**IR Printing**

This program supports infra-red printing to the HP 82240B printer. I haven’t tested it on an HP 82240A printer, but so far as I can tell none of the special features of the HP 82240B printer are used, so (certainly in modes 1 and 2) I would expect it to work.

All of the printing commands described in the WP 34S documentation are supported, with the exception of the printer graphics commands (for now). These commands are in the P.FCN and X.FCN catalogues; a number of the most-used commands are available from the PRINT menu, SHIFT PRINT (-).

There are some differences between this implementation and the original calculator:

* Printing can be enabled and disabled with the [P].ON and [P].OFF commands ([P] is the printer icon), found in the MODE catalogue and in the PRINT menu.
* When printing is enabled, the PRT annunciator appears in the display.
* The printing of a multi-line listing can be interrupted with the EXIT key.
* You can have double-line-spaced printing with the [P]DBSP command: an argument of 1 turns this on, while an argument of 0 turns it off.
* Print mode 0 uses the printer character set where possible (this may not work reliably with the older printer, as the character sets differ). Print modes 1 and 2 use the WP 34S character set – mode 1 is normal width, mode 2 is compressed. Print mode 3 (serial port) is not supported.
* The DM42 hardware sets a default delay time of 1.8 seconds, which works fine with my (battery-powered) printer. You can change this with the [P].DLAY command.
* Printing the stack or a block of registers in complex lock mode now prints in complex form by default, respecting the RECT or POLAR display setting.
* Outside of complex lock mode a similar effect can be achieved by pressing CPX before either the stack or register printing command.

**Stopwatch**

The WP 34S stopwatch feature is now included. To use it, execute the STOPW command in the X.FCN menu (SHIFT SHIFT 3).

(For added convenience, you may wish to add this command to a user-defined menu.)

I believe that all of the stopwatch features described in the manual work on the DM42.

Note that the stopwatch continues to "run" even if the DM42 is turned off. This isn't a problem: the stopwatch works by recording the ticks from the real-time clock when it is started, and then subtracting this from the current ticks whenever a time has to be displayed. When a time isn't displayed, nothing special is happening, apart from the blinking "=" sign.

If the stopwatch is running in the display, auto-power-off does not occur. If the stopwatch is running in the background the calculator turns off in the usual way. As mentioned above, this does not affect its function.