Features of patched OSI BASIC machine language program —

1. Size: page 024 plus 1K of workspace RAM at the high end of available RAM.
2. Gives input prompt '>>' when ready for line of input.
3. Terminal width fixed at 22 characters per screen line with same problem eliminated. Terminal width should never be changed.
4. CTRL-C abort function changed to <ESC>. Eliminates need to disable abort from BASIC when polling keyboard.
5. SHIFT-O backspace eliminated. Replaced by <ERASE> which deletes character visually as well as in memory.
6. <REPEAT> key freezes display for as long as it is depressed. Display continues when <REPEAT> released.
7. Bit 7 stripped off all printed characters, resulting in normal error messages. No characters beyond the first 71 allowed per line.
8. All lower-case characters not enclosed in quotes are converted to upper case and all 'garbage' characters are eliminated, allowing easy input with SHIFT-LOCK either up or down. When INPUTing strings, enclose them in quotes to preserve any lower-case letters.
9. The LOAD function inhibits the '>>' prompt and is aborted by <ESC> rather than space-bar.
10. The SAVE function is aborted by <ESC> and/or CTRL-C.
11. When returning to BASIC from a warm start, the DM error no longer occurs after attempting to execute a BASIC function.
12. The up-arrow character (↑) is typed using SHIFT-0 (zero).
13. CTRL-D deletes a line (formerly SHIFT-P).
14. CTRL-H backs up the cursor without deleting characters. All characters at or beyond the cursor when <RETURN> is pressed are ignored.
15. CTRL-L moves the cursor forward if there are characters at or beyond the cursor.
16. CTRL-B moves the cursor to the beginning of the current line.
17. CTRL-E moves the cursor to the end of the current line.
18. CTRL-G deletes the character under the cursor, moving the line left to fill the space. <ERASE> is similar but deletes the character to the left of the cursor.
19. CTRL-I inserts a space at the cursor, moving the remainder of the line right.
20. CTRL-J is also <INSERT> and scrolls the screen without affecting input.
Commands added to BASIC —

1. AUTOI [x], [y]

Causes line numbers to be printed automatically. x denotes the starting line number (0 if skipped), and y denotes the increment value (0 if skipped). x may not exceed 9999, and y may not exceed 99. Once the AUTOI function reaches a line number larger than 9999, it will wrap around to a number from 0 to 99.

AUTOI is aborted at any time by <ESC> and/or CTRL-C.

2. EDIT l

Displays line no. l and positions cursor at end of line. Characters may then be easily appended to the line, or the line may be edited using any of the control functions previously described. If <RENEW> is pressed immediately, the line is re-entered unchanged.

Other commands can easily be added to the program’s command table and the code easily patched.

Miscellaneous —

1. CTRL-D still sets/reset character suppression, but due to the fact that a line with (visually) suppressed characters cannot be properly (visually) edited, typed suppressed characters cause the control functions to be disabled while entering a line. An exception is CTRL-D, which will always delete a line.

2. The program, once configured for a specific memory size, will — when loaded after BASIC has been started — automatically adjust memory size and return user to BASIC. A warm start will not destroy the patch. When cold starting, specify a memory size so that all memory is not cleared, and then enter the machine language monitor and type OZZZG. Never specify a terminal width.