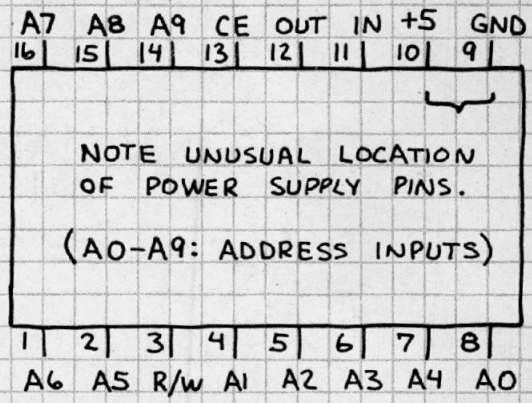
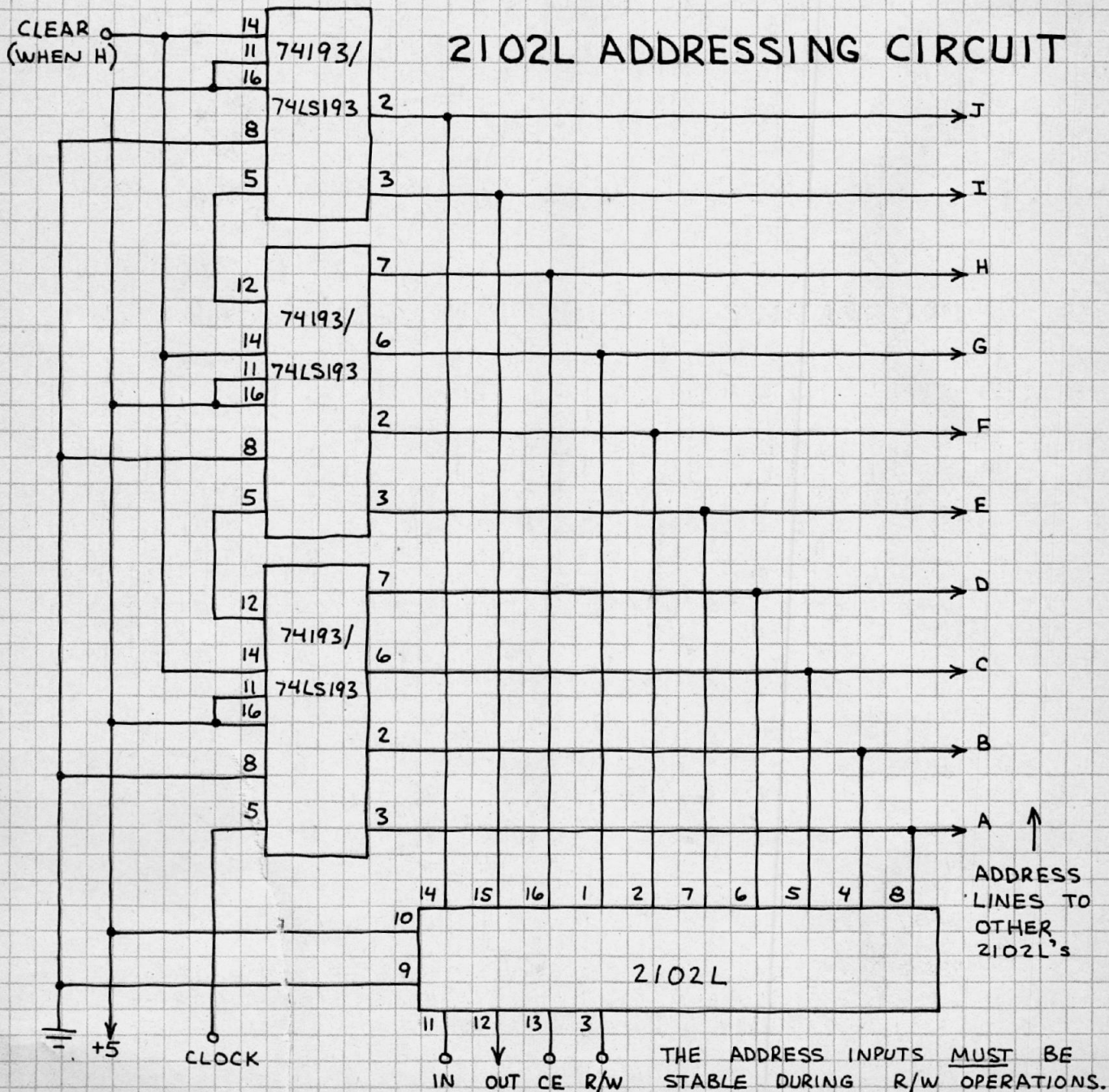
1024-BIT STATIC RAM
2102L

1024 1-BIT STORAGE LOCATIONS ADDRESSED BY PINS A0-A9. TTL/LS COMPATIBLE. CE (CHIP ENABLE) INPUT CONTROLS R/W (READ/WRITE) OPERATIONS). 3-STATE OUTPUTS.

CE	R/W	OPERATION
L	L	WRITE (LOADS BIT AT PIN 11)
L	H	READ (OUTPUTS BIT AT PIN 12)
H	X	HI Z (OUTPUT ENTERS THIRD STATE)



2102L ADDRESSING CIRCUIT

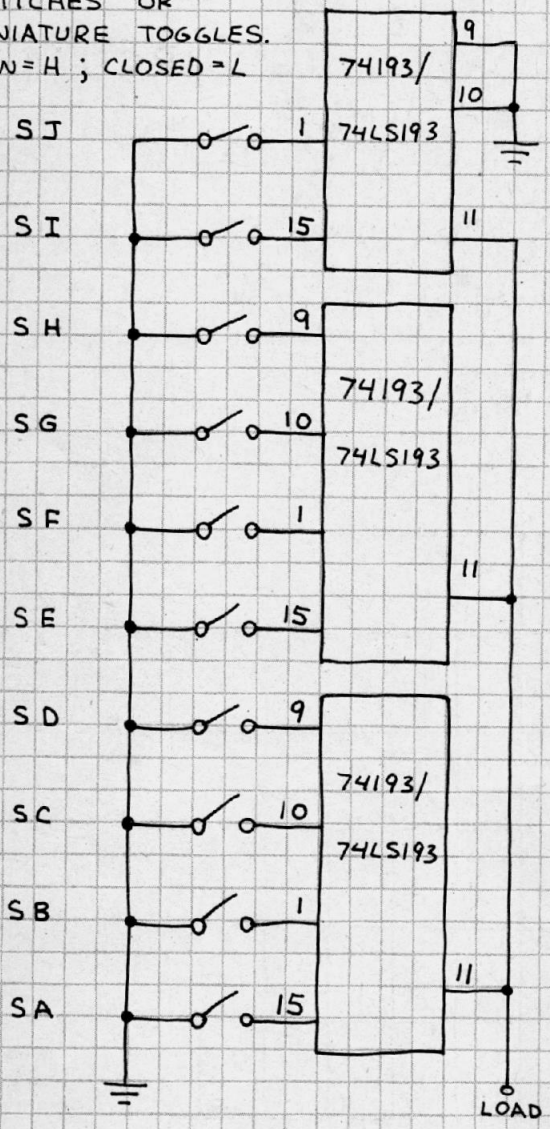


1024-BIT STATIC RAM (CONTINUED)
2102L

ADDING PROGRAMMED OR MANUAL JUMP

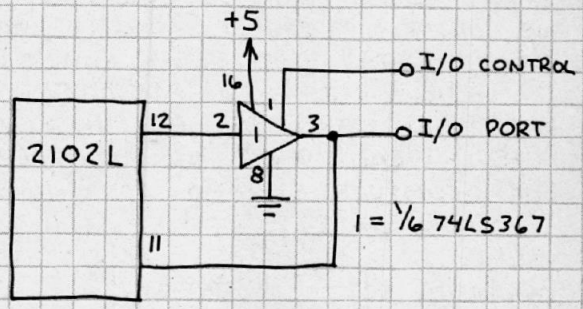
ADD THESE CONNECTIONS TO THE ADDRESSING CIRCUIT ON FACING PAGE.

SA–SJ: USE 8-POSITION DIP SWITCHES OR MINIATURE TOGGLES. OPEN = H ; CLOSED = L



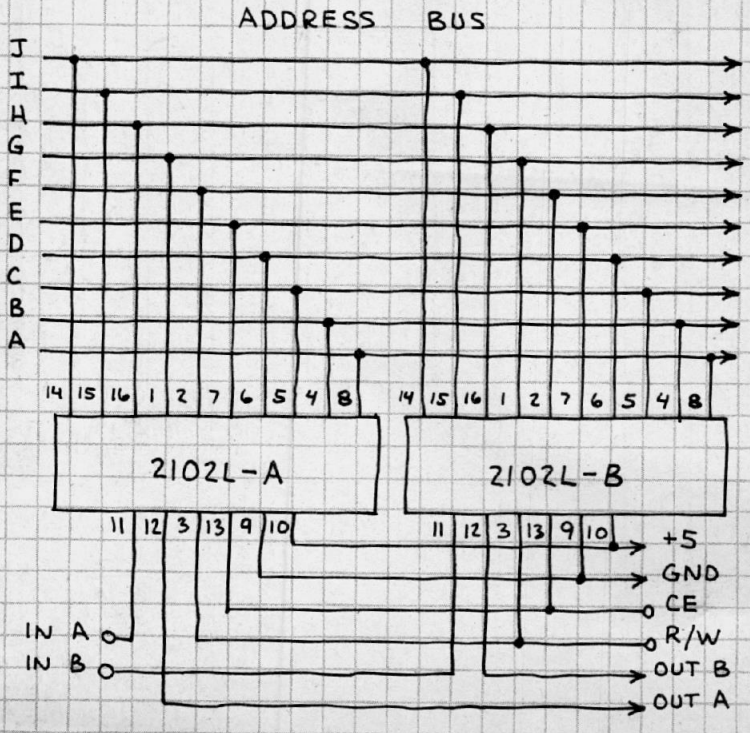
NORMALLY THE LOAD INPUT IS HIGH. MAKING LOAD LOW LOADS THE ADDRESS PROGRAMMED IN SWITCHES SA-SJ INTO THE 74193's. THIS PERMITS A PROGRAMMED JUMP OR A MANUAL JUMP TO ANY ADDRESS.

SINGLE I/O PORT



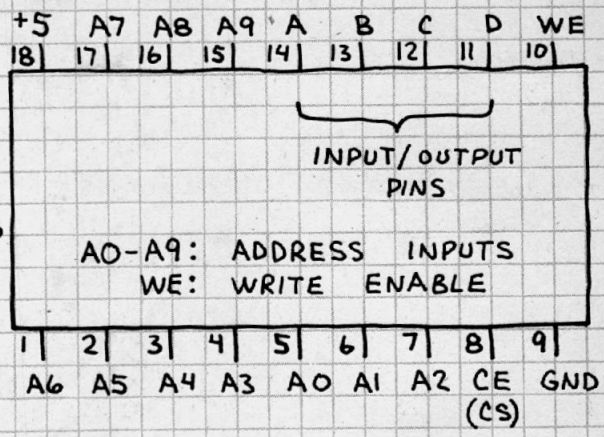
ADD THIS CIRCUIT TO THE ADDRESSING CIRCUIT ON FACING PAGE. WHEN I/O (INPUT/OUTPUT) CONTROL IS H, PIN 3 OF THE 74LS367 ENTERS THIRD STATE (HI-Z) AND I/O PORT ACCEPTS INPUT DATA. WHEN PIN 3 OF THE 74LS367 IS L, I/O PORT OUTPUTS DATA. BOTH THESE OPERATIONS ARE DEPENDENT UPON THE STATUS OF THE 2102L CONTROL INPUTS.

CASCADING 2102L'S

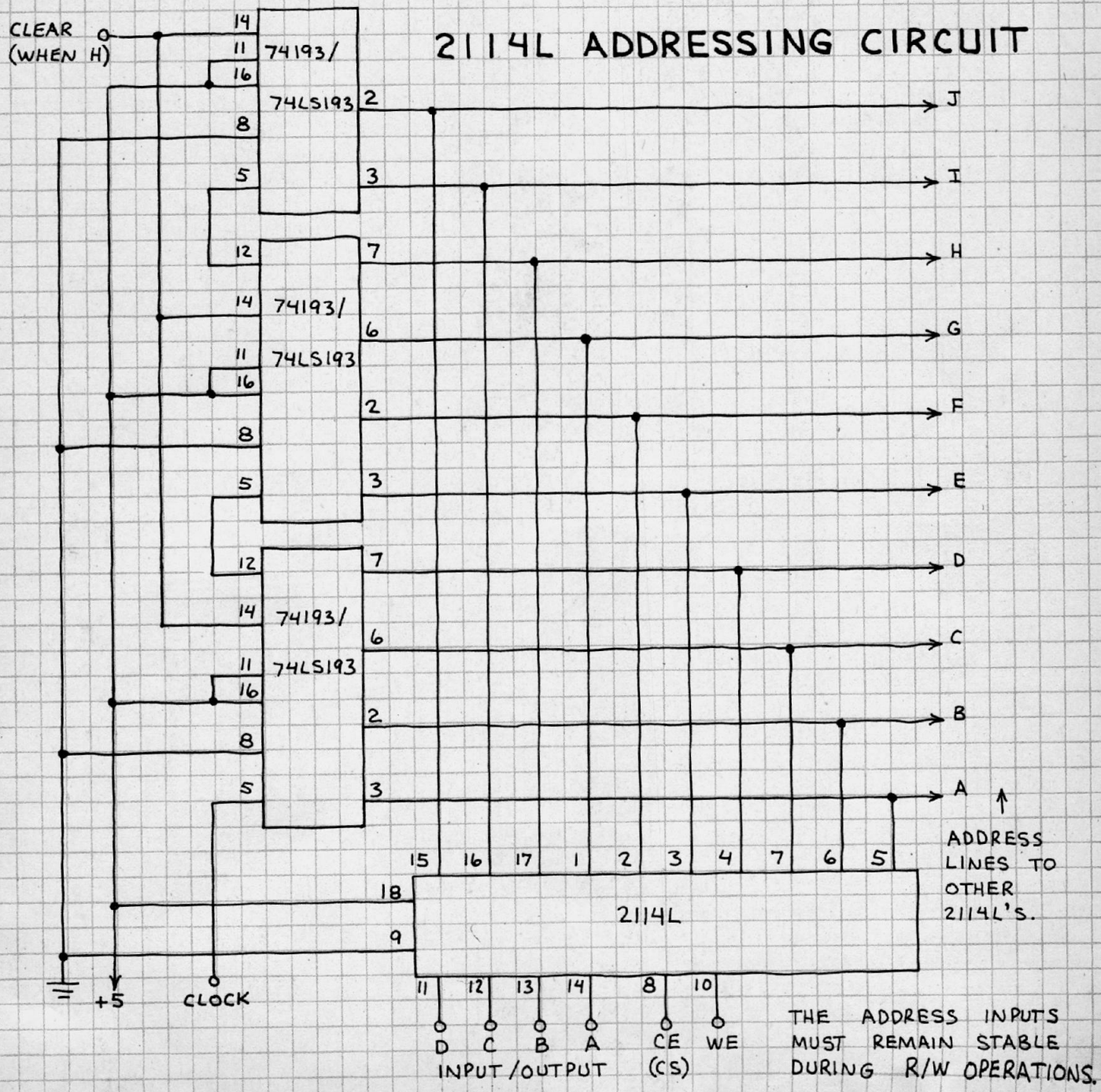


1024 x 4-BIT RAM
2114L/4045

1024-4-BIT STORAGE LOCATIONS ADDRESSED BY PINS AO-A9. TTL/LS COMPATIBLE. FOR READ/WRITE OPERATIONS, CE (CHIP ENABLE, ALSO CALLED CHIP SELECT) MUST BE LOW. WE INPUT MUST BE LOW TO WRITE (LOAD) DATA INTO CHIP. WHEN WE IS HIGH, DATA IN ADDRESSED LOCATION APPEARS AT INPUT/OUTPUT PINS. IDEAL CHIP FOR DO-IT-YOURSELF MICROCOMPUTERS AND CONTROLLERS.



2114L ADDRESSING CIRCUIT



1024 x 4-BIT RAM (CONTINUED)
2114L/4045

1024-NIBBLE DATA LOADING CIRCUIT

(NIBBLE = 4-BIT WORD OR ½ 8-BIT WORD)

MANUAL JUMP: 1. SET SWITCHES A-J TO DESIRED ADDRESS; 2. PRESS S6.

USE THIS CIRCUIT TO MANUALLY STORE UP TO 1024 4-BIT WORDS IN A 2114L. AFTER THE DATA IS LOADED, IT CAN THEN BE READ BACK AT THE CLOCK SPEED. THE DATA OUTPUTS ARE PINS 11-14 WHEN DATA INPUT SWITCHES ARE AT NEUTRAL.

WRITE: 1. SWITCH S2 TO THE BOUNCELESS PUSHBUTTON.
2. SWITCH S4 AND S5 TO L.
3. CLOSE S3.
4. INPUT DATA.
5. PRESS BOUNCELESS PUSHBUTTON.
6. REPEAT STEPS 1-5.

READ: 1. OPEN S3.
2. SWITCH S5 TO H.
3. CLOSE, THEN OPEN, S1.
4. SELECT CLOCKED OR MANUAL OUTPUT (S2).

NOTE:
BEST TO OUTPUT DATA THROUGH 74LS367 HEX BUFFER.