

gbTouch & gbLink

User Guide

delora software

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Every effort has been made to ensure the accuracy of this manual. Please contact Delora Support (support@delora.com) should you have questions regarding information in this manual.

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Getting Started

gbLink Installation & Set-Up

Note: gbTouch 3.4.0 requires the installation and setup of gbLink 3.1.2 or higher on your Mac computer. If you need to update your gbLink version, go to System Preferences - gbLink, press the STOP button, then download and install the latest version of gbLink like you originally did (see below).

gbLink Installation

gbLink, a small ‘user agent’ OSX program, must be installed on the Mac computer where GarageBand ‘11 or ‘09 is installed for gbTouch to work. gbLink provides the communications protocol necessary for gbTouch on your iPad to communicate with GarageBand on your Mac. (*gbLink is available free on the gbTouch product page at www.delora.com*).

Note: Download and install gbLink while using the web browser on your Mac computer. gbLink does not install on the iPad.

gbLink uses OSX’s standard installation application to place its required files in the appropriate locations on your Mac’s hard drive. The entire gbLink application is contained in the single installation file, “gbLink” that you download from the Delora website. Double click on the file and OSX will walk you through the installation.

If you have set your Mac up with only a single OSX user account, then gbLink works as expected. Each time you log-in to your account (or if you have automatic log-in turned on), OSX starts up gbLink and it’s ready to go. When you log out of your account, gbLink is halted.

If you share your Mac with other users who each have their own account then there are a few things to consider. gbLink is installed as a system wide resource, meaning that it potentially can be used by each user account.

gbLink only runs in an account in which it has been set up to operate. This includes the account you were in when gbLink was installed. To turn gbLink “on”, you must visit its preference pane in System Preferences at least once to enable gbLink to operate in that account. So each user account will have to do so in order for gbLink to operate when that account is active. Conversely if you do not want gbLink to run when an account is active, do not “turn it on”, or you can use the preference pane to disable it.

Set-Up

Once gbLink is installed, follow these steps to get gbLink up and running:

- Run System Preferences and select the gbLink preference pane

Select *System Preferences* from the Apple Menu on your Mac. Click on the gbLink icon shown under “Other” (as seen in the graphic at right).

- Run gbLink

The gbLink preference pane should look like the graphic at the bottom right. You will notice that 2 preference settings are checked by default:

- *Run at Login*
- *Auto-restart*

gbTouch is designed for immediate use when you open it up on your iPad, as long as gbLink is running. With *Run at Login* checked, gbLink will start every time you log into your account.

The *Auto-restart* checkbox turns on gbLink’s automatic recovery system. Should gbLink ever crash or in some way become “stuck”, OSX will detect it and attempt to restart it. Most users should leave this checked, even if you prefer manual operation. Uncheck this only if you are having repeated, frequent crashes and then contact support@delora.com for assistance.

While we recommend leaving these two preferences checked, you can uncheck them if you do not want these actions to occur.

Logging should be kept unchecked unless you are experiencing a problem with gbTouch and need to obtain diagnostic information to send to us to help



solve the problem (see “Support Settings” in the Info Screen chapter for more on this).

The last thing to do is to start gbLink. Press the Run button and you should see the 3 segment “LED” indicator turn green. **If the indicator shows yellow or red, go to the “Troubleshooting” chapter.**

Note that a question mark button appears when you press the Run button. Pressing this will provide diagnostic information if the status indicator shows yellow or red to indicate a problem. (See the “Troubleshooting” chapter for more on this.)

Wi-Fi and Bluetooth

While the installation and setup of gbLink (with *Run at Login* and *Auto-restart* checked) occurs infrequently, two settings on your iPad must be set appropriately any time you run gbTouch.

First, you must have Wi-Fi access on your iPad to the same computer that gbLink is installed on. Go to the Settings application on your iPad and make sure that the correct Wi-Fi network is set to ON.

Secondly, you must have Bluetooth disabled on your iPad whenever you are operating gbTouch to ensure reliable communications with GarageBand. Go to the Settings application on your iPad, click on the General tab, and check that Bluetooth is set to OFF. *Note: this only applies to Bluetooth on your iPad. You can keep Bluetooth on your Mac on if you use it for accessories.*

Selecting Your Theme Style

gbTouch offers the choice of one of four theme styles (plus one for GarageBand '09) that alter the look of gbTouch. You can change these anytime you like by:

- close gbTouch if it is open
- go to the Settings application on your iPad and select gbTouch
- the **Themes** bar shows the name of the current theme. The default is the “Texture” theme. You may also choose “Mixer”, “Minimal” or “Steel” by pressing on the right side of the bar.
- A fifth theme, “GarageBand '09”, provides a control layout that is more consistent with GarageBand '09’s transport button layout.



All functions are in the same relative locations on all of the GarageBand '11 themes, so there's no re-learning involved.

Other Preference Settings

Besides **Themes**, several other preference options are available in the iPad Settings application under gbTouch.

Rotaries Move Vertically only applies to the 'Mixer' theme. The endless rotaries on this theme (on the Track Edit screens) normally operate by moving your finger in a circular motion. If this preference is ON, then the rotary is activated by placing your finger on the "knob" and sliding up or down/vertically.

Disable Auto-Lock overrides the iPad's standard operation of turning off the screen and going into "sleep mode" when you do not perform a screen action during a period of time. Select "ON" to keep the gbTouch screen displayed continuously. This setting only applies to gbTouch and does not affect your overall setting for Auto-Lock in the Settings application. The default position is OFF.

Note: Setting Disable Auto-Lock "ON" may deplete your iPad battery faster.

Fader Touch, when ON, makes any volume fader thumb move/"jump" directly to a position you tap on within the fader bar. When this setting is OFF, the faders move only by sliding the thumb along the fader bar. The default position is OFF.

Allow Time Display, when ON, will allow the LCD display to show playhead position in time format (hrs-min-sec) as one of the options when you press the Selector button under the display. If OFF (the default position), only the project and measure information will show. This is a preference setting because the time format will not work correctly in all situations. Please read about its limitations in the next chapter before changing this setting to make sure it will be useful for you.

The bottom preference, **Logging Level**, should be left in its default state, *minimal*, unless you are experiencing problems. Read more about this in the 'Support' section of the Info Screen chapter.

Using gbTouch

After completing gbLink installation and set-up, you can start using gbTouch. Open gbTouch on your iPad. You may first see one of these types of screens:

- Quick Start - the very first time you open gbTouch, a Quick Start screen shows that lists the steps to getting gbTouch up and running
- Release Notes/What's New - if you have upgraded to a new version of gbTouch, you will see a screen that lists the changes in the latest version

Once dismissed, both of these screens are available for future reference by pressing the info button.

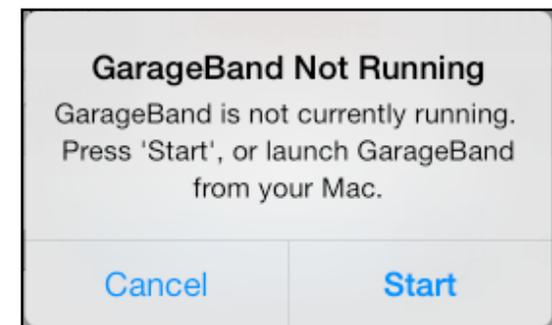
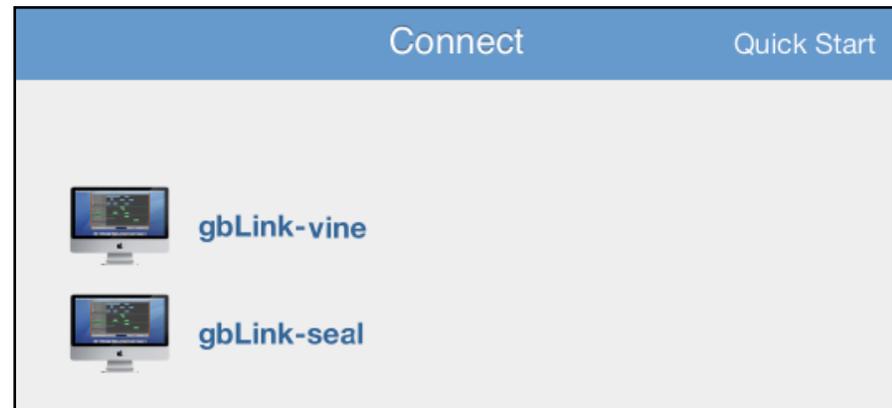
If you have upgraded to the latest version of gbTouch but have not upgraded your gbLink application on your Mac, you may see an alert message. Often new gbTouch features require changes to gbLink so gbLink must be upgraded. The alert message will indicate if that is needed.

In normal operation, when you open gbTouch, you will see a "Connect" screen that shows the names of all computers where gbLink is currently running. (See sample screen at right).

If you have only one gbLink system, gbTouch will automatically select it and proceed to the gbTouch main screen.

If you have more than one gbLink system, you must click on one of the names. Once gbLink establishes the connection, the main screen will appear. If it does not, go to the "Troubleshooting" chapter.

For gbTouch to operate, GarageBand must be running. If it is not, you will then see an alert message. Press the Start button on the alert to command gbTouch to automatically start GarageBand and bring up the latest song you worked on. If you prefer, you can Cancel the message and manually start GarageBand.



About gbTouch

gbTouch is a controller designed for use on the iPad for the Apple GarageBand Mac based application program. Many functions attempt to emulate how you use GarageBand on your computer but have been optimized for a touch screen device. Functions used frequently - for example, the Transport buttons - have been prioritized and designed for easy accessibility, and in a location consistent with GarageBand '11's layout (*if you are running GarageBand '09, read the "GarageBand '09 Users" section later in this chapter*).

gbTouch works with the built-in remote control support in GarageBand (also know as "control surface"). This support is specific to one particular hardware device, the M-Audio *iControl*. gbTouch's functionality and features are shaped greatly by the operation of GarageBand with an *iControl*. The result is that some functionality and features are not available from gbTouch because the necessary information is not provided by GarageBand.

gbTouch and gbLink work together to go beyond the basic *iControl* feature set by using other facilities that the GarageBand application program makes available to other OSX applications. This is how track names, their identification, and the individual track volume faders exist on gbTouch. This is accomplished without any modification to GarageBand.

Important note on gbTouch "slider strips"

Several of gbTouch's control functions utilize a unique style controller that we call a "slider strip": the playhead "scrub", and most of the effect settings on the Track Edit screens. This may strike you as odd, especially if you have experience with more traditional hardware controllers that offer either "fader" or "rotary" controls. GarageBand affords remote control of these various settings using a simple "incremental change" scheme where the controller notifies GarageBand how much a setting should change from its current value. GarageBand also does not notify the controller in any way the current value of these settings. Thus a traditional fader or rotary does not make sense; any implied value based on the physical controls (or the virtual equivalent on the iPad screen) would often be wrong and misleading.

Hardware devices like the *iControl* provide a special type of rotary called an "endless rotary" for this style of usage. Endless rotaries do not provide absolute positions or values; they show relative movement (higher or lower, backward or forward) from the last/ existing position. And while you have probably seen, and perhaps used, different iPad apps that offer some type of virtual rotary control, it has been our experience that these are not necessarily appropriate for the iPad touch screen user interface.

On the Mixer theme, the endless rotary concept is implemented using a more traditional looking "rotary" knob, but you are still always affecting relative, not absolute movements.

On all other themes, gbTouch uses slider strips, a different way of doing the same job that an endless rotary performs. The slider strip provides a touch-friendly way to adjust a setting up or down through a simple “touch and drag” gesture; drag to the right to increase a value, to the left to decrease it. Since slider strips are a type of endless rotary it does not matter where you initially touch the strip. Movement from the initial touch point simply increases or decreases the current GarageBand setting. Slider strips also react to how quickly you move your finger. Slower motion provides finer control; faster causes the change to occur at an accelerated rate.

GarageBand uses the information that gbTouch sends for each slider strip movement to adjust a setting up or down, but never beyond the limits of that setting. For example, when you slide your finger in the “Echo” slider strip on the Track Details overlay screen, you can keep going/sliding (including outside of the slider strip boundaries) and GarageBand will never set the percentage below its minimum, or above its maximum.

GarageBand, ReWire™, and gbTouch

gbTouch utilizes GarageBand's built-in support of Propellerhead's ReWire™ technology in order to gain access to certain information that GarageBand does not provide through its native iControl control surface support. This has important implications if you use GarageBand at the same time with other music software that also supports ReWire. An example of this might be having both GarageBand and Logic Pro running, even if Logic Pro is idle in the background.

ReWire only permits a single music application to use its facilities at the same time. The first application that requests ReWire will gain use of it. Subsequent ones will be denied. So, for example, if you first start another music application that uses ReWire, and then GarageBand, you will be greeted with this message:



If this happens you should click "Quit" (this exits GarageBand), quit the other music application, and then restart GarageBand. Failure to do so will mean that gbTouch's LCD display will not show correct location, tempo, or time signature. You will also be unable to set tempo or use the popups to move to a new location.

GarageBand '09 Users

gbTouch has been designed for use with GarageBand '11. However, if you are running GarageBand '09, it is possible to use gbTouch with some caveats.

- Apple altered the arrangement of the Transport buttons in GarageBand '11. We have made this a preference setting so that the GarageBand '09 layout is available. To enable this:
 - go to the iPad's Settings application
 - tap gbTouch
 - tap the arrow button at right on the Theme row
 - tap on GarageBand '09
 - restart gbTouch
- The Visual EQ edit panel that allows Visual EQ parameter adjustments is not available (you will see it is "grayed out"). This is due to an issue with GarageBand '09. However, when you upgrade to GarageBand '11, this button and screen option will become operable.

The gbTouch '09 layout is only available in one theme style. You can use any of the other themes with GarageBand '09 but the arrangement of the transport controls follows the GarageBand '11 layout, and not GarageBand '09.

Main Screen Functions

Playhead & Tempo functions



Action buttons

Playhead & Cycle functions

Tracks

Transport functions

The gbTouch main screen incorporates 4 categories of functions:

- Transport functions
- Track specific functions
- Action buttons
- Playhead (with Cycle & Tempo functions)

gbTouch automatically adjusts orientation for portrait vs. landscape mode so you can use it in your preferred way of viewing.



Transport Functions

gbTouch emulates GarageBand '11's standard transport functions for navigating your composition: Backward, Forward, Beginning (of song or Cycle if enabled), Play, Record and Cycle. Just as with GarageBand, the Play, Record and Cycle buttons will change color when active.

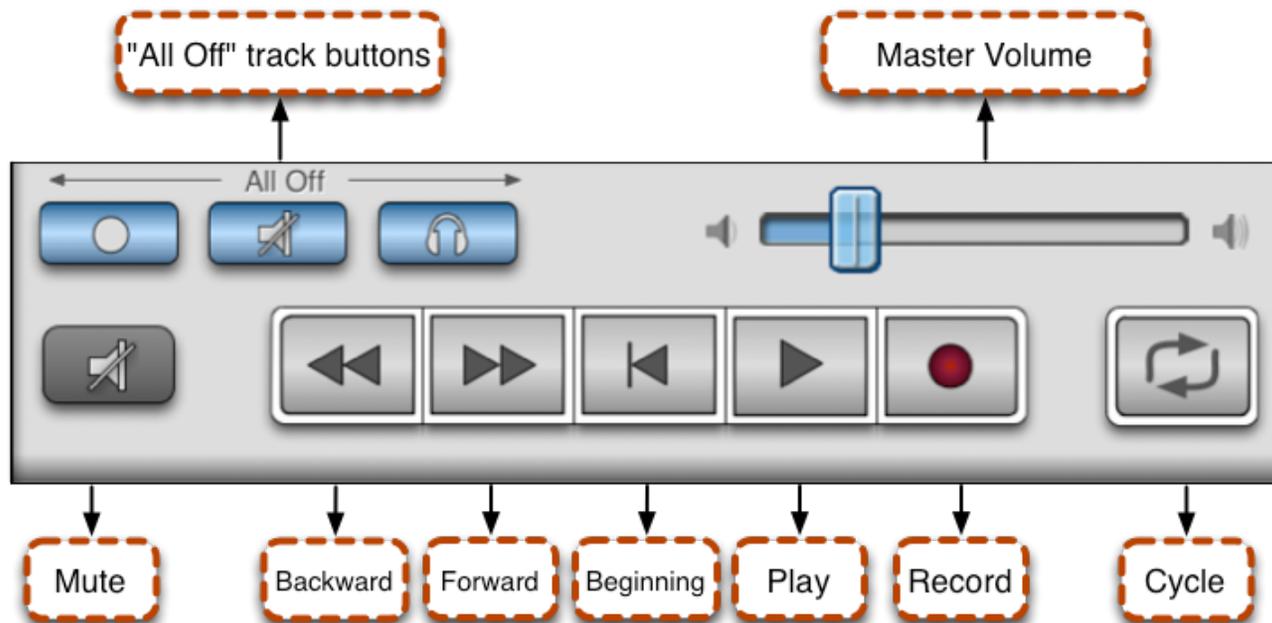
Also included in the Transport section are:

- Master Volume Control
- Master (Volume) Mute button (will change color when enabled)
- "All Off" buttons - press to turn off the record, mute or solo functions that may be enabled on one or more tracks.

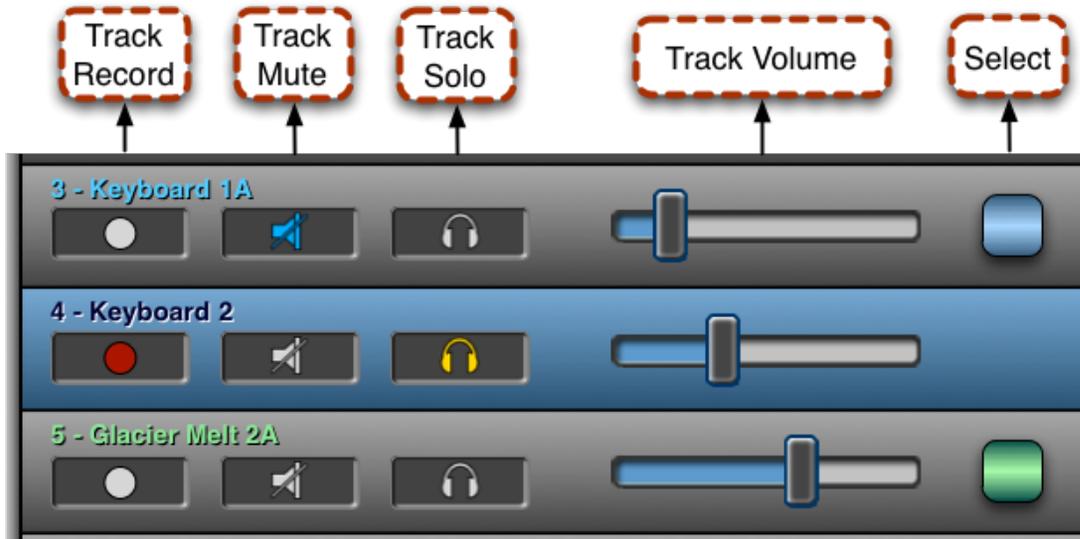
Note: Sliding the volume control on gbTouch also moves the control on the GarageBand screen, but moving the volume control on GarageBand does not move the gbTouch slider until you release your finger.

Do you use GarageBand '09?

gbTouch has a layout of the transport buttons that conforms to GarageBand '09. See "GarageBand '09 Users" in the "Getting Started" chapter.



Track Functions

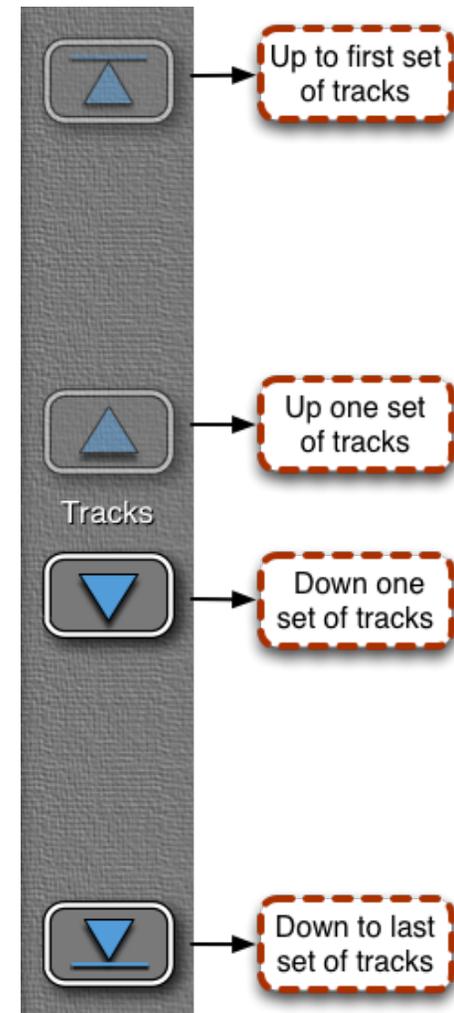


Blue: Real Instrument

Green: Software Instrument

The gbTouch main screen shows a maximum of 8 tracks at a time. If your song has less than eight tracks, only tracks that exist will be shown. If your song has more than eight tracks, you can view the others using the arrow keys along the right side of the Tracks section. Tracks are grouped eight to a “set”. If you study the GarageBand track area you will notice on the left that a thin yellow vertical strip marks the left of each track in the current set. The top most track in the current set corresponds to gbTouch’s topmost track. You can move the active group using the gbTouch arrow buttons to the right of the tracks.

One or more of the arrow keys will be “grayed” out if your song does not have enough tracks for the banking function to be applicable, or if you are viewing a bank set that would make the arrow keys irrelevant. For example, when you are viewing your first set of eight tracks, the top two arrow keys will always be grayed out because you can’t go any further “back” (as in graphic above right).



gbTouch incorporates track names and color coding to let you know whether a track is a real instrument or software instrument track. As with GarageBand, real instrument tracks are indicated by blue coloring, with green used for software instruments.

gbTouch color codes the Select button and text color on unselected tracks. If the track is currently selected, the background color of the track changes to blue or green (on the Texture, Minimal, Steel, and GB09 themes). On the Mixer theme, the Select button “glows” for the currently selected track, and its name is displayed between the arrow keys.

To select a new track, press the square “Select” button at the right end of a track to make that the “current” track (Select button is at bottom of fader in Mixer theme). This is equivalent to clicking on a GarageBand track with your mouse.

The currently selected track is an important concept. GarageBand automatically sets the selected track as “record enabled”, meaning it is ready to record should you press the transport’s record button. The GarageBand Track Info pane, where you alter effects and other settings, also applies to the currently selected track.

Record, mute and solo buttons for each track work just as with GarageBand, and change color when enabled.

Individual track volume is adjusted in gbTouch using faders, just like the Master volume

The Mixer Theme

The ‘Mixer’ theme differs from the other themes in that the ‘tracks’ are shown vertically. Operating the individual volume faders is accomplished by moving the thumb knob up and down.

You may from time to time notice that the eight tracks shown on gbTouch do not correspond to the eight GarageBand shows bracketed by the yellow vertical strip on the left of the tracks. This can normally be corrected by pressing either the "Up to First" or "Down to Last" arrow keys on

GarageBand Track Automation

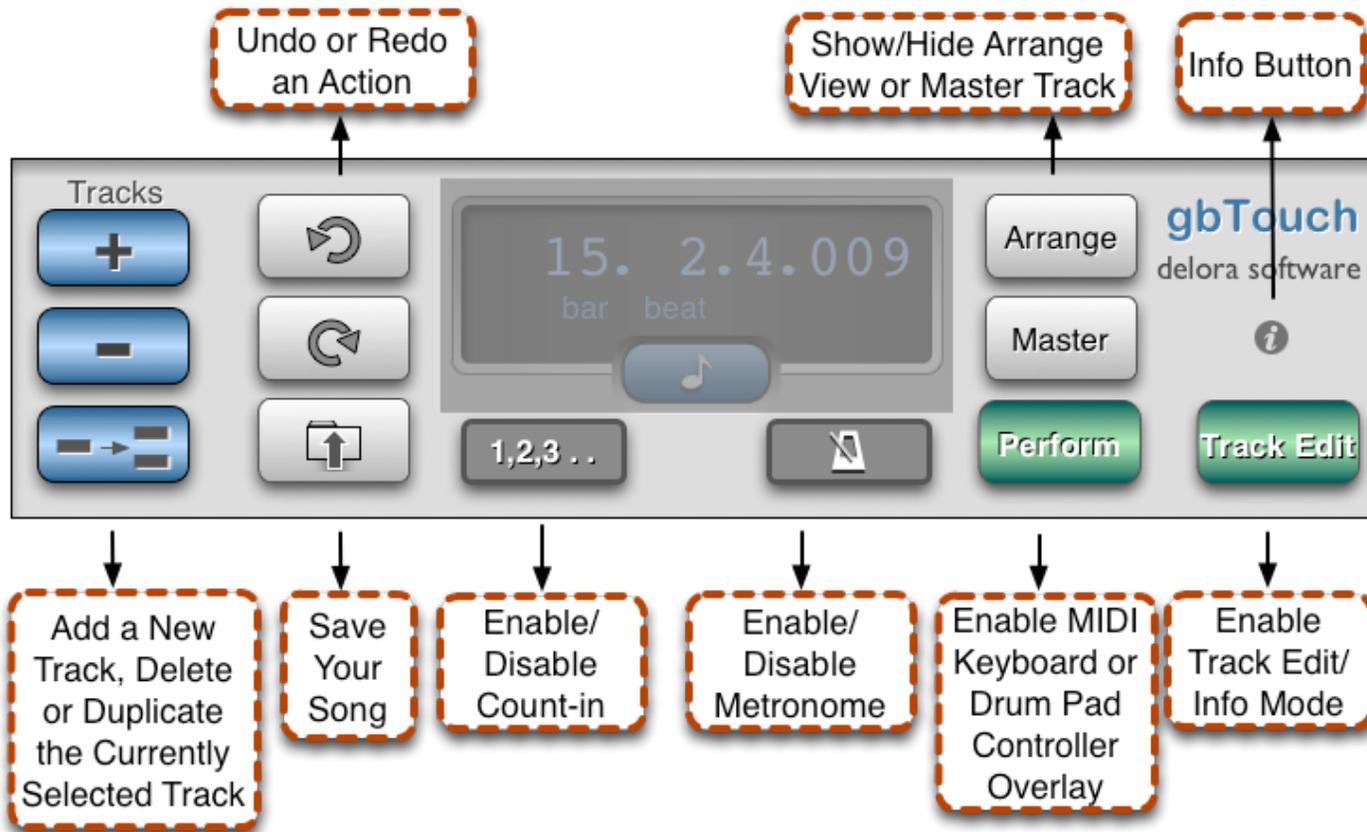
You can enable automation on individual tracks on GarageBand when you click on the triangle button at the end of the track header (on GarageBand '11) or at the end of the row of icons (GarageBand '09). Any automation effects created this way will always take precedence over a control for that effect, including those on gbTouch. For example, if you have the Track Volume automation enabled, the controls for Track Volume on the gbTouch main screen and on the Track Edit Details screen ARE NOT OPERABLE. gbTouch’s track volume faders will, however, update periodically to show the current automated volume setting. So it’s best to turn off track automation when you’re not working with it for optimal gbTouch operation.

control. If you want the ability to make the fader thumb “jump” directly to a location you tap within the fader bar, go to the gbTouch preference settings in the iPad Settings application and set “*Faders Jump to Touch*” to ON.

Action Buttons

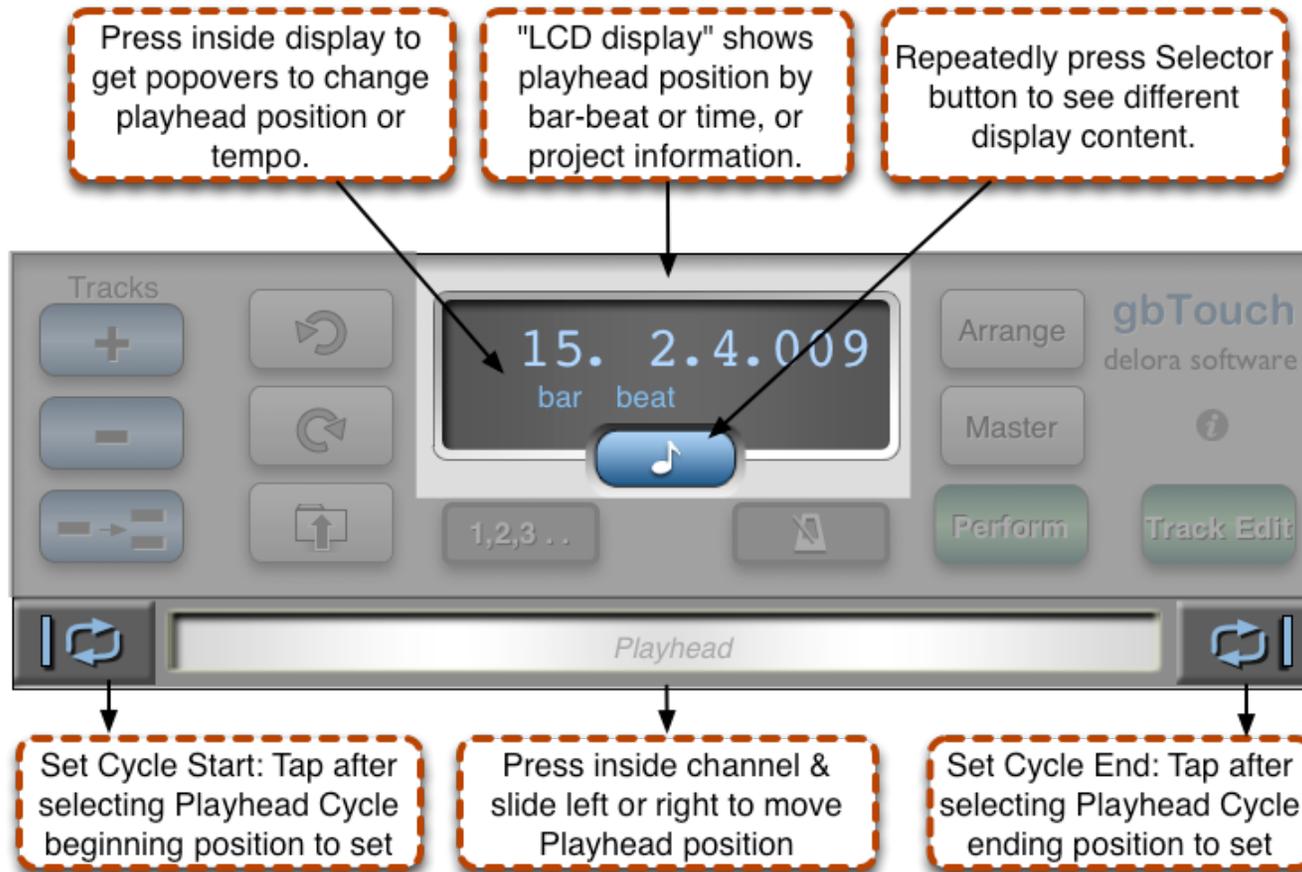
gbTouch includes features that manipulate tracks and help in managing your composition. Most of these features are ones you would find in the GarageBand menu pulldowns, or by using shortcuts. *(Note: Just as with GarageBand, the Undo and Redo buttons are only operable on certain types of actions taken.)*

Some buttons, such as the blue track Duplicate and Delete, require that a track is currently selected for them to operate. The Info button is described in the “Info Screen” chapter.



Pressing on the Track Edit button slides open an edit panel overlay that allows you to enable/disable effects and adjust parameter settings, similar to clicking on the “Track Info” button (the “i” button) and the Edit tab on the GarageBand screen. Tapping on the Perform button brings up a different overlay, a MIDI keyboard or drum pad controller you can use to play or record GarageBand’s software instruments. gbTouch’s Track Edit and Perform panels are described in the next chapters.

Playhead, Cycle & Tempo Functions



Moving around in your song is accomplished by controlling the Playhead position. You can do this on gbTouch in several ways.

Place your finger and slide left or right within the horizontal slider strip labeled "Playhead" to move the Playhead position from its existing location. (gbTouch's Playhead is an "endless rotary" function and causes relative vs. absolute adjustment. Sliding/swiping

your finger faster will move the playhead position farther than sliding slowly.) You can change the Playhead using the slider strip at any time, *even when GarageBand is playing your song*. It is an easy way to move around quickly and broadly within your song.

The two buttons on either sides of the channel are used to set the start and end of GarageBand's active "cycle", the area of your song that GarageBand automatically repeats during playback when the Cycle mode is set. Click on either the Set Cycle Start or Set Cycle End buttons when you have the Playhead positioned accordingly. These buttons can be pressed at any time, even when GarageBand is playing your song.

Tip: If you want more precise placement of the Cycle start and end positions, you can use the Playhead control features described in the LCD Display section below to first select the start position, dismiss the popover, then press the Set Cycle Start button. Use the popover wheel again to select a new position for your Cycle end location, dismiss it, then press the Set Cycle End button.

LCD Display

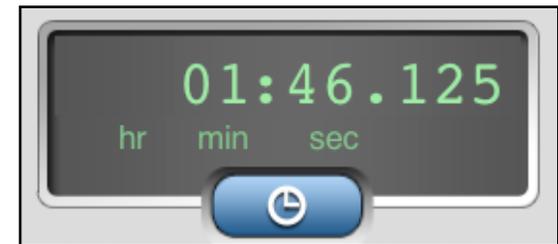
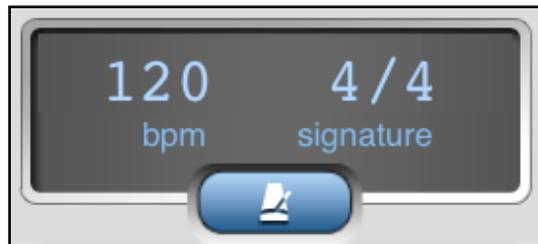
The "LCD display" area can show three types of content:

- Project information: Tempo and time signature of the current song
- Playhead position in Measure format (bar - beat)
- Playhead position in Time format (hr-min-sec). Note: The time content will only show if the "Allow Time Display" preference setting is set to ON. See more about the time format on the next page.

Repeat pressing of the center Selector button below the display will bring up the different types of displays. The button changes its icon for each of the three display types.

Note: If you change the time signature in GarageBand, the change will not show in the gbTouch Project Info LCD. ***This also happens when you first create a new project that uses a time signature different than the default 4/4.*** You will have to save your GarageBand file, close it and bring it up again in GarageBand. gbTouch will then show the updated signature.

Also, if you change the time signature, the gbTouch playhead location displays will not correspond to the GarageBand display. You need to do the process described above to get them in sync.



Time Format Limitations

If you want to see and adjust playhead position by time (hrs-min-sec), you must do the following:

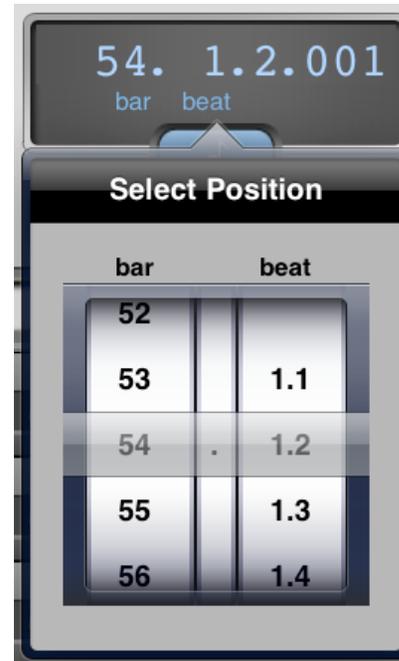
- Go to the iPad Settings application and click on gbTouch
- Move the “Allow Time Display” bar setting to “ON”

We made this a preference setting because of the limitations of this feature. Basically, GarageBand does not provide time information to gbTouch, so we must calculate it based on bar-beat position. It all works fine EXCEPT if you have tempo adjustments within your song made with Tempo automation. If Master Tempo automation is enabled on GarageBand, the time shown by gbTouch will not show the correct/same time as that shown on GarageBand. So, if you want the time display and don't use master tempo automation, go ahead and enable the time preference setting.

Adjusting Tempo and Playhead Position

You can change the tempo of the current song or go to a specific Playhead position by pressing inside the LCD display on gbTouch. This action brings up popover wheels that are used to change the settings. Swipe your finger in the channel that you want to change, either up or down. Press anywhere outside the wheel to dismiss it. Any change you made will show in the display.

To adjust tempo, press inside the display when the Project content is in the display (i.e. when Tempo and time signature are shown).



To adjust the Playhead location to a numeric bar-beat position, press inside the display when the Measure display is shown (bar-beat information).

Lastly, adjust the Playhead location to a specific time position when the "clock" display is shown.

You must have GarageBand Master Tempo automation turned off for the Adjust Tempo function to work on gbTouch. If automation is on, GarageBand may display the message "Multiple tempo events detected".

Track Edit Panels



When you press the GarageBand Track Info button (the “circled i” at the bottom right corner of the GarageBand computer screen), then choose the Edit panel, you can enable and adjust settings of the currently selected track, including its effects.

Tapping on the *Track Edit* button on gbTouch’s main screen creates these same opportunities. The *Track Edit* button will change color and a new panel will slide open with the *Details* button highlighted.

The *Details* panel contains similar elements to the GarageBand Track Info/Edit panel:

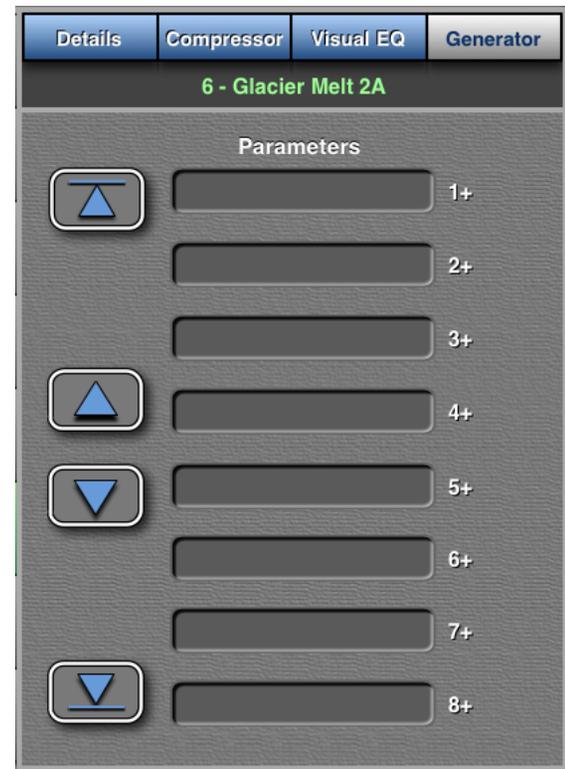
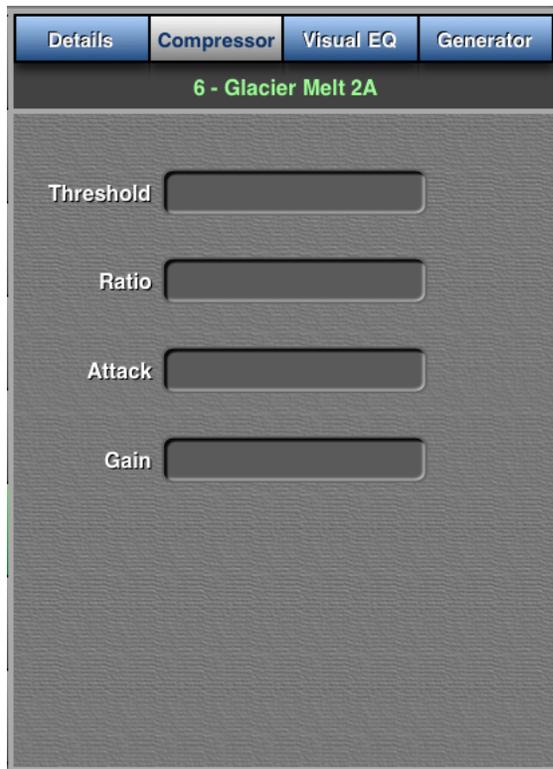
- “Compressor Ratio” for the selected track’s compressor effect
- “master” effects (Echo, Reverb) that you can adjust by sliding your finger within the slider strip
- enable/disable effects (the circle button changes color when the effect is enabled)
- pan and volume faders for the currently selected track
- display of values of the volume and pan faders that dynamically change during adjustment. For pan, “L” refers to left, “R” is right, based on a center “C” point of “0”.

You must have GarageBand Track Volume and Track Pan automation disabled for the pan and volume faders on gbTouch to work. Click on the arrow key at the lower right edge of the GarageBand tracks to make sure these are not lit.

Besides the *Details* button, three other buttons appear at the top of every Track Edit panel: Compressor, Visual EQ and Generator. (As noted earlier, if you are using gbTouch with GarageBand '09, the Visual EQ button is grayed out and inoperable.) Just as you can click on some of the effects in GarageBand to get a popup screen of additional parameter adjustment options, you can tap on one of these other “menu buttons” on the Track Details screen in gbTouch to access the corresponding panel.

The Generator effect has some caveats. First, this effect is only applicable to a software instrument track, so if your currently selected track is a real instrument, the Generator menu button will be “grayed out”. Also, not every software instrument will have a (sound) generator effect; it could be unspecified or otherwise missing. Since gbTouch is not provided this information, in this case the Generator button is not grayed out, but simply doesn't do anything if pressed.

Clicking on either **Compressor**, **Visual EQ** or **Generator** would bring up one of the panels shown below. Adjust any of the parameters by sliding your finger in the slider strip (just as with other gbTouch slider strips, animation will appear). **The Compressor and/or Visual EQ effects must be “on”/enabled for their parameter adjustments to operate on gbTouch.**



Track Edit Screens for the Mixer Theme

The “rotary-slider strips” on most themes are not used in the Mixer theme. The parameters are still “endless” rotaries, indicating relative, not absolute position, but the graphic treatment uses a traditional looking rotary knob. Move your finger around the center in a circular motion, clockwise or counter-clockwise. You can also turn a preference setting on in the iPad Setting application/ gbTouch, called “Rotaries Move Vertically”. When this is ON, the rotaries work by placing your finger on the rotary and sliding your finger up or down.

In gbTouch, the name of the currently selected track is shown below the menu buttons (text is color coded for software vs. real instrument), and the one in which the parameter adjustments would apply to.

To close any of the four Edit Panels on gbTouch, simply tap on the *Track Edit* button.

You’ll notice that the Compressor and Visual EQ overlays have the names of the parameters but the Generator overlay only has numbers. This is one of the limitations of the *iControl* support information available to gbTouch. Since the parameters for Compressor and Visual EQ in GarageBand are consistent in type and number for any track, we can label them even though this information is not provided to gbTouch. The (sound) Generator effect will vary in the types and number of parameters by track, so the labels cannot be shown on gbTouch. To make adjustments, coordinate the slider strip’s relative position on the gbTouch overlay to what you see on the GarageBand popup screen. If there are more than eight parameter adjustments available for that track, press the arrow keys in the panel to go to the next set.

Note

When Track Edit is active you can still access and use gbTouch’s Transport and Action buttons, as well as the Playhead controls. You can also enable individual track record, mute and solo. However, you cannot select a new track on gbTouch while in Track Edit mode, although you can select a new track using GarageBand. The name of the newly selected track will show at the top of the Track Edit panel and all parameter adjustments will apply to that track.

A Final Note on gbTouch’s Track Edit Mode

While we have attempted to be as consistent as possible in the functions and action results shown on gbTouch versus what you see on GarageBand, there are conditions where the two do not look/function identically. These known instances primarily occur when you utilize the Track Edit panels on gbTouch (or press the Track Info button on GarageBand). The following Tables describe what is normal operation for gbTouch with GarageBand. *(If you find gbTouch is not working as described here, please email us at support@delora.com or use our contact page on the www.delora.com website).*

This first set of Actions are those you initiate ***from gbTouch***.

Action	What you see on gbTouch	What you see on GarageBand
<p>Press Track Edit button to enter Track Edit mode</p>	<p>Track Details panel slides into view.</p>	<p>Same as if you had pressed the Track Info i button on GarageBand - whatever the last type of screen you had open when in Track Info mode.</p> <ul style="list-style-type: none"> • If the Edit Tab for a Software or Real Instrument was last open, gbTouch and GarageBand are visually consistent. • If the Browse tab, or the Edit tab for the Master Track was last open, gbTouch and GarageBand will not look identical even though you can operate all of the functions on the gbTouch Track Details panel. Select the Edit tab for Software Instrument/Real Instrument on the GarageBand screen if you want visual consistency.
<p>Press Track Edit button to exit Track Edit mode</p>	<p>The Details, Compressor, Visual EQ or Generator panel (whichever was open) slides away.</p>	<p>The Track Info panel slides away.</p>
<p>Press the Compressor, Visual EQ or Generator button (if not grayed out) on the top of the Track Edit panel</p>	<p>Either a Compressor or a Visual EQ parameter panel will slide over the Details screen.</p> <p>A (sound) Generator screen will slide over if that effect exists for the selected software instrument.</p>	<p>A popup for either the Compressor or Visual EQ appears, consistent with gbTouch.</p> <p>A popup for the Sound Generator will appear if it exists for the selected software instrument track.</p>

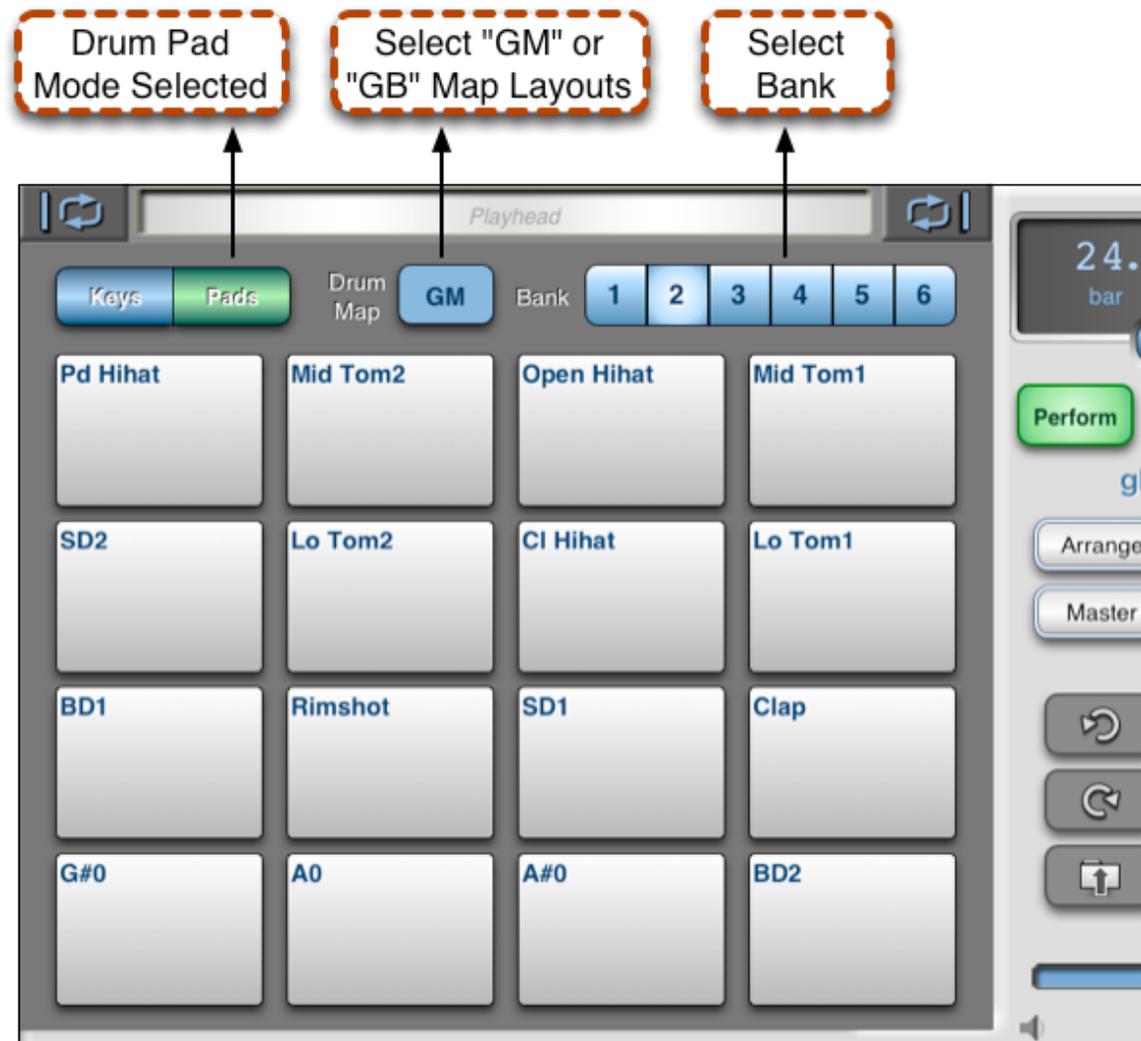
This next set of Actions are those you initiate ***from GarageBand***.

Action	What you see on gbTouch	What you see on GarageBand
Press Track Info (i) button to enable/enter Track Info mode		
1. If the Browse tab was the last used	No change to the existing screen <i>(gbTouch does not support browsing)</i>	Browse tab screen appears
2. If the Edit tab for a Software or Real Instrument was last used	Track Details panel slides in <i>(same as if you had pressed the Track Edit button on gbTouch)</i>	Edit screen for the currently selected track appears (either a Real Instrument or Software Instrument)
3. If the Edit tab for the Master Track was last used	No change <i>(gbTouch does not support Master Track Edit)</i>	Edit screen with the Master Track effects appears
Press Track Info (i) button to disable/exit Track Info mode	No change Press the Track Edit button to exit Track Edit mode on gbTouch	The latest Track Info panel slides away
Press the Edit tab when in Track Info mode if the Browse tab is currently showing	Track Details panel slides in if the Software Instrument/Real Instrument Edit tab was last used on GarageBand No change if the Master Track Edit screen was last used, or the Master Track is the current selected track	Edit screen appears - will show either the Software Instrument/Real Instrument individual track effects or the Master Track effects, dependent upon the last one you used.
Press the Compressor, Visual EQ or Sound Generator icon on the Edit panel	The Compressor, Visual EQ or Generator panel is shown	Popup of the parameters you can adjust for either the Compressor, Visual EQ or Generator
Press the icon of any other effects shown in the slots on the Edit screen	Message <i>"Editing effects other than the Compressor, Visual EQ and Generator are currently unsupported"</i>	Popup related to the selected effect
Press the Master Track tab when you are in the Real Instrument/Software Instrument Edit mode	If showing, the active Edit Mode panel closes	Edit screen for the Master Track

Perform Screens

gbTouch offers a way to send MIDI to a GarageBand software instrument track using a keyboard or drum pad.

- Select an existing or add a new **software instrument** track (shown as green tracks on gbTouch)
- In GarageBand (on the Mac), choose a specific software instrument from the Browse section of the Info/Edit panel. You might select a "Piano and Keyboard"



sound for using the **Keys** mode on gbTouch, or a “Drum Kits” sound for using the **Pads** mode. However, you can choose any type of sound to use with either mode.

- Tap on the **Perform** button on gbTouch and an overlay appears
- Tap on either the “Keys” button or the “Pads” button to bring up a keyboard or drum pad screen

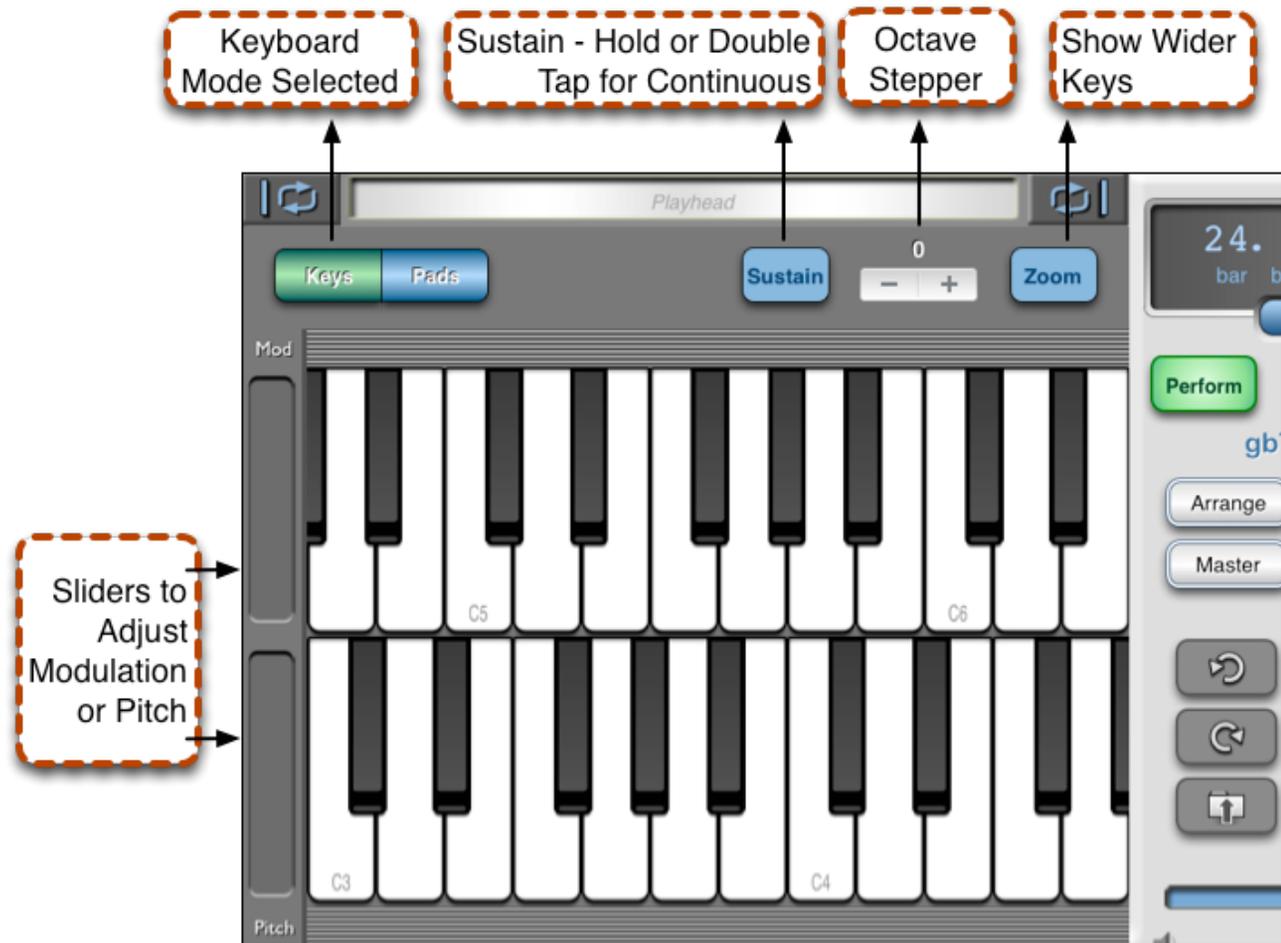
You will hear the keys or pads as you tap out a melody or beat. Press the Record transport button on gbTouch if you wish to record your playing onto the selected track in your song.

Keys

Change octaves using the **+ - stepper** button. To sustain a note, like holding down a foot

pedal on a piano, press and hold down the **Sustain** button for as long as you want the sustain to occur. Double tap the Sustain button to keep it in constant Sustain mode. Tap again to return to normal. Press **Zoom** to bring up a keyboard with wider but fewer keys.

Press close to the lower end of a key to get a louder sound. The level decreases the closer you get to the top of a white or black key.



The horizontally striped areas above the top keyboard and below the bottom keyboard are used for **scrolling**. Swipe your finger to the left within that area to go up/higher on the keyboard. Swipe to the right to go to a lower register. The two keyboards are independent and can be set/scroll through separately.

The 2 sliders left of the keyboard control overall pitch (MIDI **Pitchbend**) and modulation (MIDI **ModWheel**), as you would typically use with an electronic keyboard. Each strip provides “relative changes”. Wherever you first touch the strip corresponds to the last value. Slide your finger upwards to increase the value, downward to decrease it. The “Mod” strip retains the last value after you lift your finger. To reset the value to zero, double tap inside the MOD strip. The “Pitch” strip always resets to zero when you lift your finger.

Pads

The Pads screen has a typical 4x4 drum kit pad arrangement. Tap in a beat or melody after selecting one of the two preset drum maps: **GM** (General MIDI), or **GB** (an arrangement common to many GarageBand drum kits). The **GM** setting is more general purpose. Many third party drum kits use the General MIDI layout.

Tap on one of the six **Bank** buttons to bring up new note arrangements for each of the two types.

Tap close to the center of a drum pad for a loud sound. The sound level decreases as you tap closer to the edge of the pad.

Info Screen

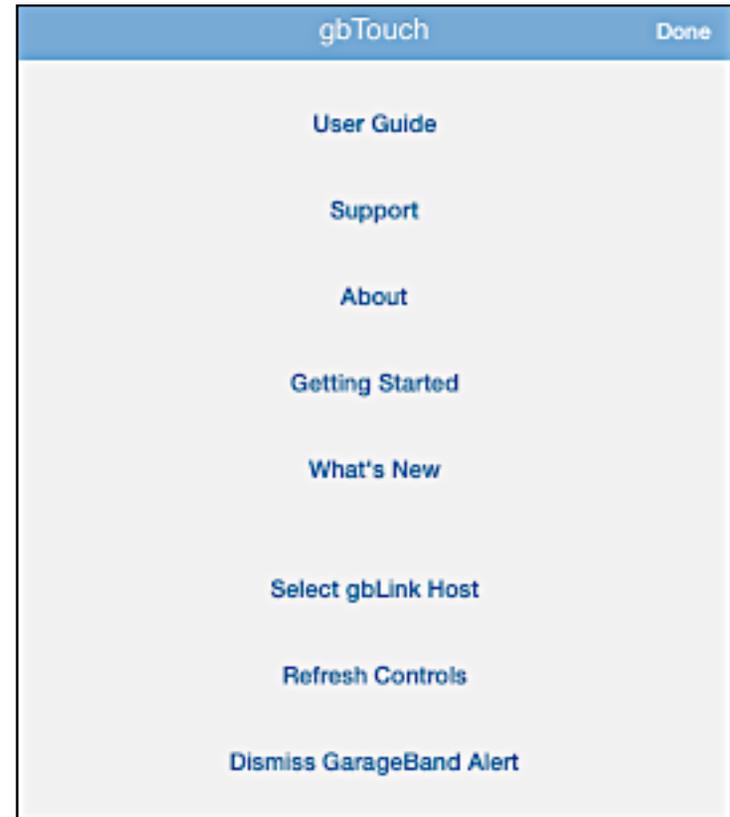
Press the  button under the Delora logo to obtain access to information about gbTouch:

- gbTouch *User Guide* (formatted for easier reading on the iPad)
- *Support* information (see more on next page)
- *About* screen provides the option to visit the Delora website, or view legal information
- *Getting Started*, a quick guide to getting gbTouch and gbLink up and running for the first time
- *What's New* lists the improvements found in the current version, as well as a version history

The three bottom tabs control the following actions:

- *Select gbLink Host* - click on this to either re-establish your connection with gbLink, or to select another gbLink host computer if you have more than one gbLink system operating. This can be useful if your gbLink connection becomes disrupted during a session.
- *Refresh Controls* - click on this should you need to “resync” gbTouch with GarageBand. While gbTouch is designed to reflect current GarageBand settings, occasionally the two may look out of step. *Refresh Controls* adjusts gbTouch’s controls to the current settings.
- *Dismiss GarageBand Alert* - sometimes GarageBand will display an alert info message on the computer screen after an action and nothing can be changed on GarageBand or gbTouch until you dismiss it (usually pressing ‘OK’). You can press the *Dismiss GarageBand Alert* button on gbTouch to dismiss the message from your iPad instead of having to go to the computer to remove it with your mouse.

Press anywhere outside the Info screen to exit.



Support

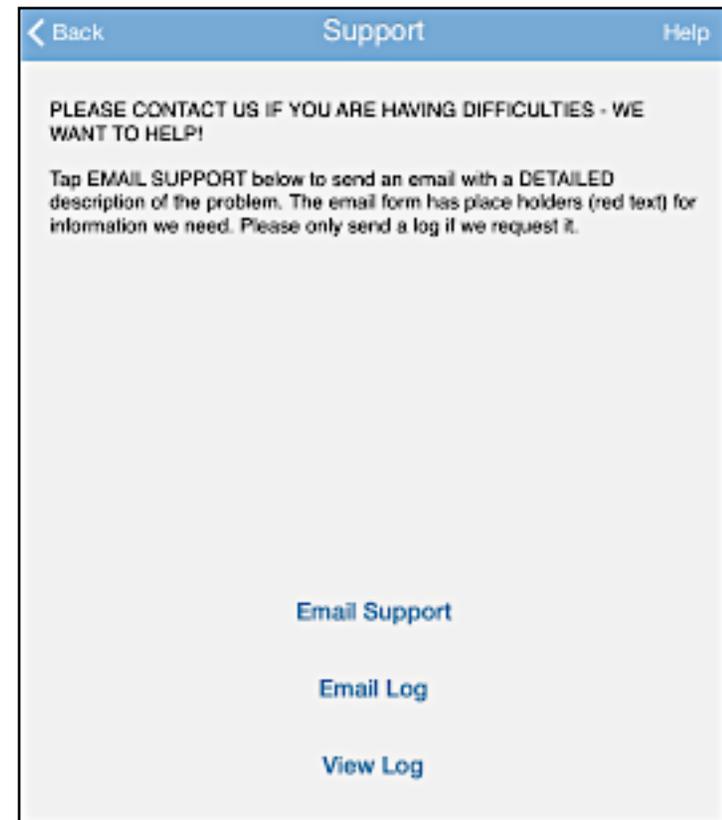
If you have tried the suggestions in the next chapter “Troubleshooting” and are still having problems, tap on the “Support” text on the info screen, then “Email Support” on the Support screen. You will be taken to an email form to describe your problem. Please be as detailed as possible.

We may request from you additional information to help us diagnose a problem. gbTouch has built-in logging that records information about what it is doing. By default, gbTouch only records error and warning messages that indicate it is operating in an unusual manner.

In the gbTouch section of the iOS Settings app, there is a preference setting “Logging Level”, which is normally set at “minimal”. The level can be increased to provide more detail regarding the cause of a problem. This extra information, however, can slow down gbTouch’s operation, and it consumes a small amount of your iDevice’s Flash storage space.

Logging Level should stay at its default value “minimal” unless we instruct you otherwise. We will request either the “moderate” or “maximum” setting depending on the situation.

If you are asked to send us a log that uses a different setting than “minimal”, exit gbTouch and use the iOS Settings app to change the logging level. Run gbTouch in the same way that led to the problem. Once the problem has occurred, use the “Email Log” item on the gbTouch “Support” screen to compose an email message that contains the log as an attachment. Before you send the log, please type in any relevant information about the problem. Once you have finished recording the log, change the logging level back to “minimal”.



Troubleshooting

Occasionally problems may arise due to connection issues between the iPad and the Mac (where you run GarageBand and gbLink). Should this occur, gbTouch attempts to automatically re-establish the connection. If, after some time, it cannot do so, gbTouch displays an “error” message and awaits your further instructions.

Start-Up Problems

The primary reasons gbTouch may not startup properly are:

1. Wi-Fi is not enabled or your Wi-Fi connection has become disrupted

If there is a problem with Wi-Fi when you start gbTouch, you will see the message (on the right) superimposed on top of the main screen - and gbTouch will not be usable.

Remedy: Go to the Settings application on your iPad and re-establish the Wi-Fi connection. If Wi-Fi is connected, try finding a better coverage location

2. gbLink is not installed/not running or cannot be found

gbLink must be installed and running on your Mac for gbTouch to operate. If it is not, you will see a message like the one on the next page.

Remedy: Install and startup/Run gbLink (if it hasn't been). *gbLink can be downloaded from www.delora.com.* If it is already installed:

No Wi-Fi Connection	Quick Start
<p>gbTouch requires a working Wi-Fi connection to your Mac. This Mac must be running GarageBand and gbLink. You must use Wi-Fi to make this connection. Other network connections like cellular (3G) will not work. Check your iPad's Wi-Fi settings; make sure Wi-Fi is turned on; connect your iPad to the same network as your Mac.</p>	
<p>Suggested Remedy</p>	
<ol style="list-style-type: none">1. Exit gbTouch.2. Open the 'Settings' application.3. Turn Wi-Fi On.4. Connect to the same network as your Mac.5. Start gbTouch.6. Make sure you have good Wi-Fi reception where you plan to use gbTouch.	

- go to System Preferences on your Mac and click on the gbLink application icon
- press the Stop button (if gbLink has been running)
- press the Run button

If the “LED” indicator shows 3 green segments, you should be able to startup gbTouch on your iPad. **If the indicator is yellow or red**, then gbLink has encountered an unusual condition. Try to stop and start it a few more times, and if that does not work, save your work and try restarting your Mac. If the problem persists please contact our technical support department.

Problems During a gbTouch Session

If Wi-Fi becomes disconnected or gbLink stops running while you are in a gbTouch session, you will see the same types of messages described in Startup problems. gbTouch will attempt to re-establish these connections, but you should check your Wi-Fi and gbLink setup and make any necessary corrections.

You can also go to the Info screen, press “*Select gbLink Host*” and “*Reconnect*” (or select the name of the computer host where your gbLink is installed if you have more than one gbLink system), to re-establish the connection between gbTouch and gbLink.

If you find that controls on gbTouch become sluggish or that gbTouch starts to “miss” in displaying changes made with Garageband, make sure that you do not have Bluetooth enabled on your iPad. Go to the Settings application, click on “General”, and set Bluetooth to OFF whenever you are using the gbTouch application. (You can turn Bluetooth back ON when done with your gbTouch session.)

If you’re still having problems with gbTouch, try this. GarageBand has a preference file, 'com.apple.garageband.cs' that it uses to save settings for control surfaces. Sometimes this file can become corrupted, which leads to unexpected behavior. Sometimes

gbLink Host Unavailable
Quick Start

A gbLink host was not found on the Wi-Fi network. Verify that your Mac running GarageBand is connected to the same Wi-Fi network as your iPad. Check that gbLink is running on your Mac.

Suggested Remedy

Leave this screen showing while trying the various remedies mentioned. When gbTouch locates a suitable host you will be taken to the connection screen. If you suspect that your Wi-Fi settings need to be changed then exit gbTouch and open the 'Settings' application to make necessary changes. If you have not yet installed gbLink do the following:

1. Use OS X Safari on your Mac and go to www.delora.com/distribution/gblink/gblink.php. This will begin the download.
2. 'UNZIP' the download and run the installer on your Mac.
3. Start gbLink from OS X's Systems Preferences application.

deleting this file corrects unusual problems. The file is located at '/Users/<your_account_name>/Library/Preferences'. Exit GarageBand then place this file in the Trash. GarageBand will create a fresh version the next time it starts.

Problems with the “LCD” Display & Rewire

As mentioned in the first chapter, gbTouch uses GarageBand’s built-in support for Propellerhead’s ReWire technology to gain access to information that we provide in the gbTouch “LCD” display. ReWire only permits a single music application to use its facilities at the same time, so some gbTouch LCD related issues will occur if you attempt to use GarageBand when another music application that uses ReWire is already running. These and other LCD issues include:

1. LCD does not show changes to current playback position; GarageBand does not respond to popup playback position changes

Most likely a ReWire related problem. See the “ReWire Problems and Remedies” blue boxout.

2. LCD does not show correct tempo; GarageBand does not respond to popup tempo changes

Make sure Master Tempo automation is disabled on GarageBand. However, this is most likely due to a ReWire related problem. See the “ReWire Problems and Remedies” blue boxout.

3. LCD shows different bar and beat position than GarageBand; GarageBand fails to locate to correct bar and beat when you select a new location; LCD shows incorrect time signature

gbTouch’s display of bar and beat location relies on GarageBand providing the current time signature. Often when the time signature is not properly updated it is due to a limitation with the GarageBand application. Briefly GarageBand does not correctly inform gbTouch when you make a change to the time signature. This happens any time you enter a new time signature by

ReWire Problems and Remedies

The most common cause of ReWire related problems is when you have another music application running before starting GarageBand, then you ignored GarageBand's ReWire warning message. To restore proper operation: exit GarageBand, exit the other music application, then restart GarageBand.

If your current workflow requires use of a second music application that must also use ReWire then you can still use GarageBand and gbTouch. However all of gbTouch's LCD related features will not properly operate.

Some ReWire related issues are due to GarageBand and ReWire experiencing a "mishap". When this happens it is often possible to remedy the problem by restarting GarageBand.

Should a ReWire problem persist it may mean that your ReWire installation has become damaged. Try reinstalling gbLink.

clicking in GarageBand's LCD, but **it will also happen when you first create a new project that uses a time signature different than the default 4/4**. To force GarageBand to properly report the change you must save your project, close your project, then reopen it. This step must be repeated anytime you change time signature.

Another possible cause is if there is a ReWire problem. See the “ReWire Problems and Remedies” blue boxout.

4. LCD shows incorrect time location; GarageBand fails to locate to correct time when you select a new location

gbTouch uses tempo information to calculate the current time position display and to inform GarageBand of changes to position you enter as a time in the popup. This works correctly as long as GarageBand is not currently using tempo automation to change tempo in the project. If your project requires tempo automation you should avoid placing the LCD display into time display mode, and only change location using bar and beat. If you wish to use the time display then turn off tempo automation in GarageBand's master track.

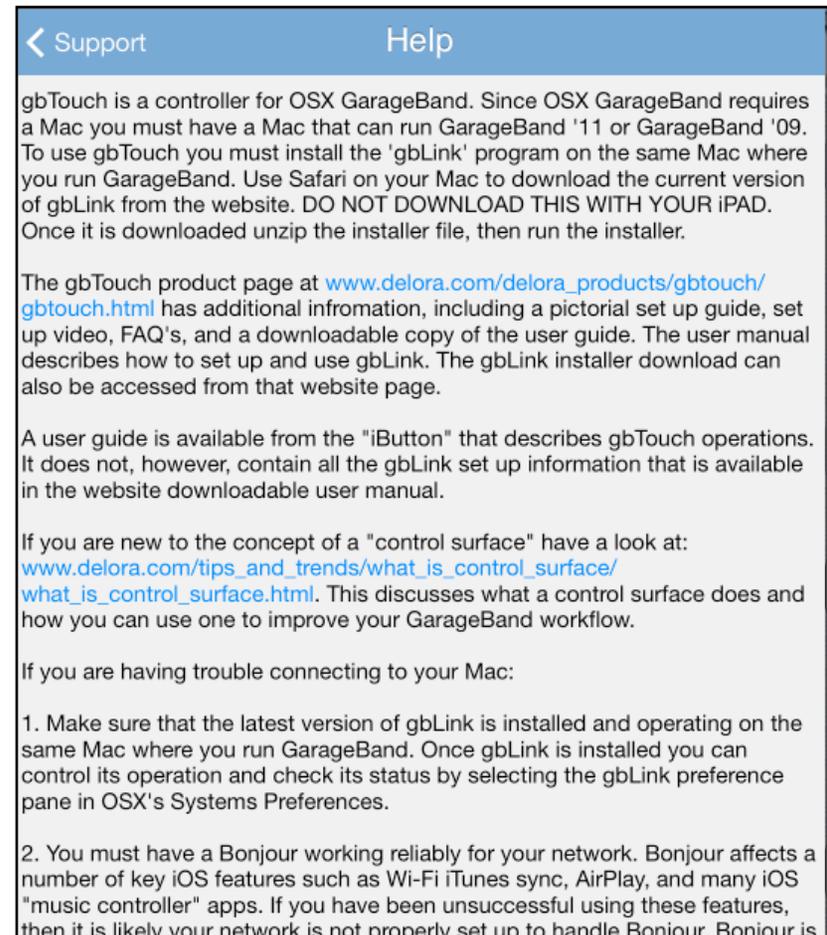
GarageBand's interactions with ReWire can also cause these sorts of issues. See the “ReWire Problems and Remedies” blue boxout.

Help Button & Support

The Support screen (and most error message screens) will show a ‘Help’ button in the top menu bar. Tap on it to bring up useful information for solving most problems.

If you still have questions or are unable to resolve a problem, tap on “Email Support” on the Support screen to send an email to Delora. Note: You must have email capability on your iPad. (Or email us directly at support@delora.com).

TYPE IN THE EMAIL A DETAILED DESCRIPTION OF YOUR PROBLEM SO THAT WE CAN HELP RESOLVE THE ISSUE. Prompts are provided.



Acknowledgements

In addition to Harmony Systems, Inc.'s proprietary code, gbTouch contains some code provided by generous and dedicated independent developers. The following code was used:

oscpack -- Open Sound Control packet manipulation library

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Reachability Extensions -- Enhancements to Apple's Reachability class, version 2

Reachability Extensions This is a derived work of Apple's Reachability v2.0 class.

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AsyncUdpSocket

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Originally created by Robbie Hanson on Wed Oct 01 2008, updated and maintained by Deusty Designs and the Mac development community

<http://code.google.com/p/cocoaasyncsocket/>

NSObject + Properties, NSString + PropertyKVC

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Cocoa Lumberjack

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gbLink uses the following code:

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AsyncUdpSocket

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Originally created by Robbie Hanson on Wed Oct 01 2008, updated and maintained by Deusty Designs and the Mac development community

<http://code.google.com/p/cocoaasyncsocket/>

ReWire

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