



BOB-II Control Protocol V1.21 ~ May 2, 2000

Command	Description
{A	Clears the screen and sets the 'cursor' to top left home position (X=00, Y=00). Pause 5mS before resuming data transmission to BOB-II*.
{BE	Enables text display. This is the default (start-up) mode.
{BD	Disables text display without erasing display RAM. Characters may be written into display RAM while the display is disabled.
{Cxxyy	Sets 'cursor' to the indicated position. "xx" is the two-digit decimal ASCII column number (00~27) and "yy" is the row number (00~10). No internal range check.
{Dn	Character cell background color (local mode). "n" must be 0~7. Depends on {K commands.
{En	Character color for following characters transmitted (local mode). "n" must be 0~7.
{Fn	Screen color (local mode). Default color is blue. "n" must be 0~7.
{GE	Blink enable. Following characters flash in the display.
{GD	Blink disable. Following characters display without flashing.
{HN	Internal video level select (default). No external video level controls needed.
{HX	External video level select. See BOB-II pin description document for more information.
{In	Character outline color (local mode). "n" must be 0~7.
{JE	If {KE is used, just the written character cell backgrounds are colored according to background setting {Dn. This is the default mode.
{JD	Entire character display area is colored black (local mode). {En affects character foreground & background simultaneously. {Dn & {In are ineffective. {Fn controls screen border color.
{KE	Character background enable. Following characters show cell background color*.
{KD	Character background disable (default). Following characters display no cell background.
{MF	Local mode select. BOB-II generates video on-board. Pause 300uS before sending more data.
{MM	Automatic Genlock/Overlay (default) mode select. BOB-II superimposes text on video from external source. Allow 3 seconds for lockup. Monitor pin 15 if automatic mode switching is possible during data transmission. See BOB-II FAQ for more information.
{T...<ESC>	Literal byte values up to the escape character are written to display RAM without translation, making the non-ASCII characters available (see character set document).

* {KE followed by {A paints all character cells with background color.

Serial communication parameters are: **8N1** (8 data bits, no parity, 1 stop bit). Bit rates other than 9600bps are configured by connections to BOB-II module pins 12~13 at installation time. See BOB-II Pin Description document for details.

Commands sent to BOB-II must be prefixed by the left curly brace character: { All commands except {T employ a fixed-length format, and do not require a command suffix. Multiple commands require a { prefix to each command in the string.

Any received character not preceded by the Command Prefix (**!**) is interpreted as ASCII text and written to the screen at the current 'cursor' (print position) location. The cursor automatically advances to the next available character cell and wraps to the next line, or back up to the first line as required. Scrolling, if necessary, must be implemented in the customer's application software.

Untranslatable characters are ignored. Supported ASCII characters are:

A~Z a~z 0~9 : * + . ' - = ? / space CR

ASCII **<CR>** (Carriage Return) immediately moves the cursor to the leftmost position on the next available line.

Default text display mode presents white character foregrounds with a thin black outline.

Color features are effective only in Local video generation mode. In Local video generation mode, some character colors do not exhibit a clean appearance (the PAL version is slightly better than NTSC in this respect).

Please refer to the BOB-II FAQ for additional information and cautions!
