

Local 695 Non-Linear Recording Survival Training – 3/1/08

Sound Devices 744T (mostly applicable to all 700 series recorders) --

Sound Devices 744T User Manual <http://sounddevices.com/download/guides/744t_en.pdf>
Sound Devices firmware updates & update histories <<http://sounddevices.com/download/>>

Ah, Sensei – how do I . . .

Power on/off:

'PWR' button on front face upper right. Press once to power on; press and hold (2 seconds) to power off.

What info or settings are lost after powering down?

No settings are lost when powered off; 'MENU' structure returns to top of MENU list, requiring scrolling to return to preferred entry point (usually prefer #7 { 7 } Rec: Scene Name/Number}).

744T MENU functions are mostly controlled by the four buttons around the LCD display – two on left, two on right

Enter the MENU structure by pressing the upper left '**MENU**' button –

scroll choices with left side buttons, select choice with upper right ✓

***** To exit MENU mode, it is always best to press 'STOP'  to return to home display *****

Pressing 'PLAY'  while in MENU mode returns to top (# 1) of MENU list

Setting timecode and internal clock:

Frame rate: 'MENU' item #46 { **46** } **TimeCode: Frame Rate** }

select from scroll of choices (normally '30' or '29.97' – don't choose 'DF' unless you intend to!)

Time-of-day timecode: 'MENU' item #47 { **47** } **TimeCode: Mode** } – '**24h Run**' –

-- sets the timecode generator to follow internal time-of-day clock

-- **easiest mode to use**; internal clock is quite stable, recorder turns on with proper TC pre-set

Set internal clock time & date:

'MENU' item #61 { **61** } **Time/Date: Set** } –

– left side buttons for up/down of value; right buttons for groupings of two numbers for entry & 'DONE'

Record-run timecode: 'MENU' item #47 { **47** } **TimeCode: Mode** } – '**Record Run**' –

sets the timecode generator to increment only when recording

(Necessary to set starting timecode value: 'MENU' item #49 { **49** } **TimeCode: Jam Menu** } –

scroll choices to 'EDIT VALUE' ('JAM ZEROS' is also a choice, above 'EDIT VALUE') –

enter your starting TC value (ex: 01:00:00:00) (left side buttons for up/down of value;
right side buttons for groupings of two numbers for entry & 'DONE')

scroll choices to 'JAM VALUE' – upper right button 'JAM' – push 'STOP' button to finish

External (constant generator) timecode: 'MENU' item #47 { **47** } **TimeCode: Mode** } – '**Ext TC**' –

One-time jam timecode (two methods):

via menu scrolling – 'MENU' item #47 { **47** } **TimeCode: Mode** } – '**Free Run - Jam Once**' –

– **or** – via shortcut keys – press '**MENU**' and '**HDD**' buttons simultaneously –

– select 'Free Run - Jam Once' with the upper right {check}, TC will be jammed from TC present

Setting sample rate and bit depth:

'MENU' item #3 { **3** } **Rec: Sample Rate** } select from scroll of choices (normally '48k' or '48.048k')

'MENU' item #4 { **4** } **Rec: Bit Depth** } select from scroll of choices ('16' or '24')

Selecting the number of channels recorded & input-to-track matrix (two methods):

via shortcut keys – **EASIEST** – press & hold '**STOP**'  button, then toggle '**INPUT**' button

-- watch blue LEDs for input (1 – 4) and HDD tracks (A – D) matrix (above 'STOP' on front face)

– **or** –

via MENU scrolling – 'MENU' item #17 { **17** } **Input: Routing** }

-- select from scroll of input and track assignment routings (normally 2-channel '1-A / 2-B' or 4-channel '1-A / 2-B / 3-C / 4-D')

Arming tracks to record:

After selecting the number of tracks to record, and the input-to-track matrix assignments, no further action is necessary to arm tracks to record. Recording is ALWAYS non-destructive – it is not possible to overwrite previous recordings. (Even when using the file review 'Delete' action, deleted files are moved to an in-machine 'TRASH' folder, and recoverable from there.)

Selecting inputs / input gain:

Inputs 1 & 2 – XLR female jacks on left side of 744.

Selectable 'MIC' – 'LINE' – 'AES' digital via slider switches above XLR jacks.

Via 'MENU' scrolling – Mic inputs 1 & 2: 48 volt, limiter, low cut filter, gain range, linking, delay

Line inputs 1 & 2: linking, gain control (front knob or fixed level choice), delay

Inputs 3 & 4 – mini TA3 male jacks on left side of 744.

Line level only – gain adjustable via 'MENU' item #33 or 34 { **33** or **34** } **Line Input 3 or 4: Gain** }

Also available: delay

Limiter setup:

Built-in audio limiting is only available on channels 1 & 2 in 'MIC' input mode. Mic limiter parameters are not user-accessible; only 'Disabled' or 'Enabled' – 'MENU' item #20 { **20** } **Mic Inputs: Limiter** }


Formatting removable media (DVD-RAM):

** Every DVD-RAM must be formatted before use **

The 744 works very well with the Sound Devices XL-DVDRAM external drive, a firewire bus-powered DVD-RAM writer. **Experience has shown that the 744 must be powered from an external DC source to bus-power the drive properly.** When the external drive is connected to the 744 (after 'MENU' item #2 { **2** } **FireWire: Connection** } has previously selected '**External Drive**'), insertion of a new (unformatted) DVD-RAM disk will bring the 744 screen prompt { '**EXT media is not formatted. Do you want to format it?**' } Proceeding through the prompts, formatting a DVD-RAM (5x speed) with the 744 takes about 20 seconds, after which the disk and external burner may be used with the 744, **or** any firewire-equipped Mac or PC.

Once a formatted disk has been loaded, the 744 can be set to record to both its internal hard drive (INHDD) and also the external DVD drive (EXHDD) simultaneously, a constant mirroring process, to generate a dailies DVD-RAM. This mirroring requires that 'MENU' item #6 { **6** } **Rec: Media Select** } select '**EXHDD and INHDD**' (or, '**EXHDD and INHDD and CF**') to specify recording on the selected media.

Entering scene & take metadata:

Before recording, enter 'MENU' item #7 { **7** } **Rec: Scene Name/Number** } and scroll to '<Add New Entry>'. Use the left up/down buttons to enter numbers, capital letters, underscore or hyphen. The rewind (<<) and fast forward (>>) keys will shift left or right to the next character column; when you have entered your scene name (ex: 21H), press the upper right button (✓) to select that number as the next recording's metadata scene number, and **press 'STOP'**  **to return to the main operation (home) screen.** (It is often a good choice to pre-enter an entire list of scene numbers for use on a production day, and then simply scroll through the entries as you move through scenes.)

The take number function auto-increments with each new recording (and auto-resets to take #1 when the scene name is changed). 'MENU' item #9 { **9** } **Rec: Take Name/Number** } is user-configurable: do you prefer the metadata info "T1" or "-1" or "T01" after the scene number information? After this initial setup has been made, you may also return to the take naming screen ('MENU' item #9) to correct an improperly ID'd recording name, if things have fallen out of sequence (oh, you know how those clapper loaders get . . .)

Track name metadata:

Go to 'MENU' item #8 { **8** } **Rec: Track Names** }, and (following the 744's established entry method: select track A-D, scroll choices or select 'EDIT', enter name or select from pre-entered choices, **press 'STOP'**), name your four recording tracks as you wish. (Upper- and lower-case alphabet, numbers, _ and - are available.) A new track name that is entered for any one track is immediately available on the three other track choices -- it is only necessary to type the track name once, and it's available for all four channels. (Exactly like pre-entering a list of scene numbers, pre-entering every probable track name saves much time in a hectic day . . .)



----- Changing the last take's (incorrect) metadata:


After recording a file, and discovering that an incorrect metadata scene name had been pre-entered, it is possible to correct the file name. **HOWEVER: the correction is ONLY to the file name – the embedded BEXT chunk of the file (the metadata that travels with the audio component) remains the original (incorrect) name. It IS of great value to name the files properly – but, be aware that this is NOT a total metadata correction. ***

To correct the names of recorded files (or to simply view the files present on the recorder's drives), press the 'HDD' (lower left) button. The files for the day's work will be immediately in view; navigating up the sub-folders will take the viewer to any files present on the media. Find the file you wish to rename (probably the first file that comes to view after pressing 'HDD'). Press the FF (>>) 'OPTIONS' button, and you have the choices to 'Rename', 'Delete', 'Set/Clear Copy Flag', 'Notes', and 'Rename Track(s)' of the file that you have selected (parked on).

(* As of firmware rev. 2.34, the renaming of files does not affect BEXT metadata, only file names. This will probably change in the near future.)

----- Playing back a recorded take:

Immediately after pressing 'STOP'  to end the recording of a file, it is possible to press 'PLAY'  to hear the file that was just recorded. Or, while in a fully stopped mode (not a 'play-pause' mode), the rewind (<<) or FF (>>) buttons will move from file to file, in order of recorded sequence.

And, as explained above, press 'HDD', and a list of all the files present on the drive will be displayed. Selecting any file will make it available for immediate playback. Pressing 'STOP'  twice returns the 744 to stand-by mode (ready for the next recording).

----- In the event of 744 "lock up" or "freeze":

Each revision of the 744's firmware has brought greater stability and more refined function. If the machine totally freezes up (for instance, sometimes brought on by hot-unpatching an external drive), the only solution I have found to regain machine function is to totally remove all power – unplug the external supply, and slide off the on-board battery (a difficult task when wedged into a sound cart's rack mount). Re-connecting power, and powering up the 744, results in normal function.

The 744 is quite efficient in its battery consumption – one on-board L-mount battery can last two or three days – and its operation becomes quite easy and familiar after a brief time of use.

File formats - Sound Devices 700 series recorders (744T, 722, 702T, 702) are able to record:

WAV (B WAV) files (poly or monophonic)(24- or 16-bit) -

32KHz to 192KHz (includes 44.1, 47.952, 47.952 F, 48, 48.048, 48.048 F)

MP3 or MP2 files - 64 to 320 kb/s stereo file

FLAC files

You may now wander the paths of the righteously non-linear . . . They walk among us !!