HEATH CP/M™ H89PIP Patch Program (Jun84)

INSTALLATION:

Copy the PPATCH.COM program from the distribution diskette to your
bootable system diskette. Use the CONFIGUR program (see your Heath
CP/M™ manual) to accomplish the following:

1. Use Item A (Terminal and Printer Characteristics) to make sure that
   no serial device uses Port 320Q. To do this, you will have to double
   up on one of the other ports.

2. Use Item C (Default I/O Configuration) to make the LST: device the
   LPT: physical device.

3. Use Item D (Automatic Program Control) to automatically run PPATCH
   after a Cold Boot. Do this by selecting Item A to enable the
   Automatic Command Line then Item C to enter the command PPATCH.

To make the configuration permanent, be sure to take the "Y" exits from
the various menus.

That's all there is to it! When PPATCH runs, it modifies the BIOS (in
memory) by replacing the existing LPT: printer driver routines with
routines suitable for the H89PIP Interface.

Note: It is not necessary to run PPATCH after a Warm Boot (CTRL-C)
because the BIOS is not reloaded after a Warm Boot. Only BDOS and CCP
are reloaded.

OPERATING PRINCIPLE:

When executed, PPATCH installs new printer I/O routines in the memory
resident CP/M™ BIOS by performing the following steps:

    1. Announce action on console
    2. Initialize the H89PIP Interface
    3. Access BIOS JUMP table to find LISTST code
    4. Access LISTST code branch table to find LISTOS code
    5. Put LISTST address in new LPTOUT code
    6. Copy new LISTST code into BIOS
    7. Access BIOS JUMP table to find LIST code
    8. Access LIST code branch table to find LPTOUT code
    9. Copy new LPTOUT code into BIOS
   10. RETurn to CP/M

The new routines are relocatable (they use relative jumps) so that they
will work for any size of CP/M™ system.

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