performer's body for best results. Putting the Transmitter in your front pants pocket may reduce range, so use a back pocket if you don't want it on the strap or a belt

5. **Battery Door Release –** Press on both sides of the Transmitter at the same time to open the battery door. See #11 below for details.

6. **Channel Display –** Channel **1-16** is indicated after pressing the **Channel Select** buttons (see #7).

7. **Channel Select –** Slide the **Battery Door** (#11) open to access these buttons. Press the ▲ Up or ▼ Down button once to light the Channel number indicator. Press either Up or Down to change the Channel. The Channel number will flash in the **Channel Display** (#6) for 2 seconds* after the Channel is selected, indicating the Channel change has been executed.

    *Note: The transmitted Channel does not immediately change while selecting the Up and Down buttons in order to avoid conflicting with other active Transmitters.

8. **Auto-Sleep Switch –** Slide the **Battery Door** (#11) open to access this switch. Place the switch in the ☾ position to enable the **Auto-Sleep** feature. When enabled, the Transmitter will automatically go into Standby/Sleep mode after 2 minutes without any movement or audio detected. With this feature On you can turn down your volume knob and place your guitar in a stand during set breaks and minimize your battery drain without having to power the Transmitter Off.

9. **Micro USB –** USB connectivity is used for firmware updates, should they be needed in the future. The latest firmware updates can be found at http://line6.com/software/

10. **Battery Compartment –** Requires two AA batteries for proper operation.

11. **Battery Door –** Slides open in 2 stops: the 1st stop allows access to the **Channel Select** (#7) buttons and **Auto-Sleep Switch** (#8), the 2nd stop provides full access to removable batteries.

RELAY G70 & G75 RECEIVER

This Chapter provides details on the features and functionality of the Line 6 Relay® G70 and G75 Wireless Receivers.

Receiver Features

Relay G75 and G70 Receivers
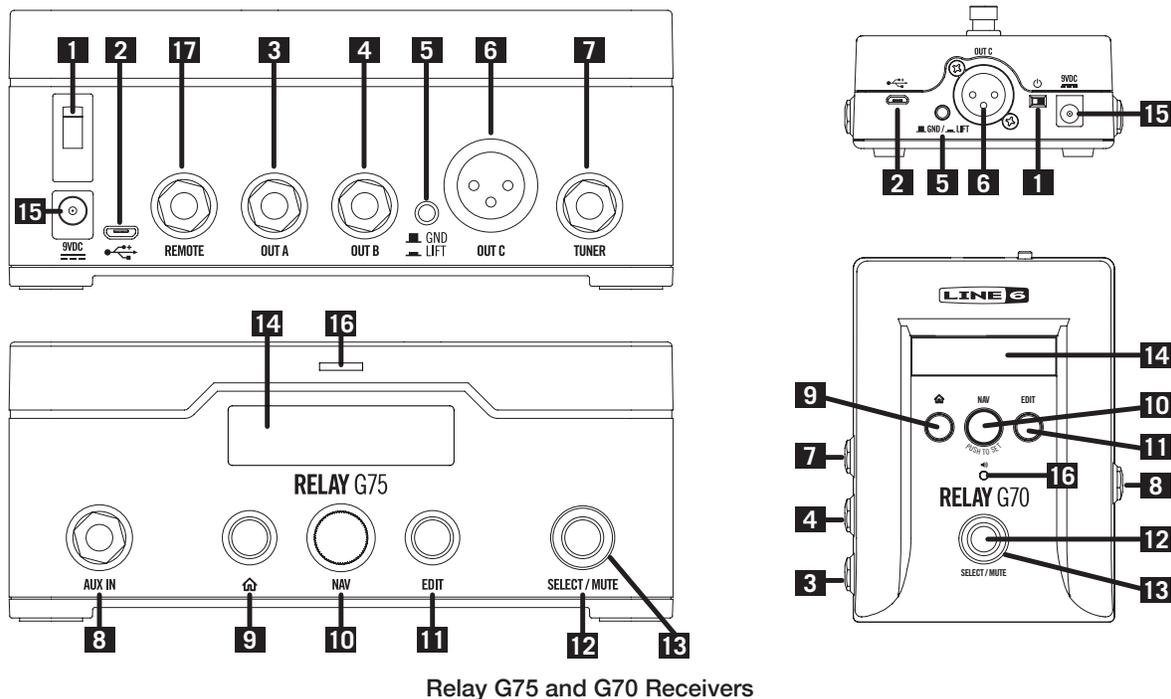
1. **Power:** Use this switch to power the Receiver On or Off.

2. **Micro USB:** Use as primary DC (5VDC /1A) power with included cable and AC adapter, and for the installation of firmware updates.

3. **Out A:** A 1/4" unbalanced, full-performance output intended to drive a guitar/bass amplifier, stomp box or multi-effects device inputs.

4. **Out B:** Like **Out A**, this is a 1/4" unbalanced output, but can be configured separately within your Scenes - such as for connecting to an additional amplifier or separate monitor system.

5. **Ground Lift:** Toggle this switch to disable pin 1 of the XLR **Out C** for "ground lift," which can be used to remedy grounding noise issues.

6. **Out C:** An XLR balanced output with ground lift - perfect for connecting to a PA, or other XLR inputs. This output can be configured separately within your Scenes from **Out A** and **Out B**.

7. **Tuner Out:** A 1/4" output with a guitar level signal. The **Tuner Out** is always active and cannot be muted via Scene control, which is intended for connecting to a separate Tuner. Note that your Relay Receiver also includes its own built-in Tuner - see .

8. **Aux In:** An Auxiliary Input for wired performance - handy for keeping another guitar plugged in, or as a "safety net" in case of forgotten or failing Transmitter batteries. The default mode for the **Aux In** is "**Always On**," as set in the global preferences. In this mode the **Aux In** is active in any Scene where the assigned Transmitter is Off, or in any Scene where the **Aux In** is set as the Channel input. If the global preference is set to "**Scene Only**" the **Aux In** will only be active in Scenes where it is the designated Channel input.

9. **Home Button:** This navigation button returns the LCD to home screen display content. See "The Home Screen" on page 4•3.

10. **Nav/Select Encoder:** This is your primary navigation control. Rotate the Encoder knob to choose a selection - push it to activate the current selection. When the **Home Screen** is displayed, the Encoder allows you to scroll up or down through all the Scenes you have created. Press the Encoder to activate a Scene. Also see "Edit Mode" on page 5•1 for details on navigating the editable parameters for your device.

11. **Edit Button:** Press to enter **Edit Mode** where you can access Scene and Input parameters. See "Edit Mode" on page 5•1.

12. **Select/Mute Switch:** Use this footswitch (G70) or button (G75) to cycle sequentially through existing Scenes. Press and hold the switch for 2 seconds to Mute all outputs and/or activate the internal Tuner.

    Note: The Receiver's built-in Tuner is available only when nothing is plugged into the Tuner Output.

13. **Switch Color Ring:** The color of this LED ring surrounding the **Select/Mute** switch is user-defined per Scene, providing a visual indicator for which Transmitter is currently active - see the Transmitter details on page 3•1.

    The Color Ring maintains steady brightness when the RF signal is good and flickers whenever the RF reception is poor. It also blinks to indicate several different states - see "Edit Mode" on page 5•1 for details.

14. **LCD Display:** This monochrome LCD is the main information source for your wireless setup. Its **Home Screen** displays active Transmitter Channel or Input, active Output Routing and Battery Life. Its **Edit Mode** screen displays settings for cable tone, gain, and other preferences.

15. **9VDC Input:** Optional 9VDC 500mA DC.

    Note: The compatible Line 6 **DC-1g** or **DC-3g** 9V power supplies are available separately from your Line 6 dealer, or from the Line 6 Online Store.

16. **Audio LED:** Lights green to indicate audio reception. Lights red to indicate clipping. The **Audio LED** is also utilized as a tuning indicator when your Receiver is in **Tuner Mode** - It turns red when sharp or flat, and green when within ± 3 cents of the target note (see page 5•13 for more about the built-in Tuner).

17. **Remote (G75 only):** Connect a momentary footswitch* to provide foot-operated Scene changes, similar to the footswitch functionality on the G70.

    *Works with either momentary closed or open footswitch types. The **Remote** jack automatically detects when a footswitch is connected, and can detect polarity switch changes as well.

The Home Screen

As noted in the previous section, you can press the Receiver's **Home** button to instantly return to the **Home** screen within the LCD. This screen serves as the "dashboard" for your wireless setup and provides several important indicators.
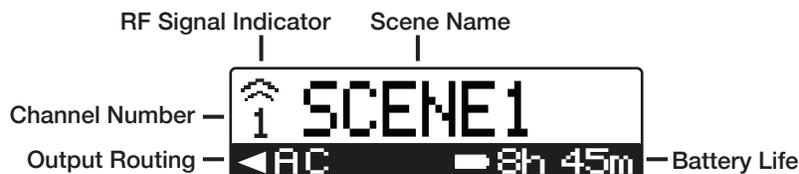
The Receiver Home Screen

Channel Number: Displays the wireless channel number (**1**-**16**) currently in use. Or, if the current Scene is set to **Aux In**, you'll see an "input jack" ⊙ indicator displayed here in place of a number.

RF Signal Indicator: You'll see the "waveform" icon above the Channel number here when a wireless signal is detected from your Transmitter on the indicated Channel. When no RF signal is detected (or when using the **Aux In**) the waveform icon is not displayed.

Scene Name: Displays the user-definable name for the current Scene. (See the "Renaming a Scene" on page 5•3 for details.)

Battery Life: The Transmitter's remaining battery time is displayed here, rounded to 15 minute increments. Note that nothing is displayed here when **Aux In** is in use, and if there is no wireless connection with your Transmitter, you'll see a **NO TX!** warning here.

Output Routing: The specific Receiver Outputs currently in use are displayed here (**A**, **B**, **C**, **A+B**, **A+C**, **B+C**, **A+B+C** or **MUTE ALL**).

How To...

This Chapter provides instructions for configuring your Line 6 Relay® Receiver & Transmitter, as well as several tips and feature descriptions to help you get the most out of your new wireless system.

About Scenes

First, it is important to understand the concept of "Scenes," as used in your Relay wireless system... As mentioned in the "Quick Start" chapter, your Relay Receiver & Transmitter are configured with factory default settings allowing them to work together right out of the box (both set to Channel 1). But we've offered quite a bit more flexibility, where you can customize several settings and save them all in a preset, which we refer to as a "Scene." By creating several Scenes on your Receiver, it is then possible to instantly recall these settings with the "stomp" of a switch, allowing you to easily change to a different instrument and/or Transmitter, route your instrument signal to different destinations, and recall different Gain and Cable Tone settings. The following sections cover all the details for creating and working with Scenes, so read on to start personalizing your Relay to best suit your performance needs.

Edit Mode

To modify individual parameters for your current Scene, you will need to enter **Edit Mode**. Also note that, while in **Edit Mode**, pressing the **Select/Mute** footswitch (G70) or button (G75) cycles through your saved Scenes, providing edit access to other Scenes' parameters without having to return to the Home screen just to get to the settings of another Scene.

Parameter Name
Up to 3 parameters visible at a time - scroll to access all

Value
(Functional parameters display no value here)

Input Icon
Wireless icon shown when signal present
(AUX input displays an input jack)

Scroll Bar
Indicates vertical menu list position

Edit Mode - Editing a parameter
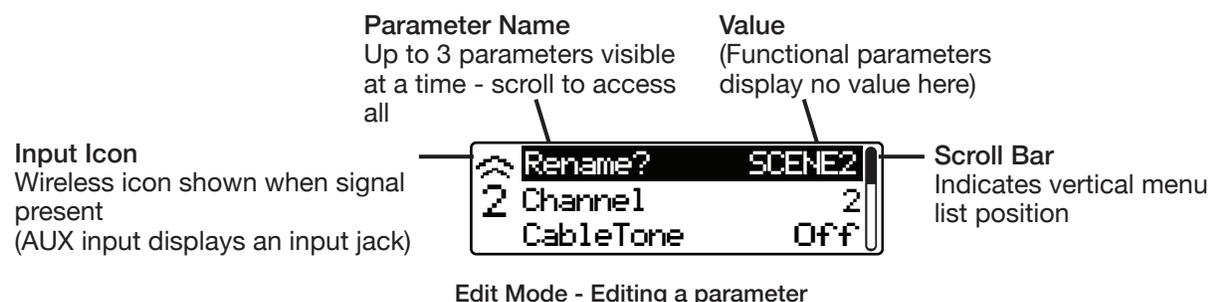
Editing Scene Parameters

- Press the **EDIT** button to enter **Edit Mode**.
- Once in the **Edit Mode** screen, turn the **Nav/Select Encoder** knob to highlight the parameter you wish to edit.
- Push the Encoder to access the options for the selected parameter.
- Turn the Encoder to the desired value.
- Push the Encoder again to accept the displayed value - or, if you want to cancel the change, press the **EDIT** button.

- Select the next parameter within the Scene to edit and repeat.
- When finished, press the **HOME** button to exit **Edit Mode** - your changes are automatically saved in the Scene.

    Tip! Note that while in **Edit Mode**, you can press **Select/Mute** at any point to edit another Scene, rather than having to exit to the **Home** screen.

When highlighting each parameter in **Edit Mode**, note that the symbol at the left of the screen changes to indicate the parameter type:

- The Channel number or Aux Input symbol ◉ is displayed, indicating the setting is applied only for the current Input, and only for the current Scene.
- The "add" symbol ⊕ indicates that a new Scene will be created.
- The "gear" symbol ⚙ indicates a global setting, meaning it affects *all* Scenes and Inputs.

Editable Parameters

TYPE	PARAMETER	VALUES	DEFAULT VALUE
Per Scene Ch. **1-16** or Aux In ◉	Rename?	Up to 8 characters	"SCENE1" initially - Automatically defaults to the name of the Scene in use when Edit Mode was entered
	Channel	1 - 16, AUX, SCAN	1
	Cable Tone (in feet)	Off, 3', 5', 10', 15', 20', 25', 30', 40', 50', 60', 70', 80', 90', 100'	Off
	Cable Tone (metric)	Off, 1, 1.5, 3, 5, 6, 8, 9, 12, 15, 18, 21, 24, 27, 30 Meters	Off
	Output	A, B, C, A+B, A+C, B+C, A+B+C, Mute All (Tuner Out is always on)	A+C
	Gain	-18dB to +12dB with 1dB resolution	0dB (unity gain)
	Scene Select Switch Color	Green, Blue, Orange, Purple, Aqua, White	Green
	Remove (*Scene Name*)?	Cancel, OK	Cancel
Add ⊕	Add Scene	CH. 1 - CH. 16, AUX, AUTO	New Scenes default to the Channel assigned to the Scene in use when Edit Mode was entered
Global ⚙	LCD Brightness	Low, High	High
	Aux In	Always On, Scene Only	Always On
	Info?	Lists firmware version for Receiver (and Transmitter, if in use)	
	Factory Reset?	Cancel, OK	Cancel

Renaming a Scene

The name that appears defaults to the name of the Scene that was in use when you entered Edit Mode. To rename a Scene do the following:

• Press the **EDIT** button to enter **Edit Mode**.

• Rotate the Encoder until "**Rename?**" is highlighted and press the **Nav/Select Encoder**.

• Move the cursor to the character you want to modify and press the Encoder to enable character editing.

• Rotate the Encoder to select the new character and push to commit. Characters available are: **A-Z** (caps only), **0-9**, and **- + = ! @ # $ % ^ & * ( ) [ ] ? ; : ' " , < > / **

• When finished, rotate the Encoder until **Done** is highlighted and push the Encoder button. The display will return to **Edit Mode**, with your new Scene name shown.

⌂ Rename? 2 **A**COUSTIC Done	⌂ Rename? 2 A**C**OUSTIC Done	⌂ Rename? 2 ACOUSTIC **Done**
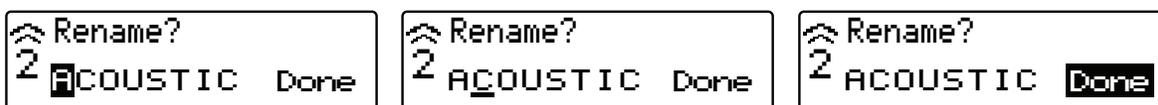
Renaming a Scene

Selecting a Channel (Manual and Auto Scan)

The **Channel** parameter sets the Channel that your Receiver "listens" on for the RF signal from your Transmitter. By default, both your G70/G75 Receiver and TB516 G Transmitter are set to Channel 1, allowing them to work together without any Channel change needed. However, if you are experiencing interference with Channel 1, you can use this parameter to change the Receiver to a different Channel, at which point your Transmitter's Channel will need to be changed to match. Alternatively, you can choose **AUX** to use the Receiver's Aux Input.

```
⌂ Rename?        SCENE2▐
2 Channel            2▐
  CableTone        Off▐
```
Editing the Channel

There are two methods for selecting the Receiver Channel: manually or using the Auto Scan feature, both of which are covered in the following steps.

Note: It is also possible to configure multiple Transmitters to work with your Relay G70/G75 Receiver. Please refer to for details.

• While in **Edit Mode**, select "**Channel**" and press the **Nav/Select Encoder**.

• **To Select a Channel Manually:** Turn the Encoder to the desired Channel and press the Encoder to engage it.

• **To Select a Channel with Auto Scan:**

  • Make sure the Transmitter you are working with is *Off* before initializing the scan, or else the **Auto Scan** feature will assign a different, unused Channel.

- If other players in your band or production are using 2.4GHz devices, make sure their devices are powered *On* and transmitting when you do the Auto Scan. This allows the Scan to identify the existing Transmitter devices' Channels and choose another, unused Channel for your device.
- Turn the Encoder to **AUTO** and press the Encoder button. The Receiver will scan the radio spectrum, determine the best Channel, and return that information for you to accept or discard.

Setting the Cable Tone Feature

Unlike other wireless systems, Relay never compresses your signal—you always get full frequency response and wide dynamic range. Players who traditionally use long guitar cables may find the Relay system to sound "bright" as a result. The **Cable Tone** feature allows you to replicate the unique treble roll off that guitar cables naturally create, in varying lengths from 3'-100', and save the setting in each Scene.

- While in **Edit Mode**, select "**CableTone**" and press the **Nav/Select Encoder**.
- Choose to toggle the feature **Off**, or select the desired cable length (displayed in feet and meters) - longer lengths affect the tone more dramatically.
- Press the **Nav/Select Encoder** to commit your cable length selection.

```
 ⌂ Rename?          SCENE2
 2 Channel              2
 CableTone       15'(5m)
```
Edit Mode - CableTone parameter selected

Configuring the Receiver Outputs A, B and C

Your Relay Receiver offers three audio Outputs, allowing you to create custom routing options and save each within a Scene. You may use any one, or any combination of all three of these Outputs in any Scene.

As an example setup, you may want one Scene for an acoustic guitar, where you would set the **Output C** (XLR) to run directly to the PA mixing board. You may want another Scene for your electric guitar, where you would set **Output A** (1/4") to run into your pedalboard/guitar amp. Further, you could also utilize **Output B** (1/4") to feed the same electric guitar signal simultaneously to another amp. If you own multiple Transmitters, this Output routing can be even more useful, allowing you to save custom routing Scenes for each Transmitter (please see). Follow these steps to configure the Output options for a Scene:

- While in **Edit Mode**, select "**Output**" and press the **Nav/Select Encoder**.
- Choose the hardware output (**A**, **B**, **C**, or any combined option) for the Scene. Or, select **MUTE** to mute all outputs (it can be useful to have a completely muted Scene available that you can switch to, should you need to silently unplug cables, such as when moving a Transmitter from one instrument to another during the gig).

· Press the **Nav/Select Encoder** to commit your selection.

```
⌒ Output          A+C ▐
2 Gain          +0dB ▐
  Switch Color  Green▐
```
Edit Mode - Output parameter selected

Setting the Gain for Each Scene

Each Scene offers a **Gain** parameter, allowing level adjustment from a boost of **+12db** to an attenuation of **-18db**. This can be useful not only for balancing the level of different instruments and optimizing Relay's output for different gear (pedals and amps, or line-level rack equipment), but also for creating a boost patch with up to +12db of gain, to push a guitar solo. To set the **Gain** level for the current Scene, follow these steps:

· While in **Edit Mode**, select "**Gain**" and press the **Nav/Select Encoder**.
· Turn the Encoder knob to choose the desired dB level.
· Press the **Nav/Select Encoder** to commit your selection.

```
⌒ Output            A▐
1 Gain          +3dB▐
  Switch Color   Blue▐
```
Edit Mode - Gain parameter selected

Changing the Switch Color Ring

The color of the LED ring surrounding the **Select/Mute** footswitch (G70) and push button (G75) is user-defined per Scene, providing a handy visual indicator for which Transmitter is currently active (see the Transmitter details on). Choose the desired LED color for the current Scene with the following steps:

· While in **Edit Mode**, select "**Switch Color**" and press the **Nav/Select Encoder**.
· Turn the Encoder knob to choose the desired color.
· Press the **Nav/Select Encoder** to commit your selection.

```
⌒ Output            C▐
3 Gain          +0dB▐
  Switch Color Purple▐
```
Edit Mode - Switch Color parameter selected

Tip! Use the included colored hex nuts to mark your Transmitter accordingly by replacing the black plastic nut on the Transmitter input - see .

Removing a Scene

It is possible to delete previously-created Scenes, with the exception that one Scene must always remain on the Receiver. To remove a Scene:

- Press the **Select/Mute** footswitch (G70) or button (G75) to navigate to the Scene you wish to delete.
- Enter **Edit Mode** and rotate the **Nav/Select Encoder** to select **Remove XXXXX** (where "**XXXXX**" is the name of the Scene you selected in the first step).
- If you are sure this is the Scene you wish to delete, turn the Encoder to select **OK**, otherwise leave **Cancel** highlighted.
- Press the Encoder to commit your selection.
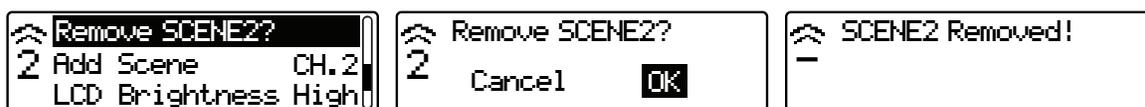
Edit Mode - Removing a Scene

Adding a Scene

There are different reasons for why you may want to create additional Scenes on your Receiver, such as:

- To store different parameter settings (**Gain**, **Cable Tone**, **Switch Color**, etc.) that might work better when you move your Transmitter to a different instrument.
- To create a Scene that utilizes only the **Aux Input** of your Receiver.
- To create a Scene with all Outputs muted, so you can safely unplug cable connections during a gig.
- To add one or more additional Transmitters for use with your Relay Receiver, where each Scene can be set to use a specific Transmitter/Channel.

Below are the basic steps for how to create a new Scene. It is also recommended that you read through to gain a deeper understanding of the use of multiple Transmitters in your setup.

- While in **Edit Mode**, select "**Add Scene**" and press the **Nav/Select Encoder**.
- Turn the Encoder knob to choose the desired Channel **1-16**, select **AUX** (to receive only the Receiver's Aux Input signal) or choose **AUTO** to have the Receiver run its Auto Scan for unused Channels.
  - **If using AUTO Scan:** Be sure to power your Transmitter Off, then press the **Nav/Select Encoder** and follow the screen prompts for configuring your Transmitter to the recommended Channel.

Edit Mode - Adding a Scene: using Auto Scan

- **If manually selecting a Channel or AUX Input:** Press the **Nav/Select Encoder** to commit your selection.

```
⊕ Remove SCENE2?        ⊕ Remove SCENE2?
  Add Scene     CH.2       Add Scene     CH.3
  LCD Brightness High      LCD Brightness High
```

Edit Mode - Adding a Scene: manually selecting a Channel

Note: If you are using one single Transmitter, it is typically best to keep the Channel number for all Scenes set to the same Channel as set on your Transmitter.

Adjusting the Receiver's LCD Screen Brightness

If you are having trouble reading the LCD screen on your Relay Receiver, try adjusting the brightness as shown below. Note that this is a "global" option and, therefore, affects the display regardless of what screen is shown.

- While in **Edit Mode**, select "**LCD Brightness**" and press the **Nav/Select Encoder**.
- Turn the Encoder knob to choose the desired brightness level.
- Press the **Nav/Select Encoder** to commit your selection.

```
⊕ Remove SCENE2?
  Add Scene     CH.2
  LCD Brightness High
```

Edit Mode - Adjusting the LCD Brightness global parameter

Configuring the Aux Input

This section determines the behavior of the **Aux In** jack. Note that this is a global setting and, therefore, affects the **Aux In** behavior in all Scenes. Configure this option as follows:

- While in **Edit Mode**, select "**Aux In**" and press the **Nav/Select Encoder**.
- Turn the Encoder knob to choose the desired mode:
  - **Always On** - You'll hear the Aux In signal if no Transmitter is detected *or* if the Scene's **Edit Mode - Channel** option is set to **AUX**. This can be very handy if you forget, or decide not to use, Transmitters for a gig. All the programmed routing in every scene will just use the **Aux In** instead.
  - **Scene Only** - You'll only hear the Aux In signal if the Scene's **Edit Mode - Channel** option is set to **AUX**. If the Transmitter is Off, you will *only* hear a signal from the **Aux In** if you have configured the Scene's Channel option to use the **Aux In**.
- Press the **Nav/Select Encoder** to commit your selection.

```
⚙ Aux In      Always On
  Info?
  Factory Reset
```

Edit Mode - Configuring the Aux In global parameter

Checking the Info Details for your Receiver and Transmitters

The **Edit Mode** - **Info** option displays the current firmware versions for your Receiver, as well as for Transmitters that you currently have in use.

- While in **Edit Mode**, select "**Info**" and press the **Nav/Select Encoder**. The display will show the Firmware version for the Receiver.

Edit Mode - Info screens showing Receiver's Firmware version

- If a Transmitter is synced to the Receiver, the **Next** menu will appear. Select **Next** to display the Transmitter's Firmware version, or **Close** to exit.
  - Transmitter Info will only be displayed for the Transmitter actively in use for the current Scene.
  - To check Info on a Transmitter that is currently active on another Channel, select a Scene with the desired Transmitter assigned to it, and repeat the steps above.

Edit Mode - additional Info screens showing the assigned Transmitter's Firmware version

Performing a Factory Reset

Should you ever need to completely restore your G70/G75 Receiver back to the original factory settings, you can use the **Factory Reset** option.

⚠ **Note that this action will permanently erase all Scenes and Transmitter pairings, and set all parameters back to their default settings.**

To perform a **Factory Reset**:

- From the **Edit Menu**, select "**Factory Reset?**" and press the **Nav/Select Encoder**.
- Turn the Encoder to select **OK** if you wish to proceed with the reset, or **Cancel** to exit.
- Press the Encoder button to commit your selection.
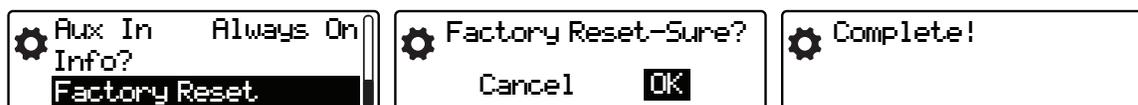
Edit Mode - Factory Reset

Adding Additional Transmitters to your Receiver

The G70/G75 Receivers provide the ability to switch between multiple Transmitters at the push of a switch. This allows you to set up several instruments each with their own dedicated Transmitter, and then switch instruments quickly and safely without having to worry about turning a Transmitter On and Off and moving it to a different instrument during your performance.

Adding an additional Transmitter is achieved by creating a new Scene and configuring a unique Channel to communicate with the new Transmitter. The G70/G75 Receivers offer two methods for adding a Transmitter: using **Auto Scan** or manually.

Adding Transmitters Using the Auto Scan Method

- Press the **EDIT** button on your Receiver to enter **Edit Mode**.

- Turn the **Nav/Select Encoder** knob and select "**Add Scene**" from the menu - press the Encoder knob.

```
⊕ Remove SCENE2?
  Add Scene        CH.2
  LCD Brightness High
```

- Rotate the Encoder until **CH. AUTO** appears - press the Encoder knob.

```
⊕ Remove SCENE2?
  Add Scene     CH.AUTO
  LCD Brightness High
```
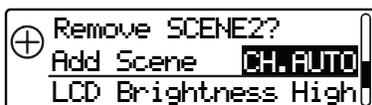
- The display will instruct you to turn your new Transmitter **Off** so it can do a clean scan. Note that you should leave any existing Transmitter that you already have configured with the Receiver powered On, and **Auto-Sleep** mode turned Off - this way the Auto Scan will detect it and choose an unused Channel for the new Transmitter you are adding.

```
⊕ Make sure new Tx is
  powered off...
        Next>
```

- When the new Transmitter's power is Off, select **NEXT** and press the Encoder.

- The Receiver will scan the spectrum, recommend a clean Channel, then prompt you to turn On the new Transmitter and set its Channel. (For details on setting the Transmitter's Channel, see [page 3•2](#).)

```
⊘ Scanning...
```
```
⊕ Turn on new Tx and
  set to channel 13...
        Next>
```
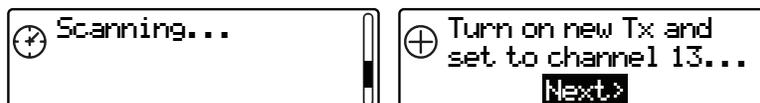
- Select **Next** - the screen will confirm that the Transmitter was found and inform you what **Switch Color** was set. You can change the **Switch Color** for the Scene later if desired - see ["Changing the Switch Color Ring" on page 5•5](#).

```
⊕ TX 13 Found!
  Switch Color Green
  Cancel         OK
```

- If all is correct, turn the Encoder to **OK**, otherwise select **Cancel**, then press the Encoder knob to commit your selection and exit.

- Your new Scene is now created and configured to use your new Transmitter on its own dedicated Channel. Note that you can also go back into **Edit Mode** for this Scene and customize its other settings as desired (Rename it, adjust the Gain, CableTone, etc.) - see "Edit Mode" on page 5•1 for details.

Adding Transmitters Using the Manual Method

The only requirement for this Manual workflow is that, if you are to be using more than one Transmitter with your Receiver, each Transmitter must be set to use its own separate Channel. The steps below will show experienced wireless users how to set up a new Transmitter manually.

- Press the **EDIT** button on your Receiver to enter **Edit Mode**.

- Turn the **Nav/Select Encoder** knob and select **ADD SCENE** from the menu - press the Encoder knob.

```
⊕  Remove SCENE2?
   Add Scene        CH.2
   LCD Brightness High
```

- Turn the Encoder to select the desired Channel - this should be the same Channel to which you set your new Transmitter.

```
⊕  Remove SCENE2?
   Add Scene        CH.3
   LCD Brightness High
```

- Press the Encoder to add the new Transmitter, then press the **HOME** button to return to the Home screen.

- With the new Transmitter powered On and set to the same Channel as this new Scene, the Switch Color ring surrounding the Select/Mute footswitch or button should now be solidly lit. If it is blinking, this indicates there is no wireless connection with the Transmitter. Verify that the Transmitter and Scene Channel are the same if you encounter a problem.

- Your new Scene is now created and configured to use your new Transmitter. Note that you can also go back into **Edit Mode** for this Scene and customize its other settings as desired (Rename it, adjust the Gain, Cable Tone, etc.) - see "Edit Mode" on page 5•1 for details.

Adding New Scenes for a Single Transmitter

The user interface for the G70 and G75 Receivers is designed to allow quick Input and Output changes via a single switch or button. Each Scene stores your desired **Input Source** (**Channel 1-16** or **Aux In**) and **Output Destinations** (Output **A**, **B**, **C** or any combination of **A**, **B** and **C** at the same time). Therefore, even with just one Transmitter you can configure several Scenes with several options to best suit your performance needs.

To add a new Scene for an existing Transmitter, follow the instructions for and set the Channel to the same number within each Scene you create.

Using One Transmitter with Multiple Instruments

The Relay G70 and G75 digital wireless guitar systems are ideal for players who prefer to use a single Transmitter with multiple guitars as well. There are several ways a player can choose to swap guitars, providing a range of flexibility:

- The Transmitter can simply be moved from one guitar to another, without any changes necessary on the Receiver. This is the simplest approach, and is suitable if there is no desire to change the Gain, Cable Tone, or Output for the alternate guitar.
- You can program a unique Scene Name, Gain & Cable Tone settings and specific Output destinations for each instrument as well, even though they are using the same Transmitter and assigned to the same Channel. For example, the following Scenes could be created:

SCENE NAME	CHANNEL	OUTPUTS	GAIN	CABLE TONE	SWITCH COLOR
ELECTRIC	1	A (1/4-inch, routed to amp)	+3dB	20 feet	Yellow
MUTE1	1	All Muted			Blue
ACOUSTIC	1	C (XLR, routed to PA/mixer)	0dB	None	Green
MUTE2	1	All Muted			Blue

Example of 4 Scenes created for use with one electric and one acoustic guitar, with a single Transmitter

- The MUTE1 and MUTE2 scenes can be used to silence the Receiver Output while moving the Transmitter between guitars.
- Stepping on the Select/Mute footswitch (G70) or button (G75) will cycle through the 4 Scenes on the Receiver - from **Electric** (routed to **Output A**, connected to a guitar amplifier), then to **Mute 1** (all Outputs muted), then to **Acoustic** (routed to **Output C**, connected the PA system), to **Mute 2** (all Outputs muted), then back to the **Electric** Scene again. Setting a different **Switch Color** for each guitar (and one for the Mute Scenes) makes it easy to know which setting you're on at a glance.

Note: Also see the next section for more about footswitch control over your Scenes.

Footswitch / Select Button Control

You can use the Receiver's "Stomp" feature (tap the footswitch on the G70 or press the **Select/Mute** button on the G75) to cycle between all the saved Scenes on your Receiver. Optionally, you can connect a momentary (closed or open) footswitch to the **Remote** jack on the back of the Relay G75 Receiver for footswitch control (see page 4•2 for more info on the **Remote** input).

Tap the footswitch (G70)

or

Select/Mute button (G75)
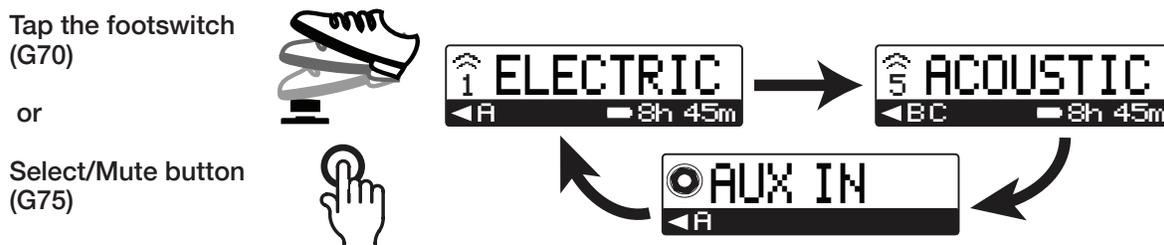
Navigating through Scenes using the G70 footswitch or G75 Select/Mute button

Note: You can alternatively turn the Encoder knob to cycle through Scenes - the selected Scene will blink in the display indicating that it is not loaded until you then press the Encoder button, allowing you to search for a Scene before actually engaging it.

Additional Scenes can be added or modified for alternate routings or additional Transmitters in the Receiver's **Edit Mode** - see "Adding a Scene" on page 5•6. Once you've created additional Scenes on your Receiver, the Stomp feature cycles through Scenes in the order created.

Tip! While in **Edit Mode**, the footswitch or **Select/Mute** button still allows you to cycle sequentially through your created Scenes. This makes it easier to edit parameters in several Scenes without switching out and back to **Edit Mode** again for each edit.

Color LED Ring Indicator

As covered on page 5•5, the Color Ring LED surrounding the G70 footswitch or G75 **Scene/Mute** button can be customized to your desired color to identify multiple Transmitters. This LED also has several additional illumination states that provide even more visual feedback about the incoming wireless signal:

- Maintains a steady brightness when the RF signal is good
- Flickers whenever the RF reception is poor
- Blinks steadily when Muted
- Blinks yellow when the Transmitter battery time is less than 1 hour
- Blinks red when the Transmitter battery time is less than 30 minutes

Using the Built-in Tuner & the Tuner Output

If no cable is plugged into the Receiver's **Tuner Output**, and the **Select/Mute** footswitch (G70) or button (G75) is held down for more than 2 seconds, all Outputs will mute and the Relay's built-in **Tuner** is displayed. The built-in chromatic Tuner is able to be used with any instrument that is connected to the current Scene's Transmitter Channel or Aux Input. Just pluck a note and adjust your tuning until the screen indicates it is "in tune." You'll also see that your Scene's current Channel input number (or Aux In symbol) remains displayed at the left of the LCD screen for easy reference. To exit **Tuner/Mute Mode**, press **Select/Mute** footswitch/button again, or press the **HOME** button.

Pitch indicator

Channel indicator

Sharp   Flat   In Tune
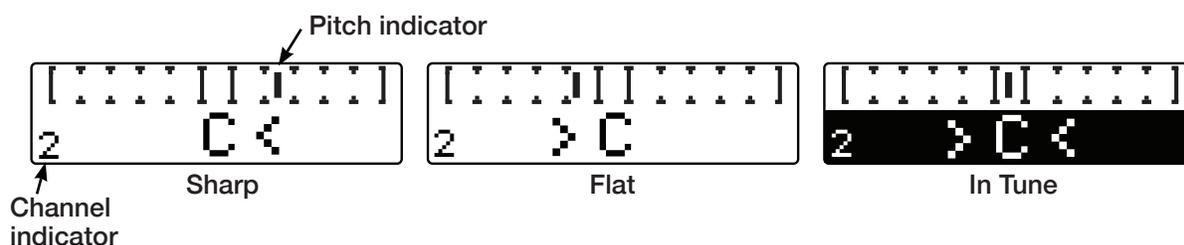
The G70/G75 Built-in Tuner screen

Using the Tuner Output

If you prefer to use your own external Tuner, just connect it to the **Tuner Output** on your Relay G70/G75 Receiver. Whenever a cable is plugged into the **Tuner Output**, holding down the **Select/Mute** footswitch/button will mute all Outputs *except* the **Tuner Output**, and the Receiver's LCD will display a flashing muted speaker symbol. This mute functionality allows you to use your external Tuner silently. To exit **Tuner/Mute Mode**, press **Select/Mute** footswitch/button again, or press the **HOME** button.

Transmitter Details (Relay TB516 G)

Locking Guitar Cable Connection

The Relay TB516 G Transmitter uses a very simple 1/4" guitar cable* input, with the ability to lock the cable to the Transmitter (see). Locking helps avoid accidental drops and inadvertent disconnections from random tugs or catches on the exposed guitar cable. To lock the cable, simply plug in the end with the locking collar and gently twist it so that it tightens onto the exposed threads of the Transmitter's input jack. Snug is fine, there is no need to make this connection extremely tight. To unlock, simply spin the collar counter-clockwise and pull the plug out.

*The locking feature requires use of the provided Line 6 cable. The locking cable is included in the box with the system, or can be purchased as an accessory using the part number 98-033-0072. The opposite (guitar) end of the cable is available with a right angle 1/4" plug as part number 98-033-0075.

Using Standard Guitar Cables

Regular 1/4" to 1/4" TS guitar cables work perfectly well with the Relay TB516 G Transmitter, with the exception that the locking feature is not supported.

Transmitter User Interface

The Relay TB516 G Transmitter is designed for fast, simple setup, with the live and studio performer in mind.

On/Off - Turns power On when working batteries are installed. The Transmitter will automatically sync with the Receiver in less than 1 second, so there is no need for a separate mute function on the Transmitter itself.

Channel Select - Press the ▲ Up or ▼ Down button next to the **Channel Display** once to light the Channel number indicator (see the **Channel Display** info on page 3•2). The current Channel is indicated by the dual 7-segment displays next to the Up and Down buttons. Press either Up or Down to change the Transmitter Channel. The Channel number will flash for 2 seconds* after the Channel is selected indicating the change has been executed.

*Note: The transmission Channel does not immediately change while selecting the Up and Down buttons, allowing you to navigate to the desired, available Channel without conflicting with other active Transmitters.

Auto-Sleep Switch - Enables/disables internal circuitry used to determine if the Transmitter is idle (i.e. - when no movement and no audio is detected from the Transmitter). Place the switch in the ☾ position to enable this feature (see the **Auto-Sleep Switch** info on page 3•2).

When **Auto-Sleep** is enabled, the Transmitter will automatically go into a low power/idle mode after two minutes pass without any movement or audio detected. This functionality allows you to simply turn down your instrument's volume knob and place the instrument in a stand during set breaks to minimize battery drain without having to power the Transmitter Off. While in idle mode, the Transmitter will check every 500ms for motion in order to turn back On. The Transmitter will be synced and ready to transmit no more than 2 seconds after detecting motion or audio at its input.

Batteries for your Transmitter

The Relay TB516 G requires two AA batteries for proper operation (also see the **Battery Compartment** info on page 3•2). Any battery type's dimensions that comply with ANSI C18.1M. Part 1-2001 will physically fit. Not all batteries comply with published standards, so it is a good idea to verify fit and compliance prior to purchase. Most higher quality AA batteries will fit fine.

A Few Tips on Battery Use...

- Always use name brand batteries that you trust.
- Lithium batteries will provide the longest possible run time, but they are more expensive than alkalines.
- Most pro users always use fresh batteries for each performance and keep the show-used batteries for rehearsals, where it may be okay to use them until they run all the way down.
- Rechargeable batteries are a great way to save money and provide a convenient power source for your Transmitter. Some rechargeable batteries expand and contract in size depending on the charge level. It is important to check the fit or ask the manufacturer of rechargeable batteries if they comply with ANSI standards when fully charged.

Battery Status Light

The **Battery Status** LED at the top of the Transmitter (also see page 3•1) illuminates solidly green when the Transmitter is powered On and when more than 1 hour of battery operation time remains. It flashes yellow when less than 1 hour and flashes red when less than 30 minutes of battery operation time remain. The Receiver **Home** screen also displays remaining battery time for the Transmitter in use with the current Scene - see "The Home Screen" on page 4•3.

Note: Battery operation time is calibrated for 2x AA Alkaline batteries - actual times may vary when using non-alkaline batteries**.**

Installing Firmware Updates

The Relay G70 & G75 Receiver and TB516 G Transmitter hardware incorporate updatable Firmware. It is highly recommended to periodically check for and install the latest Firmware updates to keep your gear operating at its best. Firmware updates are easy to perform by using the free *Line 6 Updater Utility* software.

Please visit line6.com/software to download the *Line 6 Updater Utility* for your Mac® or Windows® computer, then install the application. To follow are the steps for updating your Relay hardware - the steps are similar for the G70 & G75 Receiver as well as for the TB516 G Transmitter:*

*Line 6 recommends removing the batteries from the TB516 G Transmitter when updating Firmware.

- Connect your G70/G75 or TB516 G to your computer's USB port* using the supplied Micro-USB cable and power your device On.

   *A USB 2 or USB 3 type port is required to sufficiently power your device.

- When a G70 or G75 Receiver is connected to your computer's USB port and powered On, you'll see that it remains displaying the "Line 6" logo screen and the **Audio LED** above the LCD is solidly lit red, as shown below, indicating that the device is in **Update Mode**. If the Home screen is displayed on the Receiver instead, simply turn the Receiver power Off then back On again while connected to the computer via USB cable.

The Receiver in Update Mode

- Launch the *Line 6 Updater Utility* application and Sign In using your Line 6 account. If you do not yet have a Line 6 account, click on **Create Account** to do so, then return to the Updater screen and Sign In.

The Line 6 Updater Utility - Log In screen

- The Updater will detect your connected Relay device. Select it to allow the Updater Utility to check for available Firmware versions for the device.
- If a newer Firmware version is available than already installed on your device, select the latest Firmware and then follow the on-screen instructions to install it.

   Be sure not to change any settings, disconnect or power your Relay device Off until the Update process has fully completed.

TIPS FOR BEST OPERATION & HOOK UP EXAMPLES

In this chapter, we've provided several tips and hook up examples for your Line 6 Relay® Receiver & Transmitter devices for optimal wireless operation. The predominant rule for the best placement of your Relay G70 or G75 Receiver is "Line of Sight" - that is, the range and reception is optimal when there is an unobstructed line of sight between your Receiver and Transmitter. In particular, metal housings (e.g. - fully enclosed metal racks) and close proximity of metal objects (e.g. - tall pedals) to your Relay Receiver can block the wireless signal. Other wireless devices such as WiFi and In Ear Monitor systems can also disrupt your Relay system if positioned too near your Receiver.

About the Quad-Internal Antenna Array

The Relay G70 and G75 Receivers are the first to feature a *Quad-Internal Antenna Array* system. Simply put, this is a super-precise set of 4 internal antennas, plus two complete Receivers, all expertly aimed and tuned by our RF engineering team. The entire layout of both Receivers, including size, materials used and even the location of the display and Input/Output jacks, were expertly set to provide the best possible wireless reception.

Two Full Diversity Antenna Systems (4 Antennas)

Receiver #1   Receiver #2

Two Full-Time Radios Hopping to Multiple Frequencies
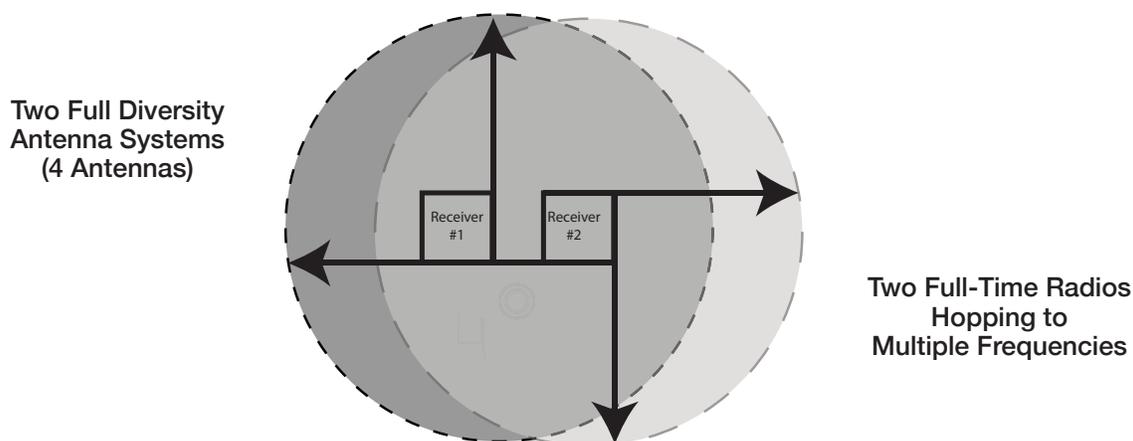
For the geeks out there among you (others feel free to skip to the next section), the Quad-Internal Antenna Array consists of two complete Receivers, each of which are working full-time to track and capture the entire Line 6 Relay wireless spectrum for 100% redundancy. Each Receiver has two dedicated antennas, expertly aimed by Line 6 RF engineering to provide 360 degrees of uniform coverage with true diversity. Finally, each antenna pair is set up to provide additional diversity between antenna systems as well as antenna pairs.

Interference Sources

All wireless users want to enjoy the freedom their wireless system provides without dropouts or interference. Your Relay G70/75 system features the Line 6 5th-generation radio technology, providing the most advanced dropout protection available:

- Advanced radio tuner protection against adjacent channel power
- Industry leading near/far performance
- Internal quad-antenna system calibrated for maximum coverage by Line 6

- Dual Receiver components, each working full-time to capture audio from each of three carrier frequencies (Quad-Internal Antenna Array)
- Shock resistant battery contacts in the Transmitter

Unfortunately, no wireless system can guarantee 100% error-free performance. With any wireless system, if the Transmitter signal is too low to be received, either because it is too far away or because interfering signals are masking it, your wireless system will no longer work properly. But with Line 6 digital wireless technology, you don't have to worry about audio interference noise getting into your signal, or pops and clicks occurring due to data errors. If the Transmitter signal can no longer be received, your audio signal will simply mute, regardless of the cause of the issue (out of range, too much interference, batteries have run out, etc.).

In order to minimize the chances of muting during a performance, it is recommended that you "walk test" your rig during sound check to get a sense of the range of the system in each environment you play. If your audio doesn't mute within the range you intend to perform, you're all set. If it does mute within the performance area, then it is possible that another transmitting device is interfering with your wireless signal. Here are some suggestions of what you can do to significantly reduce the chances of encountering an issue:

Metal and metal barriers: Make sure there are no metal objects adjacent to the antenna cover on either side of the Receiver (the bottom 20mm or 3/4 inch). It is best to maintain at least 2 inches (50mm) of clearance.

Other Transmitters: If you suddenly discover your range is significantly reduced, look to see where other Transmitters are relative to your Transmitter and your Receiver. Transmitters generally don't like other Transmitters getting too close to the Receiver they are paired with. In some situations, they can create a blocking signal, or transmit to each other, creating an interference source. The player will experience this as a very reduced range. This can happen when there are several other Transmitters very close to a Receiver. The Line 6 5th-generation radio technology will provide superior results in this situation compared to most other wireless systems, but best performance is achieved when this situation is avoided.

In Ear Monitor (IEM) System Transmitters: Keep IEM transmit antennas and Transmitters at least 10 feet (3 meters) away from your Relay Receiver. IEM systems are becoming more and more common in live performance. They are very convenient and greatly assist in managing stage volume, but if used incorrectly, they can interfere with wireless bodypack Transmitters.

The Relay wireless guitar system transmits from a battery powered bodypack running at relatively low power, typically about 10mW (100 times smaller than a watt). Low power provides long battery life and helps minimize interference between multiple Transmitters on a stage, both of which are beneficial features. But IEM Transmitters are typically mounted in a rack and plugged into AC mains, sometimes transmitting several watts. This is potentially many times more powerful than your Relay bodypack Transmitter. If the IEM Antenna is too close to your Relay Receiver it will act as a blocking signal and may significantly reduce the range of your wireless system.

WiFi: Understandably, WiFi can be an important part of your gig or worship service. There are ways to make sure WiFi and 2.4GHz digital wireless can both work in the same place at the same time.

- If possible, try setting all the WiFi operating in the area to 5.8GHz (especially the WiFi gear you bring yourself).
- Avoid placing Relay Receivers closer to WiFi hotspots than to the location where the Relay Transmitters will be used.
- Keep other WiFi sources, such as laptops and mixing remotes, at least 6 feet (2 meters) away from your Relay Receiver.
- The useful range on an outdoor stage or performance space may be reduced as compared to indoor spaces. It is best to keep your Relay Receiver as close to the performance space as possible.

- Easy to use built in RF scan automatically recommends the best channel to use in any environment. Please see "Adding Transmitters Using the Auto Scan Method" on page 5•9.

Pedalboard Mounting the G70 Receiver

As mentioned above, when affixing the Relay G70 to your pedalboard, you'll want to avoid taller metal objects (such as large pedals) from being close enough to block the G70's signal. It is also best to keep line of sight of the Receiver when wearing the Relay Transmitter.
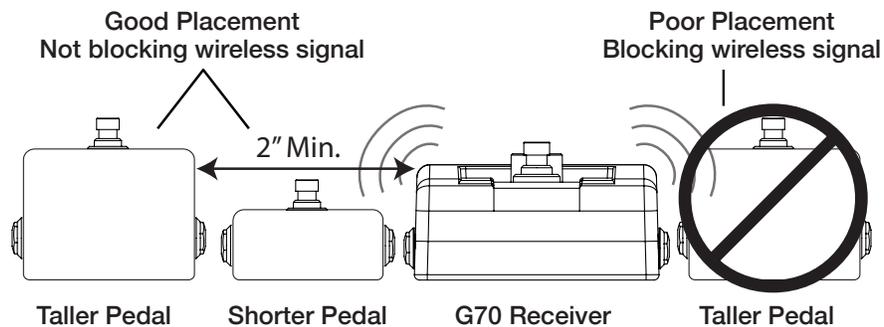
Examples of good and poor placement of Relay G70 on a pedalboard

Also see "Relay G70 Receiver Dimensions" on page A•3 for G70 measurements that can be useful for pedalboard planning.

To Each Their Own Channel

Another "best practice" is to ensure that all the players are on their own wireless Channel when performing in the same space at the same time. The Relay G70/G75 Receivers make it easy to switch between Transmitters or guitars with the use of Scenes (see **"Adding Additional Transmitters to your Receiver" on page 5•9**). However, if more than one Transmitter is using the same Channel and powered On at the same time, they can interfere with each other by causing dropouts or reducing the range.

The Relay G70/G75 systems feature an extremely fast sync time (less than 1 second), making it viable to simply power Off Transmitters for idle instruments. If you can comfortably manage power On and Off, or use separate, dedicated Transmitters for each instrument, then you can share the available Channels with more performers simultaneously. Relay G70/G75 systems provide an industry-leading 16 channels to choose from, accommodating more players in the band at the same time.

Example Hook Up Diagrams

To follow are a number of real-world hook up examples for using different instrument types & output destinations, in single and multiple Transmitter configurations.

G70/G75 Basic Single Instrument Hook Up
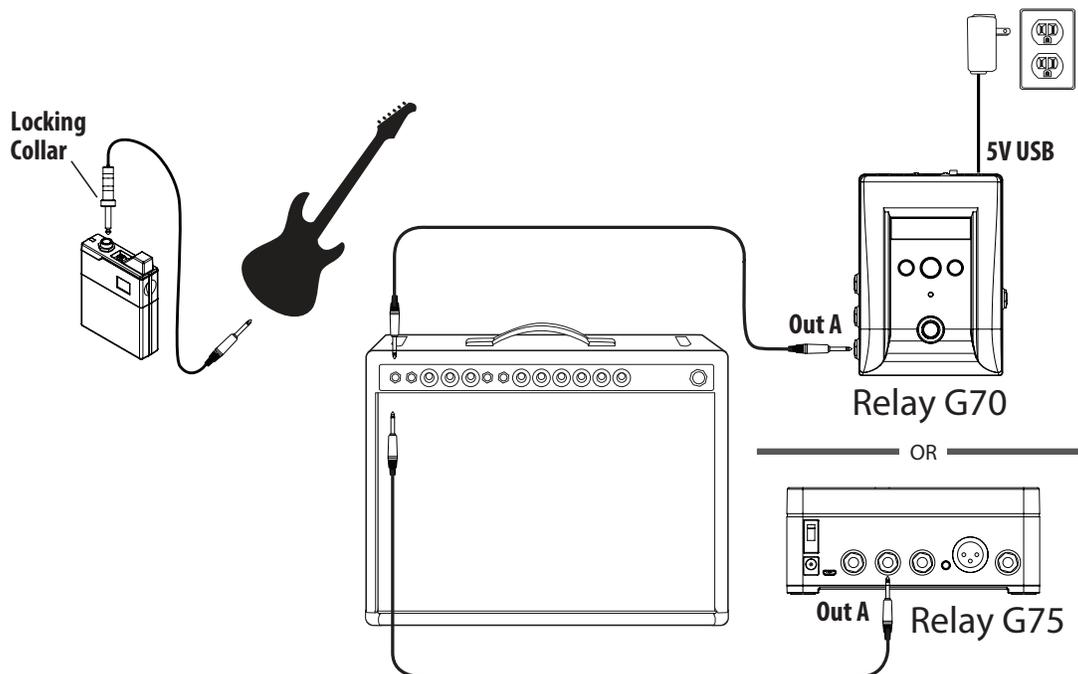
G70 Electric + Acoustic Guitar Hook Up

Amp / FX

External Tuner

5V USB

Scene1

Scene2

Scene3

OR

Tuner

Out A

RELAY G70
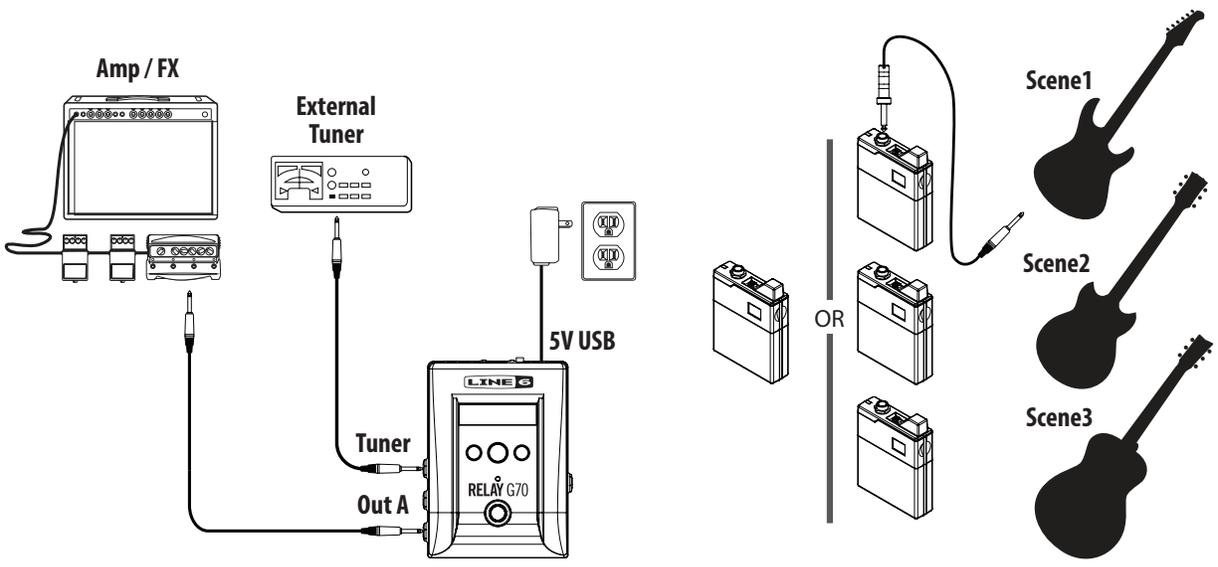
G75 Bass Guitar to Amp + PA Hook Up

Front of House / PA

Relay G75

Out C (XLR)

Out A

5V USB

Bass Amp

Scene1

OR

Scene2
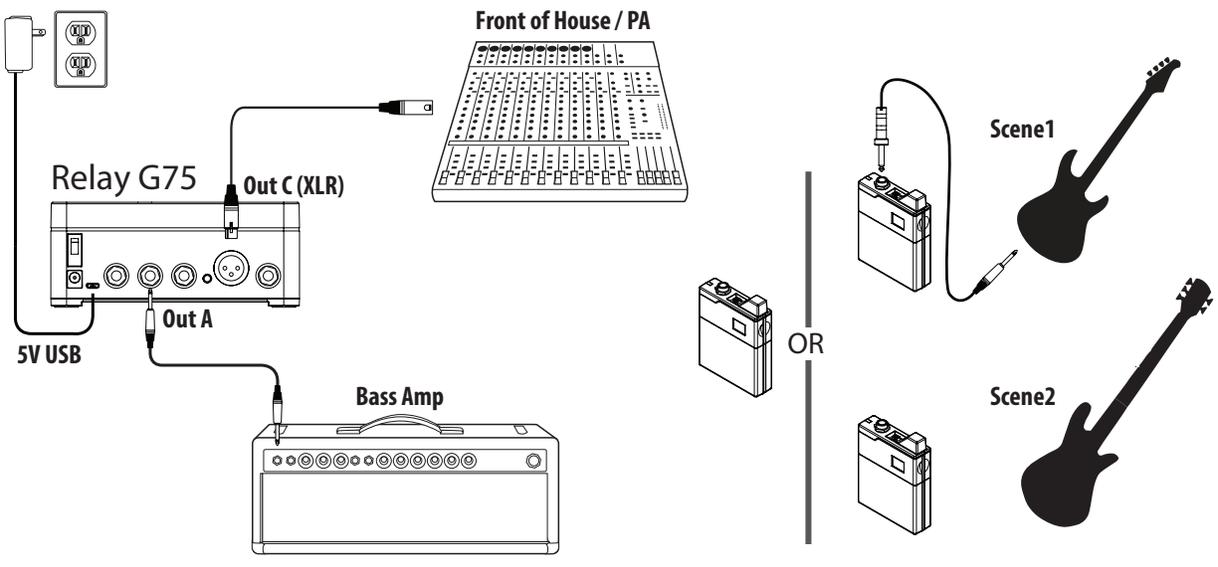
G70 Acoustic Guitar Direct to PA + Powered Monitor Hook Up

Front of House / PA

Relay G75   **Out C (XLR)**

Out A

5V USB

Monitor

Scene1

OR

Scene2
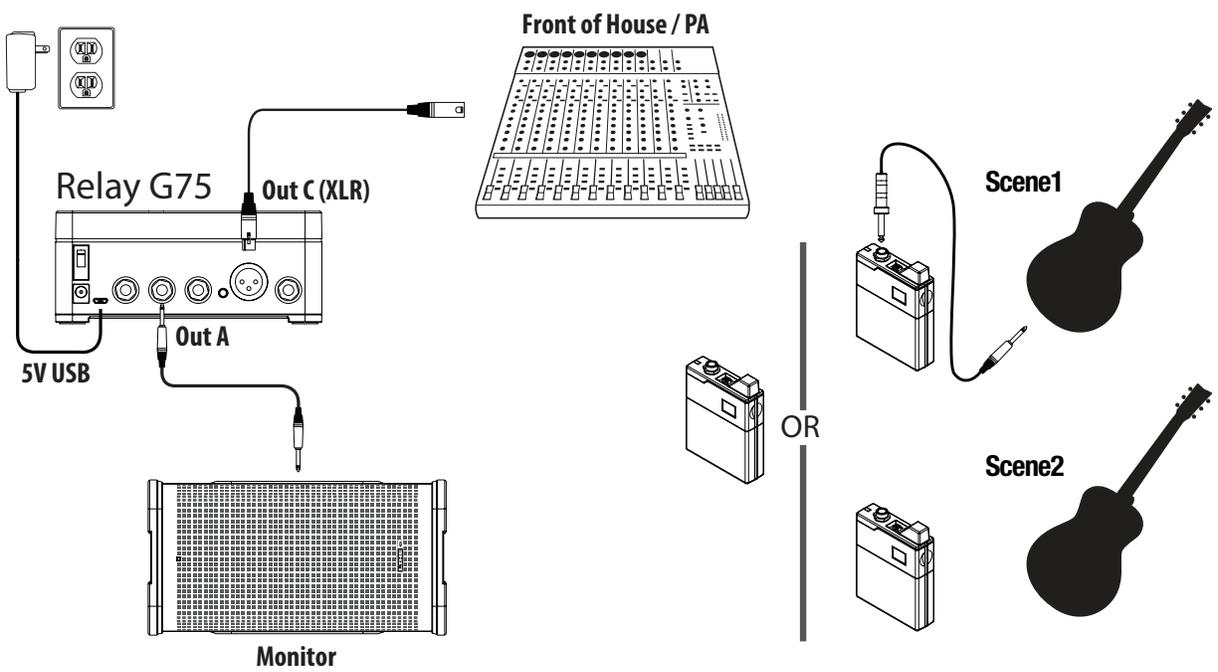
G70 Electric and Acoustic Guitar to Two Amps + PA Hook Up

Amp / FX (A)   **Amp / FX (B)**   **Front of House / PA**

Tuner   **Out C**

Tuner Out

5V USB

Out B

Out A

LINE 6

RELAY G70

SELECT / MUTE

Scene1

Scene2

OR

Scene3
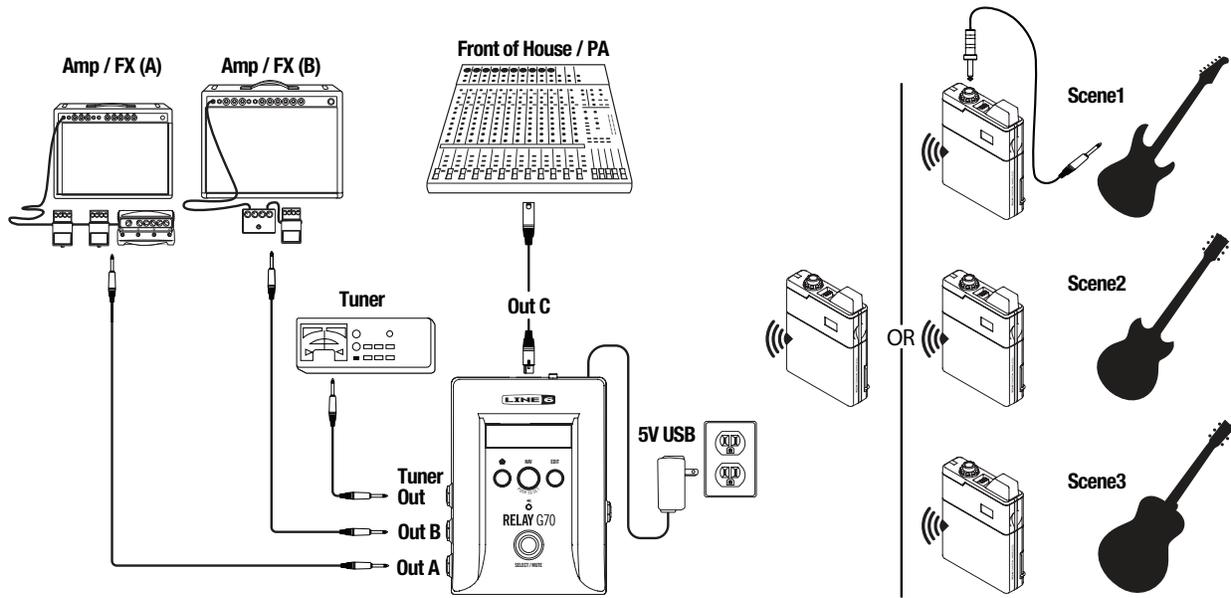
ADDITIONAL RESOURCES

Looking for more info? To follow are plenty of helpful online resources, just a click away...

Tutorials

Watch and learn how to get started, configure and get the most out of your new Relay Wireless system with informative Line 6 tutorial videos:

[Line 6 Relay Tutorial Videos](#)

Product Guides

Additional product documentation covering all Line 6 wireless systems and components is available from the Line 6 Support site:

[Line 6 Product Manuals](#)

Software Downloads

This is the place to find downloads of all the latest Line 6 drivers and software utilities:

[Line 6 Software Downloads](#)

Note: You'll want to download the free **Line 6 Updater Utility** to check for and install the latest Relay product updates - see .

Gear

Can't get enough Line 6 gear & accessories? Head on over to the Line 6 Store:

[Line 6 Online Store](#)

Support

Check out the Support page for access to helpful tips, discussion forums, or to contact Line 6 Technical Support:

[Line 6 Support](#)

APPENDIX: PRODUCT SPECIFICATIONS

Provided here are the Product Specifications for the Line 6 Relay® G70 & G75 System, Receiver and TB516 G Transmitter devices for your reference.

Relay G70 & G75 System Specifications

RELAY G70/G75 - SYSTEM SPECIFICATIONS	
Transmission Type	Digital
Operation Radio Band	2.4GHz ISM
Radio Mode	Frequency Hopping
Latency - Tx Input to Rx Output	< 1.5ms
System Lock Time	< 1 second
Audio Frequency Response	10Hz – 20kHz, ± 1dB
Dynamic Range	>120dB
THD + Noise	< 0.04% (1kHz @ -10dBFS)
System Gain	0 dB nominal, variable -18dB to +12dB per user setting
System Polarity	+Voltage applied to tip of TB516 G Guitar input produces positive voltage on A, B, and C outputs of Receivers
Working Range	60 meters (200 feet)*
Available Channels	16
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-10°C to 50°C (14°F to 122°F)

*Line of sight. Actual range depends on environmental factors such as RF interference, RF reflections and RF absorption

Relay TB516 G Transmitter Specifications

RELAY TB516 G - TRANSMITTER SPECIFICATIONS	
Transmitter Input	¼ Inch Phone Plug, Tip-Sleeve
Operational Radio Band	2.4GHz ISM
Input Impedance	1MΩ
RF Output Power	10mW E.I.R.P. Max
Maximum Input Level Before Distortion	5.5Vpp
Battery Life	> 8 Hours w/ 2x AA Alkaline
Standby Time	> 60 Hours (2x AA Alkaline in Sleep Mode)
Available Channels	16

Relay G70 & G75 Receiver Specifications

RELAY G70/G75 - SPECIFICATIONS	
System Lock Time	< 1 second
Audio Frequency Response	10-20kHz, +1dB / -3dB
Dynamic Range	> 120 dB A weighted
Range	> 60 meters (200 feet)*
Receiver Gain	0 dB nominal, variable -18 to +12dB per user setting
Aux Input Maximum Level Before Distortion	5.5Vpp
Aux Input Impedance	1.3MΩ
Output Impedance	Outputs A and B: 100Ω
	Output C (XLR): 300Ω
Aux Input to Output SNR	> 120dB
USB Type	Micro USB 2
Power Requirements	USB: 3Watts (585mA)
	9VDC (center negative): 3Watts (350mA)

*Line of sight. Actual range depends on environmental factors such as RF interference, RF reflections and RF absorption.

Relay G70 Receiver Dimensions

.78"
19.69mm

2.02"
51.43mm

5.21"
11.41mm

.70"
17.86mm

1.57"
39.80mm

2.43"
61.74mm

.12"
3mm

4.06" / 103.03mm

5.53"
140.34mm

2.06"
52.98mm

2.04" / 51.74mm
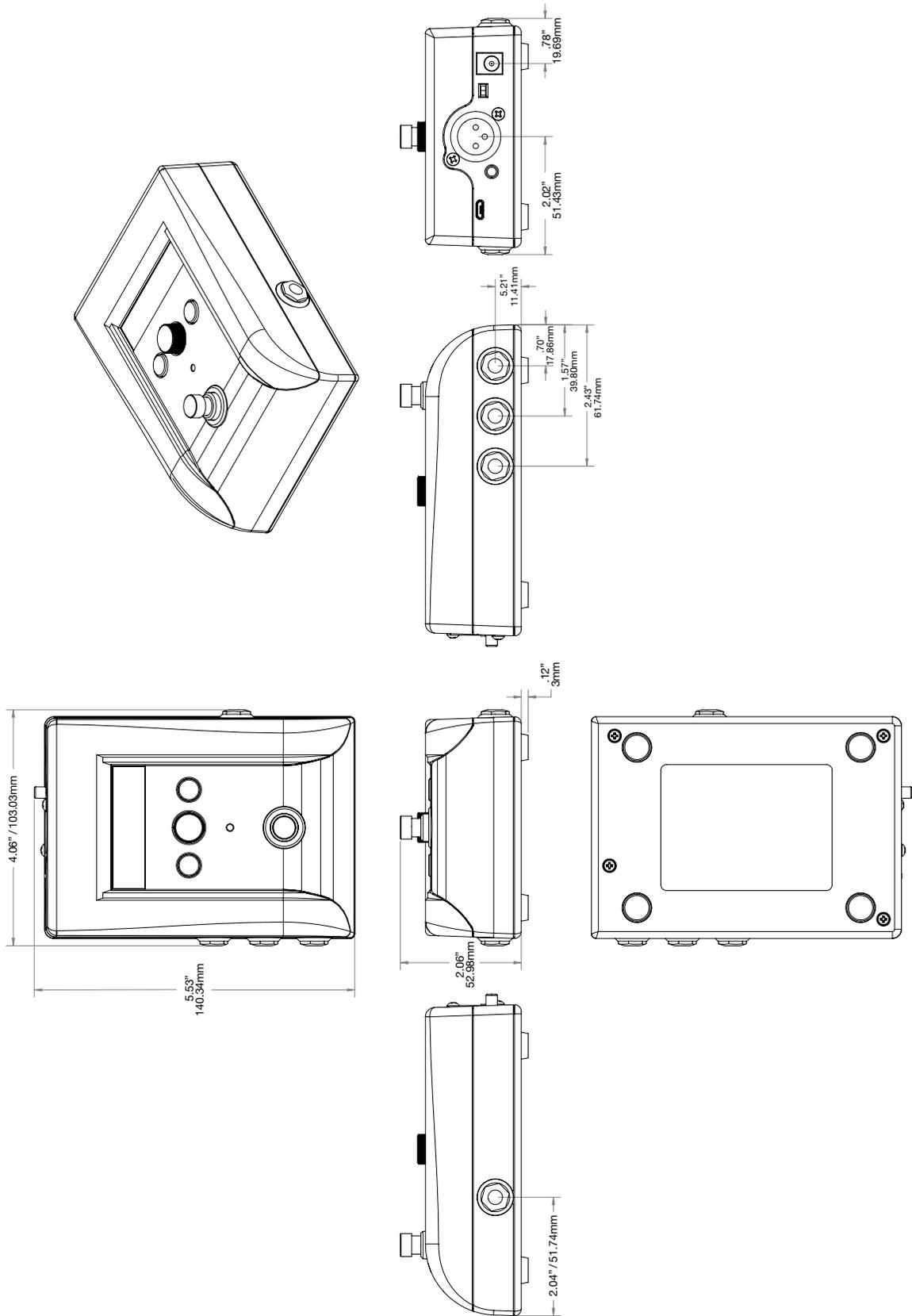
Relay G75 Receiver Dimensions