

# ***Chopper Replacement and Firmware Upgrade***

## ***HSD130***

**Field Service Bulletin**

**808050 – Revision 0 – September 2013**

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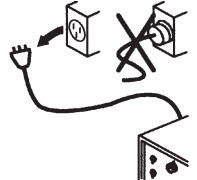
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	<p style="text-align: center;"><b>DANGER!</b> <b>ELECTRIC SHOCK CAN KILL</b></p>
	<p><b>Disconnect electrical power before performing any maintenance.</b></p> <p><b>All work requiring removal of the power supply cover must be performed by a qualified technician.</b></p> <p><b>See the <i>Safety</i> section of the system's manual for more safety precautions.</b></p>

## Purpose

This Field Service Bulletin explains how to upgrade the system firmware before replacing the chopper in an HSD130 power supply. The firmware **MUST** be updated **BEFORE** the chopper is installed or the system may not function properly.

## Kit contents – 428095

Part Number	Description	Quantity
229107	Chopper assembly	1
081118	Firmware and media assembly: firmware HAD control	1
027338	Chip extraction tool	1

## Required tools and materials

- 3/8 inch wrench
- Number 2 Phillips screwdriver

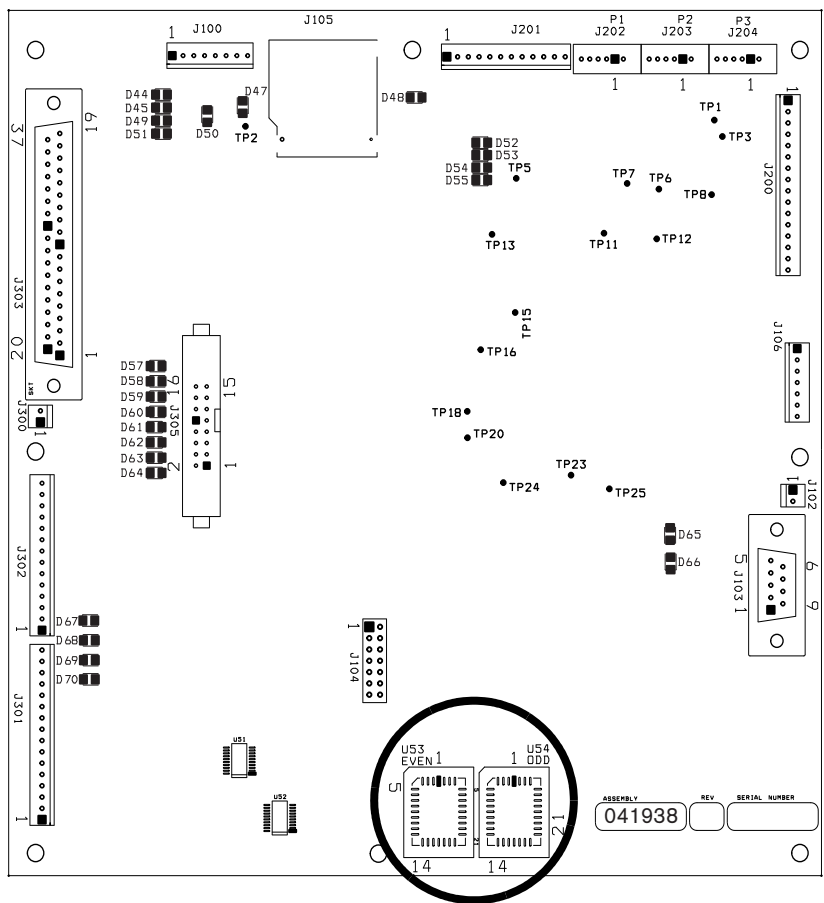
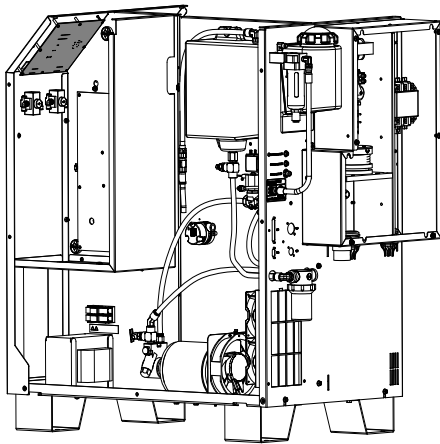
## Introduction



### CAUTION!

The system may not function properly if the new chopper is installed and the system is powered up without installing the new firmware. The firmware should be installed first and then the chopper should be installed. Power should not be applied to the system until both installations are complete.

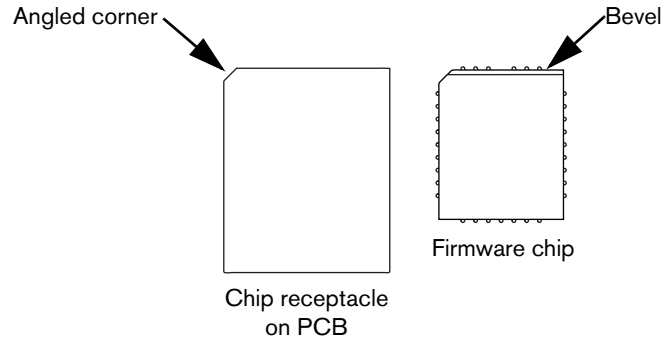
## Firmware installation



1. Turn OFF all power to the system. Follow all appropriate national and local safety procedures. In the U.S., use a "Lock-out/tag-out" procedure until the installation is complete.
2. Remove the right side cover from the power supply to access the control PCB (see figure above).
3. Remove the even (U53) and odd (U54) chips from the board using the extraction tool (027338) provided in this kit.

4. Install the new chips 081202 (EVEN) and 081203 (ODD) onto the control board.

**Note:** Make sure the chips are oriented correctly before installation. There is a bevel on the top edge of each chip and the upper left corner is angled (see figure below).



5. Install the new chopper assembly.
6. Replace the right side cover and turn ON the power.