

Telehance 20 Retrofit Kit Installation Instructions

WARRANTY INFORMATION

TELEHANCE INDUSTRIES warrants this product to be free of defects in material and workmanship for a period of ninety (90) days (one (1) year for Tandon® Hard Disk Drive only) when installed and used in compliance with our instructions.

Within this period if any component proves to be defective TELEHANCE will repair said product without charge except for handling and transportation.

TELEHANCE INDUSTRIES is in no way responsible for any equipment damages, loss of data, or loss of business revenue due to the defective parts.

The accompanying Warranty Registration Card must be completed and returned to TELEHANCE INDUSTRIES within fifteen (15) days of original purchase in order for this stated Warranty to be effective.

No other warranties or guarantees are in effect, whether implied or spoken by any Dealer or Representative of TELEHANCE INDUSTRIES.

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INSTRUCTIONS:

- Step 1.** Make sure that the unit is unplugged before starting installation.
- Step 2.** Set unit on its side and remove the bottom screws that hold the cover. Gently return the unit to its horizontal position and remove cover (see photo A).

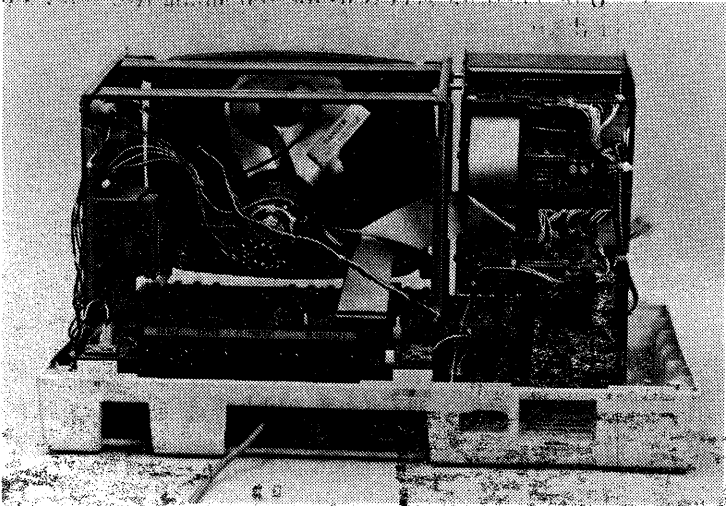


Photo A

- Step 3.** Using two screwdrivers, discharge video tube static charge by placing one screwdriver under rubber lip on tube and touch the other screwdriver across it and the frame of the unit (see Photo B).

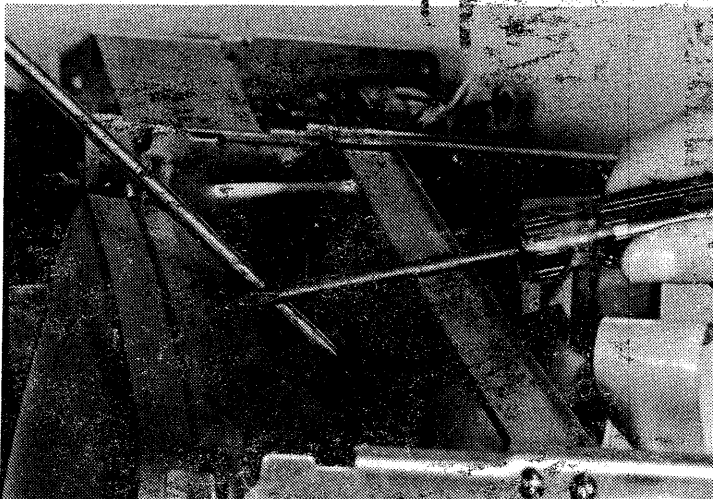


Photo B

Step 4. Remove the two outer screws holding the lower floppy disk drive.

Step 5. If the drive can be removed at this point, go to Step 6. Otherwise, you will need to loosen the side mounting cage to remove the two bottom screws that hold the lower drive in place. There are four screws holding the bottom of the cage (see Photo C) and two screws at the top of the cage towards the CRT tube (see Photo D). Removal of these will allow the cage to be lifted for access to the remaining two screws that secure the lower drive.

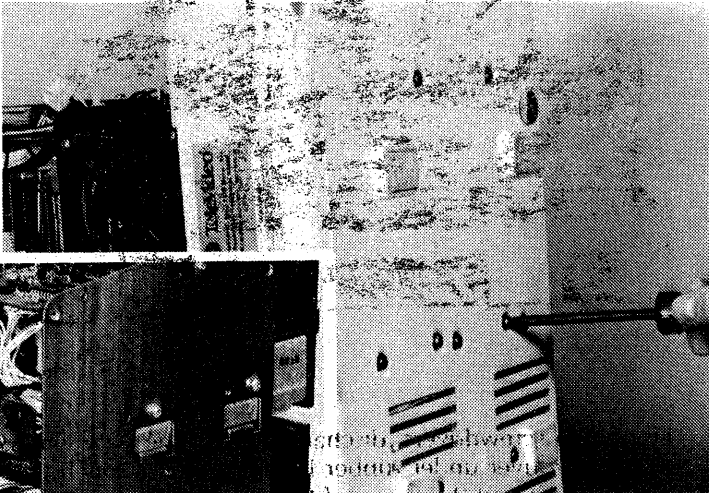


Photo C

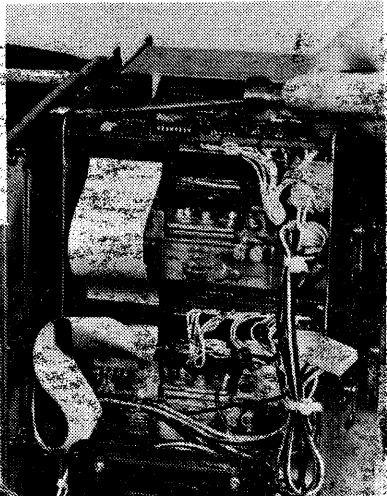
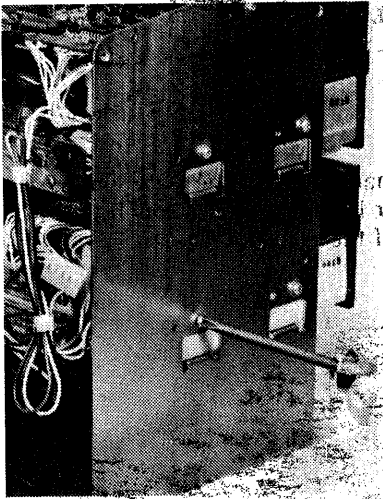


Photo D

Step 6. Carefully remove power connection, and ground wire from the lower drive (see Photo E). Pull out floppy slowly towards the front. Watch for any cables that might snag.

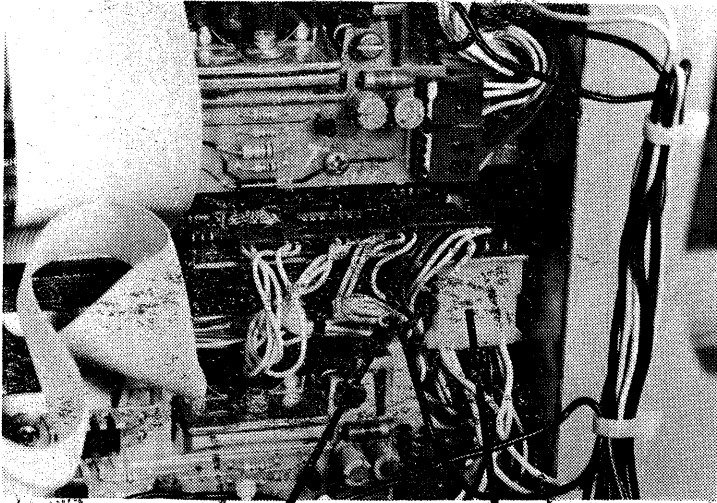


Photo E

Ground Wire

Power Plug

Step 7. Slide the Tandon® disk drive into the middle slot. Line up and replace the two outside screws (see Photo F).

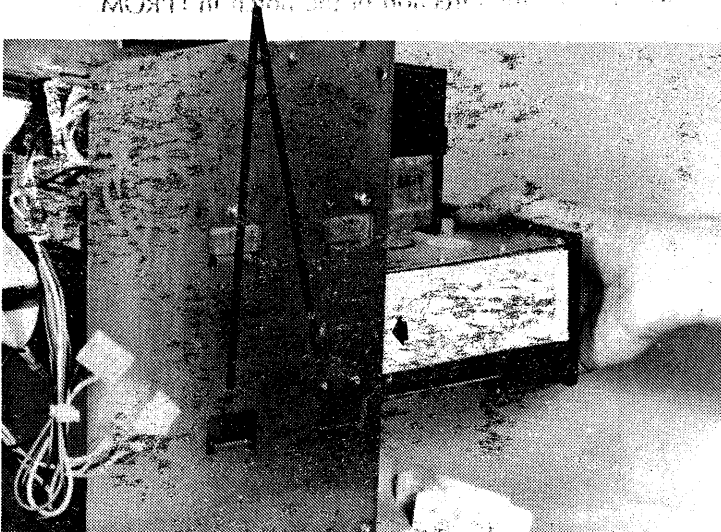
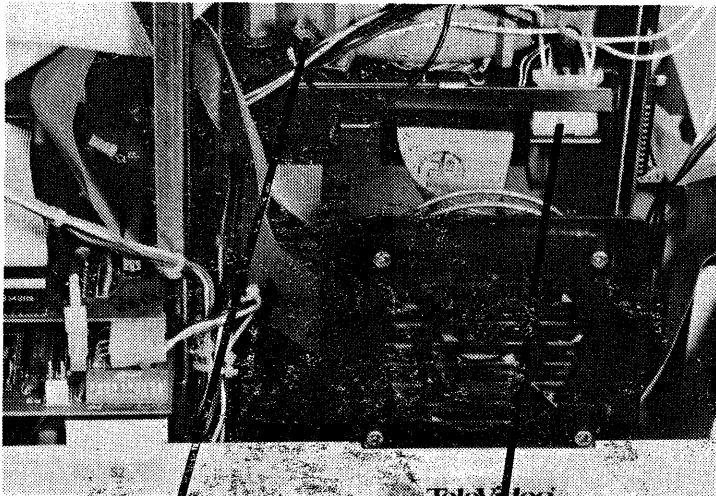


Photo F

Step 8. Connect the power connection and ground wire to the new drive (see Photo G).



Ground Wire

Power Connector

Photo G

Step 9. Locate the EPROM in location A39 on the main board. Carefully remove the EPROM and replace it with the new EPROM supplied in the kit (see Photo H). Note the direction of the notch in EPROM.

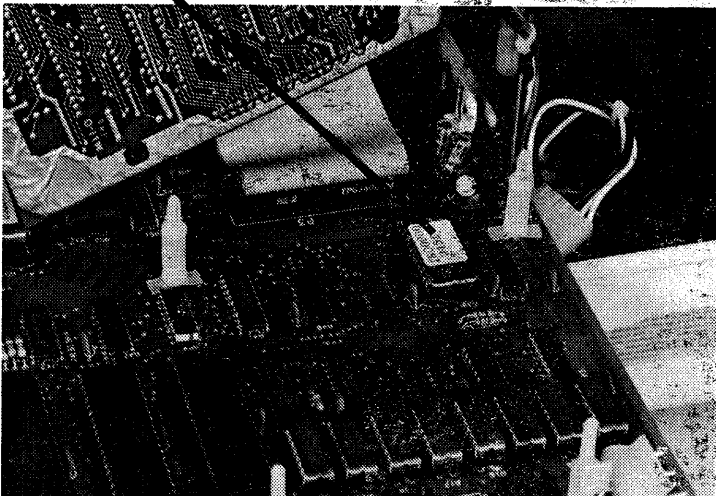


Photo H

Step 10. Place the 2 pin jumper supplied with the Kit on the daughter board at location E1 (see Photo I and Figure 1. for positioning).

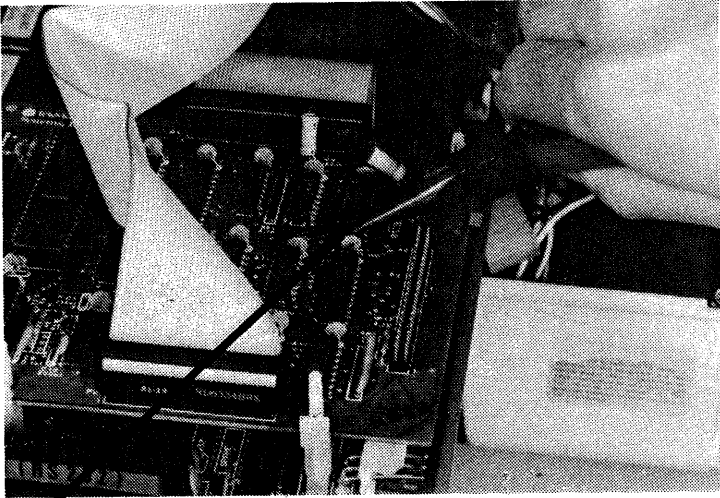


Photo I



Figure 1.

Step 11. Replace the 14 pin shunt at location E1 on the top floppy drive (see Photo J). Notice that the shunt must be placed nearest the CRT tube.

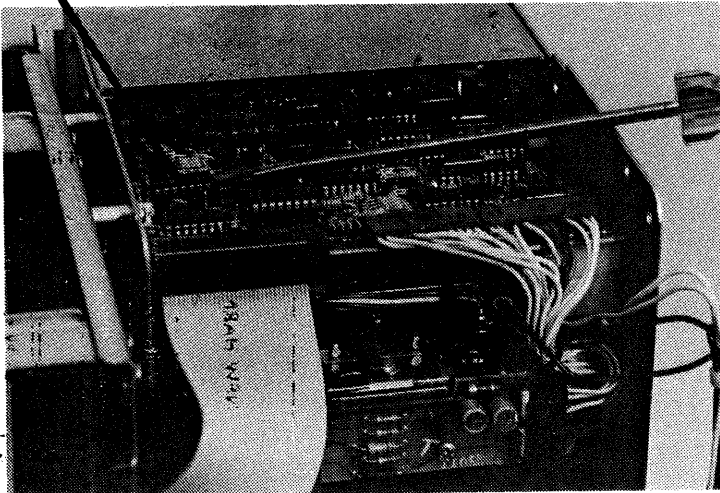


Photo J

Step 12. Clip the 3 wires on the excess power connector (see Photo K) and strip 1/4 inch of the installation from the end of each wire. Crimp a female pin to each of the 3 wires making sure there is solid connection (see Photo L). Insert into the plastic connector supplied AS SHOWN IN FIGURE 2. Now plug this connector into the hard-disk controller board.

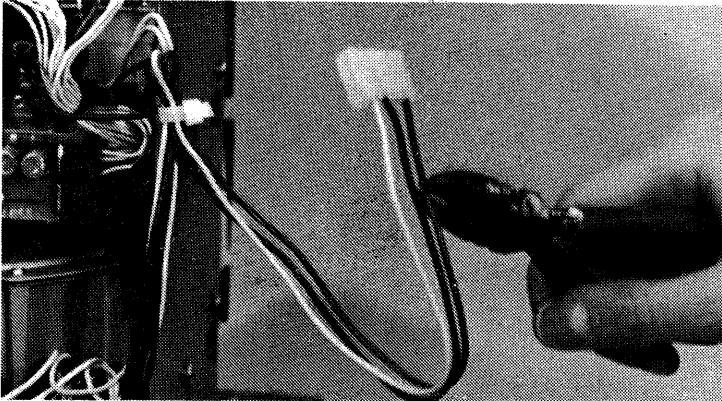


Photo K

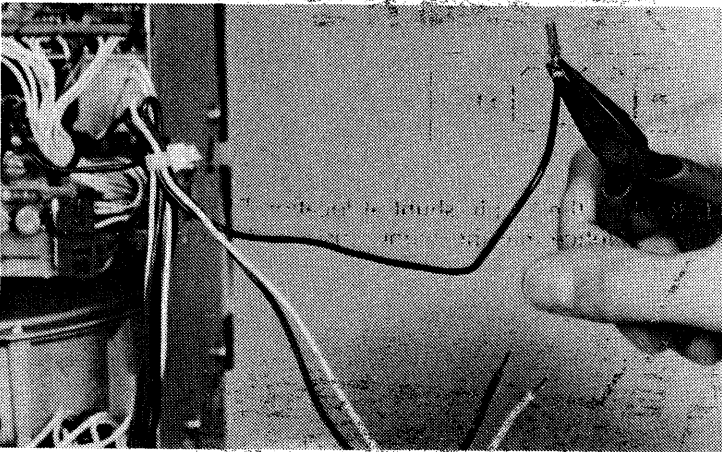


Photo L

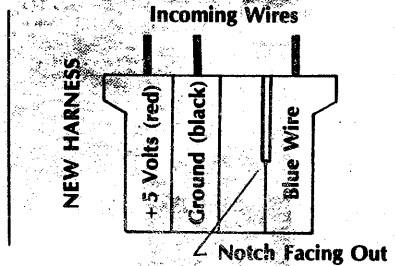
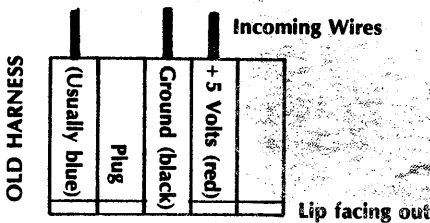


Figure 2.

Step 13. Notice that there are 3 cables supplied in the Kit. The 40 pin cable has two 40 pin connectors. Another has a 34 pin connector and a card edge, and the third has a 20 pin connector and a card edge. The red wire on each is the NUMBER 1 position and should always be matched to Pin 1 on the board. Connect the 40 pin cable between location P3 on the daughter board and location J5 on the hard-disk controller board. Now connect the 34 pin at location J7 on the hard-disk controller board, then the card edge on the hard-disk drive (see Photo M). Connect the 20 pin cable at location J1 on the hard-disk controller board, then the card edge on the drive. *Note: the red wire on both the card edge connectors should be on the right side looking at the unit from the back.*

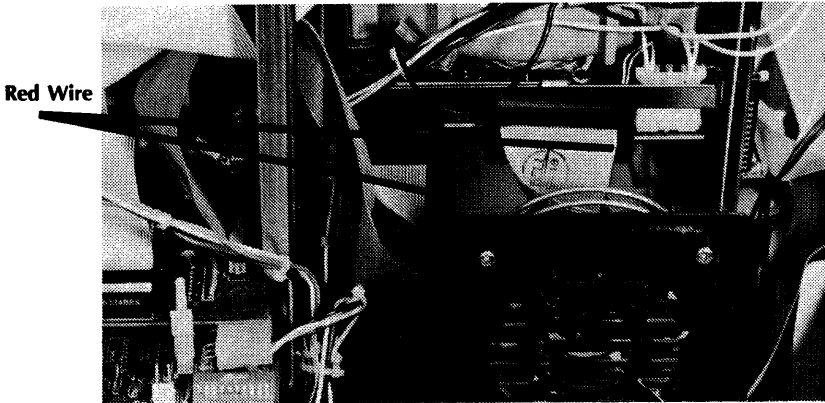


Photo M

Step 14. Attach the hard-disk controller to the side of the drive housing by using the double-stick pads supplied in the kit (see Photo N). Glue the black face plate over the lower floppy drive slot in the cover from the inside. Now replace the housing screws and then the cover. The unit is now ready to operate.

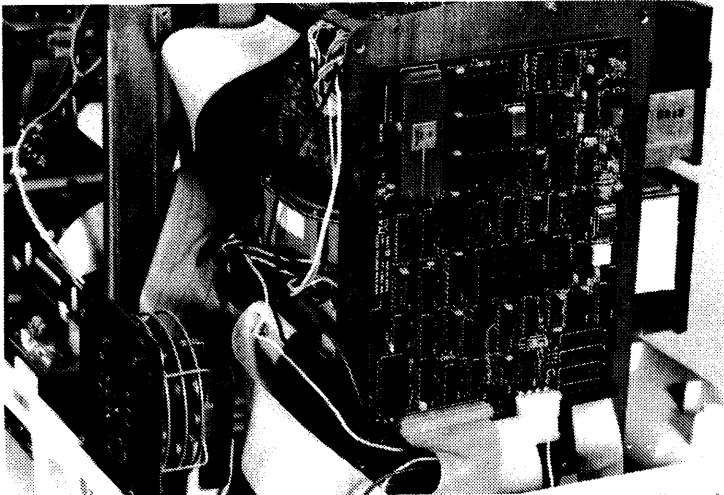


Photo N

ADDENDUM FOR 802 CONVERSION TO 802H HARD DISK:

There are several changes you will notice in running a hard disk as opposed to a dual floppy system. The first thing you will need to do is format and install the system image to the hard disk, unless your dealer/distributor has done this for you.

The conversion kit will have a master system diskette with a copy of CP/M and all normal CP/M utilities. In order to place CP/M onto the hard disk the following steps must be followed:

- 1) On the lower middle of the reverse side of the 802, the S-2 dip switch set will be found. Dip switch #6 must be placed in the down position.
- 2) By doing a system reset (shift, break, break) the 802H will display the message on the screen:

System "boot"(2-Rev. a) from floppy disk in progress

**TELEVIDEO SYSTEM TS-802H V2.3
61k CP/M Vers. 2.2
20mb Winchester hard disk**

- 3) Format the hard disk. Type HFORMAT (CR). You will see the message displayed:

**Warning : all information on the hard disk will be destroyed
Press return to continue or C to abort.**

At this time press the return key (CR). This step will take approximately 15 minutes, after which an A> will display on the screen. If any error conditions exist on the disk, the messages will be displayed. If there are less than fifty (50) errors, disregard them, otherwise contact your dealer.

- 4) Run the fixdisk program.
Type FIXDISK B (CR). This will take approximately 5 minutes.
Type FIXDISK C (CR). This will take approximately 5 minutes.
Type FIXDISK D (CR). This will take approximately 5 minutes.

This will map out any bad spots on the disk so the machine will know not to use those areas. If there are bad spots on the hard disk, a message will display, indicating location on the disk - just ignore.

- 5) Run the sysgen program.
Type SYSGEN. The following message will display:

**TELEVIDEO SYSGEN VER 2.2
SOURCE DRIVE NAME (OR RETURN TO SKIP)**

You respond by typing: A. You will then be asked:

DESTINATION DRIVE NAME (OR RETURN TO REBOOT)

You respond by typing: D. Again, the request:

DESTINATION DRIVE NAME (OR RETURN TO REBOOT)

You hit the carriage return.

The system now has been formatted, checked for possible bad spots and had the system tracks installed.

6) Type PIP B:=A:*.*

This will move all the contents of the floppy disk onto the hard disk.

7) Flip dip switch #6 to the up position (to make the system boot from the hard disk) and reset the system (shift, break, break). the system will now display:

TELEVIDEO SYSTEM TS-802H V2.3
61k CP/M Vers. 2.2
20mb Winchester hard disk

You now have a twenty megabyte hard disk system up and running!! Congratulations!! Good luck, and happy computing.

164k }
C B = 2768k } 2932
B C = 5840k
A D = 5824k

1459k

CHECK LIST

Your Telehance 20 Retrofit Kit should contain all of the following items, please check this list PRIOR to beginning installation. You will also need the following tools: 2 Phillips Head screwdrivers, wire cutters, wire strippers, needle nose pliers, and a small tube of fast drying glue.

- 1 Instruction Booklet
- 1 Tandon Disk Drive
- 1 Hard Disk Controller Board
- 1 EPROM
- 1 2 Pin Shunt
- 1 14 Pin Shunt
- 1 Plastic Power Connector
- 3 Female Pins
- 1 Cable with 2 40 Pin Connectors
- 1 Cable with 34 Pin Connector and card edge
- 1 Cable with 20 Pin Connector and card edge
- 2 Double Stick Foam Mounting Pads
- 1 Black Face Plate
- 1 New Bios Disk
- 1 Set Operating Instructions