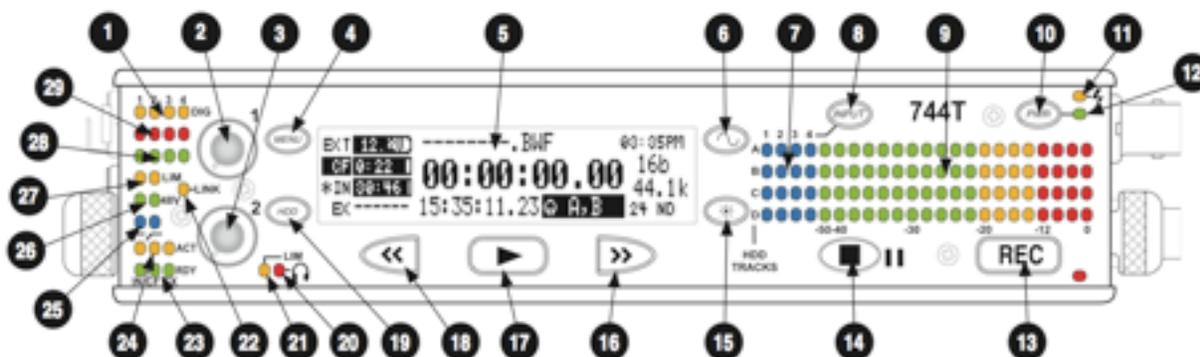


CalArts Film/Video Sound

Quick Start for Sound Devices 744T

Time Code Hard Drive Field Recorder:

Front Panel Descriptions



1) Digital Input LEDs

Indicates the presence of digital signal on the respective input. When flashing, indicates that digital input is selected but no valid digital clock signal is present.

2) Input 1 Gain

Controls the analog gain (input trim) of the channel 1 input.

3) Input 2 Gain

Controls input 2 gain, as in #2 above. When inputs are linked as a stereo pair, Input 2 Gain controls left-to-right balance.

4) MENU Key

Used to access all 744T setup menu selections. When in menu mode, used to move up through the menu selections.

5) LCD Display

Primary display of 744T status. The LCD is backlit using the LCD backlight control (#15).

6) Tone Oscillator

Press and hold to activate the tone oscillator.

7) Input-to-Track Matrix LEDs

Blue LEDs indicate inputs (1, 2, 3, 4) enabled for recording to tracks (A, B, C, D).

8) INPUT Select Key

Pressing the INPUT key brings up the input muting and routing menu. Hold down the INPUT key and press one of the four indicated soft keys to mute inputs. Pressing the STOP key and the INPUT select key cycles through the six

factory preset input-to-track routing combinations plus the custom routing menu. In the custom routing menu any input can be routed to any track.

9) Level Meter LEDs

Four, 19-segment track level-meters indicate level in dBFS..

10) Power Key

Press and hold (150 ms) to power up the 744T. Press and hold (1 second) to power down.

11) Charge LED

Indicates the charge status of the onboard battery charger. LED flashes when external power is connected and the removable battery is charging; illuminates solid when battery is fully charged.

12) Power LED

Indicates the 744T is powered and available for operation. LED flashes when the removable battery or external DC is in a low-voltage state.

13) Record Key

Press to record. The 744T is a record-priority device; pressing this key activates recording and discontinues all other functions, except file operations. Pressing key during recording can set a cue marker or start a new file, as selected in the setup menu.

14) Stop/Pause Key

Press and hold this key for 150 ms to stop recording. In playback mode, a single press

pauses playback (play-pause), allowing audio scrubbing with the FF and REW keys.

15) LCD Backlight Key

Press to toggle LCD and keyboard backlighting. Hold the key and turn the Multi-Function Controller to adjust the brightness of LEDs. In menu mode, functions as the cancel key.

16) Fast Forward Key

When pressed in playback and play-pause mode this key will advance (fast-forward) through the played file.

17) Play Key

Press to play the file displayed on the LCD. If pressed immediately after recording is stopped the most recently recorded file is played.

18) Rewind Key

When pressed in playback and play pause mode this key will rewind through the played file.

19) HDD (Drive Directory) Key

Press to enter the File Viewer. The selected medium shown in white type will be the destination when the button is pressed. Press-and-hold to toggle between available media.

20) Headphone Output Peak LED

Indicates overload of the headphone amplifier. When lit, the headphone circuit is overloading. Reduce headphone level.

21) LIM LED

Indicates that the microphone input limiters are engaged.

22) LINK LED

Indicates that channels 1 and 2 are linked as a stereo pair. In link mode input 1 controls gain, input 2 controls left-to-right balance. Inputs can be linked as either a stereo L/R pair or as a Mid-Side (MS) pair.

23) Media Ready LEDs

Indicates storage media is present and available to record; IN (internal hard drive), CF (Compact Flash), EX (external hard drive).

24) Media Activity LEDs

Indicates storage media read/write activity.

25) High-Pass Filter LEDs

Indicates that the high-pass (low-cut) filter is active for the input. High-pass only operates when the input is set to microphone level.

26) Phantom Power LEDs

Indicates that phantom power (48 volts) is active for the individual input. Phantom can be applied to microphone or line level signals.

27) Microphone Input Limiter LEDs

Illuminates orange when limiting is occurring on the microphone input. If constantly lit, the microphone input is being hit with too "hot" of a signal. Reduce the input sensitivity until limiting occurs infrequently.

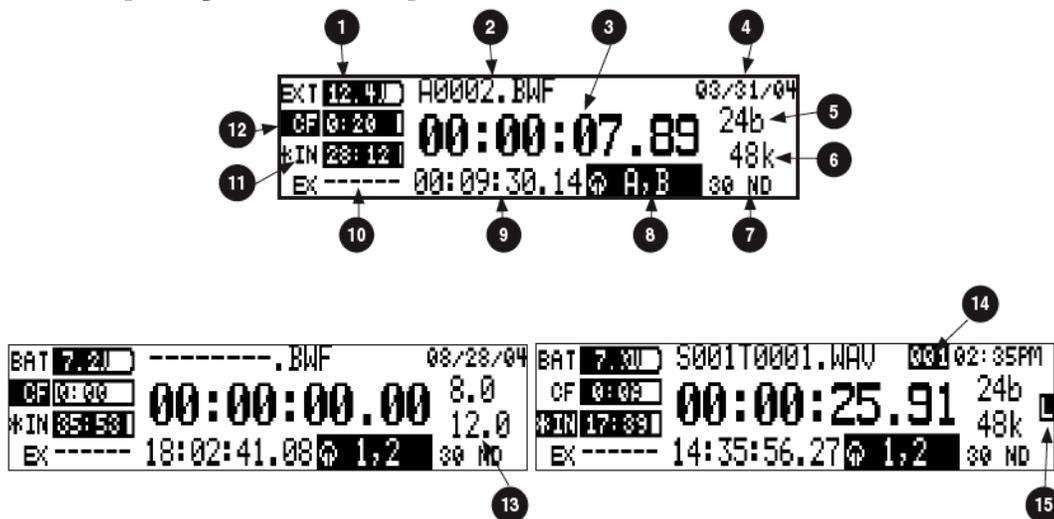
28) Input Signal Presence LEDs

Indicates presence of analog or digital signal and its relative level on each of the four inputs.

29) Input Peak (Overload) LED

Indicates analog signal is approaching clipping (-3 dBFS) on each of the four inputs.

LCD Display Descriptions



1) Battery Level Indicator

Shows voltage level of the removable battery or external power sources. External power overrides battery power when present. Graphical bar for relative level and numeric indicator for precise voltage measurement.

2) File Name Display

Shows file name actively being recorded or played back. In playback-stop mode, flashing file name indicates that the fast-forward and rewind keys can be used to step through files in the current playback directory.

3) Absolute Time (A-time) Display

Shows the elapsed time of the file being recorded or played back. Flashes in playback pause mode.

4) Time & Date Display

Alternating display between the set date and time of the 744T. This information is written as the creation date for generated audio files.

5) Bit Depth Indicator

Shows the set record bit depth.

6) Sample Rate Indicator

Shows the set record sample rate.

7) Time Code Rate

Shows the set time code frame rate. If external time code is connected and the external rate differs from the rate set internally, the time code rate will flash.

8) Headphone Source Display

Indicates the source for headphone output. Sources are user selectable in the setup menus.

9) Time Code Display

In stop and record, shows the time code generated by the 744T. In play mode, the display shows the play file's time code information.

10) External Media Space Status (space remaining/record ready)

11) Internal Hard Drive Status (space remaining/record ready)

12) Compact Flash Status (space remaining/record ready)

For 10, 11, 12: Bar graphs indicates amount of record time remaining on the media. Numbers show time in hours and minutes based on the presently selected number of record tracks, sample frequency, bit rate, and file type. For all three media types, an asterisk in front of the media descriptor indicates that the media is selected for record. Highlighted media descriptor indicates media selected for record monitoring, playback or file directory display.

13) Input 1/2 Level

When input 1 or 2 gain is turned this indicates the gain level in dB for inputs 1 and 2. Normal mic input gain range is from 26 dB to 70 dB, low gain mic range is from 10 dB to 50 dB, line input range is from -6 dB to 18 dB.

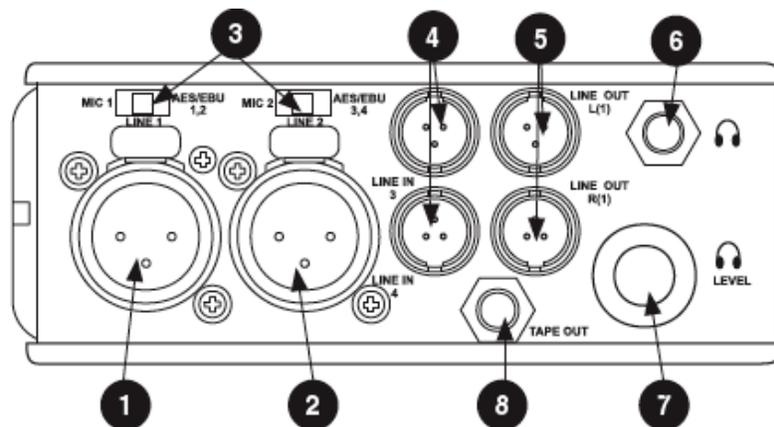
14) Cue Marker Display

In record mode, indicates when cue markers are set. Markers set by pressing the record key (option must be selected in setup menu).

15) External Digital Clock Indicator

The 744T is locked to a valid external digital or word clock source when the L is in the display.

Left Panel Connectors and Controls



1) XLR Input 1/AES3 Input 1&2

Dual function input connection. Input type set with switch above. Microphone- or line-level input for input 1. Transformer-balanced two-channel AES3 input (1 and 2).

2) XLR Input 2/AES3 Input 3&4

Dual function input connection. Input type set with switch above. Microphone- or line-level input for input 2. or AES3 input (3 and 4).

3) Mic-Line-AES3 Input Switch

Selects the input level and mode of the associated XLR input connector.

4) TA3 Channel 3&4 Line Inputs

Active-balanced line-level input connectors.

5) TA3 Master (L/R) Analog Outputs

Active-balanced, line-level analog L/R outputs.

6) Headphone Output

3.5 mm TRS stereo headphone connector.

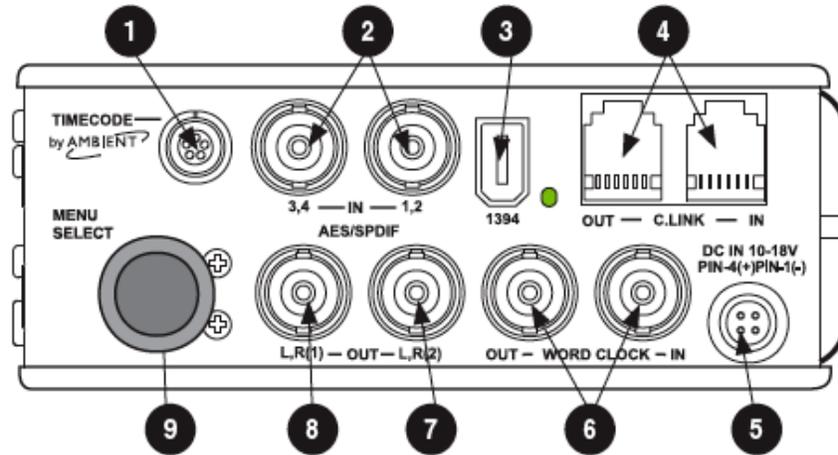
7) Headphone Volume

Adjusts the headphone volume. NOTE: the 744T is capable of producing ear-damaging levels in headphones.

8) Tape Output

Unbalanced tape (-10 dBv nominal) output on 3.5 mm TRS stereo connector.

Right Panel Connectors and Controls



1) Time Code Multi-Pin

Time code input and output on 5-pin LEMO connector.

2) AES3id Inputs 1/2 and 3/4

Unbalanced digital inputs accept four channels of either AES3 or S/PDIF on BNC connectors.

3) FireWire (IEEE-1394) Port

Connection to a computer to access the internal hard drive and Compact Flash volumes as mass storage devices. Direct connection to Mac OS (X-only) and Windows (XP- and 2000-only) computers. Also used to attach external FAT32-formatted FireWire drives.

4) C. Link In/Out

RS-232 interface on 6-pin modular ("RJ-12") connector for linking multiple 722 and 744T recorders together.

5) External DC In

Accepts sources of 10–18 volts DC for unit powering and removable Li-ion battery charging.

6) Word Clock Input and Out

Provides clock input and output for the 744T.

7) AES3id Output Bus 2

Unbalanced digital output, two-channel, for Output Bus 2. Signal source is menu-selected.

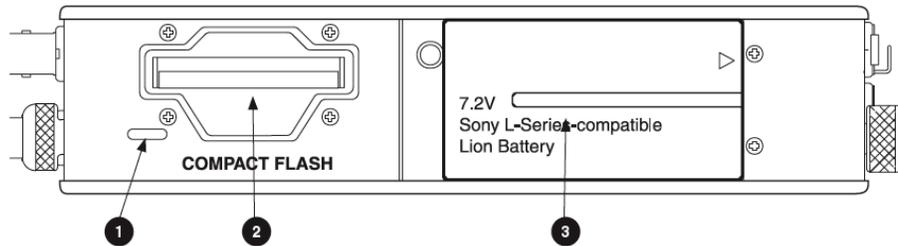
8) AES3id Master Output Bus

Unbalanced digital output, two-channel, for the Master Output Bus.

9) Multi-Function Controller

When in the setup menu, the controller scrolls between menu selections; push enters selection or enters data. In record and playback modes, selects headphone monitor source.

Back Panel Descriptions



1) Security Slot

Compatible with the Kensington Security Slot specification.

2) Compact Flash Slot

Insert Compact Flash medium with the label-side up. Compatible with Type I, Type II, and MicroDrives.

3) Battery Mount

Accepts Sony InfoLithium L- or M-Series batteries. Also accepts batteries conforming to this mount. Numerous capacities, from 1500 mAh to 6000 mAh are available.

BASIC RECORD OPERATION:

Note: Menu #s may change as software is updated.



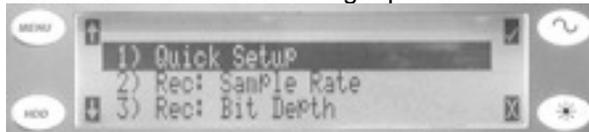
Turn on 744T with the PWR button.



To setup the unit for your needs, press MENU.

Scroll through the menu using the ↑ MENU & ↓ HDD buttons just to the left of the screen, or by turning the multi-function controller on the right panel.

Select **Menu item 1) Quick Setup** by pushing the ✓ button, or by turning & pushing the **multi-function controller** on the right panel.



Select: **Load Factory Settings** by pushing the ✓ button, or by turning & pushing the **multi-function controller** on the right panel.



This will give you:

- 48 kHz
- 24 bit samples
- 30 fps time code
- free run generator
- interleaved WAV files

- record on hard drive AND compact flash
- reference tone: -20 dBFS
- phantom power off
- normal gain on mic inputs

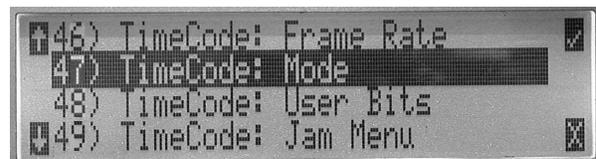
Scroll down to and select **menu item 4) Bit Depth**.



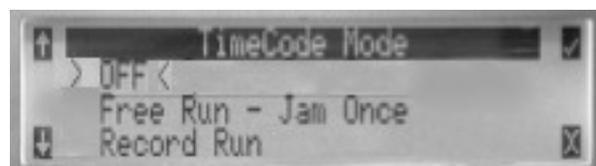
Select 24-Bit.

Scroll down to and select **menu item 47) Time Code: Mode**.

Scroll down to and select **menu item 47) Time Code: Mode**.



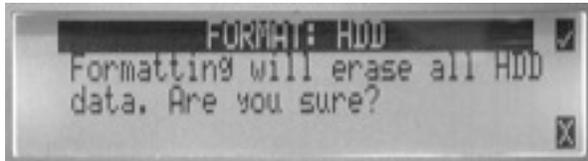
Select **OFF**. (Time code is rarely needed on sound files. Improper time code can cause serious sync problems. If you think you need time code, talk to sound faculty to determine the best settings)



If you have just gotten the recorder from the cage & don't have any recordings on it, select **menu item 81) INHDD: (Erase)**.



Follow directions to erase all data from the recorder. **THIS IS PERMANENT.**



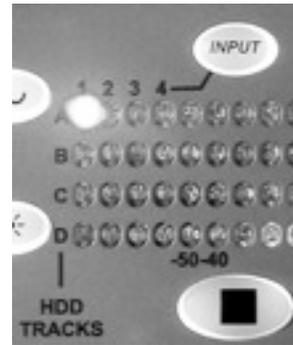
Exit menus by pressing **X** (power button).



If you are using only one mic, connect it to the left XLR. move the slider to **Mic 1**.



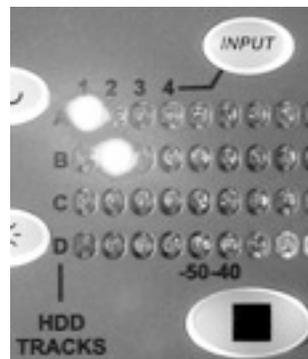
Hold the **STOP** (square button) & press the **INPUT** button until only the blue light next to **A & 1** is lit.



If you are using two mics, connect the second cable to the right XLR. move the slider to **Mic 2**.



Hold the **STOP** (square button) & press the **INPUT** button until only the blue lights next to **A & 1**, and **B & 2** are lit.



Turn the headphone level control full counter clockwise.

Connect your headphones. (*Don't* connect to the **TAPE OUT** jack!)



Adjust your mic level(s) with **GAIN** control(s) 1 & 2 for proper recording levels, watching the green, yellow, & red level LEDs. (If the knobs aren't sticking out, press them in until they click.)



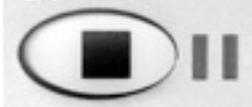
Now bring up the headphone level until comfortable.



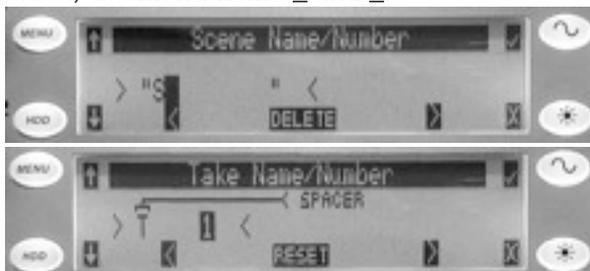
Now press the **Record** button.

You're recording! the name at the top of the display (i.e.: **T1.WAV**) is the name of the file being recorded to. each time you record, a new file will be created. Also, if you press **RECORD** again while recording, the file you're recording to will be closed, and a new file (with a new name) will begin. No audio is lost.

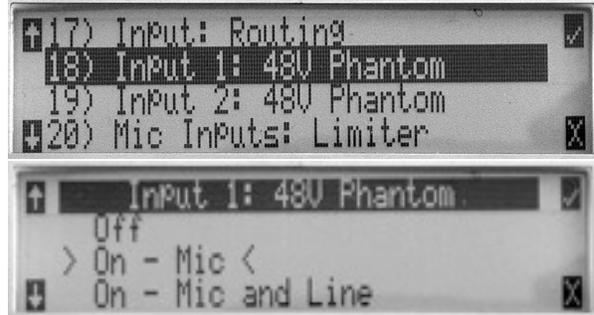
To stop recording, press the **STOP** button.



To change the way Scenes & Takes are numbered, use **menu items 7 and 8**.

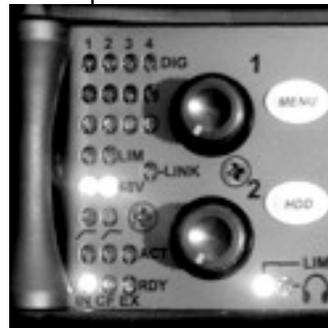


If you need 48 V phantom power, use **menu items 18 and 19**.

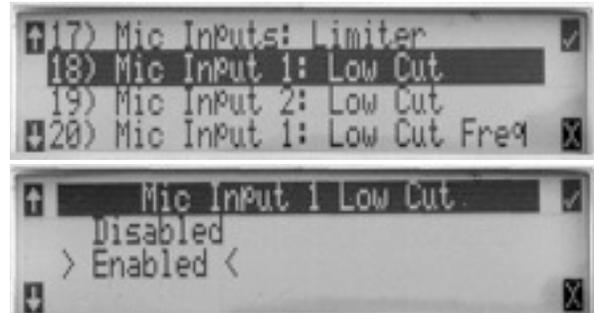


(Note: the 744T will not provide **T** power for older Sennheiser mics.)

Enabling phantom power will illuminate the **48V** lights on the front panel.



If you're having trouble with low frequency rumble, use **menu items 21 to 24**.



Enabling Low Cut will illuminate the **Low Cut** lights on the front panel.



