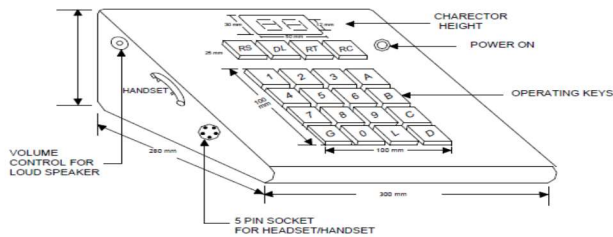
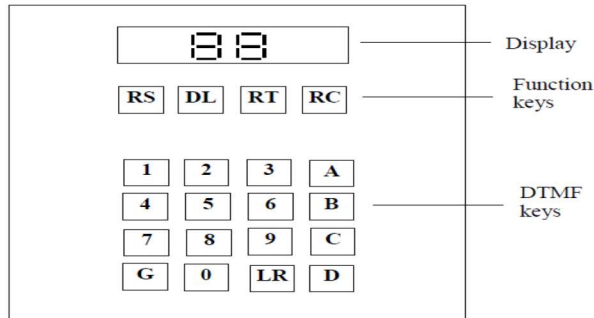


## DTMF Headquarters Equipment



**DTMF CONTROL ROOM EQUIPMENT**



### **Working Features:**

- The control office equipment is designed to call the way stations by 2 digits DTMF Codes.
- The dual tone transmission for the code digits starts only after pressing the second digit of the way station code.
- The Second digits of the code should be pressed within 4 or 5 seconds after pressing the first digit. Otherwise the first digit becomes invalid and goes off the display.
- Code transmission is completed in 500 milli seconds.
- Entered 2 digit code is displayed on the 7- segment LED display.
- During code digit transmission an LED on the display flickers 2 times indicating code transmission.

1	2	3	A	697 Hz	LOW GROUP FREQUENCY
4	5	6	B	770 Hz	
7	8	9	C	852 Hz	
G	0	LR	D	941 Hz	
				1209 Hz	HIGH GROUP FREQUENCY
				1336 Hz	
				1477 Hz	
				1633 Hz	

KEY	FUNCTION	DESCRIPTION
RS	Reset	System is reset
DL	Delete	Deletes the previous keyboard entry
RT	Repeat	Retransmits the last entered 2- digit station code
RC	Row/ column tones	Row & column tone frequencies are sent to TX lines for measurements purpose for maintenance
0 TO 9	Numeric keys	Station code transmission
A,B,C & D	Group code keys	Group code transmission
G	General call	General call transmission to all stations at a time
LR	Long ring	When kept pressed sends the last called station code repeatedly for every 5 seconds.

#### **Maintenance of Control Office equipment**

a) For equipments with DTMF signaling proper functioning of the following keys shall be checked.

i) Group codes A, B, C and D ii) Long ring LR iii) General call iv) Special purpose keys

Reset – RS, Delete – DL, Repeat -RT

b) All visual indications provided on equipment shall be checked.

**c) Monthly Maintenance:** The following shall be checked:

i) Proper functioning of all station codes including special codes shall be checked.

ii) Current Drain on 12V DC side shall be as under: idle : 150 mA Working : 500 mA

iii) Current consumption of transmitter of Controller's head set and HMT shall be between 100 and 150mA.

iv) DTMF signaling code level shall be between 0 to -7dBm across a load of 600 ohms.

v) Row/column DTMF frequency by using frequency counter shall be checked by pressing the 'RC' button and shall be within the specified limits. DISPLAY Frequency are r1 : 697 Hz, r2 : 770 Hz, r3 : 852 Hz, r4 : 941 Hz, c1 : 1209 Hz, c2 : 1336 Hz, c3 : 1477 Hz, c4 : 1633 Hz

**d) Quarterly Maintenance:**

(i) Insulation resistance at room temperature of the office wiring when measured with a 100V megger shall be more than 10 megohms between conductor to conductor and more than 20 mega ohms between conductor and Earth.