



1336 IMPACT™ AC Drive Firmware Up-Grade Procedure

This publication will guide you through the firmware up-grade procedure of the 1336 IMPACT drive. Upgrading the 1336 IMPACT firmware is a two part process. The first step involves replacing the Language Module and the second step involves replacing the Current Processor (CP) IC.

The Current Processor IC is located in the only square IC socket on the Main Control Board (MCB). This socket is located to the right and slightly above the Language Module on the B-G Frame drives. On the A - Frame drives, it is located beneath the cradle of the Human Interface Module, (HIM).



ATTENTION: This drive contains ESD (Electrostatic Discharge) sensitive parts and assemblies. Static control precautions are required when installing, testing, servicing or repairing this assembly. Component damage may result if ESD control procedures are not followed. If you are not familiar with static control procedures, reference A-B publication 8000-4.5.2, “Guarding Against Electrostatic Damage” or any other applicable ESD protection handbook.

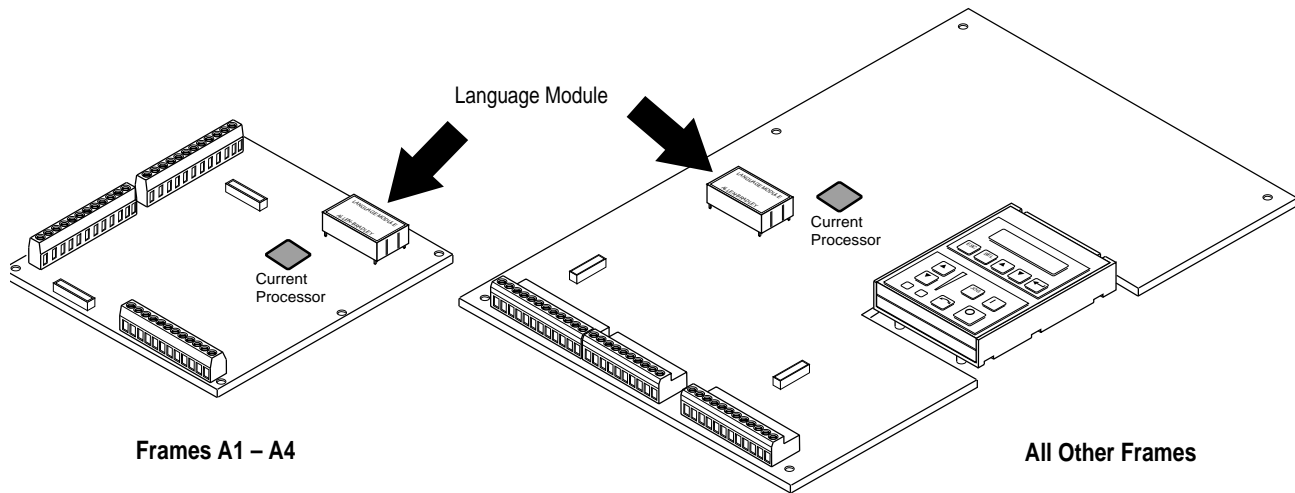


ATTENTION: To avoid a shock hazard, assure that all power to the drive has been removed before proceeding with the following procedure. In addition, verify that the DC bus has discharged by measuring across the “+DC” and “-DC” terminals of TB1 with a voltmeter. The voltage should be 0.0VDC.

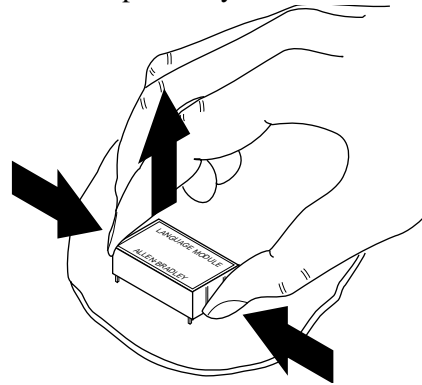
NOTE: If this Up-Grade is being performed to a functioning application, you may wish to store the current parameter settings of the drive to the HIM before starting this procedure. Refer to Appendix C of the 1336 IMPACT User Manual for this procedure.

1. Remove and lock-out all incoming power to the drive cabinet.
2. Remove the front cover and verify that power has been removed from all control terminals of the drive.
3. Referring to the following figure, determine which frame size drive you have and the orientation of the Language Module and the Current Processor IC chip. On smaller drives (A-Frame) it will be

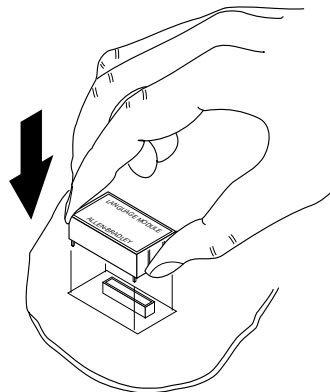
necessary to remove the cradle of the Human Interface Module. On the larger drives (B-H Frames), the Current Processor IC may be located under the GMx Module, if the drive is so equipped.



4. Locate the Language Module for your specific drive.
5. Remove the module by squeezing the sides - in, and pulling the module up & away from the MCB. Discard module.



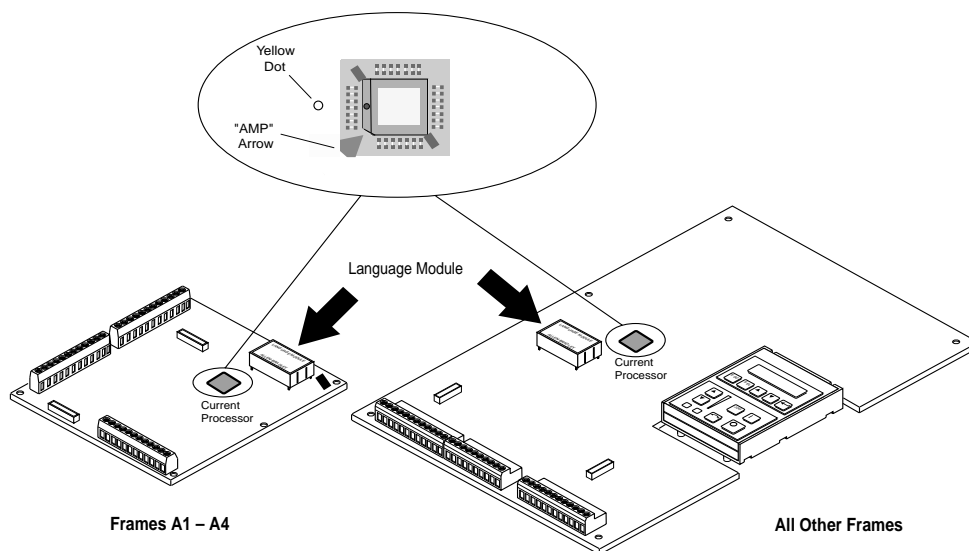
6. Position the new Language Module on the Main Control Board, using the silk screen outline on the board as a guide.
7. Carefully align the module connector with the Main Control Board connector. Firmly press the module onto the board until fully seated. The module will “snap” (lock) in place. This completes the Language Module replacement.



8. Locate the Current Processor IC on the MCB of your particular drive.

IMPORTANT: Take special note of the orientation of the processor chip in the socket. The processor chip is square and one side of the chip has a beveled edge. On the beveled edge is a small indentation to be used as a point of reference. Located on the MCB beside the IC socket is a small yellow dot that is silk screened onto the surface of the board. This small yellow dot on the board should be aligned with the indentation dot on the chip if the chip has been properly inserted.

If the yellow indication dot on the board is not visible, the “AMP” imprint on the IC Socket can be used to correctly align the chip. One of the corners of the IC socket has a small arrow with the word “AMP” imprinted on it. This arrow should point to the only corner of the IC chip with a snubbed point as shown in the following illustration.



Note: DO NOT use the manufacturer’s label on the IC chip as a reference for proper orientation of the chip. Proper orientation of the chip is critical and the location of the label may vary.

9. Following the procedure included with the extraction tool, remove the present Current Processor IC.
10. Position the new Current Processor IC in the socket. Verify the proper orientation of the chip and carefully apply pressure to the IC until it is fully seated.
11. Replace the cover on the drive and restore power to the drive.
12. After the drive is powered, it will be necessary to reset the drive parameters to default and cycle power. Cycling power entails removing power from the drive and waiting until the illumination on the HIM fades before restoring power to the drive.
13. After power has been restored to the drive, it will be necessary to re-Autotune the drive/motor combination. If it is not possible to perform the Autotune procedure because of mechanical limitations, the values stored in the HIM may be downloaded into the drive.
14. To finish the procedure you must cycle power to the drive.

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