

***EXHIBIT C***

***User Manual***

## **PRODUCT DESCRIPTION-CKC1736 KEYBOARD**

The keyboard is a custom version of a standard PS/2 style IBM Qwerty keyboard.

The keys consist of a membrane circuit covered by a screen-printed overlay, which is mounted on an aluminium support panel. The keyboard is not fitted with the usual 3 LEDs.

A logic PCB is designed around an HT-6547E keyboard encoder IC which scans the keyboard and sends key-codes back to the PC. Power is derived from the PS/2 keyboard socket on the host PC. The supply voltage is 5V and the current drawn is less than 5mA. Communications with the host PC are implemented using a 2 wire bi-directional PS/2 bus. The keyboard has a piezo sounder which beeps when a key is pressed. The bleep frequency is 4KHz. A circuit monitors the columns of the keyboard keymatrix, looking for a key-press. An oscillator (4KHz) is implemented using a schmitt-triggered cmos nand-gate. The is switched on and off using the signal from the keyboard columns.

The data sheet overleaf gives full details of the HT-6547E encoder IC. Circuit diagram S1736-028-01 and parts list P1736-009-02 overleaf gives details of the circuit design.