SnapLink™
Hardware Installation Guide

Revision 1.0
July 29, 1991

Published by
Morning Star Technologies, Inc.
1760 Zollinger Road
Columbus, Ohio 43221
USA
+1 614 451 1883 (voice)
+1 800 558 7827 (voice)
+1 614 459 5054 (FAX)
support@MorningStar.Com (e-mail)

SnapLink
Hardware Installation Guide

1. Preliminary Steps

The Morning Star SnapLink is shipped with internal SCSI bus termination installed. If the SnapLink will be at the end of a chain of SCSI devices, the internal termination is already correct. If not, you will need to remove the internal termination resistors. See Section 2 - Changing the SnapLink Configuration.

If there is already a terminated device at the end of your chain of SCSI devices and you plan to add the SnapLink to the end of the chain, you will need to remove the termination from the other device. Please see the appropriate installation documentation for the other terminated device. See Figure 1.

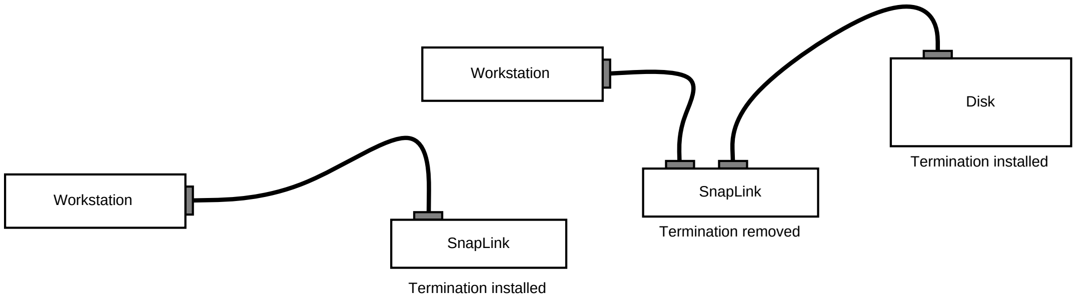

Figure 1 — Sample SCSI configurations

The Morning Star SnapLink is shipped with the SCSI target ID set to 3. Determine if the target ID 3 will cause a conflict on your system. If there is already a device using ID 3, you will need to change the ID for the SnapLink. See Section 2 - Changing the SnapLink Configuration.

If you do not need to change the internal termination OR the SnapLink target ID, proceed to Section 3 - Installation Steps.

2. Changing the SnapLink Configuration

2.1. At a static-free work area, remove the screws from both sides of the plastic bezel at one end of the SnapLink (either end will work.) See Figure 2.

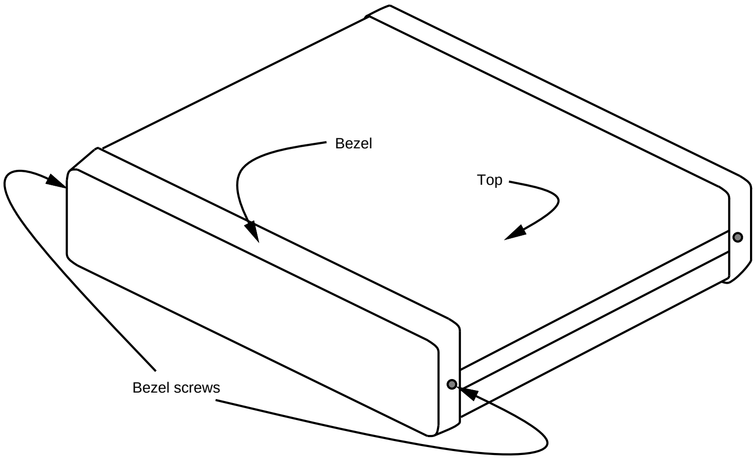

Figure 2 — SnapLink bezel attachment

2.2. Remove the bezel and the top metal cover. If necessary, you may carefully pry the cover up about a quarter of an inch in order to get a better grip and to loosen the cover. It should slide out from under the other plastic bezel and lift off.

2.3. If you do not need to remove the internal termination but do need to change the SCSI target ID, proceed to Section 2.4.

The termination resistors are the rectangular 14-pin chips labeled U1 and U2 near the large, square NCR53C90A SCSI interface chip. See Figure 3. If you do not want the SnapLink to be internally terminated, carefully remove these two chips by prying up each end slightly and lifting them out. Store these chips in a static-free container for future use.

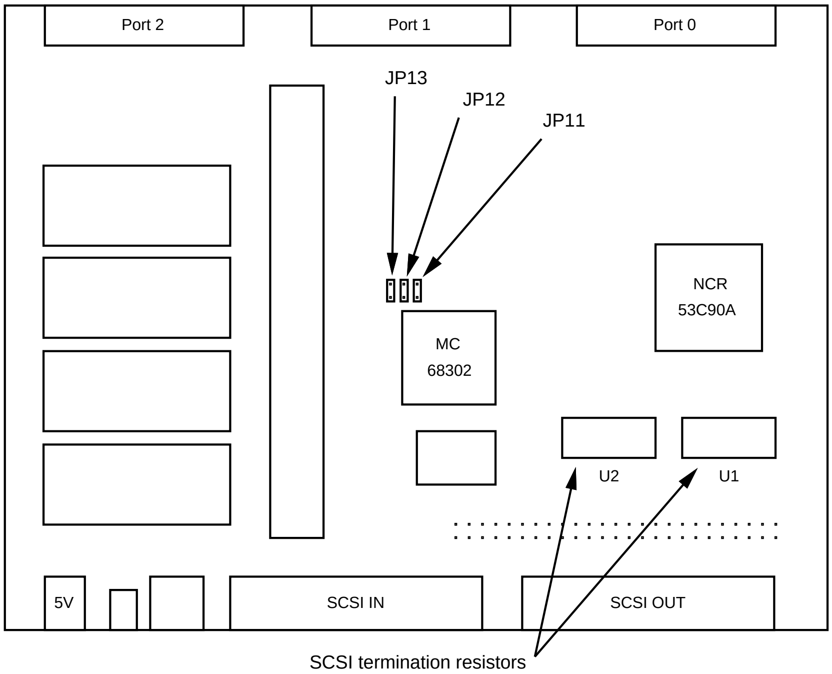

Figure 3 — SnapLink circuit board

If you do not need to change the SCSI target ID, proceed to Section 2.6 to reassemble the SnapLink box.

2.4. Locate the SCSI ID jumpers JP11, JP12 and JP13 which are in a 3x2 grid of jumper pins near the large square MC68302 processor chip. See Figure 3.

2.5. Select a target ID value which will not cause a conflict on your system, and remove or install jumpers on JP11, JP12 and JP13 as needed to set this ID value. See Figure 4.

ID	**JP13** (4 bit)	**JP12** (2 bit)	**JP11** (1 bit)
0	out	out	out
1	out	out	in
2	out	in	out
3	out	in	in
4	in	out	out
5	in	out	in
6	in	in	out
7	in	in	in

Figure 4 — SCSI ID jumpering

2.6. Replace the metal cover, sliding it under the edge of the bezel that was not removed, and press the cover flush with the box. Reinstall the plastic bezel by slipping it over the end of the box and reinstalling the two screws.

3. Installation Steps

3.1. Plug your serial cables into the serial ports as desired. The ports are labeled 0, 1 and 2 on the end panel. Any port can accept either RS-232 or RS-449 cables, depending on your application needs. See Figure 5.

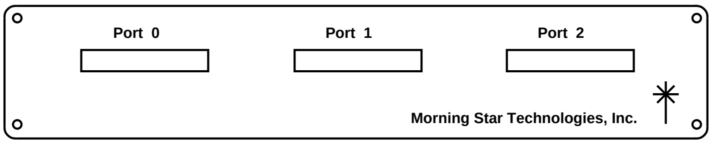

Figure 5 — SnapLink rear panel

3.2. Plug the provided SnapLink power supply into the SnapLink power socket on the other end panel, and then plug the power supply into a standard wall socket. The LED indicator will flash 16 times as it tests its on-board RAM, then will go out for a short time while it tests the on-board ROM, and then should flash "OK" in Morse code (3 long flashes, a pause, then a long flash, a short flash, and a long flash). See Figure 6 for the location of the LED.

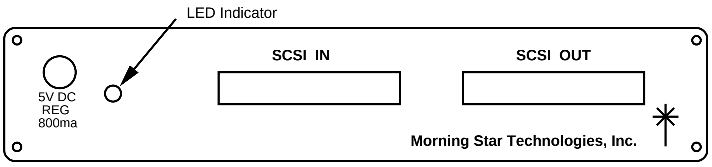

Figure 6 — SnapLink front panel

If the LED should fail to light, make sure the power connector is inserted properly, and make sure the wall outlet has power. If the power is okay but the LED does not light, call Morning Star Technologies Customer Support.

If a pattern of LED flashes other than that described should appear, please call Morning Star Technologies Customer Support. For example, if the LED should begin flashing "M" (two long flashes) then a memory problem has been detected. If the LED flashes "R" (a short flash, a long flash, and a short flash), then a ROM problem has been detected.

3.3. If the LED indicates that everything is "OK", then it is time to connect the SnapLink to the SCSI bus. It is best if this is done when the host system is shut down.

If the SnapLink is going to be added to the end of the SCSI chain of devices (including the case where the SnapLink is the only device attached to the host system), then connect the appropriate SCSI cable to one of the SCSI connectors on the end panel of the SnapLink, and to the existing end device (possibly the host system itself) of the current SCSI chain. Remember that it may be necessary to remove termination from the device which is the current end of the chain. In some cases, this just means removing an external terminating "plug". In other cases it means removing internal termination, for which you will need to check the hardware documentation supplied with that device or system.

If the SnapLink is going to be inserted in the middle of a chain of devices, make sure that the internal termination is removed from the SnapLink (see Section 1), and attach the appropriate SCSI cables to the SCSI connectors on the end panel of the SnapLink.

3.4. Restart the host system. Many systems provide an indication of the devices they find attached to their SCSI bus as they start up. If the system has trouble starting up, or if other devices are shown to be on the SCSI bus but there is no indication of a SnapLink device, then proceed again through these Installation Instructions to confirm the configuration; if trouble persists, call Morning Star Technologies Customer Support for assistance.

3.5. If the communications software you wish to use with the SnapLink (X.25, PPP, async, etc.) has not yet been installed, this is a good time to do so. Refer to the User Guide included with the software for installation instructions, and try running the software to make sure that everything works properly. Whenever the host system accesses the SnapLink, the LED indicator will flash (such accesses are often so quick it may be hard to see the flash). If you have any problems, call Morning Star Technologies Customer Support.