

UNICODE

UTF-8 STANDARD INPUT TERMINAL

This manual describes the operation of UNICODE's state-of-the-art data entry terminal. The equipment can be operated by untrained personnel, but all users are encouraged to read this short manual to fully utilize the advanced capabilities of the equipment.

POWER-UP

When the device is turned on, it scans all fonts installed in the fonts/ directory on the SD card for fast access later. The Unicode logo is displayed on screen while this scan is in progress, which takes around 30 seconds with the standard font package. The colouring of the logo represents the progress of this scan. When the logo is fully coloured, all fonts have been processed and the device is ready to use.

The USB interface of the device will not activate until after this initial loading is complete.

BASIC OPERATION

MULTI-BYTE INPUT

The most significant byte is selected first, then right-shifted by briefly engaging the SHIFT switch. For example, to make the value 0x1234 you first select 0x12 on the DATA INPUT switches, press the SHIFT switch momentarily, then select 0x34 on the DATA INPUT switches: your buffer now has the desired value and can be sent.

OUTPUT TO HOST

Pressing the SEND switch will output the current buffer to the host computer system. The buffer will be reset to the current DATA INPUT byte selection after sending unless shift-lock is engaged.

LOCK INPUT BUFFER

Holding SHIFT enables shift-lock. Shift-lock retains the most significant bytes of the buffer across SEND operations, allowing multiple codepoints in the same range to be entered rapidly. For example with shift lock enabled, you can enter 0x1F40D, press send, then simply flip DATA INPUT bit 6 and press send again for 0x1F44D.

MODE SELECT

Pressing the MODE switch momentarily will cycle between the input and view modes described in the following section. The input buffer and shift-lock will be retained while switching modes.

RESET

Holding CLEAR resets the buffer to the current DATA INPUT selection and disables shift-lock. The selected mode remains active.

CODEPOINT MODE (HEX, DEC)

Selection of a codepoint is made using DATA INPUT and SHIFT.

BUFFER READOUT

The input buffer is displayed in hexadecimal (HEX) or decimal (DEC), centred at the bottom of the display.

GLYPH PREVIEW

The corresponding glyph is rendered if the codepoint is found in available fonts.

CODEPOINT METADATA

Unicode block and codepoint names are displayed at the top of the screen when codepoint is valid.

UTF-8 MODE

Entry of a 1-4 byte UTF-8 sequence is made using DATA INPUT and SHIFT.

When entering and exiting UTF-8 mode, the input buffer is automatically converted between codepoint and multi-byte UTF-8 representations.

ERROR DETECTION

If the buffer contains an invalid UTF-8 encoding, binary literals will be displayed with the invalid bits highlighted in red.

SMART SHIFT™

The SHIFT operation is automatically limited to the sequence length encoded in the input buffer. A SHIFT on the the last byte in a sequence will return to the first byte in the input buffer.

GLYPH PREVIEW

A glyph is rendered when a the input buffer contains a valid UTF-8 sequence, if found in available fonts.

CODEPOINT METADATA

Unicode block and codepoint names are displayed at the top of the screen when codepoint is valid.

HEX LITERAL MODE

Enter of a binary value is made using DATA INPUT and SHIFT.

This utility mode displays a large hexadecimal representation of the input buffer. Pressing SEND outputs the displayed literal hex value like "0xF1" to the host computer system.