DBS
S E R I E S

REAL TIME CONTROLLERS

1 Channel Siren Unit

O P E R A T I N G   M A N U A L

DBS siren controller is Microprocessor based Real Time controllers in Wall Mount type enclosures.

Features
- Micro controller based digital circuitry.
- 4 digit LED display.
- Dust proof membrane keypad.
- Relay outputs rated 230 V / 5 A (resi)
- Real Time clock.
- Up to 64 timings programmable.
- Permanent storage for programmes
- 230 V AC input

1.0 Display & Keyboard

Siren Unit has 4 keys.

(1) **SET** : The `SET' key is used to toggle between set & run mode. The SET mode is indicated by red lamp (LED) on left side of the display. In run mode no programming is allowed but verification of the program can be done.

(2) **ON / UP Arrow** : In set and Run mode, `ON' key is used to start Siren manually irrespective of real time. Same key is used to increment a value while in programming mode.

(3) **STEP / DOWN Arrow** : In run mode `STEP' key is used to examine the settings of step 1 to 64. In set mode `STEP' key is used to set the On time settings for desired step. Same key is used to decrement a value while in programming mode.

(4) **TIME / ENT** : When in set mode, `TIME' key is used to set the clock. Same key is used to accept a value in programming.

2.0 Step Programming

There are Sixty four different timings which can be set to switch ON the siren. Each step program consists of :

- ON time specifying at what time siren should switch on.
- Type of alarm specifying duration for which siren is on.
- Weekly programme indicating on which day Siren should be on or off.
- Channel (Relay) number for which this timing is set.

2.1 Types of Alarms / Sirens

Type of Alarm specifies the duration for which siren will be on

Type 1 : ON Duration is 5 seconds.
Type 2 : ON Duration is 10 seconds.
Type 3 : ON Duration is 15 seconds.
Type 4 : ON Duration is 20 seconds.
Type 5 : ON Duration is 25 seconds.
Type 6 : ON for 10 sec, OFF for 5 sec, again ON for 10 seconds.
Type 7 : ON for 5 sec, OFF for 5 sec,ON for 5 sec.
Type 8 : ON Duration is 1 minute.

2.2 Manual Siren ON

Sirens can be switched on Manually for any of above time durations using ON Key in RUN mode i.e. when SET LED is off.

KEY	**DISPLAY**
1) Press ON key Display will ask which is type of alarm(as per above) Section2.1.	typ<u>1</u>
2) Use UP / DOWN arrow key to change type number Press Ent key.	
3) Display will show Relay number	rl <u>1</u>

4) Use UP/DOWN key to change relay number
   Press Ent key.

Selected relay will be on for type selected.

2.3 Step Programming

KEY	DISPLAY

1) Bring the controller in set mode using set/run key.
   SET mode is indicated by the red lamp (LED)
   on the left hand side of the display.

2) Press the step key for setting the step.   St. **01**
   The display shows step number flashing.

3) The Step number which is flashing can be modified   St. **08**
   with increment or decrement key as required.

4) Press enter key to select step number.
   The display shows previous on time set for that   12 **00**
   step with its minutes (last two digits) flashing.

5) The minutes can be incremented or decremented to   12. **30**

   desired value by increment or decrement key.

6) Now press enter for minutes to be set.
   Then the hours (first two digits) starts flashing   **12**.30

7) Now press enter to end on time setting.
   Then display shows Alarm Status.   0 On

   Here message **'x on'** means siren is to be switched
   on at above programmed time on **xth** day of week.

   Value of **x** ranges from 0 to 7.

   0 is used to enable / disable the current step.
   Remember it is important to make **0 On** to
   enable the present step,
   while 0 off means the present step is off.

A given step has to be set for all 7 days of week.

Use UP arrow key to change the day.
Use DOWN arrow key to change the status On or off.
When all days are set and '0 on' has been set, press

ENT.

8) Display will now flash type of siren.   typ1
   As mentioned above, there are total 8 types of alarms.
   Change type using UP / DOWN arrow key.
   Press ENT to confirm.

9) Display will now show setting is for which relay.   rl 1
   'rl 1' means setting is for relay 1 and so on.
   Press ENT when relay is selected.

Setting is now over. Display will momentarily show   12.30
On time programmed in Para 6 above.

NOTE :

* For setting one step the sequence from 2 to 10 has to be com-
pleted other wise the previous data will be restored again for
that step.
* If during any stage if no key is pressed within 10 seconds,
programming for that particular step is abandoned and previous
data is restored.
* Remember the clock in this controller uses 24 hour time format.
i.e. 13.00 for 1.00 p.m.

2.4 Programming time.

1) Press SET/RUN key and go in set mode.
   SET LED will glow.

2) Press TIME key.
   Now display shows running time with its minutes   15.**30**
   flashing.

3) Press UP or DOWN key to set minutes.
   Press ENT key when minutes are set.   **15**.40

4) Now hours display will flash.
   Press UP or DOWN key to set hours.   **16**.40
   Press ENT key.

5) Display now shows day of the week.   dy 01
   With UP / DOWN key change day.
   Day can be set as 1 for Monday, 2 for Tuesday etc.
   Note same sequence should be used while programming
   step as explained in section 2.3.7.

6) Press ENT to end setting.

ONCE SETTING IS OVER, CONTROLLER WON'T START SIREN AS PER PROGRAM UNTIL IT IS IN RUN MODE. For that press SET Key. SET LED will now switch off.

2.5 Example for programming

Let us take an example :
We want to switch Siren ON on All days except Tuesday at 10.00 o'clock for 5 seconds. (Type 2)

KEY	DISPAY	REMARK
[SET]		SET LED glows.
[STEP]	StP1	Select step number.
[ENT]	xx.xx	Display shows time in that step. Using INC / DEC key change minutes digit to 00.
[ENT]		Hours digit will now flash. Using INC/DEC key change digit to 10.
[ENT]	0 0n	to enable the setting.
[ENT]	1 on	
[INC]	2 on	Change day to Tuesday (2).
[DEC]	2 of	Make step off for Tuesday

Note: [UP] key is for day setting and [DOWN] for on/off.
Use [UP][DOWN] key for all the days.

[ENT]	tyP1	Select Siren duration.
[INC]	tyP2	Siren ON for 10 seconds.
[ENT]	rl 0	
[INC]	rl 1	Settings are for relay 1.
[ENT]		

Programme is over. Display will show 10.30 momentarily and current time will appear again.

[SET]		Go back to RUN mode for new setting to be effective.

3.0 Connection Details

RIGHT Side 4 Pin Terminals

P : 230 V Phase supply
N : Neutral

CP / CN REL 1 : 230 V AC Output from Relay 1.

NOTE : Outputs are Active outputs and supply will be directly available to drive external gadget. No need to loop 230 V supply externally.