MC-12 to MC-12 Balanced

Upgrade Instructions
SAFETY SUMMARY
The following general safety precautions must be observed during all phases of operation, service, and repair of this instrument. Failure to comply with these precautions or with specific warnings elsewhere in these instructions violates safety standards of design manufacture and intended use of the instrument. Lexicon, Inc. assumes no liability for failure to comply with these requirements.

GROUND THE INSTRUMENT
To minimize shock hazard, the instrument chassis and cabinet must be connected to an electrical ground. The instrument is equipped with a 3-conductor AC power cable. The power cable must be either plugged into an approved 3-contact electrical outlet or used with a 3-contact to 2-contact adapter with the grounding wire (green) firmly connected to an electrical ground (safety ground) at the power outlet. The power jack and mating plug of the power cable meet International Electro-technical Commission (IEC) safety standards.

DO NOT OPERATE IN AN EXPLOSIVE ATMOSPHERE
Do not operate the instrument in the presence of flammable gasses or fumes. Operation of any electrical instrument in such an environment constitutes a definite safety hazard.

KEEP AWAY FROM LIVE CIRCUITS
Operating personnel must not remove instrument covers. Component replacement and internal adjustments must be made by qualified maintenance personnel. Do not replace components with power cable connected. Under certain conditions, dangerous voltages may exist even with the power cable removed. To avoid injuries, always disconnect power and discharge circuits before touching them.

DO NOT SERVICE OR ADJUST ALONE
Do not attempt internal service or adjustment unless another person capable of rendering first aid and resuscitation is present.

DO NOT SUBSTITUTE PARTS OR MODIFY INSTRUMENT
Because of the danger of introducing additional hazards, do not install substitute parts or perform any unauthorized modification to the instrument.

DANGEROUS PROCEDURE WARNINGS
Warnings such as the example below precede potentially dangerous procedures throughout this manual. Instructions contained in the warnings must be followed.

WARNING
Dangerous voltages capable of causing death are present in this instrument. Use extreme caution when handling, testing, and adjusting.
ELECTROSTATIC DISCHARGE (ESD) PRECAUTIONS

The following practices minimize possible damage to components resulting from electrostatic discharge or improper insertion:

• Keep parts in original containers until ready for use.
• Avoid having plastic, vinyl, or styrofoam in the work area.
• Wear an anti-static wrist strap.
• Discharge personal static before handling devices.
• Remove and insert boards with care.
• When removing boards, handle only by non-conductive surfaces and never touch open-edge connectors except at a static-free workstation. To make a plastic-laminated workbench anti-static, wash with a solution of Lux liquid detergent, and allow to dry without rinsing.

CAUTION

These service instructions are for use by qualified personnel only. Do not perform any servicing other than that contained in these instructions unless qualified to do so. Refer to the Safety Summary on the previous page prior to performing any service.

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<td>MC-12 Balanced chassis (Multiple)</td>
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<td>4x10mm screws (4)</td>
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<td>Black 3/8 inch hole plugs (4)</td>
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<td>MC-12 to MC-12 Balanced Upgrade Instructions</td>
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This kit does not include the following tools, which are also required to complete this upgrade:

- Phillips head screwdriver (magnetic tip preferred).
- Allen hex head wrench (2.5mm).

### WARNING

Turn off and disconnect all power to the unit prior to performing the upgrade.

### INSTALLATION INSTRUCTIONS

Performing this upgrade is a straightforward process. But to avoid complications, please read and follow these instructions carefully. Pay particular attention to the precautions listed in the Safety Summary (page 2), as well as those included throughout the instructions. Damage caused during installation may void the manufacturer’s warranty or standard repair policies.

1. Unplug the unit and, if necessary, remove the unit from the rack.

2. Remove the 12 screws on the top cover of the unit, as shown in the illustration below. This step requires an Allen hex head wrench (2.5mm).
3. Slide the top cover away from the front panel, removing it from the unit.

4. Disconnect the following cables, referring to the illustration above:

A. The ribbon cable connecting the main board to the video board. Disconnect the cable from location J26 on the main board by gently rocking the cable from side to side and pulling it away from the board.

B. The ribbon cable connecting the opto/mic board to the analog board. Disconnect the cable from location J30 on the analog board. (The opto/mic board is located between the main board and the analog board, directly behind the MICROPHONE INPUTS on the rear panel.)

C. The ribbon cable connecting the analog board to the main board. Disconnect the cable from location J29 on the main board by releasing the locked tabs on the side of the connector, then pulling the cable away from the board.

D. The power supply cable from location J26 on the analog board. The power supply cable may require more force to remove than the other cables.

E. The power cable connecting the analog board to the video board. Disconnect the cable from location J25 on the analog board.
5. Remove the five rear panel screws shown in the illustration below. These screws are connected to the analog board.

6. Next, remove the three internal screws connecting the analog board to the chassis. These screws are shown in the illustration at the top of page 5. These screws are black. Do not remove the silver screws.

7. Remove the analog board from the chassis and store it in a static-free area. (For more information, see the Electrostatic Discharge (ESD) Precautions on page 3.)

8. Position the unit upside down, as shown in the illustration below. Remove the two self-tapping screws on the access panel, also identified in the illustration below. (The access panel will not be reinstalled.)

9. Remove the four feet from the bottom of the MC-12, removing the screws as shown in the illustration below. (The MC-12 feet will not be re-attached. The MC-12 Balanced chassis comes with its own rubber feet already attached.)
10. Find the cable connected to location J15 on the XLR board, which is located inside the MC-12 Balanced chassis. Then, position the chassis upside down above the MC-12 as shown in the illustration above, aligning the loose end of the cable with the access panel on the unit.

11. Slowly lower the chassis toward the unit, feeding the loose end of the cable through the access panel. Do this until the chassis is sitting on the unit, as shown in the illustration at the right.

12. Next, attach the MC-12 Balanced chassis to the MC-12 using the four 4x10mm screws provided in the upgrade kit. These screws enter the chassis at the points identified in the illustration below. It is recommended to use a screwdriver with a magnetic tip to tighten these screws.

13. Once the screws have been tightened, cover them with the 3/8 inch black hole plugs provided in the upgrade kit.
14. Position the unit on its feet, as shown in the illustration at the right. Connect the inserted end of the XLR board cable to location J33 on the bottom of the analog board.

15. Slide the analog board into the chassis as shown in the illustration at the right, making sure the analog board connectors are lined up with the corresponding holes in the rear panel. **Be careful not to pinch cables or hit the opto/mic board.** (The opto/mic board is located between the main board and the analog board, directly behind the MICROPHONE INPUTS on the rear panel.)

16. Re-attach the analog board to the chassis by replacing the screws that were removed in Steps 5 and 6 (page 6). Replace the internal screws first (Step 6).

17. Re-attach the five cables removed in Step 4 (page 5.)

18. Re-attach the top cover, sliding it toward the front panel and replacing the 12 screws that were removed in Step 2 (page 4).