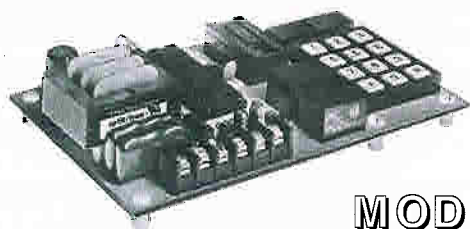




Solid State Timers and Controllers

USER HANDBOOK 7 DAY PROGRAMMABLE EVENT CONTROLLERS



MODEL
4950

MODEL
4950PM



MODEL
4950RDK



MODEL
4950PC



MODEL 4950H

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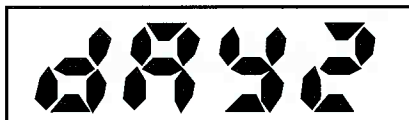
Solid State Timers and Controllers

7 Day- Programmable Event Controller User's Handbook

There are 6 program formats that control the operation of the Model 4950, 4950PM, 4950PC, 4950H & 4950RDK. They are as follows:

- I. **SETTING THE DAY**
- II. **SETTING THE TIME-OF-DAY**
- III. **CLEARING THE ENTIRE 7 DAY PROGRAM MEMORY**
- IV. **SETTING A DAILY SCHEDULE**
- V. **VIEWING A DAILY PROGRAMMED SCHEDULE**
- VI. **CLEARING A SINGLE DAY MEMORY**

When not being programmed, the display alternately indicates the day of the week and the time of the day.



DAY #2 (Tuesday)



9:30AM

When improperly entering any of the six (6) program formats the display will indicate "bAd" for a period of two (2) seconds, after which the controller will return to displaying the day and the time of day.

Each time an instruction is properly entered the display will respond with "- - -" for a period of two (2) seconds and then return to displaying the day and time of day.

To enter any one of the six (6) formats the controller must have the pound sign "#" of the keyboard entered first. Each time the pound sign "#" is operated the controller resets to the first digit of the instructional format.

Should an error be made in entering any of the formats merely repress the pound sign "#" and reenter the correct format.

Should the pound sign "#" be pressed and no instructional format follow, the controller will return to displaying the day and the time of day within ten (10) seconds.

All six (6) formats are terminated with the entry of the asterisk "*", and they are programmed as follows:

I. SETTING THE DAY

The days of the week are numbered Monday through Sunday with Monday being day 1 and Sunday being day 7. To set any of the seven days enter:

(#) - (8) - (day-of-week) - (*)

1 Through 7

If properly entered the display will respond with four dashes "- - -" and return to displaying the newly entered day and the original time of day.



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II. SETTING THE TIME OF DAY

To set the time of day enter:

(#) - (9) - (T) - (T) - (T) - (T) - (*)

The four "T's" are the time of the day in 24 hour time,

i.e.: 1:00 AM is equal to 0100, 12:00 PM (NOON) is equal to 1200, 6:00PM is equal to 1800. The time of day will not be set unless four numbers are entered for the series of "T's." Anytime prior to 1000 must have the leading "0" entered, i.e.: 0930. If the time of day has been entered correctly the display will respond with four dashes "- - - -" and return to displaying the day of the week and the new time of the day.

III. CLEARING THE ENTIRE 7 DAY PROGRAM MEMORY

To clear the entire 7 day program memory enter:

(#) - (0) - (*)

The display will respond with four dashes "- - - -" indicating that the entire 7 day program memory is cleared.

IV. SETTING A DAILY SCHEDULE

Schedules are programmed from 0000 to 2359 for any given day. The format to set a schedule for any day is:

(#) - (day-of-week) - (schedule number) - (TTTT) - (NN) - (*)

1 Through 7

Schedule #1 Through 8

Time In
24 Hour
Format

Output
Relay Control
Code

The day number is numbered 1 through 7. The schedule is schedule 1,2,3,4,5,6,7, or 8. The time of day is four digits as in II above. The "NN" is the two digit code to control the output relays:

VALUE OF NN (Output Relay Control Code)

NN	K1	K2
0 0	OFF	OFF
0 5	ON	OFF
1 0	OFF	ON
1 5	ON	ON

A feature of the model 4950 series which makes for easy programming is a schedule that is programmed for a given day, will automatically appear on the following higher days.

As an example: if schedule #1 is programmed for Monday, the same schedule appears on Tuesday through Sunday. Should a change be made to schedule #1 for Saturday, the Saturday schedule will then appear on Sunday. This eliminates the need to program the same schedule seven times for each of the seven days.

It is important for proper operation that the daily schedule be entered in ascending order of time. event #1 must be earlier than #2, etc.



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V. VIEWING A DAILY PROGRAMMED SCHEDULE

Once a daily schedule has been entered the user can verify that the scheduled program is the one desired. To view a daily schedule enter:

(#) - (0) - (day-of-week) - (*)

The display will proceed to show all actively set schedules for the day selected as follows:

d1-1 (indicating Day 1 Monday, Schedule #1)
1234 (indicating the time of 12:34)
--15 (indicating that relay 1 and 2 are programmed to TURN ON)

d1-2 (indicating Day 1 Monday, Schedule #2)
1500 (indicating the time of 15:00, 3:00 PM)
--05 (indicating that relay 2 is programmed to TURN OFF,
and relay #1 remain ON)

When all daily schedules have been scrolled in this manner, the display indicates "- - - -", and returns to the display of the current day and time.

VI. CLEARING A SINGLE DAY

A single day may have all eight schedules cleared by entering:

(#) - (0) - (day-of-week) - (0) - (*)

FORMAT RECAP:

- | | | |
|------|--|----------------------------------|
| I. | # - 8 - D - * | (ENTER DAY OF WEEK) |
| II. | # - 9 - T - T - T - T - * | (ENTER TIME) |
| III. | # - 0 - * | (CLEARING ENTIRE PROGRAM MEMORY) |
| IV. | # - D - S - T - T - T - T - N - N - * | (PROGRAM SCHEDULE) |
| V. | # - 0 - D - * | (SCROLLING A DAILY SCHEDULE) |
| VI. | # - 0 - D - 0 - * | (CLEAR A SINGLE DAY) |

Where:

D	=	DAY-OF-WEEK (MONDAY = day 1, SUNDAY = day 7)
T	=	TIME-OF-DAY (0000 - 2359)
S	=	SCHEDULE NUMBER (1, 2, 3, 4, 5, 6, 7, 8)
N	=	OUTPUT RELAY CONTACT CODE SCHEDULE (00, 05, 10, 15)
#	=	START FORMAT
*	=	END FORMAT



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PROGRAMMING EXAMPLES:

1. SET DAY FOR THURSDAY:

- 8 - 4 - *

(MON = 1, TUE = 2, WED = 3, THU = 4, FRI = 5, SAT = 6, SUN = 7)

2. SET CURRENT TIME OF DAY TO 1:25PM

- 9 - 1 - 3 - 2 - 5 - *

(1:25PM = 1325)

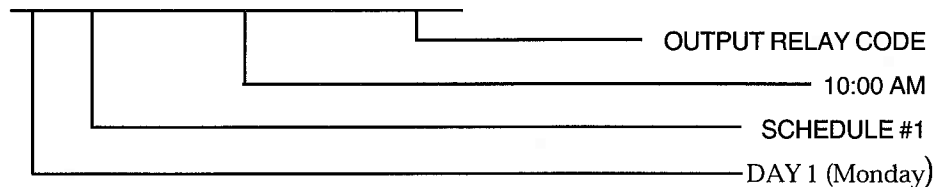
3. CLEAR ALL PROGRAM MEMORY:

- 0 - *

(all 56 memory locations that will hold 8 schedules per day have now been cleared)

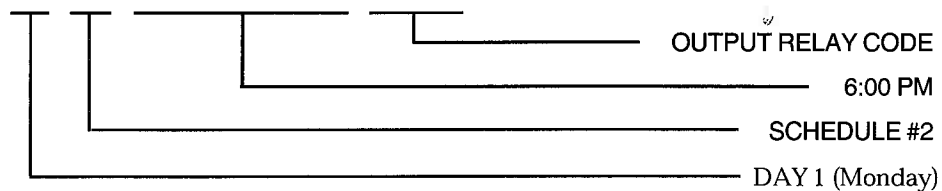
4. Program relay K1 to close every day at 10:00AM, Monday through Friday only, and open at 6:00 PM

- 1 - 1 - 1 - 0 - 0 - 0 - 0 - 5 - *



Note: All 7 days have now been programmed to turn relay K1 ON at 10:00 AM.

- 1 - 2 - 1 - 8 - 0 - 0 - 0 - 0 - *



Note: All 7 days have now been programmed to turn relay K1 ON at 10:00 AM and OFF at 6:00 PM. But the Saturday and Sunday schedules are different...



Since the Saturday and Sunday schedules do not call for the same schedules as programmed for Monday through Friday, both Day 6 (Saturday) and Day 7 (Sunday) must first be cleared.

- 0 - 6 - 0 - *

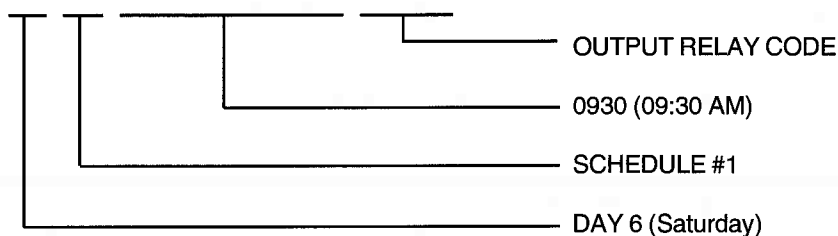
CLEARs DAY 6 (Saturday)

- 0 - 7 - 0 - *

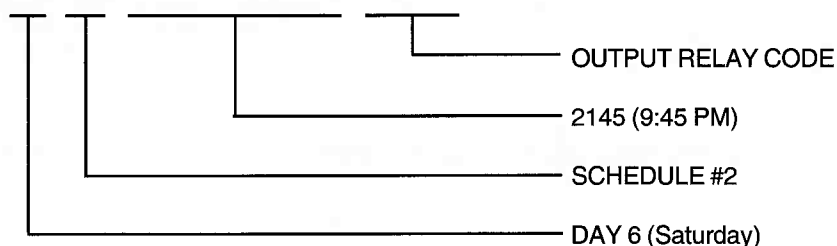
CLEARs DAY 7 (Sunday)

Program relay K2 to TURN ON at 9:30 AM and OFF at 9:45 PM on Day 6 (Saturday) and Day 7 (Sunday):

- 6 - 1 - 0 - 9 - 3 - 0 - 1 - 0 - *



- 6 - 2 - 2 - 1 - 4 - 5 - 0 - 0 - *



Programming the Day 6 (Saturday) schedule, the Day 7 (Sunday) schedule is programmed automatically.

A NOTE OF CAUTION WHEN PROGRAMMING MIDNIGHT INTO SCHEDULES:

Midnight is programmed as 0000, but remember the midnight of Day 1 is always programmed as 0000 of Day #2, etc. I.E.: The following programming example will turn ON both relays at 10:00 PM on DAY 7 (Sunday) and OFF at midnight on Sunday:

- 7 - 1 - 2 - 2 - 0 - 0 - 1 - 5 - * Turns K1 & K2 ON at 2200 (10:00 PM) on DAY #7 (Sunday)

- 1 - 1 - 0 - 0 - 0 - 0 - 0 - 0 - * Turns K1 & K2 OFF at 0000 (12:00 AM) on DAY #1 (Monday)
but note that the 0000 schedule is the first event of DAY #1.