RUNNING MESSAGE DISPLAY

LEDs are advantageous due to their smaller size and low current consumption. Here is a running message display circuit wherein the letters formed by LED arrangement light up progressively. Once all the letters of the message have been lit up, the circuit gets reset. This message display circuit is built around readily available, low cost components. It is easy to fabricate and makes use of 3mm red LEDs. A total of 70 LEDs have been used to display the message “WELCOME”.

The arrangement of LED1 through LED15 is used to display 'W' as shown in Fig. 1. The anodes of LED1 through LED15 are connected to point A and the cathodes of these LEDs are connected to point B. Similarly, Other letters can also be built.

Two ICs, the timer 555 (IC2) and decade counter CD4017 (IC3), are used to build the display circuit. One of the IC CD4017's features is its provision of ten fully decoded outputs, making the IC ideal for use in a whole range of sequencing operations. In the circuit only one of the outputs remains high and the output advances by one count every second (depending on the time period of astable multivibrator IC2). The timer IC NE555 (IC2) is wired as a 1Hz astable multivibrator that clocks the IC3 for sequencing operations.

When Q1 output of IC3 goes high, transistor T1 conducts and the current flows through LED1 through LED15 via resistor R9. Now the letter 'W' built around LED1 through LED15 is displayed on the LED arrangement board.

Next, when Q2 output of IC3 goes high, transistor T2 conducts and letter 'E' lights up. The preceding letter 'W' also remains lighted because of forward biasing of transistor T1 via diode D5. In a similar fashion,

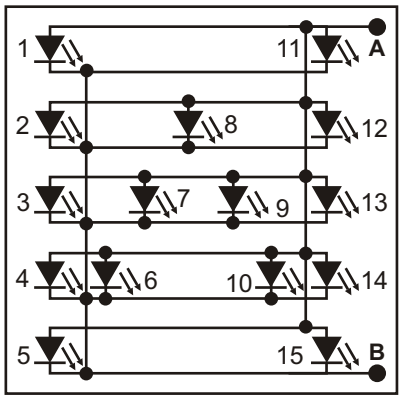

Fig.1:LED arrangement for word ‘W’