The BIRN Microtrack Operation Manual
By DJBiGMAN
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Welcome,

Here at the BIRN we conduct a wide variety of interviews. Some of these do not take place in our live room, but instead, on location. This could be because of a visiting artist or speaker somewhere on campus, a BPC performer back stage, or a band performing at a Boston Venue. In these instances it is most likely you will require some form of portable audio recording solution. The BIRN owns such devices and provide them for your use. These currently take the form of a few *M-Audio MicroTrack* devices. The following guide should be read by all DJs hoping to use one of these units.

Even if you are experienced in recording, you must read the following pages and adhere to any Station Protocols laid out in the set up and operation of our equipment. If you have your own portable recording solution and would rather use that for your BIRN related events, contact a member of the Production Team so that they can approve it's use. We have high standards at the BIRN and you must meet them if you are hoping to have recorded material aired.

For a fully comprehensive guide and exact specifications on the BIRN's MicroTrack's, follow this link:

http://www.m-audio.com/images/global/manuals/080311_MTII_UG_EN02.pdf

Microtrack II

USB to AC adaptor

Carrying Pouch

USB cable

Stereo Condenser
Microphone

Extension Cable

MD-42

XLR to 1/8" adaptor

MICROTRACK II
Professional 2-Channel Mobile Digital Recorder

Mic/Line Input Jacks: These 1/4" TRS jacks accept microphone and line-level signals.

Headphone Jack: Connect a pair of headphones with a 1/8" plug for monitoring.

Stereo Mic Input Jack: This 1/8" stereo jack is used for connecting a mono or stereo microphone.

Menu Button: This button toggles between the Main Menu and record screen, or acts as an exit button when in a sub menu.

Navigation Wheel: *see next page*

Hold Switch: When active, all buttons on MicroTrack II will be disabled.

Dimmer Switch: This is a three-position slide switch that controls the brightness of both the LCD backlight and the LED indicators on the front panel.

Memory Slot & Eject: Insert a CF card or Microdrive here
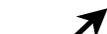
Phantom Power Switch: This switches on the phantom power for the 1⁄4" TRS inputs. When active, "48V" will be will be shown on the LCD display. *NOTE:* Phantom power should only be used with condenser microphones.

USB Input: Connect MicroTrack II to a host computer or to the included USB power supply using this input.

RCA Outputs: These are line-level outputs from MicroTrack II.

S/PDIF Input: This allows digital signals in S/PDIF format to be recorded by MicroTrack II.

MICROTRACK II
Professional 2-Channel Mobile Digital Recorder

Power Button: Press and hold this button for approximately one second to turn MicroTrack II on and off. *Should the unit ever become unresponsive, pressing and holding this button for approximately ten seconds forces MicroTrack II to shutdown.*

Navigation Wheel: This is a mult function control that is dependen on the current screen you are viewing.

i) In a menu, pushing up or down navigates the selections on the screen, and pressing in selects the current function.

ii) In the main playback screen, pressing in toggles between play and pause. Pushing down or up will skip ahead or backwards through the songs in the current folder. Holding down or up will fast-forward or rewind the currer song.

Clip Indicators: These LEDs will light when an input signal exceeds -1dB. This warns you that unwanted distortion may be included on the recording.

Delete Button: In normal player/recorder operation, the delete button deletes the current (or selected) audio file.

Input Levels Adjust: These control the individual recording levels of the MicroTrack II, left and right inputs. The current input level setting is represented by triangles in the L/R level meters on the main screen. *These are usually paired so you need only touch one control.*

Record Button: This button is used to start and stop recordings

Signal Indicators: These LEDs will light when a signal greater than -40dB is detected at the selected input.

Output Level Adjust: This controls the output volume of MicroTrack II. *This does not affect the file being recorded.*

M-AUDIO
MICROTRACK II

file007.wav

8/30   00:00:00/00:03:55
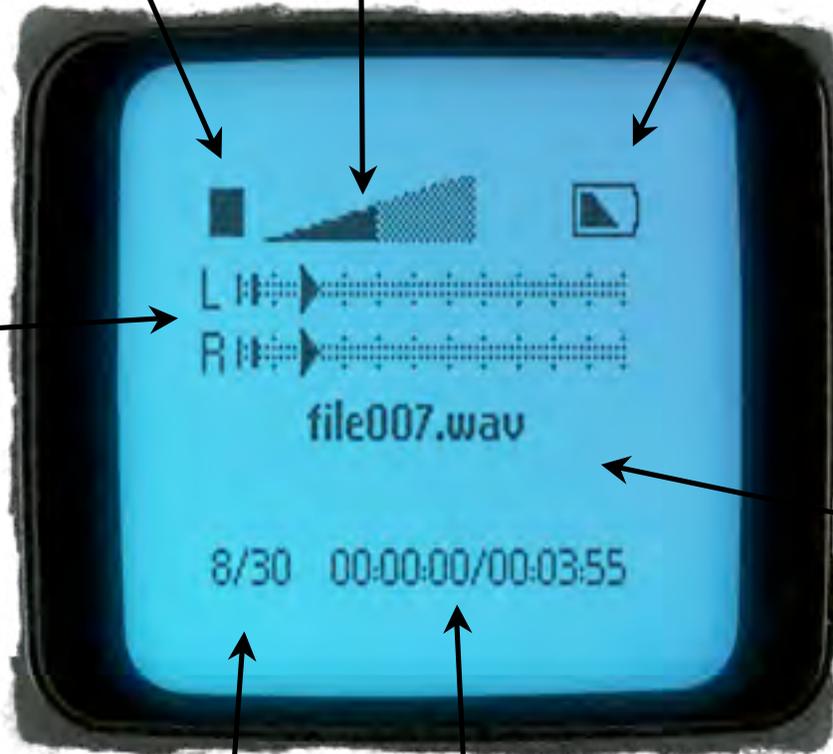
LEVELS
L   R   VOLUME   DEL

REC

MICROTRACK II
Professional 2-Channel Mobile Digital Recorder

Current Play Status: indicates the current status of the audio file in playback or recording mode.

Output Volume meter: Indicates the volume level from the monitoring outputs.

Battery indicator: Indicates level of battery life remaining.

Level Meter and Gain amount: The amount of Gain that you set is indicated by the triangles. The vertical black lines represent your levels.

file007.wav

8/30   00:00:00/00:03:55

File names: Displays the file name of the current audio file being played or recorded.

File number: Indicates the number that the current file holds in the folder structure of the Microtrack II.

Current Position & Remaining/Total Time: Indicates the current playback/record location in the audio file.

Setting up the Microtrack

Before recording with a Microtrack II, you are going to want to make sure it's set up correctly. Make sure you follow these steps in this precise order to avoid problems later on.

1) First of all, make sure the unit is charged. Microtrack II's use an inbuilt battery that needs to be charged either via an AC outlet or a USB socket. It **does not** accept typical AA or AAA batteries.

2) Make sure that the date and time have been set up correctly so that any recordings are properly stamped. To do so, press the *menu* button to access the "*Main Menu*." use the jog wheel to scroll down to "*System Menu*" where you can scroll down further to access "*Date & Time*." The time should be set to a 12 Hour clock with the US date format. This is important to make sure files are tagged uniformly.

*-Be careful **not** to "Format Media" or set the "Factory Defaults." These functions are reserved for production personnel only. The former could erase previously recorded material that has not yet been backed-up. Restoring the Microtrack to its "Factory Defaults" could change some settings that the Production Team had set up previously for optimal performance.*

3) You now should set the Microtrack II's "*Record Settings*" via the menu of the same name. You will want to set the "*Input Source*" to whichever input you plan on using. "*Input Monitor*" should be set to "*On*" so that you can monitor the signal being recorded via a set of headphones. "*Encoder*" should be set to "*WAV*" to ensure a high level of quality. "*Sample Rate*" should be set to "*44.1.*" Bits should be set to "*24.*" "*Channels*" should be set according to whether the recording is a mono recording or stereo. "*Link L + R Gain*" should be set to "*On.*" "*Limiter*" should be set to "*On.*"

4) The "*Options*" menu contains some additional player settings: "*The Playback EQ*" should be set to "*Normal.*" "*Rec Time Display*" should be set to "*Time until 2GB.*" The "*Record Button*" should be set to "Record/Pause." "*Verify Delete*" should be set to "*On.*"

CF cards and Microdrives with a capacity of more than 512 MB use the FAT 32 file system. This file system has an inherent 2GB limit on file size. If you are recording a WAV file, and your recording exceeds the 2GB file size limit of CF or Microdrive media, an additional file will automatically be created with virtually no time lost between files. Setting Time until 2GB will give you an indication as to when this will happen, allowing you to pause if necessary.

-All these settings are important and any deviation from them should only be taken as a result of direction from one of our Production Team members.

Microphone selection

The BIRN has two options currently available to DJs wishing to record with one of our Microtrack II devices. The first is the *Stereo T* microphone that is bundled with the Microtrack II device. The second is the *MD-42* microphone made by Sennheiser, bought especially for BIRN field recordings. They are very different microphones made for very different purposes but both can be useful when recording on behalf of the BIRN. You should seek further advice from our Production Team on use and technique of each of these but I have summarized some points to get you going. Remember to experiment with both options and learn what applications they each suit.

M-Audio Stereo T: This is a small diaphragm stereo condenser microphone (note: *It does not require phantom power.)* It's Omnidirectional, that is to say it picks up all sounds surrounding it equally, no matter in which direction you point it (at least in theory.) It's very small and portable. It has windshields already in place that can be removed. These are useful when recording outside or in any windy environment.

This microphone suits interview conditions where there are multiple speakers. This applies to interviews with a whole band where perhaps where you don't wish to move a single microphone around all the time.

It's a very sensitive microphone and as a result will pick up the environment in which you record. More often than not, this is not desirable. Careful use of this microphone can be effective but common problems include recordings sounding distant, cluttered with sounds such as traffic, sound checks and side comments by other interviewees, in short, sounds you don't wish to capture.

MD-42: This is a purpose built dynamic microphone for situations such as interviewing acts outside of our studio (note: *It does not require phantom power.)* It comes in a hard case and must be used in conjunction with the XLR to 1/8" adaptor with the Microtrack II device, as they do not support XLR inputs. It has an elongated grip on which one of our field mic blocks can be attached sporting the BIRN logo. This has the benefit of looking more professional. The MD-42 is a dynamic microphone with similar properties to the SM-58 which you may already be familiar with. It is perfect for capturing spoken word, one speaker at a time, even in noisy environments. It is also an Omnidirectional microphone (somewhat surprising given it's appearance), which allows for some leeway with regard to where you point the microphone. A strong proximity effect and roll-off allow you to avoid capturing unwanted sounds. Unlike the Stereo T microphone, the MD-42 would need to be held by the user and handed off to whomever is speaking to pick them up clearly.

-Where possible, the MD-42 will be your best option. Experimentation is key however so don't be afraid to consult the Production Team for more advice.

Recording

-To begin recording, first ensure that phantom power is turned off. If a microphone is connected while phantom power is active, it will damage the microphone regardless of whether it needs phantom power to operate or not.

-Turn down the gains and also your monitoring volume.

-Connect an audio source into one of the inputs.

-Select mono/stereo depending on your source and microphone input.

-Turn on phantom power if needed.

-Connect a pair of headphones to monitor the level.

-Press "*Record*" to monitor, if you followed all the settings up to this point, the device will enter *Record/Pause* mode where you can monitor the signal without actually recording it. Use this time to set your gain levels with enough headroom to allow for loud sounds such as laughing, cars, sound-checks, etc.

-Press "*Record*" a second time to start recording. Whilst recording, the navigation wheel pauses when pressed in. You can continue to adjust levels whilst recording but if you are using the Stereo T without an extension cable; any buttons pressed will be heard through the device.

-Press *"Record"* to stop recording. *(Pressing delete whilst recording will delete the file.)*

-It's worth recording a short sound check then going into the media folder and listen back to make sure the device is functioning properly before beginning an interview.

-Remember to turn phantom power off if you are using it before disconnecting any microphone, failing to do so will damage the microphone.

Adding Markers to a WAV Recording: If the [MENU] button is pressed while MicroTrack II is recording a WAV file, the Record icon will change from solid to outline for 0 5 seconds and a marker will be dropped at that location in the WAV file When imported into Pro Tools, or other audio editing programs that recognize Broadcast Wave Files (BWFs), regions or cue points will be created for each marker If your specific audio editing program does not recognize the extra data contained in BWF files, it will still read the recorded audio as a WAV file

This feature is useful for journalists—they can place a marker before each question during an interview. It is also great for recording bands—markers can be placed between each song. Or, if gathering sound effects, a marker can be placed before each noise (as opposed to starting and stopping recording for each individual sound).

Troubleshooting

If you can't hear anything when recording there are a number of possible solutions.

Firstly, make sure the microphone is connected and the device is displaying signal. If you are not seeing the signal light flash up, check that you are in record mode, check that connections are secure, make sure you have the correct input source selected, that you have turned on phantom power if the microphone requires it, and make sure you have turned up the gains. Also check that you haven't inadvertently plugged in your headphones to the microphone input and the microphone to the headphone output (It's surprisingly easy to do). If the signal lights are lit, try turning up your monitoring level. Try a different set of headphones.

If you've tried all of the above and still are not getting signal, either consult the online document linked at the beginning of this document or approach one of our Production Team for assistance.

Transferring files and removing them

To connect a Microtrack to a computer, you should use the USB cable. Once the device turns on, go to the "*System Menu*" and select "*Connect to PC*" (yes... even if it's a mac!) Once you've done this, the device should soon appear as a portable media drive from which you can drag and drop files. Once you are sure the material has been copied and is safely backed up, you can remove it from the device by deleting the individual files. **Do not** use the *"Format Media"* feature from within the device's menu itself as you may delete material other than your own. Double check which audio files you are deleting as the default naming format can make deleting the wrong file very easy to do.

Once the material is on the computer, rename it immediately using this format:

ArtistName_DJName_NatureOfRecording_mm/dd/yy.WAV

e.g. CocosLovers_RichardGould_Interview_11/23/11.WAV

Once you have completed all of this, make sure you return the equipment to either the cabinet (if you have access), or a member of our MG. Return it fully charged if possible.