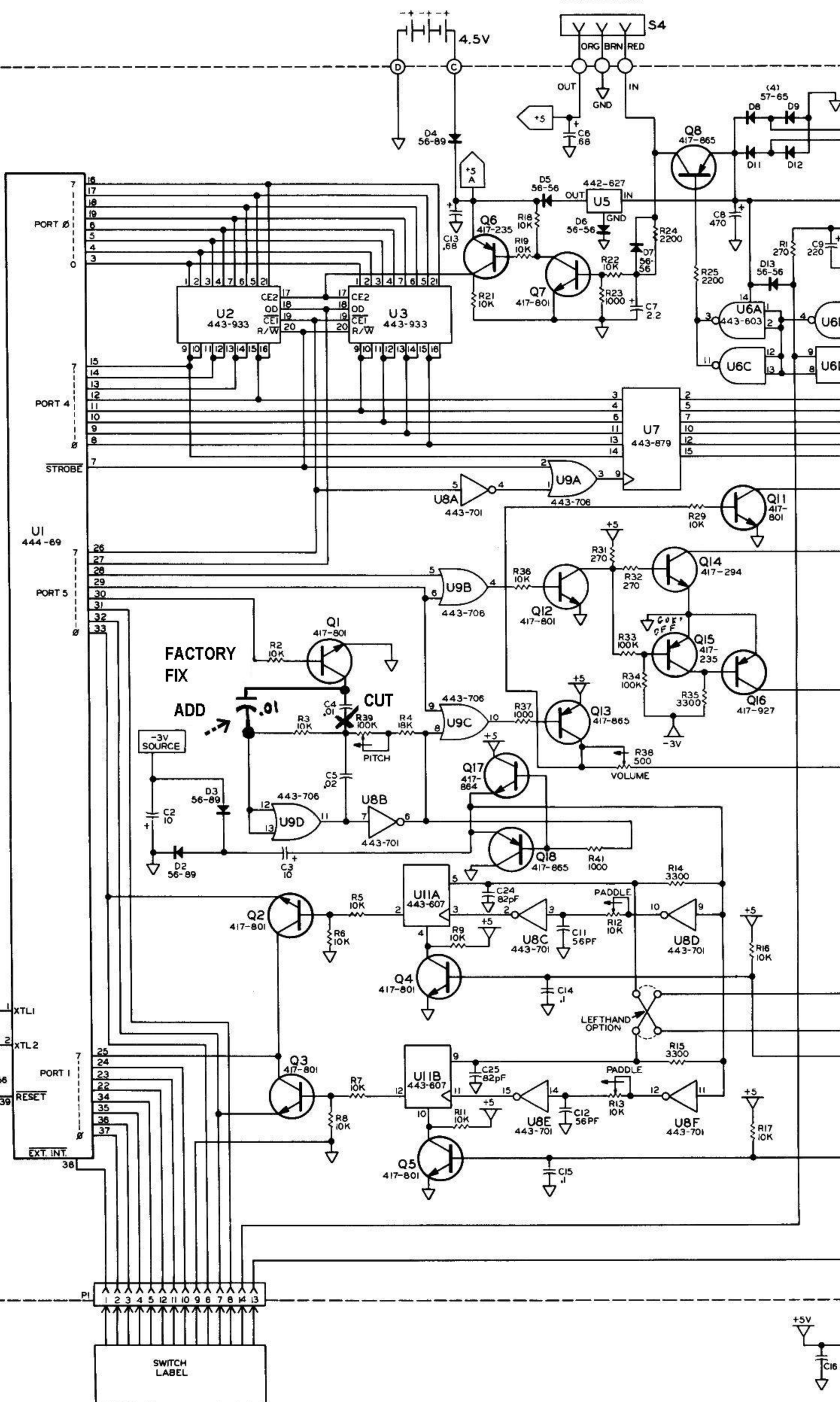


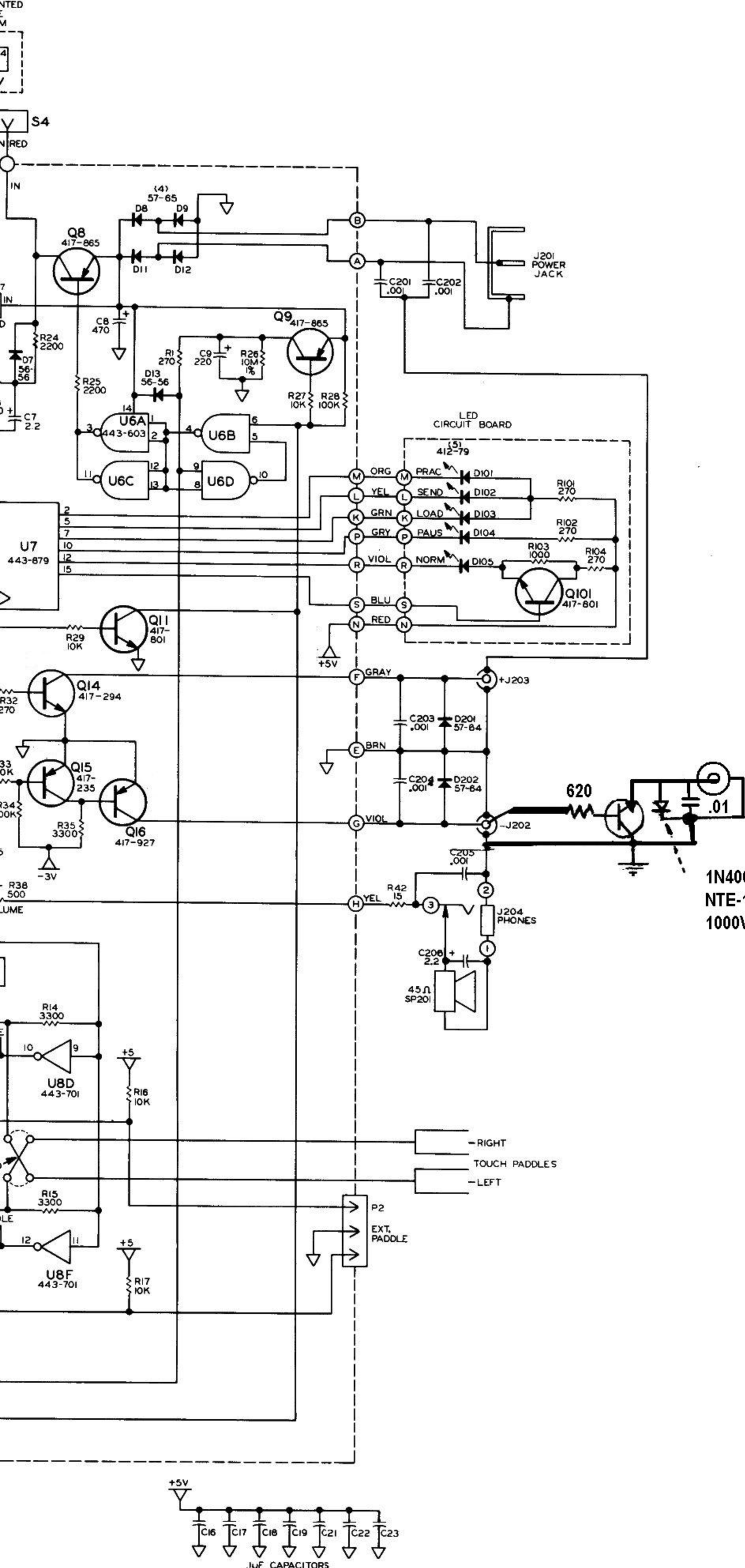
3 TYPE A76

PART MOUNTED
IN CASE
BOTTOM

#442-54
U4



*SEE *KEYPAD SWITCHING PATTERN* TABLE



SCHEMATIC HEAD SHEET
SA
μMAT

- NOTES:
1. PARTS ARE NUMBERED IN THE FOLLOWING MANNER:
1-49 PARTS ON THE MAIN BOARD
100-109 PARTS ON THE LED BOARD
200-209 PARTS ON THE CASE
 2. ALL RESISTORS ARE 1/4-WATT. RESISTOR VALUES ARE IN OHMS UNLESS OTHERWISE SPECIFIED.
 3. CAPACITOR VALUES ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
 4. ∇ THIS SYMBOL INDICATES A GROUND CONNECTION.
 5. \bigcirc THIS SYMBOL WITH A LINE THROUGH IT INDICATES A WIRE CONNECTED TO THE BOARD.
 6. \rightarrow THIS SYMBOL INDICATES A WIRE CONNECTED TO THE BOARD.

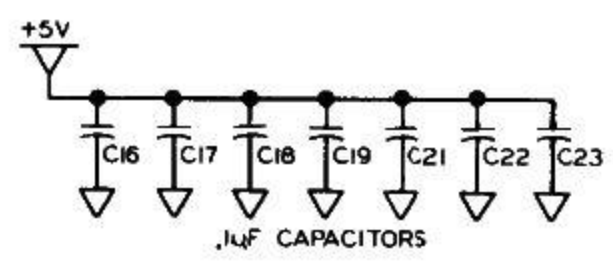
External option
add for
hi-current
negative
keying

*KEYPAD S

PRESS KEY
OFF
ON
TUNE
STOP
P/C
LOAD
SEND
WPM
SPC
WT
RPT
PRA
0
1
2
3
4
5
6
7
8
9



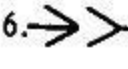
IC Vcc AND GND PIN

IC	Vcc AND GND PIN
U1	20, 21
U2	8
U3	8
U4	
U5	
U6	7
U7	8
U8	8
U9	7
U11	6, 7, 8



**SCHEMATIC OF THE
HEATHKIT®
SA-5010
μMATIC KEYSER**

NOTES:

1. PARTS ARE NUMBERED IN THE FOLLOWING GROUPS:
1-49 PARTS ON THE MAIN CIRCUIT BOARD.
100-109 PARTS ON THE LED CIRCUIT BOARD.
200-209 PARTS ON THE CASE.
2. ALL RESISTORS ARE 1/4-WATT, 5% UNLESS MARKED OTHERWISE.
RESISTOR VALUES ARE IN OHMS (K=1000, M=1,000,000).
3. CAPACITOR VALUES ARE IN μF UNLESS MARKED OTHERWISE.
4.  THIS SYMBOL INDICATES A CIRCUIT BOARD GROUND.
5.  THIS SYMBOL WITH A LETTER OR NUMBER IN IT INDICATES A WIRE CONNECTED TO THE CIRCUIT BOARD.
6.  THIS SYMBOL INDICATES A PLUG-IN CONNECTION.

*KEYPAD SWITCHING PATTERN

PRESSED KEY	PINS CONNECTED
OFF	9, 14
ON	9, 13
TUNE	1, 9
STOP	2, 6
P/C	6, 11
LOAD	6, 10
SEND	3, 6
WPM	2, 7
SPC'G	3, 7
WT	7, 11
RPT	7, 12
PRAC	6, 12
0	5, 8
1	8, 11
2	4, 8
3	2, 8
4	8, 12
5	8, 10
6	3, 8
7	7, 10
8	5, 7
9	4, 7

IC Vcc AND GROUND PIN CONNECTIONS

IC	GND PIN #	+5V PIN #	+5A PIN #
U1	20, 21	40	
U2	8		22
U3	8		22
U4			
U5			
U6	7		
U7	8	1, 16	
U8	8	1	
U9	7	14	
U11	6, 7, 8	14	