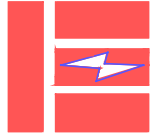


Addendum #1
to:
MX Amplifiers
User Manual

Includes:
MX Amplifier Revision A3
and greater



Electronic Motion Controls

**Addendum #1
to:
MX AMPLIFIERS
User Manual**

*Includes:
MX Amplifier Revision A3 and greater*

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MX amplifier Revision A3

Introduction

The MX has recently undergone some refinements in packaging and connection design in order to improve assembly quality and provide more convenient connections without increasing the cost. These improvements were added while maintaining maximum interchangeability with the previous design. The previous design is now referred to as MX-xxxM, xxx = amplifier size.

Interchangability, Electrical

There are some minor differences in connections but they are small enough that Rev A3 units can replace previous MX-xxxM version but the previous versions will not necessarily be able to replace Rev A3 units. See figures 11.1, 11.2 for an explanation of terminal functions and connections. See figure 11.3 for replacing a MX-xxxM with a Rev A3 unit.

Interchangability, Mechanical

Rev A3 units will directly replace the previous version units. A slight increase in some overall dimensions was necessary because the plastic parts needed to be made thicker to maintain the same strength as the steel parts they are replacing. Even with this dimension increase, the Rev A3 units will fit in exactly the same mounting holes and the same heat sink cutouts as the previous versions. For replacements in existing installations, the drive to drive spacing will be reduced but they will fit where the original drives were installed with the recommended 3 mm side to side spacing.

Display Module

The display modules are electrically interchangeable but the previous version units modules must have two internal plastic ribs removed in order for them to fit on the Rev A3 units.

Improvements, Electrical

The circuit boards layout has been improved for better reliability and to allow an increased depth of the signal terminal bay.

The recommended backshell kit is a MX-9D available from Emerson EMC. This kit contains the following parts plus an instruction sheet.

| | | |
|---------------|-------------------|---------------------|
| Backshell | EMC P/N 200894-00 | CINCH PN DE-19977-S |
| locking clips | EMC P/N 200895-00 | AMP PN 206942-1 |
| locking posts | EMC P/N 200896-00 | AMP PN 206514-1 |

Grounding

The addition of the amplifier ground lug significantly improves connectability. This lug improves the safety ground connection by making it more robust. With this connection point available, it is now **not** necessary to install a separate power ground bus bar near the amplifiers. Just connect all the power ground and shield connections to the ground stud and run one ground wire from each drive to the incoming enclosure ground. The terminal connection on the power connector that was the amplifier ground point now has a different function. It connects to the internal MOV array and is normally to be wired to the ground lug, it's labeled terminal "Y".

Electromagnetic compatibility

The mounting brackets have been designed to completely isolate the amplifier ground from the enclosure it's installed in. This reduces noise emission by eliminating stray ground current paths.

Shunt resistor and DC bus connections

External shunt resistor connection is now possible on **BOTH**, the narrow and wide, amplifier chassis. The addition of the external shunts is made more convenient with the use of externally accessible jumpers - No amplifier disassembly is required. The DC bus is also accessible on all amplifier sizes.

Improvements, Mechanical

The amplifier case is now all plastic and is designed for easier and more accurate assembly. A higher rated temperature plastic is used for better temperature resistance.

Display module mounting has been improved.

Cable anchor points have been molded into the front terminal bay.

Dimensional changes

Overall width increase 1.5 mm (.06 inches)

Overall depth increase 3.5 mm (.14 inches)

Overall mounting flange tip to tip dimension increase (12 mm)

Mounting hole spacing is identical to previous versions.

MX-280 THRU 440 (REV A3) POWER TERMINAL CONNECTIONS

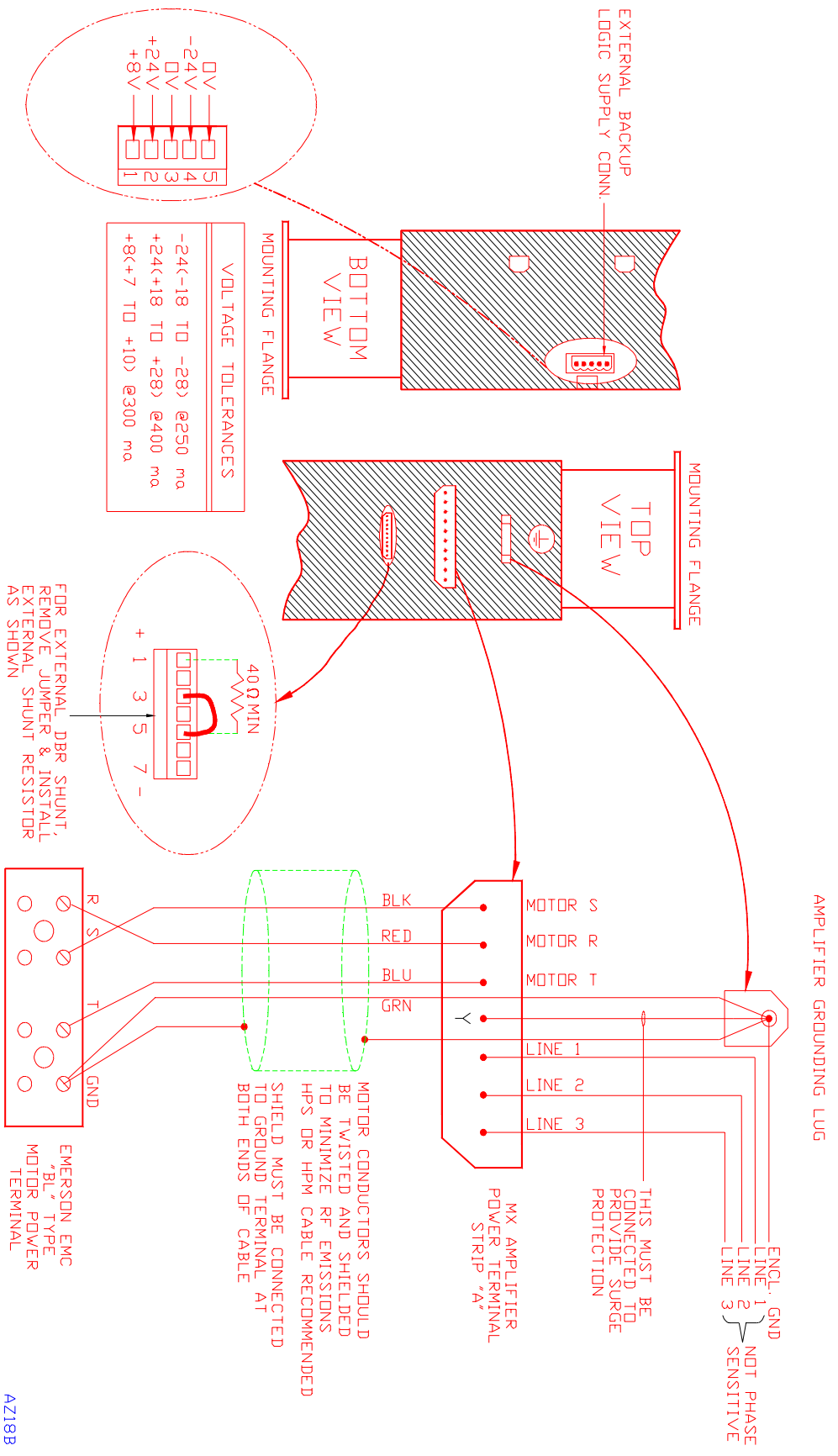


Figure 11.1

MX-850 THRU 1600 (REV A3) POWER TERMINAL CONNECTIONS

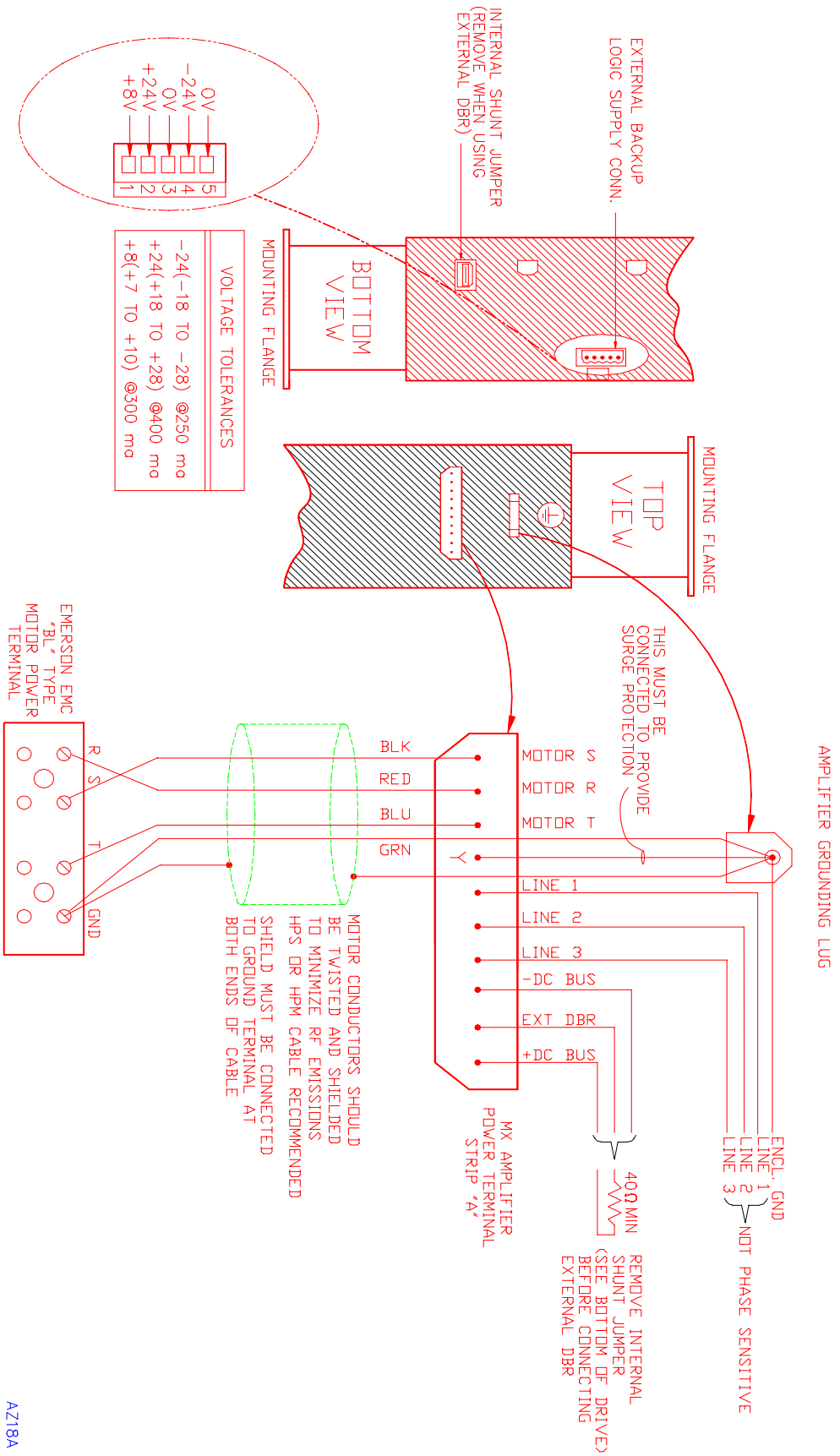


Figure 11.2

GROUNDING RECOMMENDATION FOR IN-FIELD CHANGEOVER INSTALLATIONS.

CHANGING FROM MX-xxxM DRIVES WITHOUT GROUND LUG TO:
MX-xxx DRIVES WITH GROUND LUG.

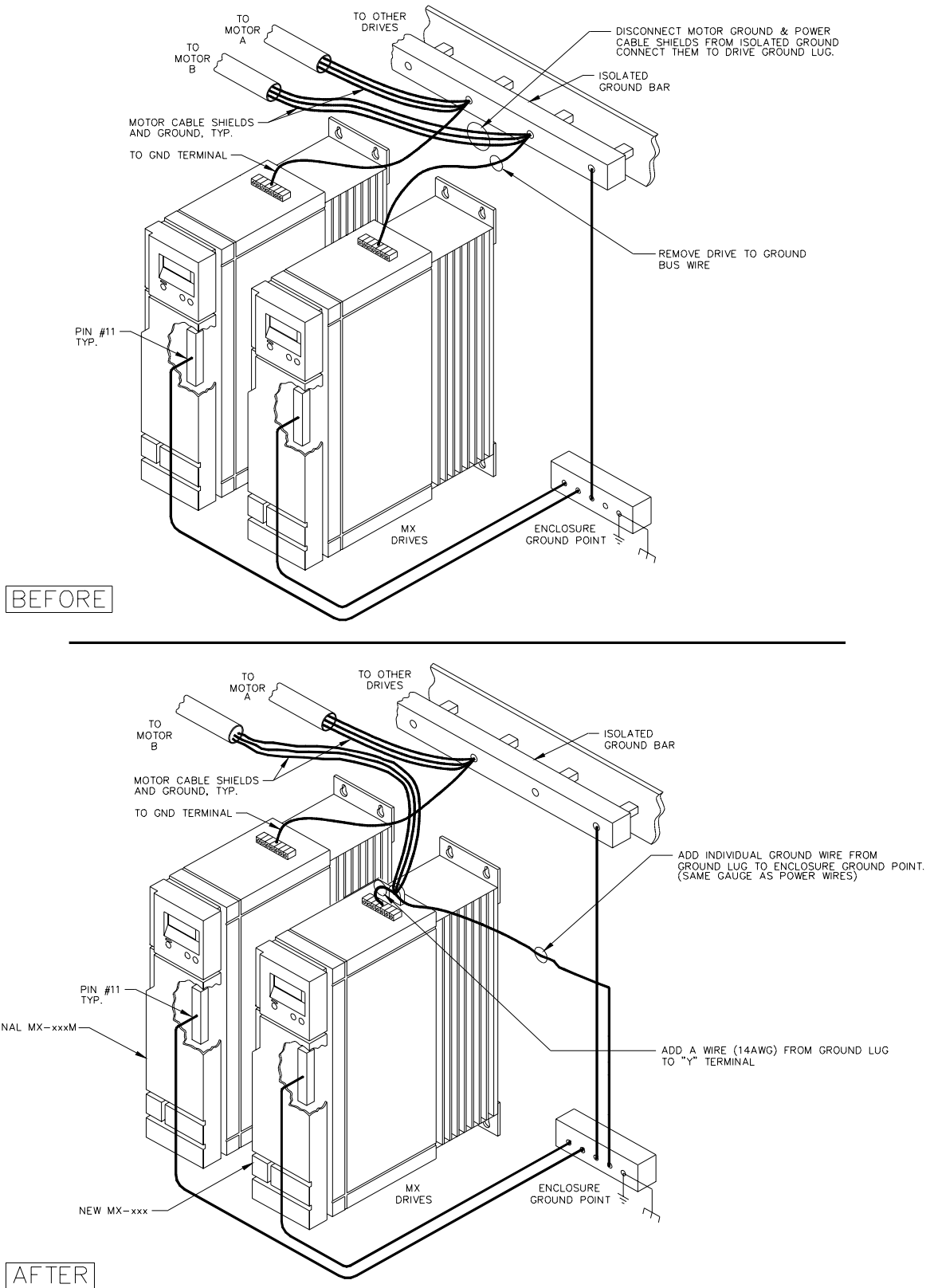


Figure 11.3