

# **Altair 680**

## **Front Panel**

### **User's Manual**

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# Introduction

The reproduction Altair Front Panel PCB includes the modifications described in the MITS assembly instructions. Modifications to the PCB are no longer needed. The HLT jumper to position A is connected by a thin trace on the PCB. You no longer need to install this jumper. The reproduction front panel has been tested in a real Altair 680 and can be used to replace a damaged original or to convert a turnkey model.

## Building the Board

The parts listed below are the parts needed for the modification required on the original Altair front panel. These parts should be installed first. They are installed on the switch side of the board. These parts will be harder to install if not installed first.

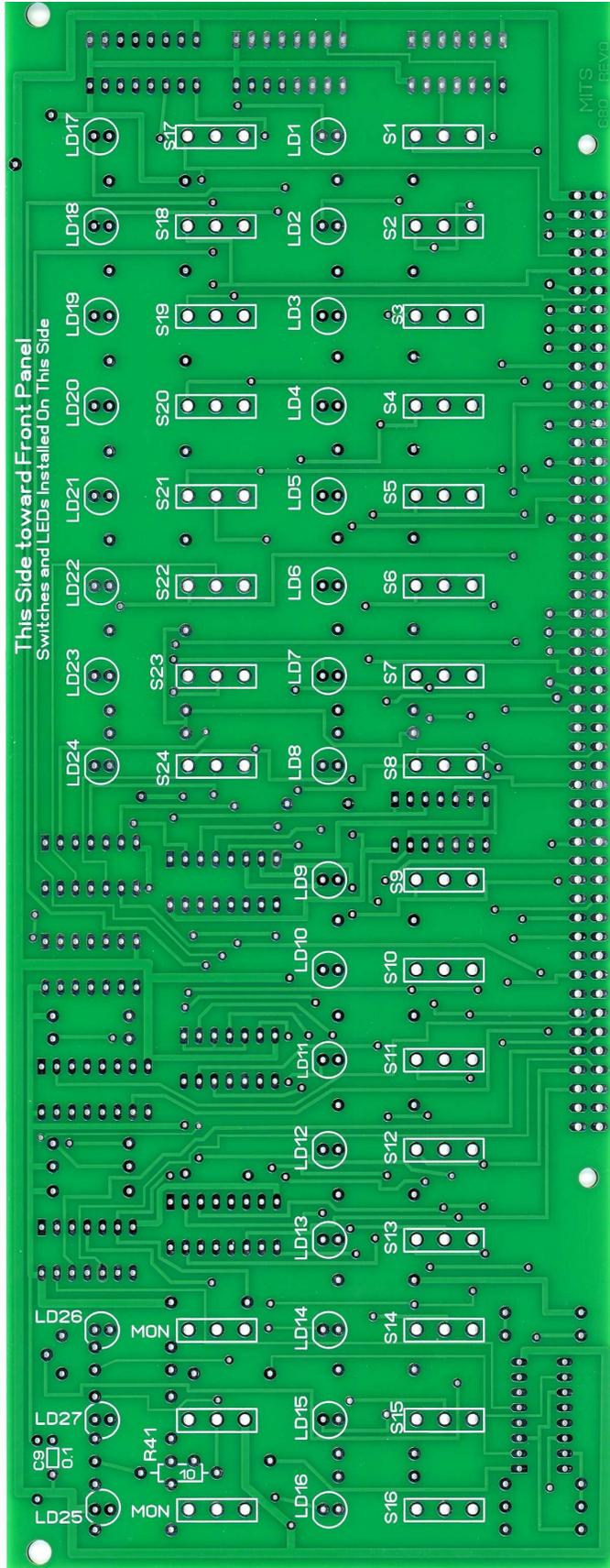
C9 – 0.1uF

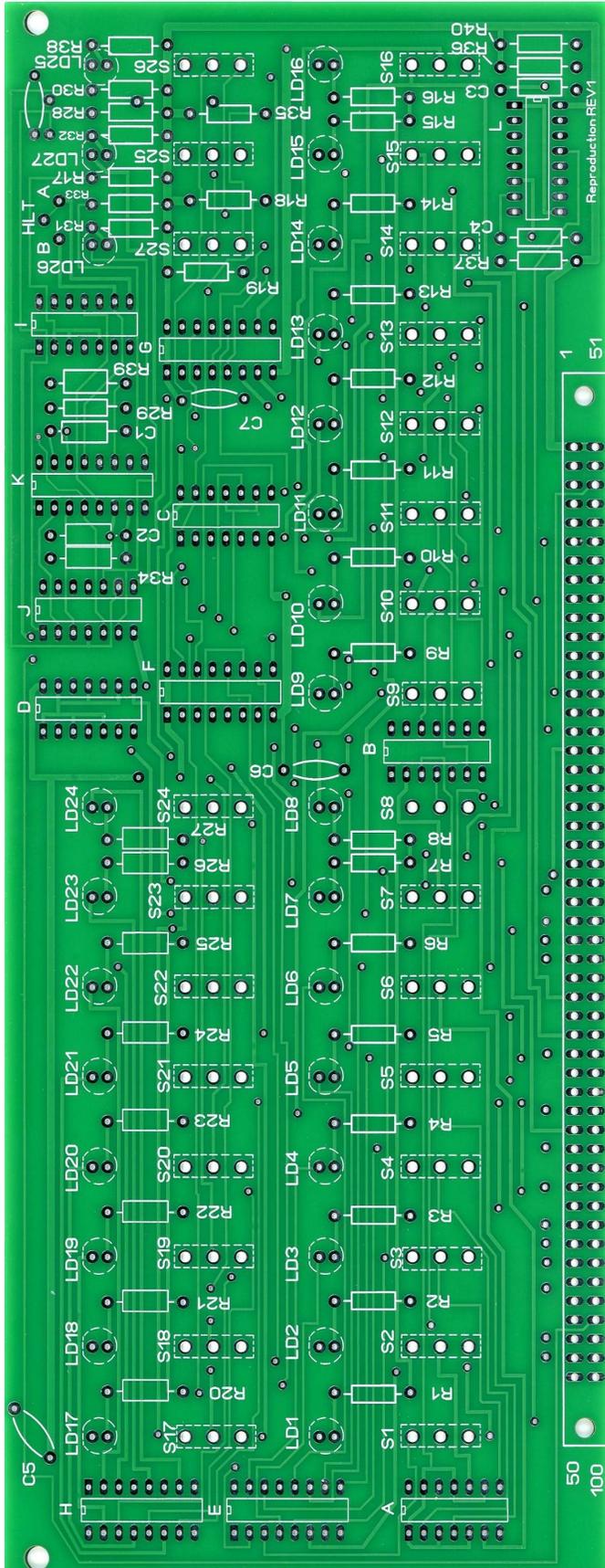
R41 – 10 Ohm

At this point you may use the MITS Altair Manual as a guide for building the board. Use the parts list below instead of the MITS parts list.

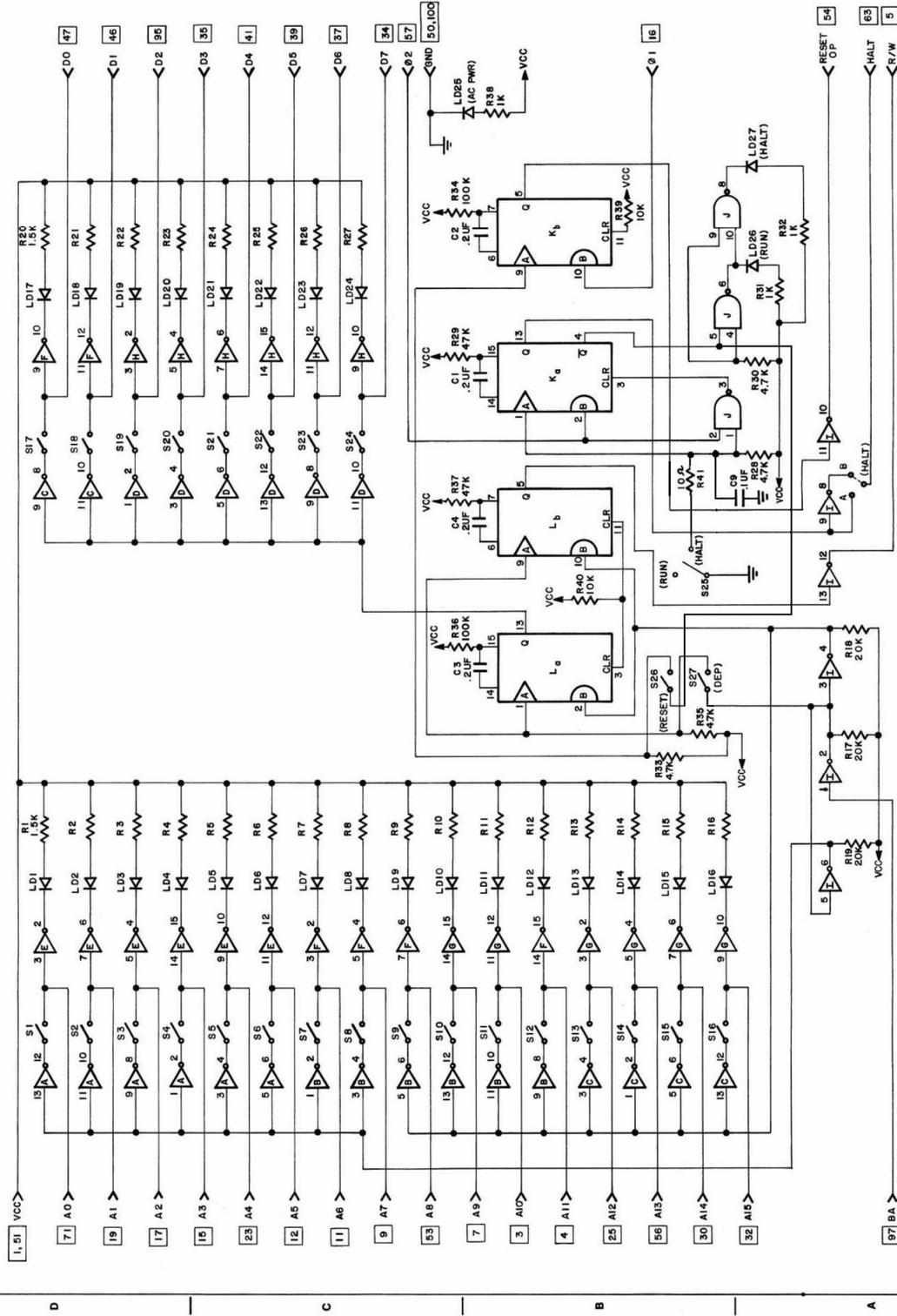
## Altair 680 Front Panel - Parts List

QUANTITY	DESIGNATION	DESCRIPTION
5	A, B, C, D, I	74LS05 or 7406
4	E, F, G, H	CD4009
1	J	74LS00
2	K, L	74LS123
27	LD1-LD27	LED T-1 3/4 Digikey - HLMPD150A
24	R1-R16, R20-R27	1.5K Ohm 1/4 Watt
3	R17-R19	22K Ohm 1/4 Watt
4	R28, R30, R33, R35	4.7K Ohm 1/4 Watt
3	R29, R37	47K Ohm 1/4 Watt
2	R34, R36	100K Ohm 1/4 Watt
1	R31, R32, R38	1K Ohm 1/4 Watt
2	R39, R40	10K Ohm 1/4 Watt
1	R41	10 Ohm 1/4 Watt
4	C1-C4	0.2uF or 0.22uF 10V
5	C5-C9	0.1uF 16V
1		100 Pin Connector - Sullins - EBA50DRTH
2		4-40 1/2" screw (For 100 pin connector)
2		#4 lock washer
2		#4 nut
25	S1-S25	DPDT Switch - Mouser - 100SP1T1B1M2REH
2	S26, S27	DPDT -Center off - Momentary - 100SP4T1B1M2QEH
1		Dress Panel - Order Separately





1 2 3 4 5 7 8 9



Updated to Show DEP and RESET Switch Modifications. Corrected HALT/RUN circuit to match Component Additions page in 680 manual

**680 DISPLAY SCHEMATIC**

REVISED BY: **A.C.R.** 3/22/78

DATE: \_\_\_\_\_

FILE: \_\_\_\_\_

PROJECT: \_\_\_\_\_

680-100  
SHT40F-4