SUPER ARCHIVER Installation Instructions

Installation of this product is really quite simple. Required tools will be:

1. A medium sized Philips screw driver.
2. A pair of needle nose pliers.
3. A small 15 to 25 watt soldering pencil.
4. A small amount of thin (.030 gauge is nice) Rosen core solder.
5. A thin blade type screw driver or a knife or a metal letter opener.

Lets begin!

1. Remove 6 Philips screws on the bottom of the drive. Lift the top half of cover from the rear and slide case backward until it's free. Set it and the front face plate aside in a safe place.

2. Lift the rear of the drive mechanism and gently slide it backward so that it's connected to the chassis by wires only. Make note of the position of the wired connectors on the right side of the drive, (front and rear). Gently pry up and remove these two connectors which will allow you to flop the drive mechanism upside down and lay it to the left of the main chassis, (wires on left rear of chassis are still connected).

. A few drives (100) have 3 very small screws holding the circuit board down to the plastic case. Check to see if yours is one of these rare drives. The screws would be located at front left and rear right and left of the circuit board. If you have these screws, remove them. Locate the 4 plastic "hook like" clips that hold the circuit board =n place, (2 ^n the right side and 2 on the left side). Gently push the ones on the right away from the board and lift board from the right side until the circuit board is free.

. Now you can expose the bottom side of the circuit board. Locate the 2 or 4 metal tabs that are bent over and hold the metal shield in place. Using the pliers, straighten the tabs so the top half of the shielding can be removed. Locate the 24 pin Operating System Chip just to the left of the 6507 (labeled U-10 on the circuit board). With a thin bladed knife or screw driver, gently pry the chip from it's socket (DO NOT pry the socket from the circuit board!).

. Insert SUPER ARCHIVER MOD into the empty socket at U-10 location (wired end should be toward FRONT of drive!). Make CERTAIN all pins of the SUPER ARCHIVER MOD are straight, clean, and perfectly aligned over the socket holes before pressing the MOD into place.

. Pry the large 40 pin chip at the far RIGHT side of the drive (the 6532 and also sometimes labeled C010750 at board locations U-7) from its socket. Bend up pin 23. Place a drop of solder on pin 10 and pin 23 of this chip (solder should be placed high on the shoulder of the pins near where they actually enter the chip). Re-insert the 6532 into its socket making certain that the notched end of the chip is toward the FRONT of the drive and that pin 23 remains OUTSIDE of the socket hole.

. Now remove the other large 40 pin chip located at U-13 on the far left side of the circuit board. The number on the chip should be 2793 or 2797. If it's a 2793 (most common), bend up pin 31. Place a drop of solder on pins 2 and 31 (near the shoulder) and re-insert the chip making certain the notched end is toward the FRONT of the drive and that pin 31 is outside of the socket hole. If you have a 2797, bend up pins 31 and 40. Place a drop of solder on pins 31 and pin 2 only. Re-insert the 2797 into it's socket keeping the notched end toward the FRONT of the drive and making certain pins 31 and 40 remain OUTSIDE their respective socket holes.

. Now solder the YELLOW wire from The SUPER ARCHIVER MOD to pin 10 of the 6532 (this pin is IN the respective socket hole and has a drop of solder already on its shoulder. Simply touch the presoldered end of the YELLOW wire over the drop of solder on pin 10 and touch your soldering pencil to the connection. The two solder spots should melt and flow together making a strong permanent connection).

9. Solder the GREEN wire of the SUPER ARCHIVER MOD to pin 2 of the 2793 or 2797 (board location U-13). This pin should be in its respective socket hole.

10. Solder the RED wire of the SUPER ARCHIVER MOD to pin 31 of the 2793 or 2797 (location U-13). This pin should be OUTSIDE its respective socket hole.

11.   On the LEFT side of drive locate Test Pin 11 (TP11). It is a heavy pin sticking straight up from the circuit board. Melt a drop of solder onto the upper tip of TP11. Now solder the BLACK wire of the SUPER ARCHIVER MOD to TP11.

12.   Now we're going to install the SLOW SPEED MOD (the small adjustable resistor with two black wires attached). Notice the small diode at the end of one of the black wires. The unattached end of the diode should be soldered to pin 23 (which is OUTSIDE its' respective socket hole) of the 6532 located at U-7.

13.   The unattached end of the other black wire should be soldered to pin 10 of the 2917 (a small 14 pin chip located in the LEFT rear of the drive at circuit board location U-5). This chip is soldered to the circuit board and CANNOT be removed .... so don't try! Melt a drop of solder on the shoulder of pin 10 (of the 2917), then touch the unattached end of the SLOW SPEED MOD's black wire to pin 10 and allow the solder to flow or melt together. Double stick tape or glue the SLOW SPEED MOD to an accessible location where none of the bare connections can touch or "short out" anything metal in the drive.

CONGRATULATIONS! Your finished with the installation. Lay the circuit board back into the bottom half of the drive case and reconnect all drive wires. Replace the drive mechanism on top of the four support posts. Incidentally, you DO • have to replace the metal shield that you removed from the circuit board. Before you reassemble the face-plate and top half of the drive, we are going to test and adjust your SUPER ARCHIVER.

TESTING and ADJUSTING the SUPER ARCHIVER

1.   Plug I/0 cable from your computer into the back of the disk drive.

2.   Plug in power cable.

3.   Turn power "ON". Drive should start and head should move back and forth once. If the above DOESN'T occur, SHUT DF holes). Make certain solder didn't "bridge" between two or more of the pins where you were instructed to attach wires. After

4.   If all is fine insert your SUPER ARCHIVER disk, turn on computer and wait for the boot process to complete.

5.   Select number 5 ... Diagnostics.

6.   When instructed, type in the drive number that your SUPER ARCHIVER MOD is installed in (for testing purposes, your drive probably should be set to drive number one and make certain all other drives are OFF).

7.   You'll then be asked which diagnostic test should be performed .... press number 2. If everything "passes", press RETURN, again number one, then choose the RPM option (number one again). The drive will read and display your RPM at normal speed (should be 288). If it's not, adjust your drive speed by adjusting the small screw on top of the small blue or reddish brown pot at circuit board location VR-2 (left rear of drive). This should be done while drive is running so you can watch the RPM values displayed on your screen. After your at 288 (or close) press and hold the "START" key until the speed "shifts" to our SLOW SPEED MOD. At this point the drive might slow, stop, or remain unchanged, adjust our SLOW SPEED MOD by turning the small screw adjustment until you achieve a RPM setting of 269 or 270. Hold START down again to "shift" back into normal speed of 288. Reassemble drive completely. Now your ready to begin copying!

Backing up PROTECTED software

Included with your SUPER ARCHIVER PROGRAMM is the original ARCHIVER documentation. It explains how to properly use the original ARCHIVER in detail. You'll also find the SUPER ARCHIVER NOTES ADDENDUM. It explains the differences and additional features of the SUPER ARCHIVER PROGRAM over the original ARCHIVER. These two documentation have not been combined into one instruction manual because the SUPER ARCHIVER disk is being sold separately to existing owners of the ARCHIVER or the Happy ARCHIVER emulator ($29.95). Since existing owners of the ARCHIVER are already familiar with the basic operation of the ARCHIVER program, separate documentation pointing out just the DIFFERENCES in the SUPER ARCHIVER PROGRAM would be far more advantageous than combining information into one manual and forcing these previous owners to re-read old information just to learn about the new.

There is one major difference between the SUPER ARCHIVER MOD and the original ARCHIVER. The OPENING CODE referred to in the original ARCHIVER documentation is not required for the SUPER ARCHIVER MOD. Just boot our

SUPER ARCHIVER PROGRAM disk and the MOD is automatically enabled. If for some reason you still would like to enter an OPENING CODE manually, simply press "0", type in ABCD, the drive number-then press RETURN.

Before you begin making backups, read the original ARCHIVER instructions, then the notes on the SUPER ARCHIVER improvements.

SUPER ARCHIVER FUZZY SECTOR MAKER PROGRAM
(Selection #3)

This program has been included as a super fast and easy way of producing FUZZY sectors for the novice. Use of the Editor is not required. While the SUPER ARCHIVER/EDITOR will automatically copy a program with FUZZY/PHANTOM sectors, this program is somewhat more convenient for the user who wants to create a custom FUZZY/PHANTOM sector within his or her own program.

Boot the SUPER ARCHIVER disk .... select option number 3.
CAUTION! Remove your SUPER ARCHIVER PROGRAM disk NOW! Insert an old formatted disk with junk data on it. This disk will be written to and data will be lost, but it will serve well for experimenting purposes!

Notice the box in the center of your screen. The ASCII data of each sector read will be displayed within this box. Sector and Buffer numbers are labeled above the box. Along the bottom of your screen are eight various commands. They are:

1. READ - Press "R". You'll be asked which sector to read. Enter the desired sector number (in decimal) and press RETURN.

2. WRITE - Press "W" to WRITE a FUZZY sector you read from another disk (NOTE! This function will only WRITE when a FUZZY sector is stored in the buffers).

3. NEXT - Press "N" to advance one sector forward when READING.

4. PREVIOUS - Press "P" to read one sector previous to your present sector location.

5. AGAIN - Press "A" to re-read any sector or re-write any FUZZY sector.

6. GENERAL FUZZ - Pressing "G" will automatically FUZZ any sector read. It will make bytes 81 through 127 FUZZY.

7. SPECIFIC FUZZ - Pressing "S" will allow you to select a range of specific bytes you wish to FUZZ. NOTE! Drives vary greatly in performance. Because the technology of the SUPER ARCHIVER PROGRAM and MOD go far beyond the original design parameters of the 1050, your results when specifying a specific range of bytes to FUZZ MAY VARY FROM DRIVE TO DRIVE. It is NOT a sign of malfunction if you tell your drive to FUZZ bytes 20 to 30 and you find that the drive FUZZED bytes 20 to 128. This is a function of the drives internal clocks and adjustments. By keeping the range of bytes to be FUZZED small (e.g. 81 to 83) and in the middle of the sector, your chances of success improve. Also, several tries may produce the desired results. FUZZING only the end of the sector is always successful (e.g. 120 to 127).

8. BUFFER - Pressing "B" will page you through 4 internal buffers. The box area in center screen will display the same sector stored at 4 separate memory locations. If the data changes while paging through the BUFFERS, you are assured that you've created a FUZZY/PHANTOM sector.

Enjoy,

Computer Software Services gam-4pm weekdays, EST (716) 467-9326

SPECIAL NOTES!

1. If your SUPER ARCHIVER PROGRAM disk fails to boot, your drives head might be out of alignment. Try re-booting several times.

2. There's NO doubt that the SUPER ARCHIVER PROGRAM disk and MOD are vast improvements over the old ARCHIVER and in some cases over other popular backup devices .... but under NO circumstances do we claim it to be the absolute answer to ALL of your software BACKUP problems! Programming knowledge, drive tolerances, and common

sense in your approach will certainly enhance your backup capabilities. Expansion capabilities have been built into the SUPER ARCHIVER MOD for future upgrades provided it's economically feasible to do so.

3. 1050 drives have been shipped with two drive configurations. If your drive appears "dead" after installing The Super Archiver Mod, follow this simple procedure: Locate jumper pins located just to the rear of U-10 socket. They should be labeled JP7-JP6-JP5-JP4-JP3-JP2-JP1. There should be 4 jumper pins at either JP7-JP5-JP4-JP2 or JP7-JP5-JP3-JP1. If they are currently in the first configuration (7-5-4-2), all is well. If they're in the second configuration they must be reset by simply snipping out jumpers JP3 and JP1. Then solder in two jumper wires (standard size staples work fine) to locations JP4 and JP2.

LIMITED WARRANTY

Computer Software Services Inc. will REPLACE any software which becomes inoperative through normal use for a period of 30 days from date of purchase. Computer Software Services Inc. reserves the right to extend this warranty indefinitely should they desire. Two diskettes have been provided. Should one become defective during this stated warranty period, return it to us for REPLACEMENT at no charge. Due to rapid piracy throughout the industry, Computer Software Services Inc. does not issue refunds for ANY REASON. Any articles shipped to Computer Software Services Inc. without a proper Return Authorization number WILL NOT OE ACCEPTED. Should you have any questions regarding this product or its' operation please call between 10am-3pm EST weekdays. As always, Computer Software Services Inc. will install any of its' hardware products at no charge should you not be able to install it yourself. Please call for details.

Enjoy,

Computer Software Services Inc.
P.O. Box 17660
Rochester, NY. 14617
(716) 467-9326

IMPORTANT ADDENDUM TO SUPER ARCHIVER INSTALLATION!

1. 1050 drives have been shipped in two different drive configurations. Locate the 4 jumper pins just to the rear of U-1O socket. They SHOULD BE at positions 7-5-4-2. If they're at positions 7-5-3-1, the drive will appear to be "dead" when turned on (after the SA has been installed!. Simply snip out the jumpers if at 3 and 1. Substitute two short jumper wires at positions 4 and 2. Use any light gage wire you sight have handy.

2. On some drives, the U-10 socket is of poor quality and should be replaced. A telltale symptom of the poor quality socket is that the SA sates to always want to "pop-out" of this type socket. Another way to visually tell if you have a good socket or the poor quality socket is to remove the chip from the U-10 socket. Viewing the socket from directly above, determine if there is s large amount of visible metal around the hole of each pin receptacle (this is the GOOD type socket) or does the socket appear to be all plastic with tiny square pin holes (poor quality socket). If your drive has the poor quality socket (abort 2% the drives were made with them), we suggest replacing it with a 24 pin low profile socket that can be found in any RADIO SHACK. If not capable of de-soldering the existing socket yourself, have an experienced technician replace it for you (a 5$ to 10$ job), or send it to us and we'll replace it FREE! Our shipping address for installations and repairs is: C.S.S., 465 Kilburn Rd., Rochester, NY 14618. Include your name, a daytime phone number, a return address and enough money to return your drive by the same method you sent it to us (e.g. UPS ground, second day AIR, next day AIR, etc.). For technical please cell 17161 586-5545 gas - 5pm weekdays EST. ENJOY

2917
S-5

VR-2

PIN 10

1050
SPEED POT

PIN 23

PIN 31

PIN 10

TP#

2793
or
2797

CHIP TO BE
REMOVED

6507

6810

6532
C010750

PIN 40
(for 2797 only)

PIN#a

U-13

U-10

U-9

U-8

U-7

FRONT