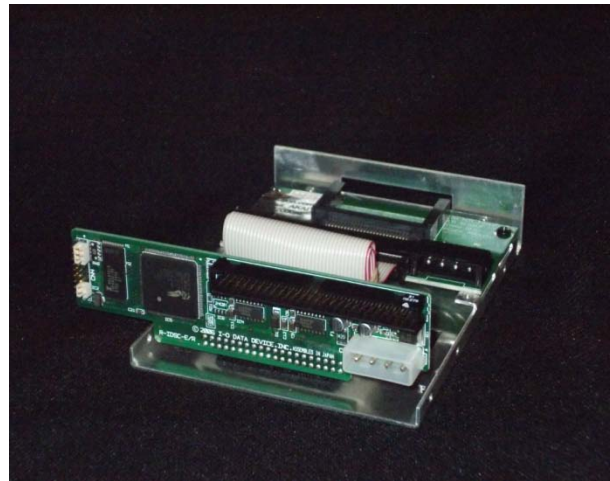


By MPCStorageSolution.com

Procedure for installing Internal SCSI Compact Flash Reader/Writer Drive in Akai MPC2000XL

This procedure is for informational purpose only. Please read and review this procedure several times so that you fully understand and feel comfortable performing the modification to your MPC2000XL sampler. If you do not feel comfortable about taking things apart and working with electrical equipment, then you should find someone who has basic knowledge of working with electrical components to perform the task. If you have questions regarding this procedure, please contact us for further clarification.



The above pictures show the front and rear view of the flash drive. The scsi compact flash r/w (reader/writer) drive is non-hot swappable which means the flash card can only be inserted and removed when the

drive is powered **OFF**. In other words, if the drive is powered **ON**, then the card cannot be removed or risk loss of data or corruption.

A little information about Compact Flash Cards

Most producers who purchase this drive use a compact flash card with the maximum capacity of 16GB so they never have to remove it for a long time. 8GB, 4GB, 2GB, 1GB compact flash cards are also acceptable cards. Also, we use many different brands but have a preference for the Kingston brand as it is ultra-reliable and we have never had any problems. We have also used the following brands in our facility:



Updating the Operating System

Before removing the floppy drive or zip drive from the MPC2000XL, 1.14 operating system must be copied to the sampler to take advantage of the partitioning feature and using compact flash cards up to a capacity of 16GB. But, before doing so, find out which version is currently installed by pressing SHIFT OTHER (Button 8), then press the VER soft key. You can visit <http://www.mpcstoragesolution.com> to obtain a copy of OS 1.14 for MPC2000XL and save to zip disk or floppy disk. If you choose to use 1.20 operating system, then that it is fine, but you will be limited to 1GB of memory regardless of compact flash capacity.

Setting the SCSI ID

We ship the compact flash drive kit preset to scsi id 0 (as shown in the first picture below), but should you wish to set the drive to a different scsi id, simply refer to the other pictures below. The pictures show scsi id 0, 1, 2, 3, and 4. Also, if look at the bottom row (9th row), there is no jumper set which means active termination is set to enabled (ON). Should you wish to disable termination, then simply set the jumper to the 9th row. Very important, counting from the top row, **do not remove** the jumpers set to the 4th and 5th row.





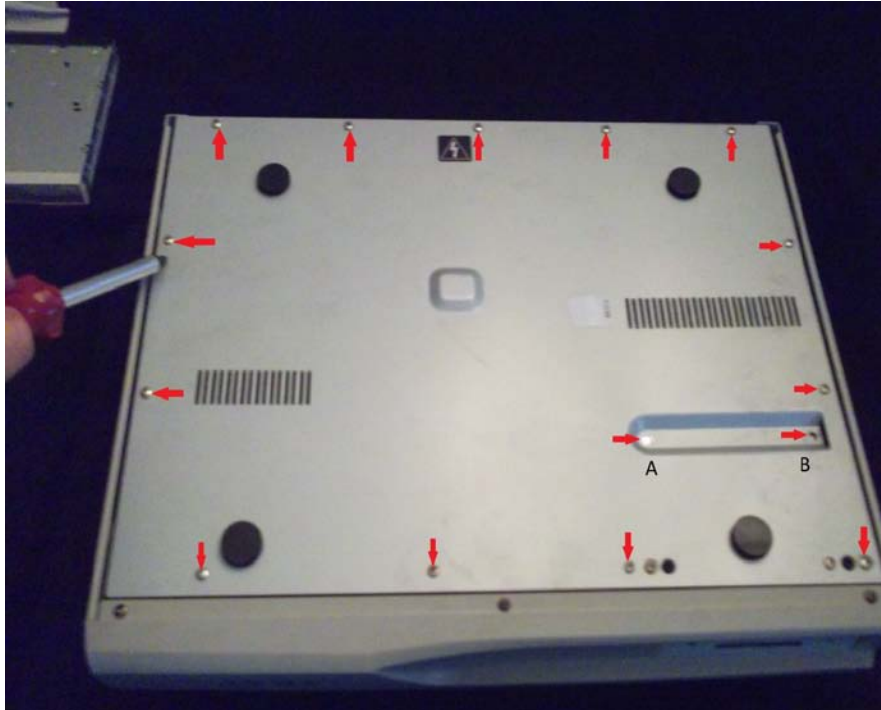
Tools required: Philips screwdriver

Very important: Before starting, **unplug** power cord from MPC2000XL.

Step 1 – Open MPC2000XL

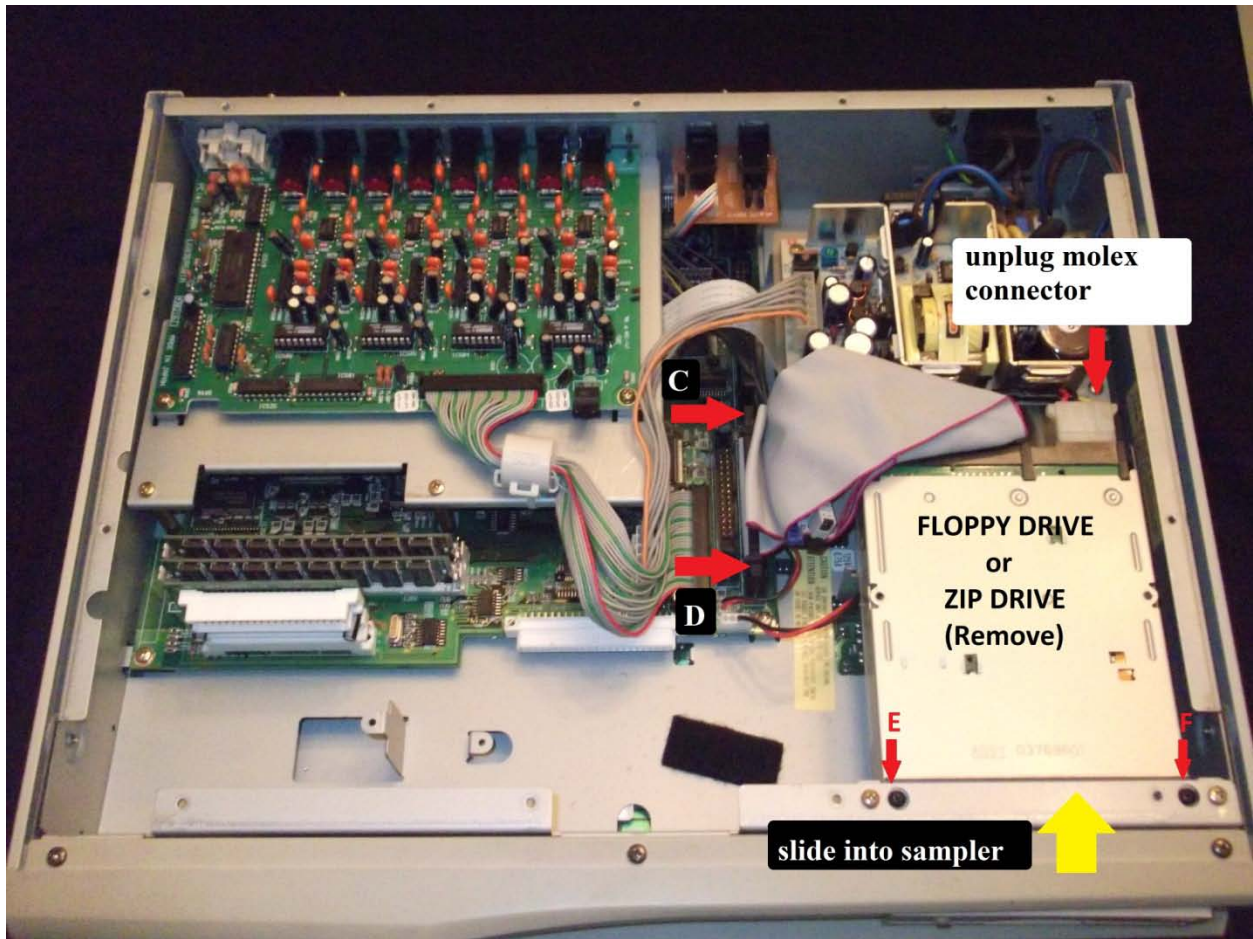
Find a blanket (folded), pillow, or cushion and place on table. Turn MPC2000XL upside down and place on blanket to cushion the top of the sampler where screen and jog wheel are located.

The bottom cover must be removed to access the inside of the sampler. There are a number of screws located as shown below that must be removed with a screwdriver. Remove all screws marked by red arrows along the edges of the bottom cover. Keep all screws together. We like to line up the screws in the order removed so that when we put the screws back, each screw goes back in its original hole. Also, there are 2 screws (marked as A and B) that are holding the floppy drive or zip drive in place. Remove the 2 screws and set aside.



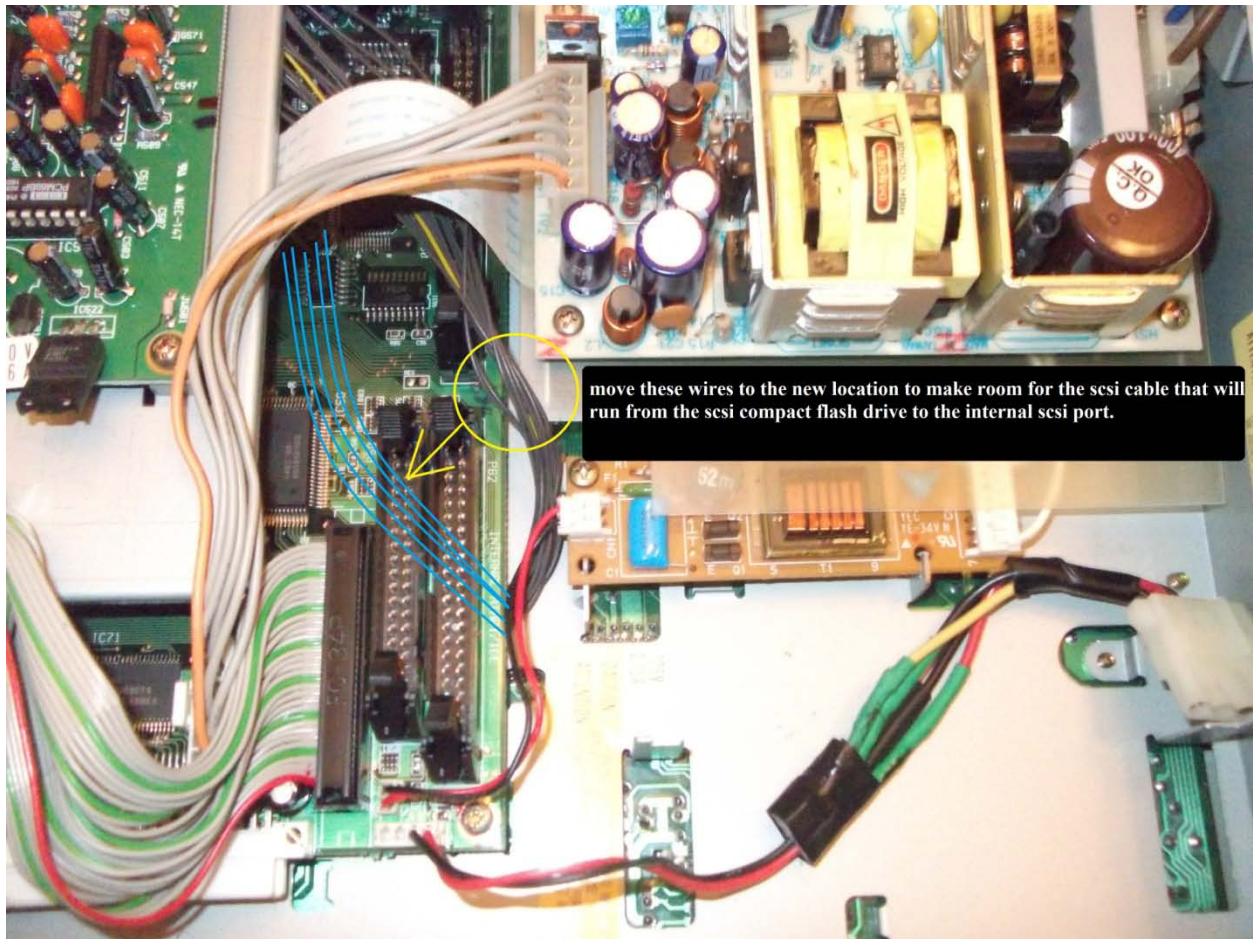
Step 2 – Remove internal scsi drive

After removing bottom cover, you will see the floppy drive or zip drive which must be removed to make room for the internal scsi flash drive. In the picture below, note the 2 red arrows labeled as 'C' and 'D' refer to tabs that lock the atapi/ide connector cable to the main board. Gently apply downward pressure to the tabs 'C' and 'D' and you will see the atapi/ide connector disconnect at which point you can remove by hand. Next, pull tabs in up position. Then unplug the molex power connector from the drive. Lastly, remove the screws (referenced by 2 red arrows 'E' and 'F') that holds the zip drive in place. The drive can now be removed by carefully sliding into the sampler (see yellow arrow) and in an upward motion until it is completely out. You can put the drive away with the ribbon cable should you ever need it again.



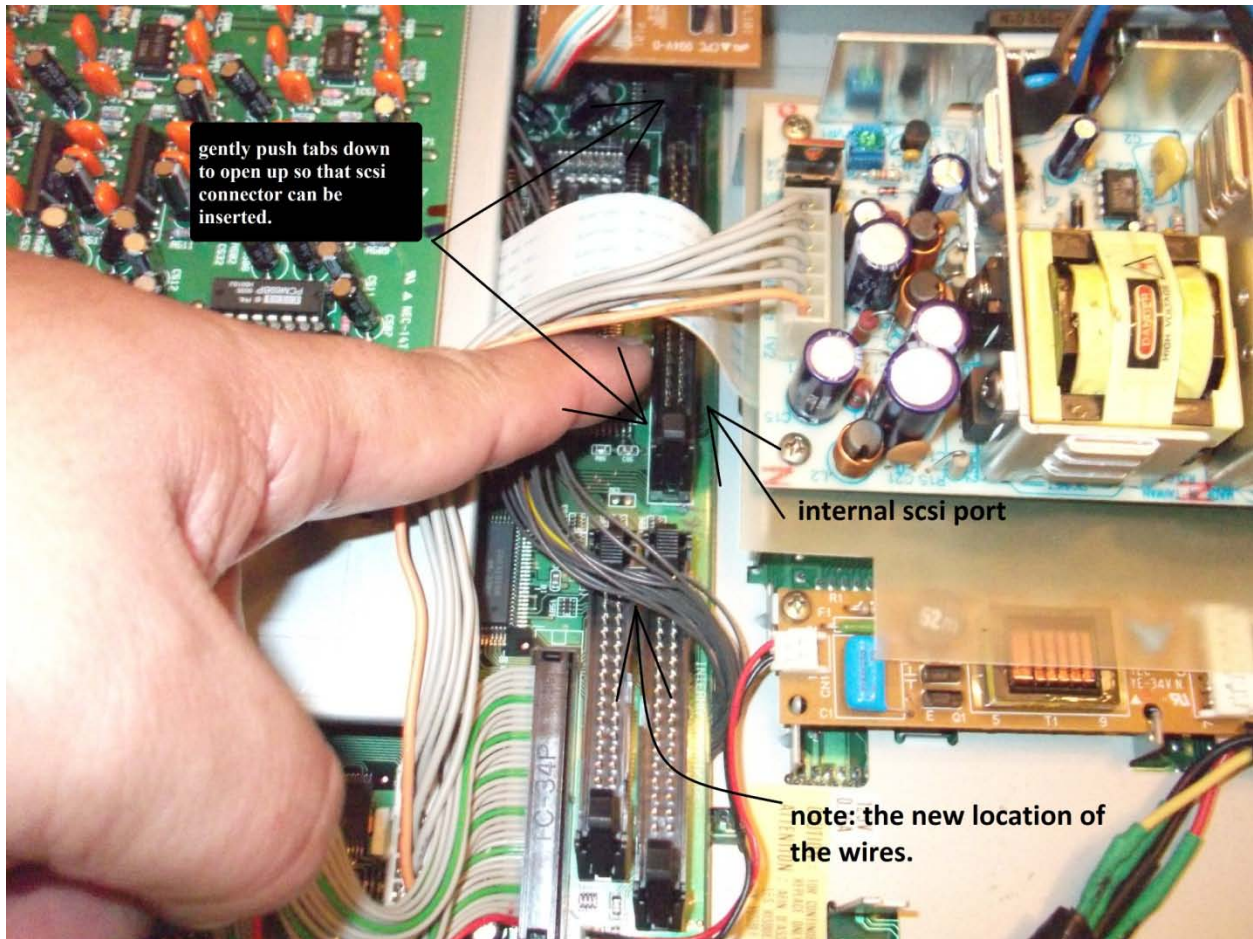
Step 3 – Find the Internal SCSI connector on mainboard

Looking at the next picture, you will see a set of wires circled in yellow that must be moved over to create room to route the internal compact flash drive's scsi ribbon cable to the internal scsi port.



Gently push down each of the tabs on the scsi port to prepare for the scsi ribbon cable connection. Note the wide white ribbon cable located above the scsi port. There will not be much room to connect the scsi ribbon cable, so some scsi cable-twisting and very careful maneuvering will be necessary on your part. Take your time when performing this task.

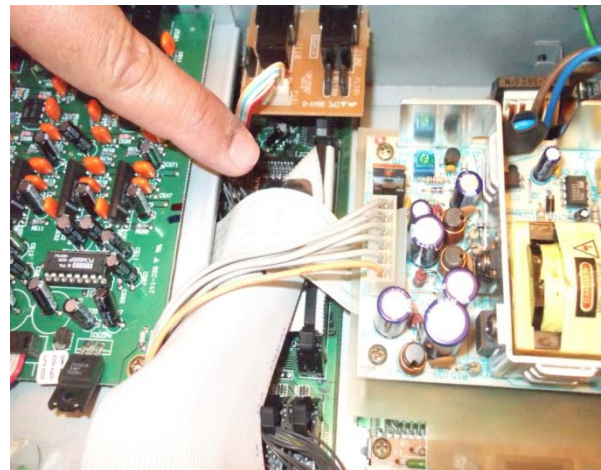
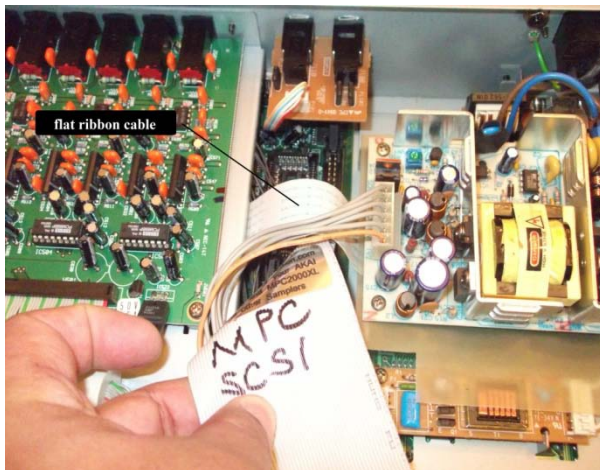
Note, the power cable (red and white wire) that originate from the mainboard. Because our sampler had a zip drive, shown there is a molex connection (starting where electrical tape is, green shrink-tubing, and ends at molex connector). The molex connector (black and red wire) will provide 5V to the flash card drive.



Below pictured is a 50 pin scsi ribbon cable that is included as part of the internal scsi compact flash drive kit. Look at the black connector and you will notice there is a notch (or keyed) so that it connects only one way. Before connecting scsi cable to the internal scsi port and the other end to the scsi board on the compact flash drive, place the cable on a flat surface as shown in the first picture and carefully twist and bend the cable so that it looks the same as that shown in the second picture. The space between the scsi port and the white ribbon cable located above the scsi port is very tight and twisting the scsi cable very well will make it easier to fit the scsi cable into place.



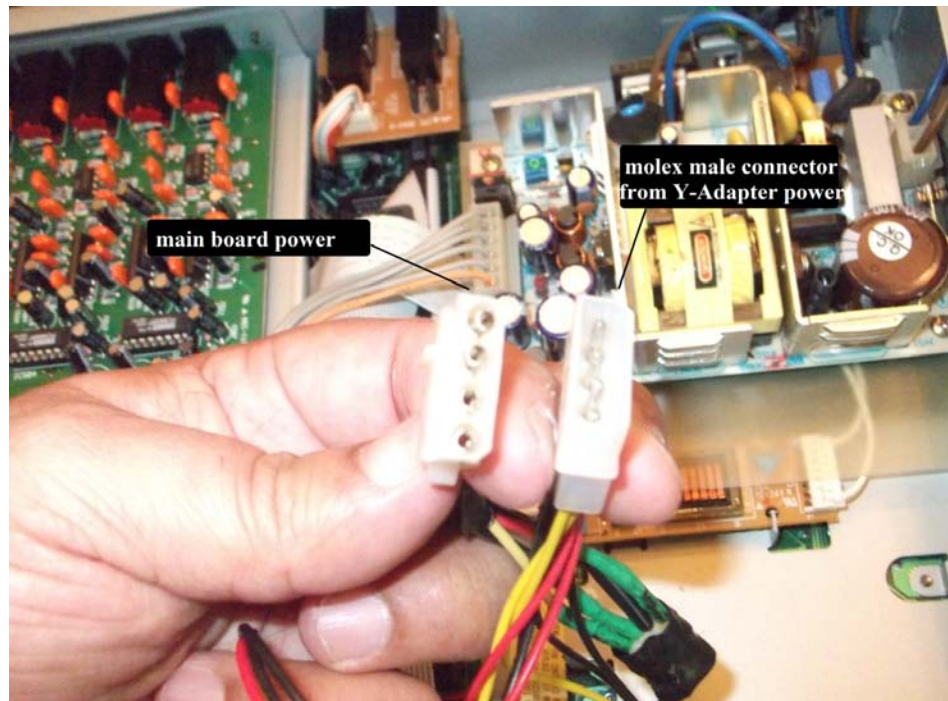
Carefully slip the scsi cable between the white ribbon cable and the internal scsi port (as shown below). Line up the scsi cable connector directly right over the internal scsi port and gently push down until the tabs move up and inward to secure the connection.



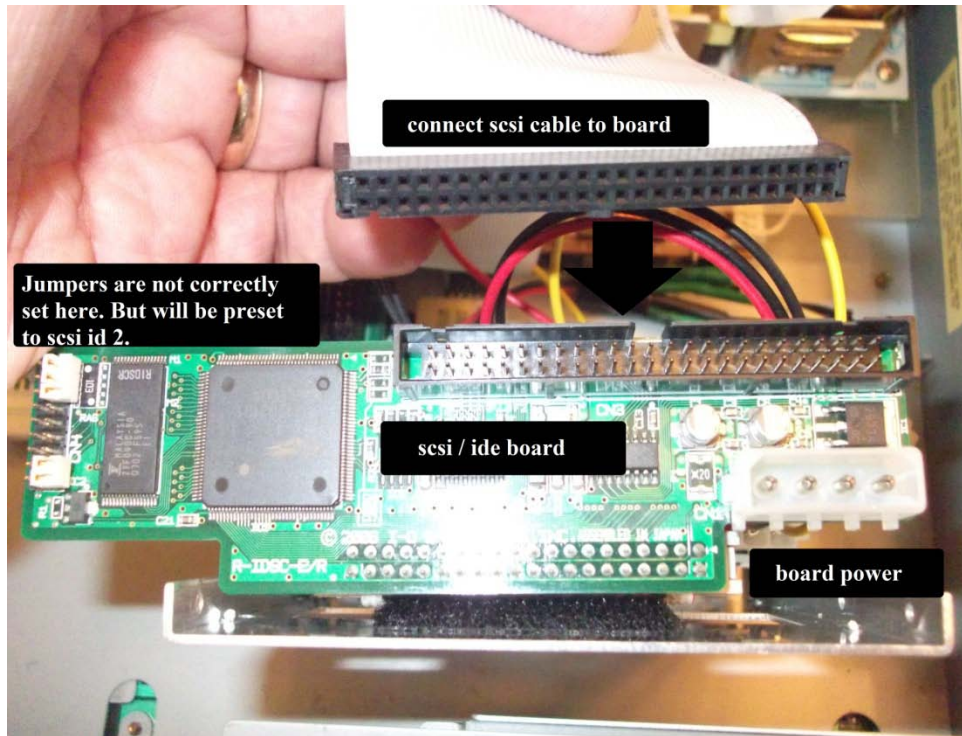
Step 4 – Connect all cables to Reader/Writer Drive Kit

Included in the kit is a Y-Adapter power cord. The Y-Adapter has 3 molex connectors. Two female and one male molex connector. Connect

the **male** molex connector to the main board power (**female** molex connector) as shown in the picture below.

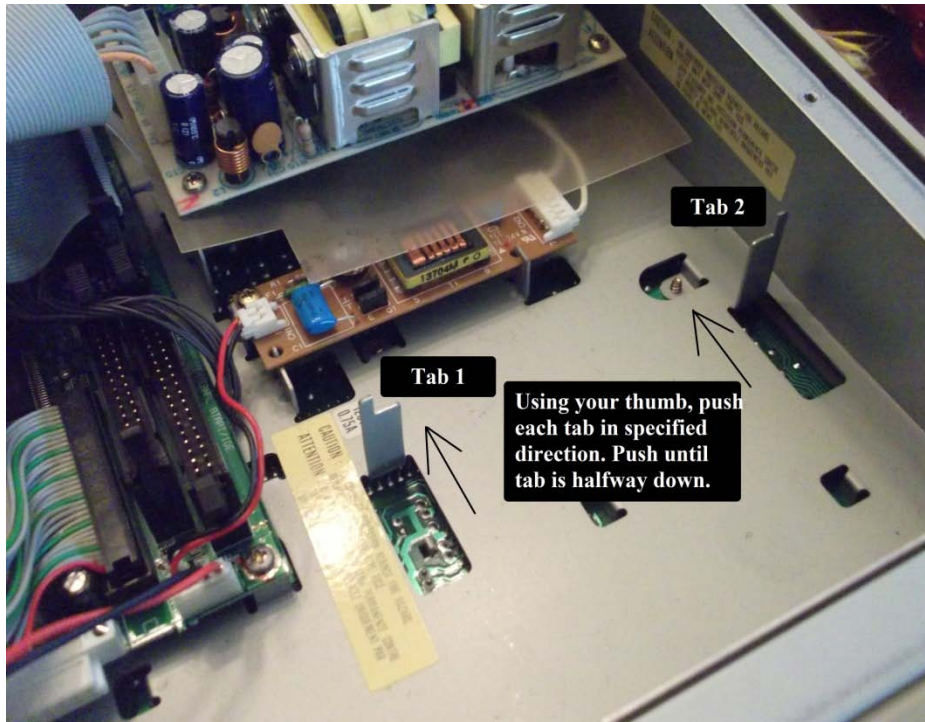


Next, connect the **male** molex connector to reader/writer drive's **power** connector (female molex connector). Also connect the other end of the scsi ribbon cable into compact flash drive's scsi/ide board (see picture below). This board allows the **ide** compact flash drive to convert to scsi and connect to the internal **scsi** port. The board has a 40 pin interface (**ide**) and a 50 pin interface (**scsi**). This board is the most important and valuable part of the compact flash drive kit. Without this board, it would not be possible to convert an ide-based flash drive for scsi application.



Step 5 – Prepare to secure drive into place.

Next, locate the 2 metal tabs (see picture below) and using your thumb, push each tab in the specified direction until it is halfway down. This is necessary to make room for the internal scsi drive kit. The tabs only served to support the floppy/zip drive but it is not needed anymore. In the event, you should wish to re-install the floppy/zip drive, then simply unbend the tabs to original position.

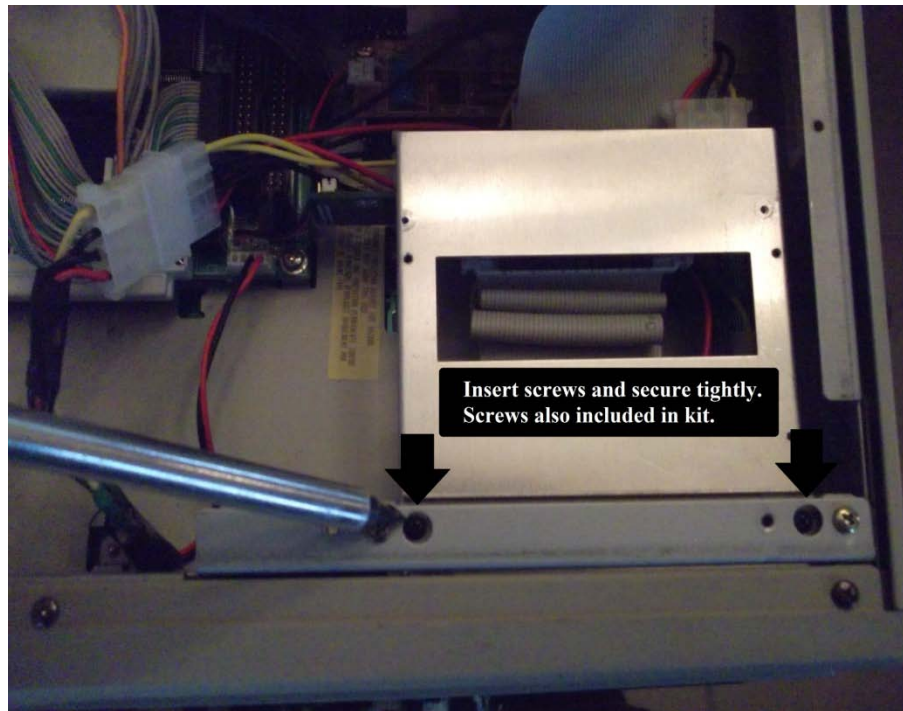


After bending tabs, it should look like the following:



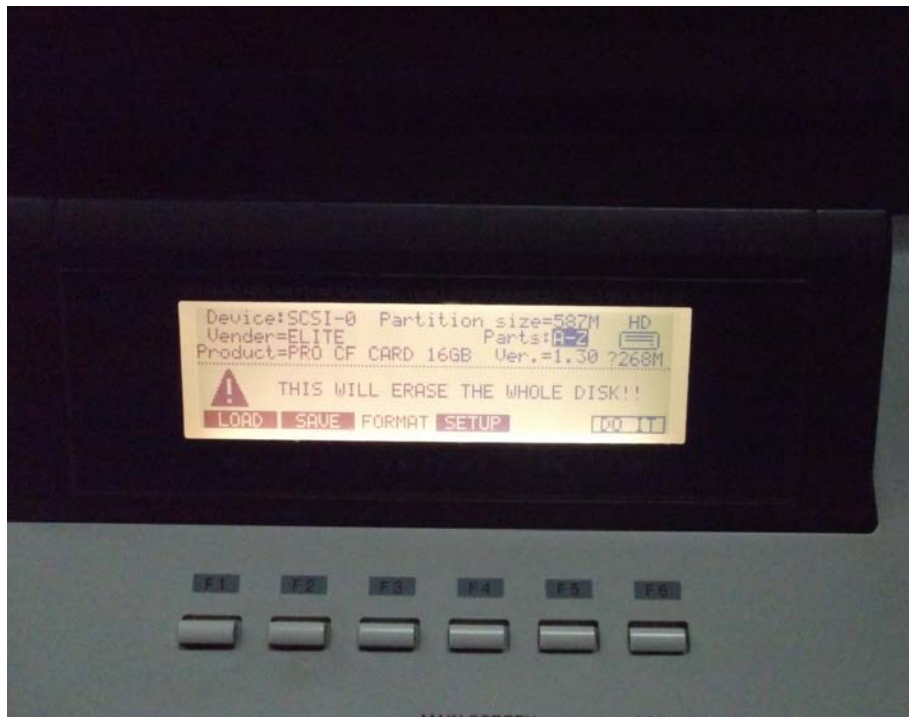
Step 6

Slide compact flash drive thru opening such that the bezel (front of drive) is flush with the front of the MPC sampler. When you have done this, you will see 2 holes line up with holes on the sampler. Fasten the 2 screws to secure the flash card drive.



Place bottom-cover back on and fasten all screws. Turn over MPC2000XL to look at your newly-installed internal scsi compact flash card reader/writer drive. Connect the power cord to the sampler but do not turn on just yet. Insert the compact flash card and turn on the MPC2000XL. Look at the card reader and you will notice the green LED is lit on the right-hand side. If you see a red light condition, then this means there is a connection that is not completely connected. Check all connections. When the sampler completes booting up with OS 1.14, you can then do a SHIFT LOAD and cycle thru the scsi ids to confirm

recognition of the drive. The drive is preset to be recognized on scsi id 0. Or to the scsi id you may have set.



How To Use the Non-hotswappable SCSI Compact Flash Drive

Non-hotswappable means you cannot insert nor remove the flash card when the drive is ON. Inserting or removing the flash card when the equipment is ON may cause data loss, corruption, and possible damage to the card. But if you use a large capacity compact flash card such as a, 4GB, 8GB, or a 16GB, then there will be no need to change out the card for quite some time.

Use the following recommendations:

- All equipment must be off before inserting or removing card.
- Carefully and gently insert card (label up) until completely in
- Do not remove flash card when drive is ON
- Turn OFF drive and sampler before removing card

Once again, this procedure is for informational purpose only. Any action taken by anyone and everyone to modify any MPC2000XL sampler using this procedure is/are at their own discretion(s) and agree to accept all risk(s). You agree to be solely responsible and release mpcstoragesolution.com of any loss, injury, liability, omissions, or inaccuracies of this procedure, or any other reason. Please do your own research to further supplement this procedure.

It is a very good idea to review this section several times so that you become very familiar with these simple guidelines.