

// LCT 640 TS QUICKSTART GUIDE

// User Interface

1 Polar pattern indicator // Use center pushbutton to select polar pattern; omni // broad // cardioid // super cardioid // figure-8. Not illuminated in Dual Output Mode!

2 Low-cut indicator // Use left pushbutton to change the low-cut settings. Activate the low-cut to get rid of unwanted low frequencies and structure born noise.

3 Status indicator //

Illuminated white: standard operation Illuminated green: Dual Output Mode Flashing red: clipping occurs Not illuminated: key-lock active

4 Pre-attenuation indicator // Use right button to select the preattenuation. Use this setting to avoid clipping when recording very loud sound sources.

5 Pushbuttons

Key-lock // Hold the left pushbutton for more than 2 seconds to activate the key-lock mode. Now all pushbuttons are locked until you press the left button for 2 seconds again.

Clipping History // Hold the right pushbutton for more than 2 seconds to enter clipping history. If the status indicator flashes green/white no clipping occured. If the status indicator flashes red/white clipping occurred. The illuminated pre-attenuation symbols show at which pre-attenuation setting the clipping occurred. Press any button for more than 2 seconds to exit clipping history. Once you exit the clipping history or remove 48V the history is deleted.

// Multi-pattern mode

The multi-pattern mode is the typical implementation for dual diaphragm studio microphones. Select one of five polar patterns before you start recording.

Setup // Use a standard 3 pin XLR cable to connect the LCT 640 TS to your microphone preamp, mixing console or audio interface. The LCT 640 TS requires 48V phantom power, make sure to turn on the phantom power on your microphone preamp!

// Dual Output Mode

The Dual Output Mode is a unique feature of the LCT 640 TS. It enables you to record the front and back diaphragm of the capsule separately. Now it is possible to change and fine-tune the polar pattern in post-production. You can even "turn" the microphone 180° without touching it.

Setup // Use a 3 pin XLR cable to connect output **A** to your microphone preamp, audio interface or mixing console. Connect output **B** with the included adapter cable to your microphone preamp, audio interface or mixing console. Turn on 48V phantom power on both channels.

To activate Dual Output Mode press and hold the center pushbutton for 2 seconds!

Make sure to set the input gain on your preamp to the same value for both channels! Make sure to download our **Polarizer** plugin and experiment with different settings!

// Record MS Stereo with one LCT 640 TS

Select Dual Output Mode, turn the front of the microphone to the source you want to record, then turn it 90° counter clockwise. Record both outputs of the microphone on a stereo track, front capsule is the left channel, back capsule is the right channel. Adjust the stereo width by adjusting the panorama; pan hard left and hard right for maximum stereo effect, pan both to the center and you get one mono signal as omni polar pattern.

Best results will be somewhere in between!

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// Polarizer Plugin

Check out our plugin! You can seamlessly change the polar pattern right in your favourite audio workstation - even after the recording session. It works on PC and MAC likewise. The following plug in standards are supported: VST, AU and AAX

Download the Polarizer - Change and fine-tune the pattern of your LCT 640 TS right in your DAW! www.lewitt-audio.com/downloads/LCT-640-TS

// Set patterns manually

It is also possible to generate the polar patterns manually, without the plugin. The following chart will tell you how to do it and also give you some useful information about polar patterns.

Parameter	Omni	Broad cardioid	Cardioid	Super cardioid	Figure-8
Front Diaphragm Level	0 dB	0 dB	0 dB	0 dB	0 dB
Back Diaphragm Level	0 dB	-10 dB	-∞ dB	-10 dB	0 dB
Front Diaphragm Phase	0°	0°	0°	0°	0°
Back Diaphragm Phase	0°	0°	0°	180°	180°
Acceptance angle (-3 dB reduction)	-	90°	65°	57°	45°
Maximum reduction	-	180°	180°	126°	90°
Distance Factor *	1	1,38	1,73	1,93	1,73

* Distance the microphone can be placed further away from the source compared to the omni characteristic while preserving the ratio of direct and diffuse sound.

// Attention

It takes up to 20 seconds after phantom power is applied till the microphone reaches it's full sensitivity! It takes up to 20 seconds till the switch between polar patterns is complete! Always apply phantom power to output A for normal operation Always apply phantom power to outputs A and B in Dual Output Mode.





This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

