

Notice

This manual provides general information, preparation for use, installation and operating instructions for the Black Lion Audio Revolution Clock XC.

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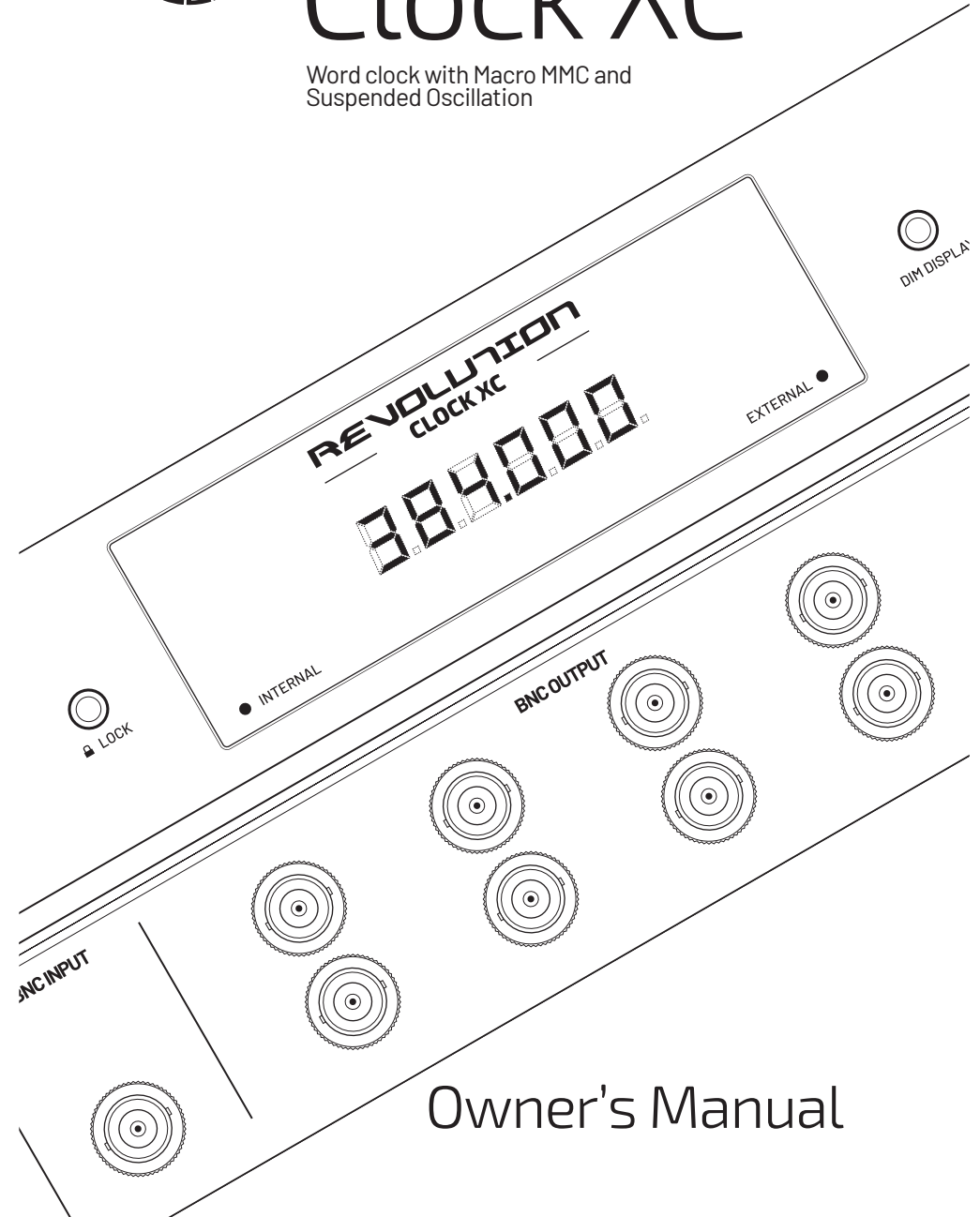
RAD Distribution
180 Carpenter Ave.
Middletown, NY 10940

Revised 12-17-24



Revolution Clock XC

Word clock with Macro MMC and Suspended Oscillation



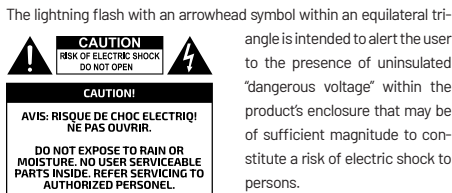
Owner's Manual

IMPORTANT SAFETY INSTRUCTIONS

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. 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 that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus. If the power cord becomes frayed, stop using immediately.
11. Use only attachments/accessories specified by the manufacturer
12. Use only with a 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.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This apparatus shall not be exposed to dripping or splashing, and no object filled with liquids, such as vases, shall be placed on the apparatus.
16. Note that this apparatus is not completely disconnected from the AC mains service when the power switch is in the OFF position.
17. The mains plug or power inlet on the product is used as the disconnect device, so the disconnected device shall remain readily operable when reconnected.
18. Any changes or modifications not expressly approved in this manual could void your authority to operate this apparatus.

IMPORTANT!

Be sure to use a three prong AC cable that properly fits the power source. Please use the correct fuse designated on the rear panel before plugging in the power cord. Improper selection can result in damage to the unit that will not be covered under the warranty.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



The Black Lion Audio Revolution Clock XC complies with all applicable RoHS/WEEE European Union directives.

Do not attempt to service this unit yourself, as it will void your warranty. Please check your unit carefully upon receipt and return to place of purchase immediately if there are any problems with the product. After that, the standard Black Lion Audio 3 YEAR warranty will apply to defects in materials and workmanship.

U.S.A.

Should your Black Lion Audio product require service, please contact us on our customer service site: <https://www.blacklionaudio.com/contact>. **You must obtain an RA # (Return Authorization number) from us before shipping a unit back to us. This RA # must be clearly written on the outside of the box.**

Please safely pack the units...It is best to use the original packing materials. Black Lion Audio cannot be responsible for any damages incurred in shipping to us due to poor packaging. PLEASE PACK CAREFULLY and FULLY INSURE THE SHIPMENT.

INTERNATIONAL

For service or warranty assistance, please contact the Black Lion Audio distributor in your country through the dealer from whom you purchased this product.

LIMITED 3 YEAR WARRANTY

Black Lion Audio's Revolution Clock XC is warranted by Black Lion Audio to be free from defects in materials and workmanship for the period of THREE (3) YEARS to the original purchaser. In the event of such defects, the product will be repaired without charge or, at our option, replaced with a new one if delivered to Black Lion Audio prepaid, together with a copy of the sales slip or other proof of purchase date. The warranty excludes problems due to normal wear, abuse, shipping damage or failure to use the product in accordance with the specifications.

All parts and labor are covered under this Limited Warranty. However, if it is determined by Black Lion Audio that the device was damaged or made defective through abuse, we reserve the right to charge the customer for the cost of the repair.

Black Lion Audio shall not be liable for damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation or commercial loss or any other damages, whether incidental, consequential or otherwise. This warranty gives you specific legal rights, and you may have other rights, which will vary from state to state.

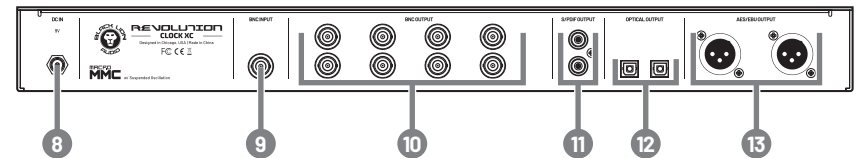
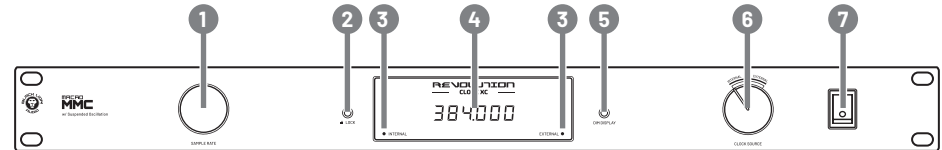
This warranty is not transferable.

THANK YOU!

Thanks for choosing the Revolution Clock XC, our flagship word clock. It's the most precise clock we've made to date, and we're proud of it. If you've got a device in your studio that accepts clock in, the Revolution Clock XC can drive it – up to 14 devices; eight of them over BNC. Revolution Clock XC will provide you with crystal-clear synchronization for years to come. Your studio (and your clients) will all be better off for it!

SUSPENDED OSCILLATION

The Revolution Clock XC proudly features the most accurate word clock we've ever developed, thanks to its Suspended Oscillation technology. Suspended Oscillation physically isolates the clocking



1. **Sample Rate Encoder:** Press encoder to unlock. Rotate to choose desired sample rate from 44.1 kHz - 384 kHz. Encoder will re-lock after three seconds.
2. **Lock:** Indicates that the sample rate function is locked.
3. **Clock source indicators:** Indicates internal or external clock source.
4. **Sample rate display:** Displays currently-selected sample rate. Make sure this matches the sample rate setting of your DAW project.
5. **Dim display:** Press to toggle brightness of LCD display.
6. **External/Internal Encoder:** Rotate to choose desired clock source. Left = Internal (use the Revolution XC's clock) Right = External (use an external clock.)
7. **Power switch:** Toggles the unit on/off.
8. **DC in:** Provides power to the unit. Connect included DC adapter here.
9. **BNC input:** Connect an external clock here to distribute a Revolution Clock XC signal that follows the external clock's timing.
10. **BNC outputs:** 5V, 75Ω outputs; termination is optional. Connect devices to be synced to Revolution Clock XC here. BNC outputs support 44.1 kHz - 384 kHz.
11. **S/PDIF Output:** Unbalanced RCA outputs. Connect devices to be synced to Revolution Clock XC here. S/PDIF outputs support 44.1 kHz - 192 kHz.
12. **Optical Outputs:** Connect devices to be synced to Revolution Clock XC here. Optical outputs support 44.1 kHz - 96 kHz. Does not support ADAT.
13. **AES/EBU Outputs:** Balanced XLR outputs. Connect devices to be synced to Revolution Clock XC here. AES/EBU outputs support 44.1 kHz - 192 kHz.

Tips

When using BNC connections, we recommended a max cable length of 1,000 ft. Be sure to use high-quality 75 Ω coaxial cable.

MEMs from the mechanical vibrations of the real world. Feel free to crank the bass in your studio—it won't affect your clock timing.

MACRO-MMC

Revolution Clock XC also uses our Macro-MMC clocking technology, which is based off of everything we learned from modifying audio interfaces for superior clocking and conversion.

Macro-MMC's circuit implementation will bring your converters' performance to new heights.

If the Revolution Clock XC is in External mode and there is no incoming clock signal, you'll be alerted by a flashing EXT LED and the word "ERROR" will appear on the LED Screen.

SPECIFICATIONS

Jitter	0.5 pS RMS (BNC outputs)
Outputs	8x BNC, 2x XLR AES, 2x RCA S/PDIF, 2x Optical S/PDIF
Output impedance	BNC: 75 Ω, 5V unterminated RCA S/PDIF: 75 Ω, unbalanced AES XLR: 110 Ω, balanced
Clock frequencies	BNC (kHz) - 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 RCA S/PDIF & AES (kHz) - 44.1, 48, 88.2, 96, 176.4, 192 Optical S/PDIF (kHz) - 44.1, 48, 88.2, 96
Power	9V DC (6 W power consumption)
Power connector	2.5 mm barrel connector with 5.5mm outer diameter (center pin positive)
Dimensions	Width: 48.26 cm (19") Height: 4.45 cm (1.75") Depth: 16.51 cm (6.5")
Weight	2.49 kg (5.5 lbs)