

# behringer CT200 Microprocessor Controlled 8 in 1 Cable **Tester Installation Guide**

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behringer CT200 Microprocessor Controlled 8 in 1 Cable Tester



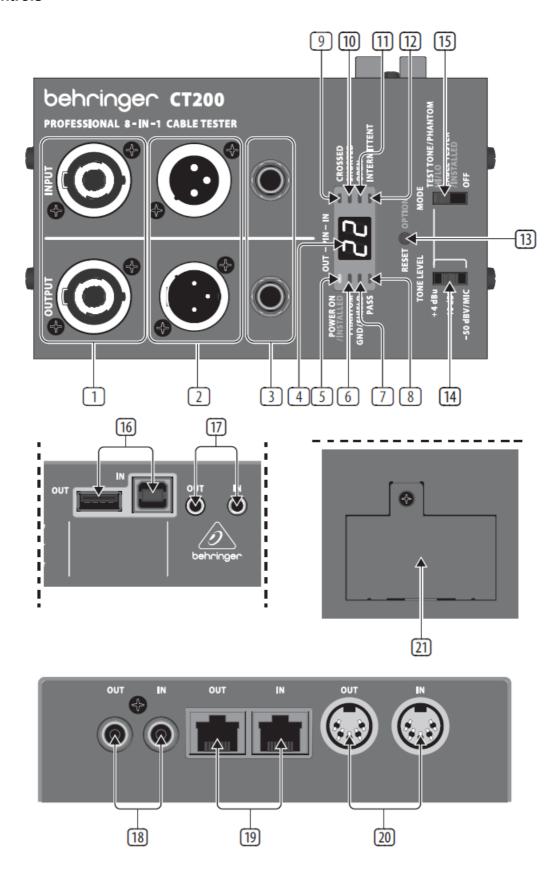
# **Safety Instruction**

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Use only attachments/accessories specified by the manufacturer.
- 10. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
- 11. Correct disposal of this product: This symbol indicates that this product must not be disposed of with household waste, according to the WEEE Directive (2012/19/EU) and your national law. This product should be taken to a collection center licensed for the recycling of waste electrical and electronic equipment (EEE). The mishandling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your

cooperation in the correct disposal of this product will contribute to the efficient use of natural resources. For more information about where you can take your waste equipment for recycling, please contact your local city office, or your household waste collection service.

- 12. Do not install in a confined space, such as a book case or similar unit.
- 13. Do not place naked flame sources, such as lighted candles, on the apparatus.

# **CT200 Controls**



- 1. Professional locking connectors (compatible with Neutrik Speakon) accept 2 and 4-pole cables.
- 2. XLR male and female connectors accept balanced XLR cables.
- 3. ¼" TRS connectors accept balanced ¼" cables. Unbalanced TS cables will display a short between pins 1 and3. The RCA inputs can alternatively be used to test unbalanced cables with the use of RCA adapters.
- 4. DISPLAY shows relevant information about pin connectivity depending on which mode is active.
- 5. POWER ON / INSTALLED LED lights solid when the unit is switched on, and blinks when Installed Cable Tester mode is selected.
- 6. PHANTOM LED lights when more than 9V is detected between XLR pins 2 and 3 in Test Tone / Phantom mode.
- 7. GND / SHIELD LED lights when the ground plug of the XLR OUT socket connects to the ground pin of the XLR cable, and lights when the shield connects at both ends of the MIDI, CAT-5 or USB cable.
- 8. PASS LED lights when all pins on the output connector are connected to the respective pins on the input connector.
- 9. CROSSED LED lights when an out pin is cross-wired to an in pin. The display will indicate which pin numbers are crossed.
- 10. SHORTED LED lights when a short circuit is detected between 2 pins.
- 11. OPEN LED lights when one end of a cable pin is not detected.
- 12. INTERMITTENT LED lights in Auto, Manual or Installed Cable Tester mode when an intermittent interruption is detected on a pin, likely indicating a loose connection. Press the OPTION / RESET button to reset and test again.
- 13. RESET / OPTION button performs several functions depending on which mode is active. See the Operation Modes chapter for details.
- 14. TONE LEVEL switch selects between +4 dBu, -10 dBV, and -50 dBV / MIC output level when using Test Tone mode.
- 15. MODE switch selects between the Cable Tester modes (default is Auto), Test Tone / Phantom mode, and powers the unit off.
- 16. USB type A and B connectors accept standard USB cables.
- 17. 1/8" TRS connectors accept balanced 1/8" cables.
- 18. RCA connectors accept unbalanced RCA cables. Other unbalanced cables, such as 1/4" and 1/8" TS cables, can also be tested here using adapters.
- 19. RJ45 connectors accept Ethernet / CAT5 cables.
- 20. MIDI connectors accept standard 5-pin DIN cables.
- 21. Install 2 AA batteries to power the unit.

# **CT200 Operation Modes**

#### Step 2: Operation Modes

#### **Cable Tester (Auto)**

To begin an automatic cable test, move the Mode switch to the Cable Tester setting. The switch defaults to Auto mode. Connect a cable to an input and an output. Press the Reset / Option button to begin an automated test. The Pass LED will light if all pins connect properly, and the maximum pin number will be indicated in the display. If a bad connection is detected, the failed pin number will flash in the display and an LED will light to indicate the speci c problem (Shorted, Crossed, etc.). Shake the cable plugs to check for any loose connections, which will be indicated by the Intermittent LED.

#### **Cable Tester (Manual)**

To begin a manual cable test, move the Mode switch to the Cable Tester setting, then hold the Reset / Option button down for 2 seconds. The display will blink twice to indicate that manual mode has been selected. This mode is similar to Auto, but rather than a fully automated check where multiple problems could potentially be displayed with flashing pin numbers, each step of the test can be proceeded manually.

Press the Reset / Option button to clear the Intermittent LED. Press the Reset / Option button again to check all pin connections. If a problem is discovered, only the first failed pin numbers will flash in the display. Press the Reset / Option button again to proceed through any other issues.

#### **Installed Cable Tester**

When testing cables in fixed installation environments, it may not be possible to plug both ends of the cable into the CT200 at the same time. For these situations, the Installed Cable Tester can check for short circuits on one end of the cable. Disconnect the cable that is to be checked from any other equipment.

Press and hold the Reset / Option button, move the Mode switch to the Cable Tester position, then release the Reset / Option button. The Power On / Installed LED will flash to indicate that Installed mode is active. Attach one end of the cable to the appropriate Out jack on the CT200. Attach a shorting jack (with pins short circuited) to the other end of the cable, or manually short the cable by using a piece of wire. Check each pair of shorted pins, which will be indicated by the Shorted LED. If the LED does not light, there is a break in the signal flow and the cable is defective.

#### **Test Tone / Phantom**

The CT200 can send a test tone through a connected cable to check for proper functionality. Set the Mode switch to the Test Tone / Phantom setting. Connect an audio cable (Speakon, XLR, ¼", 1/8", RCA) to the proper Out jack, then connect the other end to the input of a mixer or speaker. Select the proper output level with the Tone Level switch, then press the Reset / Option button to select the tone frequency. The display will show LO or HI. If the cable functions properly, the signal will reach its destination.

Note: This feature is not available for MIDI, RJ45, or USB sockets.

The CT200 can also test for phantom power on XLR cables. Enter Test Tone / Phantom mode as described above, then connect an XLR cable to the XLR Out jack of the CT200 and to the input of a mixer or preamp. Engage phantom power on your source device. The Phantom LED will light whenever more than 9 volts of phantom power is detected between XLR pins 2 and 3.

# **CT200 Pin Description Chart**

Step 3: Pin Description Chart

Connector / Pin Description / Display Pin Number

Speakon 2-pin (1-/1+ only) Speako n 4-pin	1- (Ground / Ch. 1) 1+ (Life / Ch. 1) 2- (Ground / Ch. 2) 2+ (Life / Ch. 2)	1 2 3 4
XLR	1 (Ground / Shield) 2 (Hot / +) 3 (Cold / -)	1 2 3
1/4 " and 1/8" TRS	Sleeve (Ground / Shield) Tip (Hot / +) Ring (Cold / -)	1 2 3
1/4 " and 1/8" TS	Sleeve (Ground / Shield) Tip (Hot / +)	1 2
RCA (Cinch)	Sleeve (Ground / Shield) Tip (Hot / +)	1 2
MIDI (DIN)	1 (Unused) 2 (Ground / Shield) 3 (Unused) 4 (Data +) 5 (Data -)	1 2 3 4 5

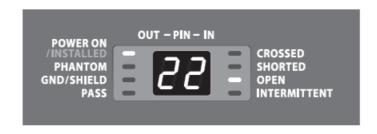
USB type A and B	1 (+5 Volts)	1
	2 (Data -)	2
	3 (Data +)	3
	4 (Ground / Shield)	4
RJ45 (CAT5)*	1 (White / Orange, Transmit +)	1
	2 (Orange, Transmit -)	2
	3 (White / Green, Receive +)	3
	4 (Blue, Unused)	4
	5 (White / Blue, Unused)	5
	6 (Green, Receive -)	6
	7 (White / Brown, Unused)	7
	8 (Brown, Unused)	8

<sup>\*</sup>CAT5 pin color code and wire assignments may differ depending on the network cable used.

# **Examples**

Mode	Pin Description	Display Pin Number
Cable Tester (Auto/Manual)	1/4 " TRS cable -> 1/4 " Input / Output jacks	PASS: Display shows 3 3 (constantly lit)
		<b>CROSSED:</b> Display alternates 1 2 > 2 1 > 1 2
		SHORTED: Display alternates 2 3 > 3 2 > 2 3
		OPEN: Display blinks 3 3 3 3
Installed Cable Tester XLR Out jack -> XLR cable -> manu ally shorted pins		Pin 1 + 3 = SHORTED LED on Pin 1 + 2 = SH ORTED LED off Pin 2 + 3 = SHORTED LED off Pin 2 = defective
	XLR Out -> XLR cable -> mixer inpu	
Phantom	t	PHANTOM LED on = >9V detected

# XLR Cable example



• When testing an XLR cable, if the display shows this combination, it indicates that the connection between pin 2 in and pin 2 out is open circuit.



• When testing an XLR cable, if the display shows this combination, it indicates there is a short between pin 1 and pin 2. This short may be on the "in" side or the "out" side.

# **Battery Precautions**

# **Battery Warning**

#### **WARNING**

- As with all small batteries, the batteries used with this product should be kept away from small children who still put things in their mouths. If they are swallowed, promptly call your local poison control center.
- Always purchase the correct size and grade of battery most suitable for intended use.

- Replace all batteries of a set at the same time.
- Clean the battery contacts and also those of the device prior to battery installation.
- Ensure the batteries are installed correctly with the regard to polarity (+ and -).
- Always remove battery if consumed or if product is to be left unused for a long time.
- Replacement of a battery with an incorrect type that can defeat a safeguard! Replace only with the same or equivalent type!
- Risk of fire or explosion if the battery is replaced by an incorrect type.
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion;
- Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas; and
- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.
- Attention should be drawn to the environmental aspects of battery disposal.

# Other important information

#### Important information

- Register online. Please register your new Music Tribe equipment right after you purchase it by visiting
  musictribe.com. Registering your purchase using our simple online form helps us to process your repair claims
  more quickly and efficiently. Also, read the terms and conditions of our warranty, if applicable.
- 2. Malfunction. Should your Music Tribe Authorized Reseller not be located in your vicinity, you may contact the Music Tribe Authorized Fulfiller for your country listed under "Support" at musictribe.com. Should your country not be listed, please check if your problem can be dealt with by our "Online Support" which may also be found under "Support" at musictribe.com. Alternatively, please submit an online warranty claim at musictribe.com BEFORE returning the product.

#### **FCC STATEMENT**

#### FEDERAL COMMUNICATIONS COMMISSION COMPLIANCE INFORMATION

# **Behringer**

• CT200

Responsible Party Name: Music Tribe Commercial NV Inc.

Address: 122 E. 42nd St.1, 8th Floor NY, NY 10168, United States

Email Address: <a href="mailto:legal@musictribe.com">legal@musictribe.com</a>

#### **CT200**

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 residential 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 receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

# This equipment complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- 1. this device may not cause harmful interference.
- 2. this device must accept any interference received, including interference that may cause undesired operation.

#### Important information:

Changes or modifications to the equipment not expressly approved by Music Tribe can void the user's authority
to use the equipment.

Hereby, Music Tribe declares that this product is in compliance with Directive 2014/30/EU, Directive 2011/65/EU and Amendment 2015/863/EU, Directive 2012/19/EU, Regulation 519/2012 REACH SVHC and Directive 1907/2006/EC.

# Full text of EU DoC is available at <a href="https://community.musictribe.com/">https://community.musictribe.com/</a>

- EU Representative: Music Tribe Brands DK A/S
- Address: Gammel Strand 44, DK-1202 København K, Denmark
- UK Representative: Music Tribe Brands UK Ltd.
- Address: 8th Floor, 20 Farringdon Street London EC4A 4AB, United Kingdom

#### **FAQ**

# **Frequently Asked Questions**

- Q: Can I use this cable tester with all types of cables?
  - A: The CT200 is designed to work with a variety of cables, including XLR, TRS, TS, MIDI, RCA, RJ45, and USB cables.
- Q: Is it safe to test live cables with this device?
  - A: It is not recommended to test live cables with the CT200 for safety reasons. Ensure all cables are
    disconnected before testing.
- Q: How can I interpret the test results from the CT200?
  - **A:** The CT200 provides clear indications for cable continuity, wiring configuration, and pin connections. Refer to the user manual for detailed explanations of the test results.

#### **Documents / Resources**



behringer CT200 Microprocessor Controlled 8 in 1 Cable Tester [pdf] Installation Guide V 5.0, CT200 Microprocessor Controlled 8 in 1 Cable Tester, CT200, Microprocessor Controlled 8 in 1 Cable Tester, 8 in 1 Cable Tester, 1 Cable Tester, Tester

# References

- Music Tribe
- Music Tribe
- User Manual

#### Manuals+, Privacy Policy

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