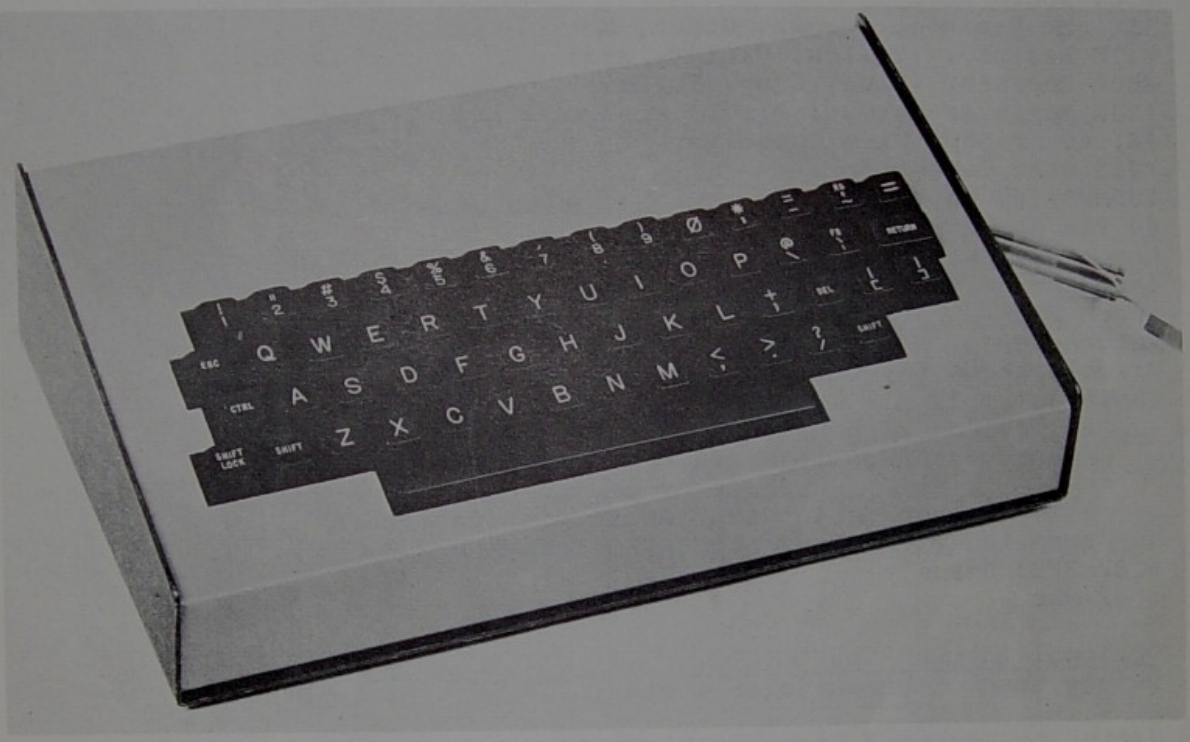
ASCII -A2

ASSEMBLY INSTRUCTIONS



SPECIFICATIONS

Power Requirements: +5V & -12V DC or +5V DC & 6.3 to 8V AC
Full 128 character ASCII set
2 key rollover
Upper and lower case
Selectable parity
Positive or negative logic output
Shift lock key
G-10 glass expoxy printed circuit board
Connects to any 8-bit parallel I/O port
Alpha lock jumper (permits upper case only operation)
Drive capability (one TTL load)

NETRONICS RESEARCH AND DEVELOPMENT LIMITED
333 LITCHFIELD ROAD (RTE. 202) NEW MILFORD, CONNECTICUT 06776
(203) 354-9375

REVISION C

ASCII KEYBOARD
ASSEMBLY INSTRUCTIONS

Check all parts in your kit against the following list.

Description	Quantity
KR2376-012 (Decoder IC)	1
IN4001 (Diode)	2
IN4742A (12V Zener Diode)	1
P.C. Board KB-2	1
150 ohm Resistor (Brown, Green, Brown)	1
4.7K Resistor (Yellow, Violet, Red)	2
680K Resistor (Blue, Gray, Yellow)	1
100K Resistor (Brown, Black, Orange)	1
56, 60 or 68pf Disc Capacitor	1
.0015 Disc Capacitor	1
100MFD/16V Capacitor	2
40 Pin Socket	1
Momentary Switches	56
Latching Switch	1
Space Bar	1
Return Key	1
Miscellaneous Key Caps (as per drawing)	54
Cable Assembly 6" 14 lead ribbon cable with two 14 pin connectors supplied with terminal package. 3'14" ribbon cable with two 14 pin connectors supplied with stand alone ASCII keyboard.	1
6 32x3/8" Screw	3
6 32 Nut	3

Optional	Price
Deluxe Steel Cabinet (blue & black)	$19.95 + $2.50 P&H

(Refer to Keyboard Assembly Figure)
DO NOT INSTALL IC UNTIL POWER CHECK HAS BEEN MADE

( ) 1. Install 40 pin IC socket at location U-1. (Solder).

( ) 2. Install key switches. Note: Solder one lug only. The second lug will be soldered after the key caps have been installed and straightened. The shift lock key is the latching type switch and should be installed first. Note that two momentary switches are used for the space bar.

( ) 3. Install key caps.

( ) 4. Check alignment of keys and straighten keys by heating solder connection and repositioning switches. Carefully check space bar action.

( ) 5. Solder remaining unsoldered switch lugs.

( ) 6. Install resistor R-1 150 ohm (brown, green, brown). Solder.

( ) 7. Install resistor R-2,3, 4.7K (yellow, violet, red). Solder.

( ) 8. Install resistor R-4 680K (blue, gray, yellow). Solder.

( ) 9. Install resistor R-5 100K (brown, black, yellow). Solder.

( ) 10. Install diode CR1, CR2 (IN4001). NOTE: Band must face as per assembly drawing.

( ) 11. Install diode CR3 (IN4742A). NOTE: Band must face as per assembly drawing.

( ) 12. Install C-2 .0015 disc capacitor. Solder.

( ) 13. Install C-4 56pf, 60 or 68pf disc capacitor. Solder.

( ) 14. Install C-1,3 100uf capacitors. Note polarity. Solder.

JUMPER SELECTION

If you are using the ASCII keyboard with your ELF II or Explorer 85, connect jumpers as follows. If you are using a different computer, check the jumper table and connect as per your requirements.

( ) Connect J2, J4. Solder. Note no parity signals are used on ELF II. or Explorer.

JUMPER TABLE

J1 - LOGIC	J3 UPPER & LOWER CASE	J5 ODD PARITY
J2 + LOGIC	J4 UPPER CASE ONLY	J6 EVEN PARITY

Solder ribbon cable assembly at location P1 as per assembly drawing. Note pin #1 must be positioned as shown. (A socket could be used if desired).

The Netronics ASCII keyboard can be used with any number of computer applications. When using this product with a Netronics computer the following modifications should be made to the computer to facilitate a more convenient installation.

1. When using the ASCII keyboard ASCII - A2 with a Netronics Video Display Board make the following modifications to your Video Display Board.

( ) Using 30 gauge insulated jumper wire connect the jumper between J2 pin 7 and U-4 pin 8.

( ) Connect an insulated jumper between J2 pin 8 and U-4 pin 16.

( ) Connect the jumper between J2 pin 9 and the -12V terminal at the edge of the Video Display P.C. Board.

( ) Referring to the interconnection diagram on page 6 of your Video Display Board manual please note that the -12 and the ground connections between the Video Display Board and the ASCII keyboard is no longer required. These connections are now made via the 14 pin ribbon cable.

2. When using the ASCII keyboard with the ELF II Giant Board make the following modifications to your Giant Board.

( ) Remove the jumper or diode from CR1.

( ) Add a jumper from A16 pin 8 to A5 pin 24.

( ) Add a jumper from A16 pin 7 to A11 pin 8.

( ) Connect the 3' ribbon cable between the Giant Board and ASCII keyboard.

( ) Connect AC supply (6.3 to 8V AC) to AC input on the ASCII keyboard. Observe the ground polarity if you are using the Netronics power supply.

POWER SUPPLY TEST (DO NOT INSTALL U-1 YET)

Check all soldering and components for proper value.

Connect the ASCII to your system.

1. Measure the DC voltage at pin #1 & 18 of socket U-1. The voltages should be +5V & -12V respectively. They should read within 5% of the specified values. Do not proceed to install the IC if the voltage is improper.

2. Disconnect the power supply.

3. Install IC-1. Note location of pin #1.

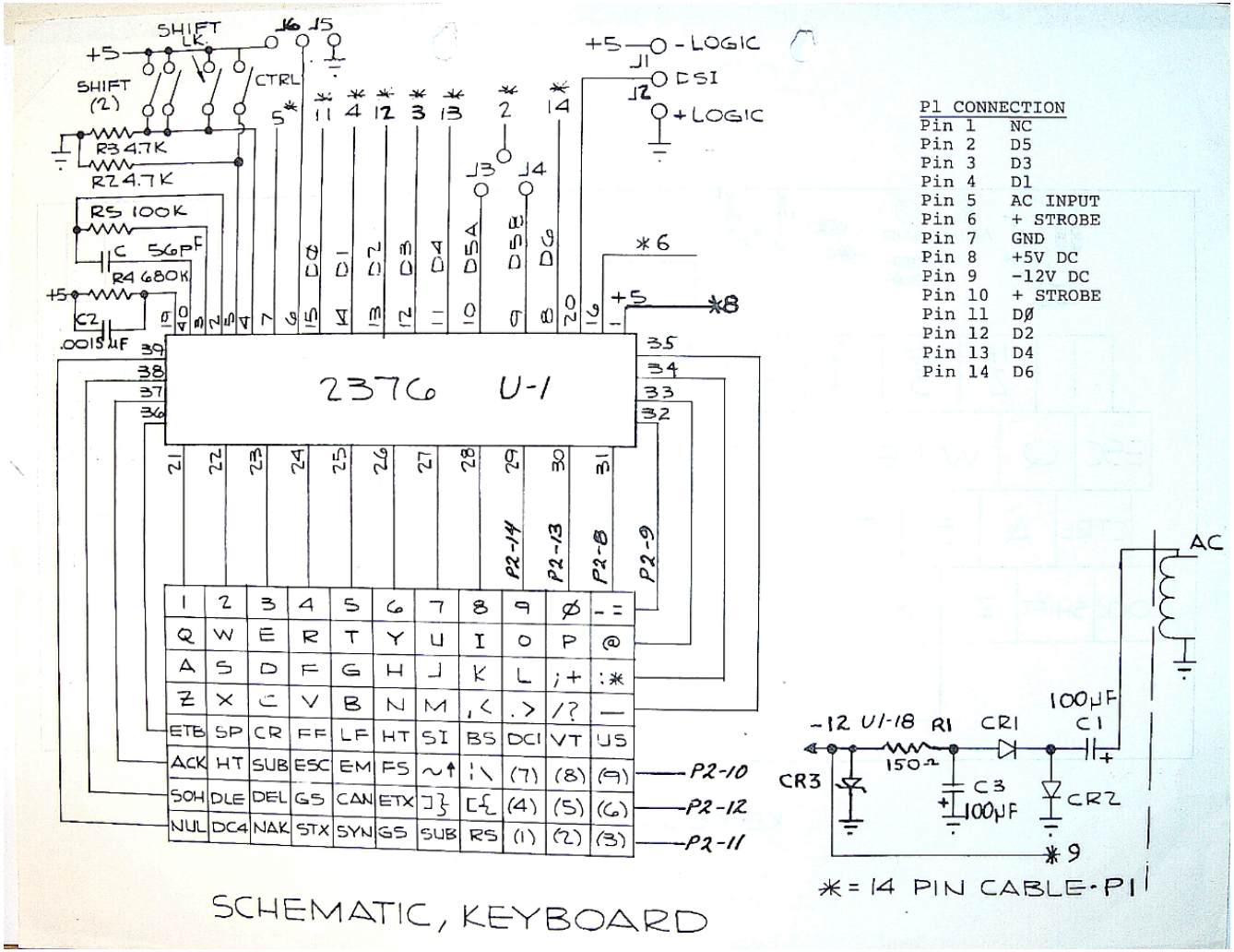
WARRANTY

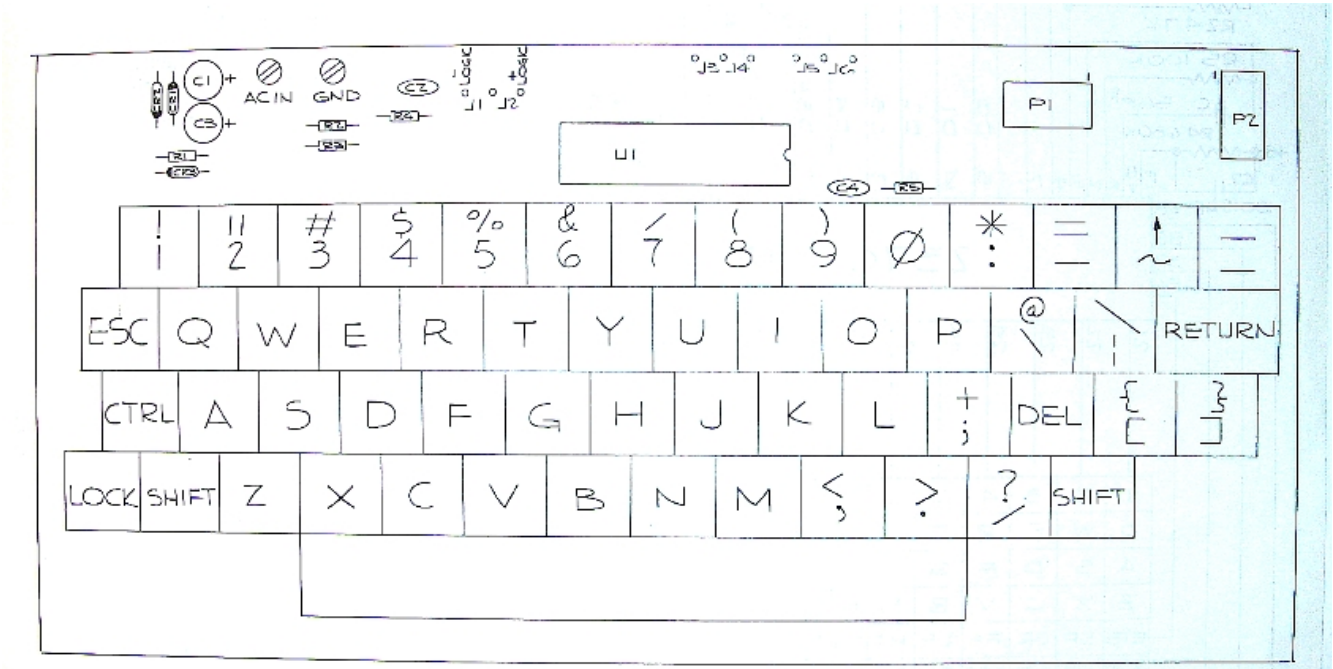
All of the components supplied in this kit are under warranty for six months from the date of purchase. Any parts suspected to be defective should be returned to Netronics with $1.00 for postage and handling. They will be tested and returned postpaid.

IN CASE OF DIFFICULTY

In the event of difficulty, check all wiring against the instructions. Check for solder bridges and all component values. If you still cannot determine the problem, return the defective printed circuit board ONLY. Please enclose a check or money order for $7.00 and pack the board securely, and insure the parcel. Your unit will be tested and returned insured and postpaid.

Mailing address: NETRONICS RESEARCH & DEVELOPMENT LIMITED,
333 Litchfield Road, Rte. 202, New Milford, Connecticut 06776,
Attention: Service Department.


SHIFT LK
SHIFT (2)
CTRL
+5
R3 4.7K
R2 4.7K
R5 100K
C 56pF
R4 680K
C2 .0015µF
2376 U-1
+5 - LOGIC
DSI
+ LOGIC
J1
J2
L3
L4
*6
*8
P2-14
P2-13
P2-8
P2-9
P2-10
P2-12
P2-11
SCHEMATIC, KEYBOARD
P1 CONNECTION
Pin 1 NC
Pin 2 D5
Pin 3 D3
Pin 4 D1
Pin 5 AC INPUT
Pin 6 + STROBE
Pin 7 GND
Pin 8 +5V DC
Pin 9 -12V DC
Pin 10 + STROBE
Pin 11 DØ
Pin 12 D2
Pin 13 D4
Pin 14 D6
AC
-12 U1-18
R1 150Ω
CR1
C1 100µF
CR3
C3 100µF
CR2
*9
*= 14 PIN CABLE-P1



KEYBOARD ASSY