TS-1107	MP2 Chip and Board Replacement	Document Owner: Service Team	Effective Date: MAY-04-2023	Page 1 of 6

Purpose
This guide explains the process of replacing a chip and the board in a Sci-Print MP2.

Required Material and Equipment
Branded chip to replace the old.

Intended Audience
Certified Scinomix Technician, or Superuser with guidance from CST.

Prerequisites
1. Chip has been branded and is available to be changed.
2. MP2 must be separated from an integrated unit or from its stackers.
3. MP2 is placed on a flat working surface.

Procedure
Verify the MP2 Does Not Provide Initialization Status Beeps
1. With the unit removed from the integration platform and placed on the working surface, provide power to the base unit.
2. Turn the power on and confirm there are no initialization beeps. This should only take about a minute.
3. If beeps are heard, attempt connecting to the instrument with a remote laptop (separate from the integration platform).
4. If no beeps are heard (as expected), move to the next section.

Gain Access to Control Boards In MP2 Base
1. Unplug the communication cables connecting the Squix printer to the MP2 base.
2. Carefully remove the Squix printer from the dowels, taking care not to damage the peel blow bar. When removed, set aside until the end of the process.
3. Turn the MP2 base upside down and rest on the table.
4. Remove the bottom cover by unscrewing the eight flathead screws and set aside.
5. When complete the MP2 base should look like Figure 1 below.

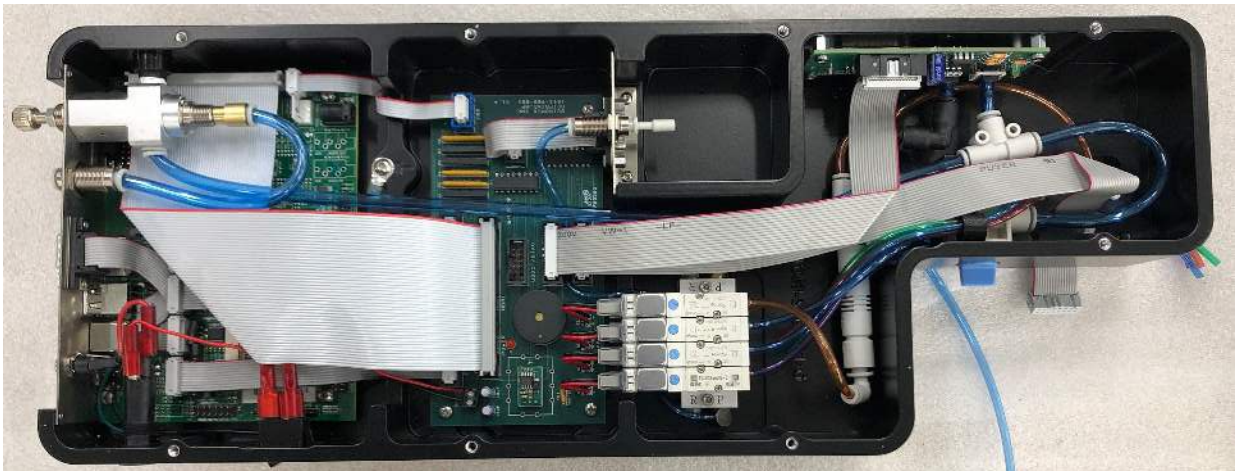

Figure 1.

6. Ensure all connections are tight to the boards.
    a. If anything is loose, push the connection in and provide power to the base unit to see if the initialization beeps are heard.
    b. If there are no beeps, continue to the next section.

Change the Communication Chip and Test

1. Unplug the 50-pin ribbon cable from the I/O board and fold it out of the way.

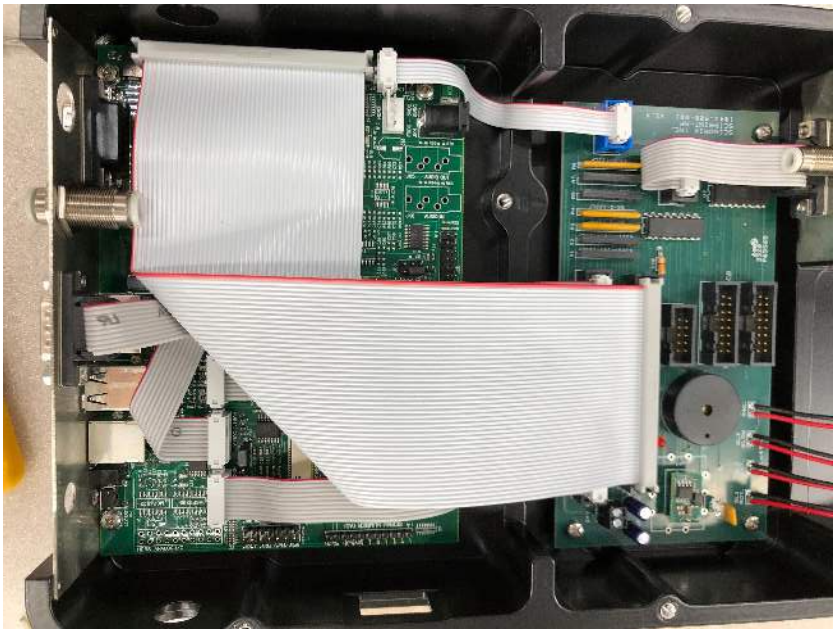

Figure 2.

2. Unplug the 10-pin ribbon cables from the I/O board and fold them out of the way.

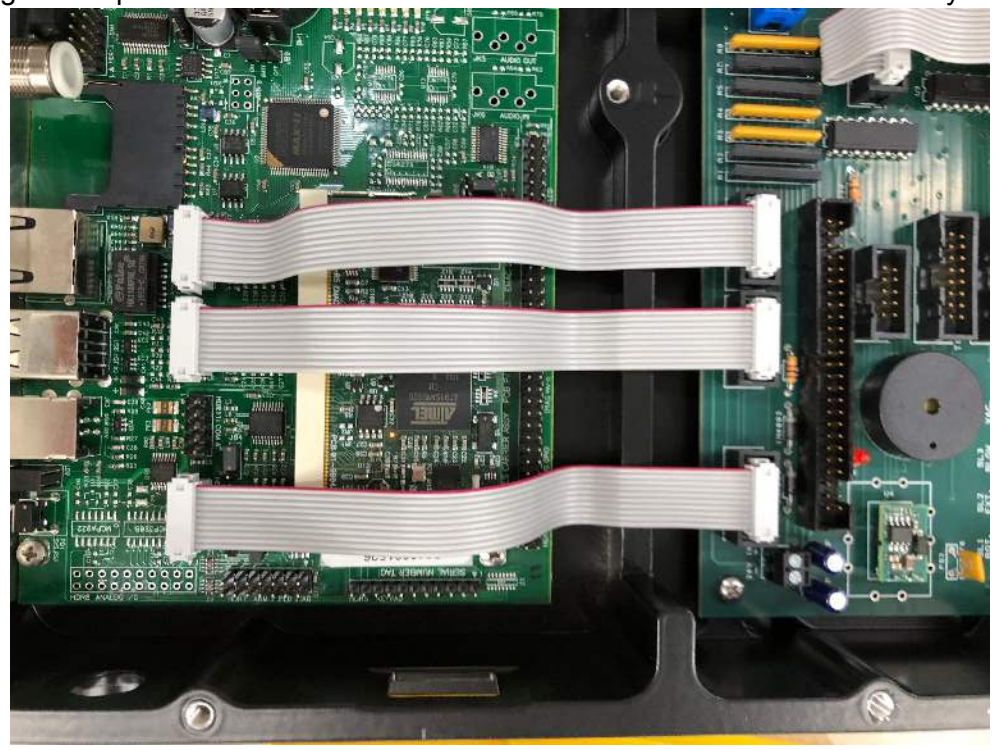

Figure 3.

3. The chip should now be seen mounted into the carrier board as shown in Figure 4 below.
4. If there are other cables in the way from removing the chip, note where they are connected and then remove to gain access to the chip.

   Note: Figure 4 below does not show any cables, this will not be the case.

Figure 4.

5. Unlock the silver tabs holding the chip in place and lift up from the long side of the chip, opposite of the white connection slot. Figure 5 below shows the chip removed.

Figure 5.

6. Insert the new chip by angling the connection side into the white slot, then push the chip down to a horizontal position until it locks into the metal clips.
7. Replace all 10 pin and 50 pin connections.

8. With the base still open, provide power to the base and power on.
    a. If the chip is installed correctly and the carrier board is functioning, a single initialization beep should be heard, followed by three consecutive beeps continuing until power is turned off. This confirms the unit is on, but there is no printer communicating with the instrument.
    b. If beeps are heard:
        i. Turn the unit off.
        ii. Replace the wiring to proper positions (if not already done).
        iii. Reinstall the base cover.
        iv. Turn the instrument over and reinstall the printer.
        v. Power the instrument on to confirm the initialization beeps are heard again.
    c. If there are no beeps, move to the next section.

Replace Communication Carrier Board

1. With the base cover removed, unplug all ribbon cables and connections from the carrier board.
2. Remove the board from the base with the chip still installed by unscrewing the four screws located in the corners of the board.
3. Remove the chip from the old board and replace it on the new board.
4. Install the new board and reinstall all connections.
5. Provide power to base and check for initialization beeps as before.
6. If beeps are heard:
    a. Replace the cover.
    b. Install the printer.
    c. Attempt to communicate with a computer.
7. If there are still no beeps, continue to the next section.

Replace the IO Board

1. With base cover removed, unplug all cables connected to the I/O board.
2. Remove the I/O board by unscrewing the screws located in the corners of the board.
3. Install the new board and reinstall all connections.
4. Provide power to the base and check for initialization beeps as before.
5. If beeps are heard:
    a. Replace the cover.
    b. Install the printer.
    c. Attempt to communicate with a computer.
6. If there are still no beeps, continue to the next section.

Next Steps After All Necessary Phases Complete

1. If this step is reached without the initialization beeps, the instrument needs to be sent to Scinomix for further evaluation.
2. If the initialization beeps have been heard, begin test prints when connected via the PC software.
3. If test prints are accepted, reinstall the instrument on the platform.

If you need additional assistance, please call our service department at 314-298-9800 or email service@scinomix.com.

Definitions

N/A

Revision History

Version:	Change:	Effective Date:	Approved by:
A	New	MAY-04-2023	Service Team