resident audio ™

T2 AUDIO INTERFACE
OPERATION MANUAL

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FEATURES

The Resident Audio T2 is the perfect interface between your laptop and your live performance, and it's packed with many cool features:

- Near-zero latency for virtually instantaneous recording and playback
- Support for high-resolution 24-bit/96kHz audio
- Two channels of I/O
- Two combo XLR / ¼" inputs, each with input gain controls and three-color wraparound LEDs
- Two balanced TRS ¼" outputs
- Dedicated headphone output
- Input mix control to blend live signal with computer playback
- Master "Big Knob" output control
- Smart Monitoring to automatically switch between stereo and mono
- High-quality mic preamps and A/D & D/A converters
- Phantom power allows use of condenser microphones
- Bus-powered (no need for AC or batteries)
- Compatible with Thunderbolt™ equipped Mac and Windows* computers
- Lightweight and portable
- Sturdy aluminum/acrylic/plastic chassis ensures roadworthiness
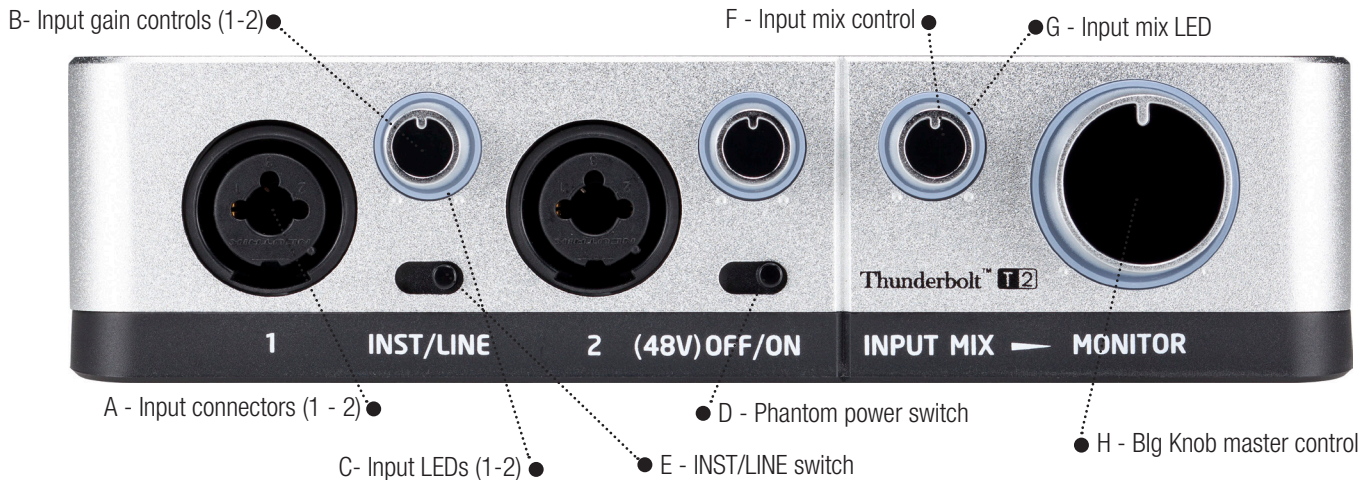- 1/3 U rack-mountable (screw-mount to standard rack tray, not included)

Whether you're in the studio, on the stage or in the DJ booth, the T2 provides the perfect interface between your computer and your performance.

Select Windows systems only. For an up to date list of compatible Windows computers please visit www.residentaudio.com

FRONT PANEL

B- Input gain controls (1-2)

F - Input mix control

G - Input mix LED

A - Input connectors (1 - 2)

D - Phantom power switch

H - Blg Knob master control

C- Input LEDs (1-2)

E - INST/LINE switch

A - Input connectors (1 - 2) – These combo connectors accept both XLR and balanced or unbalanced (TRS or TS) ¼" cables.

B - Input gain controls (1 - 2) – Turn clockwise to increase gain, counterclockwise to reduce gain.

C - Input LEDs (1 - 2) – These three-color wraparound LEDs turn green to indicate the presence of input signal, yellow when the signal is approaching peak level and red when the signal is overloading (clipping). A good starting point is to adjust the Input gain control so that the loudest passages cause the LED to light yellow, with only occasional flickers in the red, and then tweak as necessary.

**D - Phantom power switch** – Turns on 48 volts of phantom power for all XLR inputs.

E - INST/LINE switch – Use this to set the T2 inputs to instrument-level or line-level. (NOTE: When set to INST, the inputs are monitored in mono; when set to LINE, the inputs are monitored in stereo. (See Smart Monitoring on page 9 in this manual for more information.)

F - Input Mix control – This monitoring control sets the amount of input signal that is blended with the output signal (playback coming from your computer). When turned completely counterclockwise, you'll hear only the output signal from your computer, with no input signal added in; when set completely clockwise, your input signal is mixed in at full level. (Note: The Input Mix control has no effect on the level of the output signal, which can be adjusted if necessary from your computer software and/or the T2 Digital Panel; see page 7 in this manual for more information.)

G - Input Mix LED – This three-color wraparound LED turns green to indicate the presence of input and/or output signal, yellow when the signal is approaching peak level, and red when the signal is overloading (clipping).

H - Big Knob monitor control – Controls the level of connected headphones as well as the overall monitoring level (when only Outputs 1 & 2 are connected). Turn clockwise to increase the volume, counterclockwise to reduce the volume.

REAR PANEL

A - MIDI In/Out connectors

B - Thunderbolt port

C - Phones output
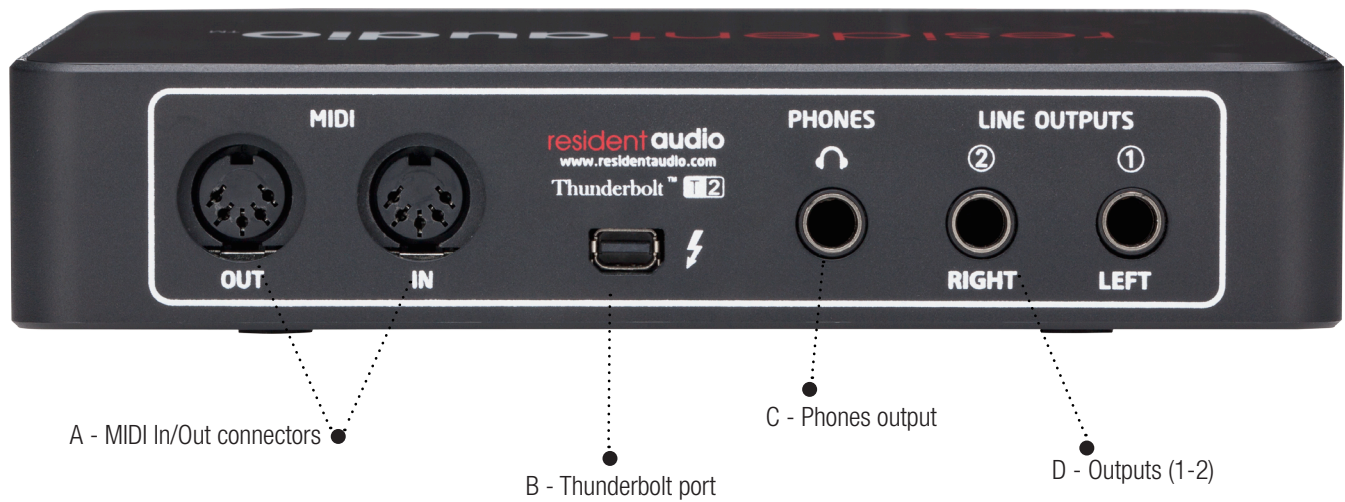
D - Outputs (1-2)

A - MIDI In/Out connectors – Use these standard 5-pin DIN jacks to connect your T2 to external MIDI devices.

B - Thunderbolt™ port – Provides power to the T2 and routes input and output signal to and from your computer.

C - PHONES output – Connect headphones here.

D - Outputs (1 - 2) – Use these balanced line-level TRS ¼" jacks to connect your T2 to monitors and external devices. **(See Making Connections on page 6** of this manual for more information.)

MAKING CONNECTIONS

Computer

This one's easy: simply plug one end of a Thunderbolt cable into your computer and the other end into the T2 Thunderbolt port. You've probably already noticed that the T2 has no AC cord. That's because it's powered by the same Thunderbolt connection that carries audio signal to and from your computer.

Inputs

> ⚠ Microphones should always be connected to the T2 with XLR cables; instruments and line-level devices should always be connected to the T2 with ¼" cables.

The Combo input connectors on the front panel of the T2 accepts XLR, balanced ¼" TRS (Tip/Ring/Sleeve) and unbalanced ¼" TS (Tip/Sleeve—the kind used by standard guitar cables).

If you're using condenser microphones which require 48 volts of phantom power, set the T2 Phantom Power switch ON. For ¼" connections, use the INST/LINE switch to specify which kinds of devices are connected.

> ⚠ The T2 provides phantom power globally (that is, to all Inputs simultaneously) so use this switch with caution if any mics not requiring power (such as ribbon microphones) are connected.

A microphone and an instrument or line-level device can simultaneously be connected; simply set the INST/LINE switch correctly. However, connecting a line-level source to one input and an instrument to the other input may result in signal distortion.

The setting of the INST/LINE switch also determines whether the input signal is monitored in mono or stereo. See Smart Monitoring on page 9 in this manual for more information.

OUTPUTS

The two line-level output connectors on the rear panel are balanced ¼" TRS jacks. Use them to connect the T2 to power amplifiers, self-powered speakers, or two channels of a mixing board.

Headphones

The T2 provides a dedicated PHONES jack on the rear panel for private monitoring in either stereo or mono. (See Smart Monitoring on page 9 in this manual for more information.)

Using the T2 Digital Panel

The T2 Digital Panel software is installed automatically during driver installation (Mac users will find it in their Applications folder; Windows users will find it in their Toolbar) and provides onscreen metering as well as allowing you to set output levels for each channel individually. Simply "grab" and move each slider with your mouse to make adjustments.

The Digital Panel also enables you to change the T2 sampling rate if your DAW software supports multiple sampling rates. See your software owners manual for more information.

Resident Audio T2 Operation Manual : Making Connections
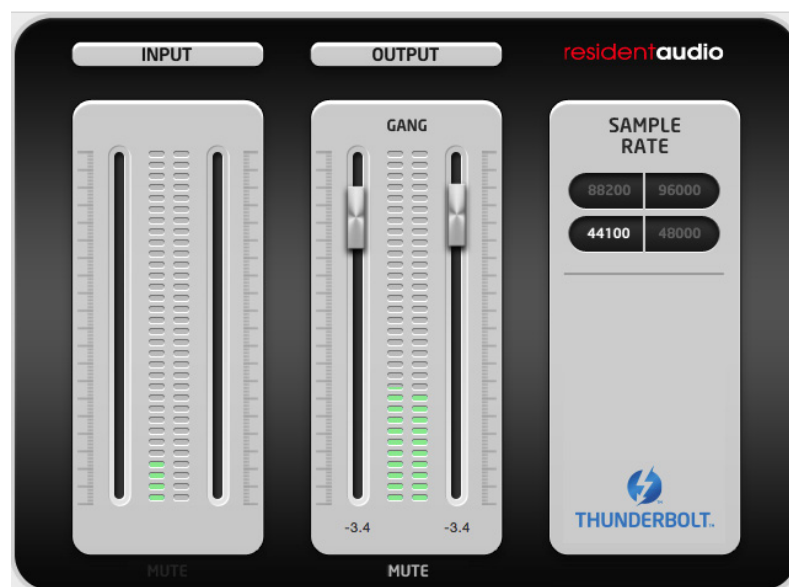
MIDI

In addition to routing audio, the T2 can also serve as a computer MIDI interface. Simply connect your T2 to external MIDI devices using the rear panel MIDI IN and MIDI OUT jacks. As shown in the graphic below, keyboards and controllers should be connected to the T2 MIDI IN, and sound generating devices such as synthesizers and drum machines should be connected to the T2 MIDI OUT.
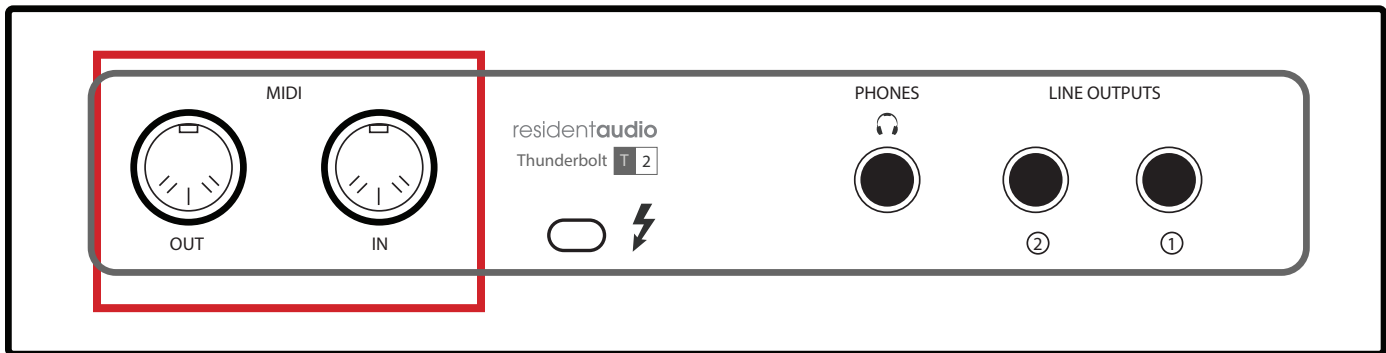
The speed of Thunderbolt, combined with the ultra-stable clock provided by the T2 driver, ensures that your audio and MIDI tracks line up perfectly, with everything playing back exactly the way you played it in, with no "slop" or delay.
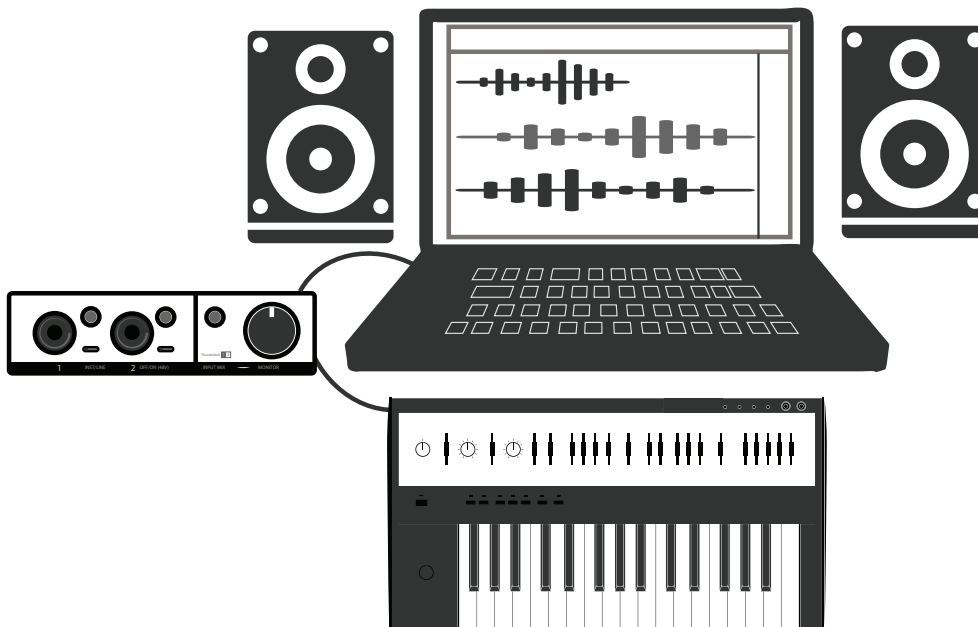
SMART MONITORING

The T2's unique Smart Monitoring provides a level of convenience that you won't find in other audio interfaces.

Here's how it works:

When the INST/LINE switch is set to the LINE position, the two inputs send signal to the two output jacks and to the PHONES jack in stereo (different input in both ears.)

However, when the INST/LINE switch is set to the INST (instrument) position, the two inputs send signal to the two output jacks and to the PHONES jack in mono (same signal in both ears). This allows you to remove one set of cans and still hear the sound of everything in one ear—especially handy for vocalists and DJs.

Note that the setting of the INST/LINE switch affects input monitoring even when only microphones are connected to the T2. In this case, set the INST/LINE switch to LINE if you want to monitor the incoming mic signal(s) in stereo, or to INST if you want to monitor in mono.

⚠️ The setting of the INST/LINE switches affect input signals only (i.e., signal coming from connected microphones, instruments or line-level devices) and has no effect on output signals (signals coming from your computer).

USING YOUR T2

There are lots of different ways you can use your T2. Here are just a few suggestions:

For live or studio recording into DAW software.
Connect your microphones, instruments, or line level sources to the T2 and start making hits. The superb quality of the T2's converters means that everything you record will sound great, and the extremely low latency offered by Thunderbolt means that you can overdub with virtually no delay.
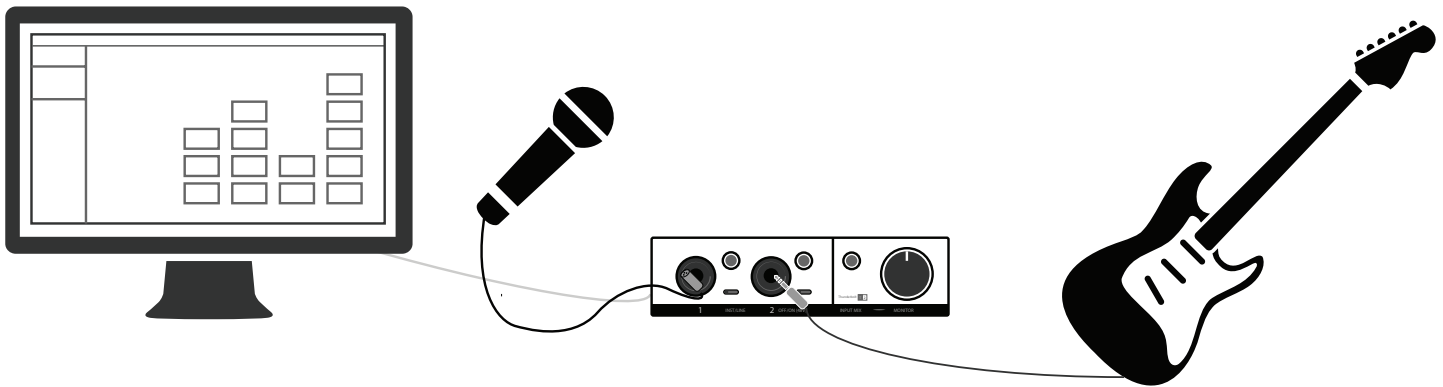
To monitor the audio coming from editing software.
Forget the limited sound offered by computer speakers: The T2 allows you to hear every nuance of your edits. Simply plug a pair of headphones into the T2 or connect its outputs to amplifiers or self-powered monitors.
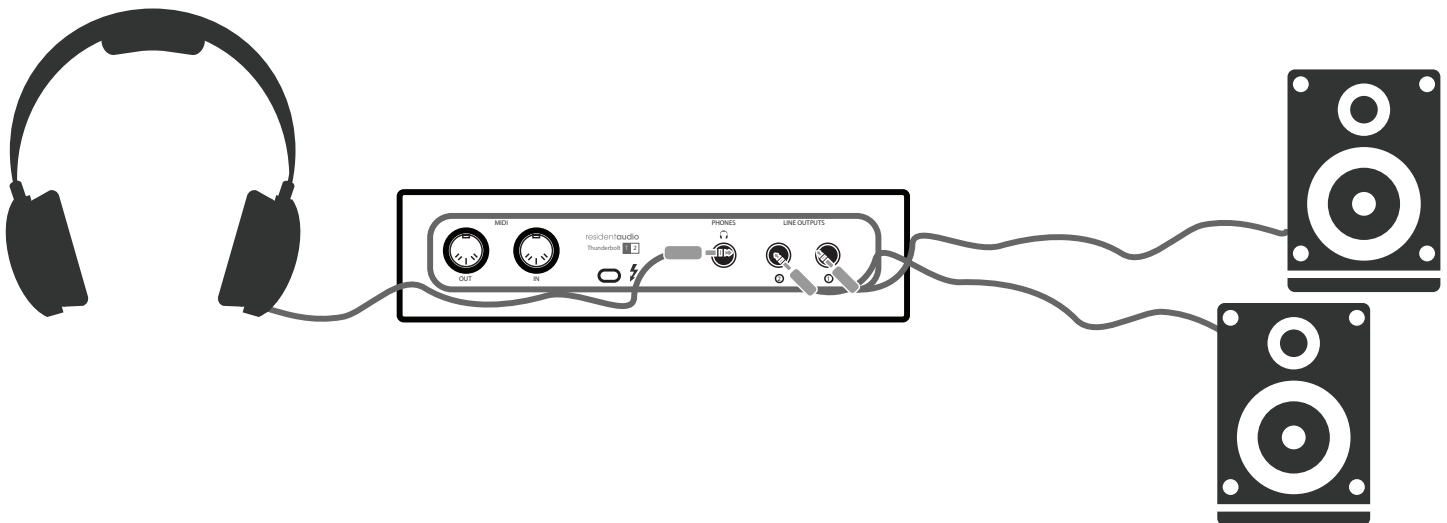
For live playback of audio both onstage and in the DJ booth.

The T2 allows you to play back audio with great quality sound—up to 24/96. Just connect the T2 to your laptop with Thunderbolt, and you're ready to go—no AC cord, no wall wart, no batteries. Each track appears on its own output, too, which means you can scratch, add reverb, delays or other kinds of processing to craft the ultimate live performance.

To listen to music in full fidelity.

With the T2, you can enjoy streamed audio files—even high resolution files up to 24-bit / 96kHz—in all their glory. Simply use the T2's PHONES jack instead of the one on your computer, or connect the T2's outputs to a pair of speakers. You'll be amazed at just how great your favorite music can sound.

SPECIFICATIONS

Connectors

Input: 2 x Combo XLR mic / balanced ¼" TRS, line / instrument level
Output: 2 x balanced ¼" TRS line-level 1 x stereo ¼" headphone output
MIDI: Input / Output
Thunderbolt™ port: 1 (bus-powered)

Controls

Trim: 2 (1 per channel) with 0 to +35 dBu mic gain range
LED clip indicator: 1
Line / Instrument switch: 1
Phantom Power: On/Off +48V (global for both channels)
Input Mix: Blends live input signal with computer output signal
Big Knob (volume control): Controls headphone level and monitoring level

Hardware

Preamps: 2 per channel, mic/instrument
Chassis: Aluminum/Acrylic/Plastic
A/D/A converters: More than 100dB dynamic range

Smart Monitoring

Stereo or Mono: Selected by Line/Instrument switch

Audio

Bit resolution: 24-bit
Sampling rates: 44.1, 48, 88.2, 96 kHz
Mac® & Windows® compatibility: Recommend Mac OS X 10.9 Mavericks or above, Windows 8 or higher
Supports: ASIO, Core Audio, Windows Audio Session API (Windows 8)
Dimensions: 7" x 4.25" x 1.75"
Weight: 1.375 lbs

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residental installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular Installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the recieving antenna
• Increase the separation between the equipment and the receiver
• Connect the equipment into an outlet on a circuit different from that to which the reciever is connected
• Consult the dealer or and experienced radio/TV technician for help

WARNING: Changes or modification to this unit not expressly approved by the part responsible for compliance could voide the user's authority to the equipment.