HOW TO FILL OUT A PROGRAMMING WORK SHEET

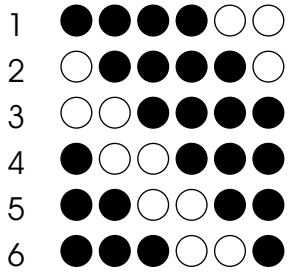
On the top of the sheet fill out the 'PROJECT NAME', 'SHEET NUMBERS' and the 'DATE'.
The programmer will assign a 'PATTERN NAME' after the program is completed.

Make an 'X' to select the board to be programmed. Note the 6 Point board programming boundaries. The first two bits are not used. When you enter your pattern for a 6 Point board do not mark these bits. On the 32 point board note that the board pattern area is repeated twice on the sheet. You can enter a pattern that starts at the upper left, down to the bottom. Then start at the top middle and continue the pattern. The 64 point board pattern spans the entire sheet.

Down the left side of the sheet is a column marked "step #". Each step of the program you enter must have a step number. The programmer enters these same numbers while programming.

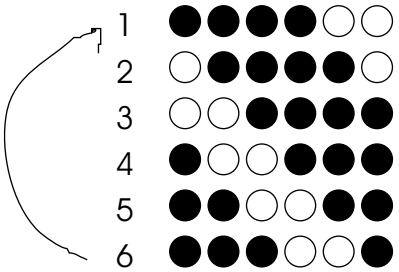
A SIMPLE 6 POINT PROGRAM

Lets start with a simple 6 point program. As shown below the lamps are set in a 4-on 2-off pattern. Each step of the program indicates a different sequence of lamps.

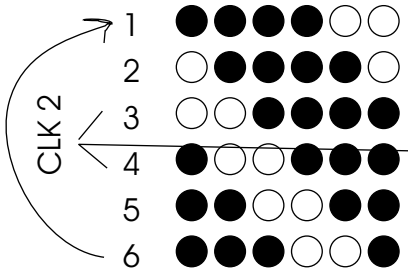


You must tell the programmer what you want this pattern to do. For instance if you want it to repeat make a notation showing the loop back point. If you want it to be controlled by a specific on-board clock then note this also. If you want the pattern to repeat a certain amount of times then make a note as to how many times you want the pattern repeated. If you want it to hold the last step for the duration of a second on-board clock then note this also. As an additional option you can request that the programmer program the on-board DIP switch to select the amount of times you want the pattern repeated. This allows you to set the repeat time yourself.

SET LOOP BACK POINT

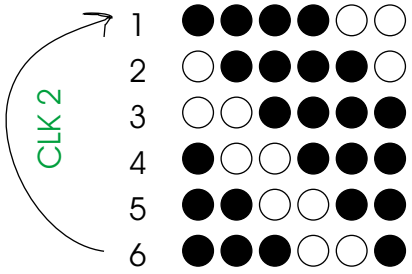


IDENTIFYING CLOCK



these are notes that you put on the program sheet(s) to tell the programmer what you want the program to do

SETTING REPEAT



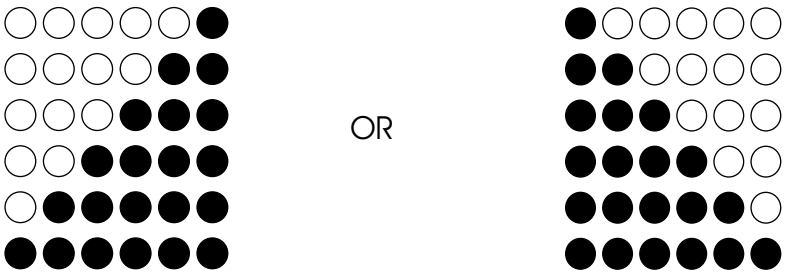
HOLD STEP 6
FOR 1 SECOND
AFTER 3 SECOND
SCINTILLATE

REPEAT FOR 3 SECONDS ADJUST WITH DIP SWITCH

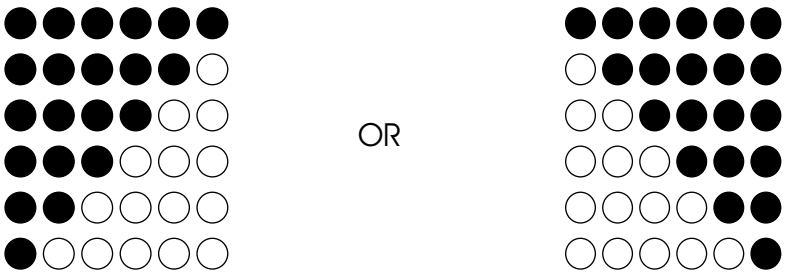
SOME BASIC PATTERNS

Each sign will have it's own unique patterns as described by the customer buying the sign. Don't limit yourself to the patterns that were used with the old mechanical flashers. With electronic flashers almost anything is possible. Check with the programmer to verify if your concept is programmable.

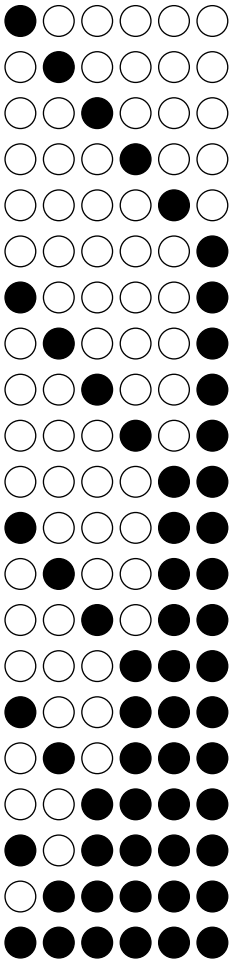
SPELL ON



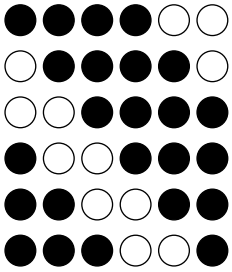
SPELL OFF



STACK



SCINTILLATE

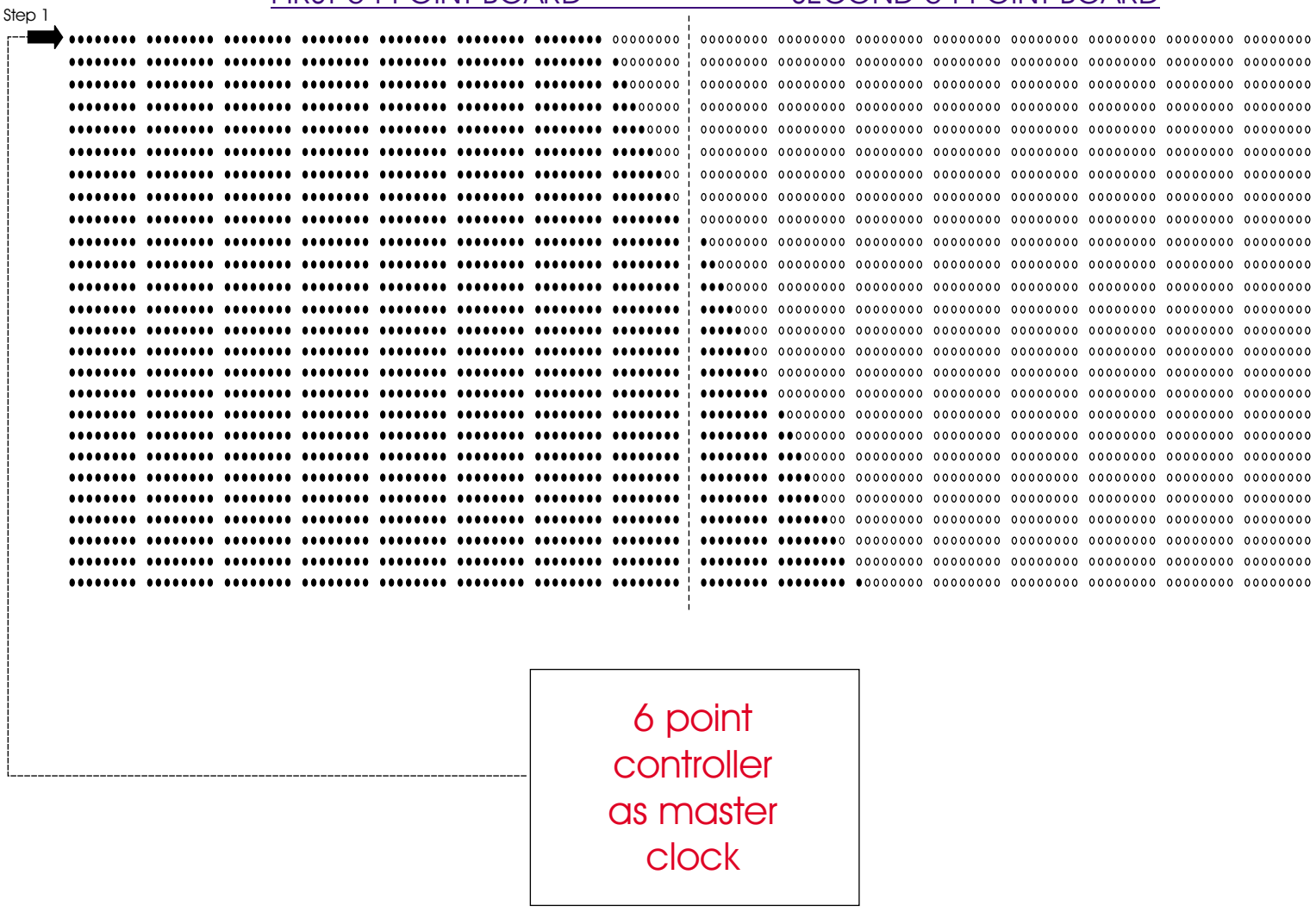


AND MANY MORE

ALDOR Electronic Services

COMBINING MULTIPLE 64 POINT CONTROLLERS

If more than 64 points are to be programmed the program sheets can be laid side by side and be filled out showing the pattern resumption onto the next board. Even if the second board does not start at the top of the page all of the steps must be shown side by side. Step one of the first board must be the same as step one of the second, third, forth... And so on. By the time you get to the third or forth board there may be nothing but a blank page for the first 100 steps. The steps on these blank pages must be included and be numbered to correspond with the previous boards. The programmer must program all of the blanks at their correct step locations.
A 6 point controller board will be used as the master clock to all of these boards to ensure that the steps stay in sync.

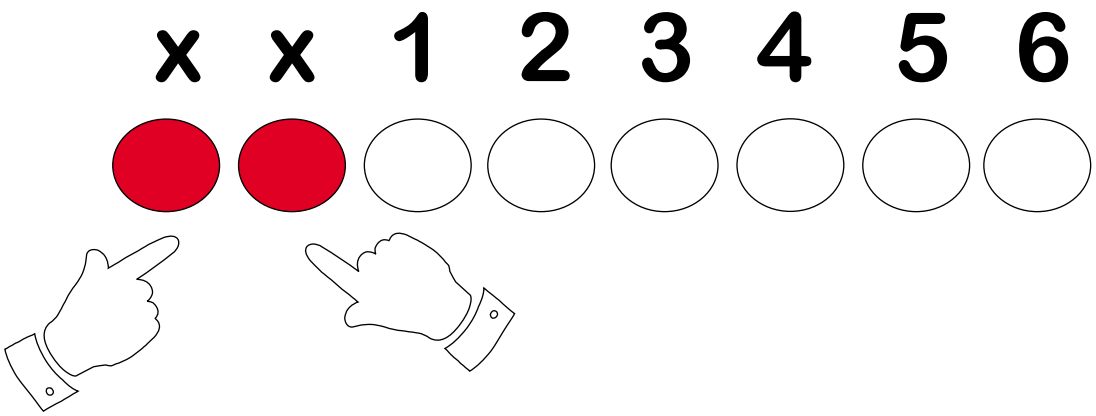


A SPECIAL NOTE CONCERNING PROGRAMMING THE 6 POINT CONTROLLER

Look closely at the programming sheet at the section on top where the programmers reference information is showing the RAM* address to program and the point positions.

The first two bits of the 6 point controller RAM are not used.

When you program the steps for the 6 point controller make sure that you leave the left most two bits blank.

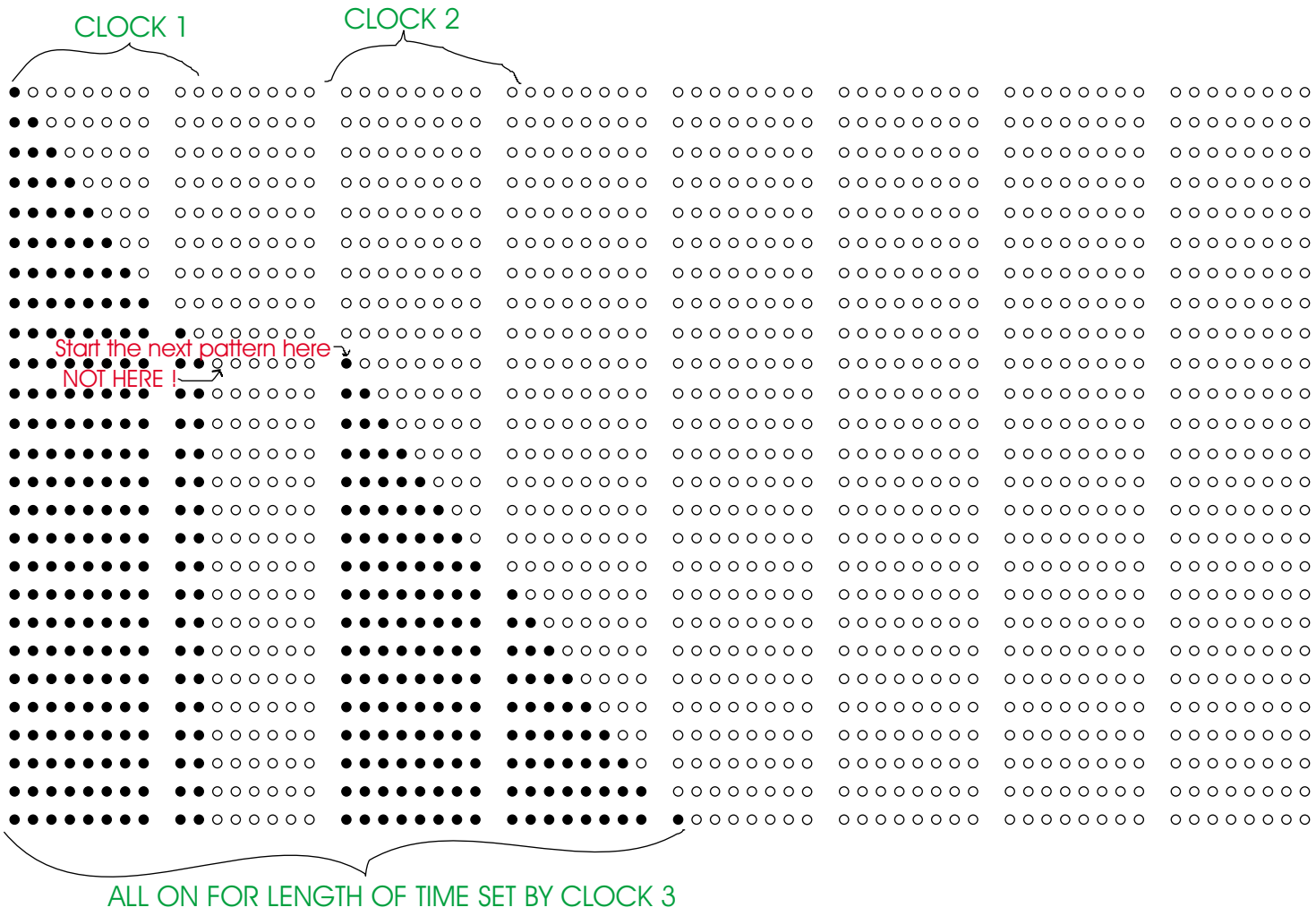


Don't use these two bits for the 6 point controller.

*RAM "Random Access Memory" inside the computer chip.

HOW TO MAKE THE PROGRAMMERS JOB EASIER

To start another pattern within the program sheet it is better to skip a couple of bits to the next 8 bit group instead of bunching the patterns together one after the other. This applies to the 32 and 64 point boards. The programmer programs in 8 bit bytes. To combine clock speeds across the same 8 bit byte is impossible.
If two clocks are needed across two different sections on the same line one of the patterns must be small.
Three clocks running at the same time at different points of the same line is almost impossible.
In the following example the first spell on pattern could scintillate with a different clock because only 6 steps are being repeated over and over while the second pattern spells on.
The first pattern could also be held on till the second pattern reaches the end then both patterns could be held on for a length of time set by a third clock.



SPECIAL PROGRAMMING NOTES

The output of one board can be linked to another board to tell this second board to start a pattern, stop a pattern, change a pattern or simply to reset the second board. All boards have a "Remote In" and a "Reset In" for this purpose.

A 6 point board can be used as a master clock to control a group of 64 point boards. There is a special program available that configures the 6 point board to first reset all boards then to clock the remote boards in sequence. The clocks on the 64 point boards are disabled to keep everything in step. Consult with the programmer about other special inter-board configurations.

Make copies of the programming sheets before giving them to the programmer. It may be necessary to consult over the phone.

If you have any questions or problems please call Alan Dorman at 702-631-3400
or fax your question to 702-631-3401.

Following is a standard program sheet. Keep it as a master and make copies.

ALDOR Electronic Services

PROGRAMMING WORK SHEET

PROJECT NAME________________________________ **SHT**____ **OF**____

PATTERN NAME________________________________ **DATE**___________

☐ ✓ Check the box of the board type this program is for

☐ 6 POINT CONTROLLER

```
Ram #  |__30H__||__30H__||__30H__||__30H__||__30H__||__30H__||__30H__||__30H__|
Point  xx123456 xx123456 xx123456 xx123456 xx123456 xx123456 xx123456 xx123456
```

☐ 32 POINT CONTROLLER

```
Ram #  |__30H__||__31H__||__32H__||__33H__||__30H__||__31H__||__32H__||__33H__|
                 1111111 11122222 22222333           1111111 11122222 22222333
Point  12345678 90123456 78901234 56789012 12345678 90123456 78901234 56789012
```

☐ 64 POINT CONTROLLER

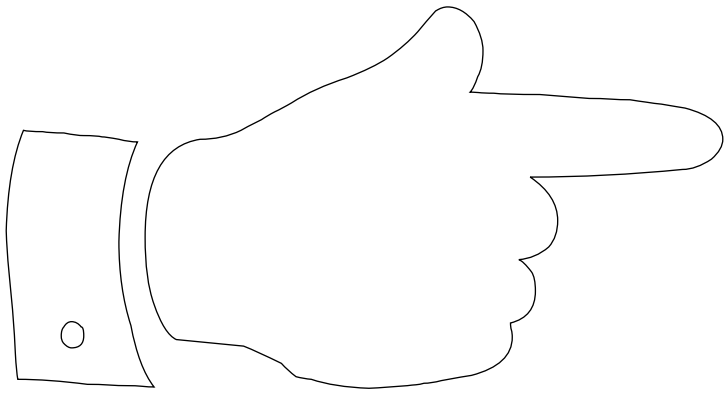
```
Ram #  |__30H__||__31H__||__32H__||__33H__||__34H__||__35H__||__36H__||__37H__|
                 1111111 11122222 22222333 33333334 44444444 45555555 55566666
Point  12345678 90123456 78901234 56789012 34567890 12345678 90123456 78901234
```

● = LAMP IS ON ○ = LAMP IS OFF

STEP#

```
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
_______ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ ○○○○○○○○
```

ON THE FOLLOWING 4 PAGES ARE SOME SAMPLES OF SOME COMMON PROGRAMMING SHEETS.
AS YOU CAN SEE THEY ARE LOGICAL AND EASY TO UNDERSTAND.



PROGRAMMING WORK SHEET

ALDOR Electronic Services

PROJECT NAME SAMPLE #1 SHT 1 OF 1

PATTERN NAME THE PROGRAMMER FILLS OUT THIS SPACE DATE 4-4-98

☑ Check the box of the board type this program is for

☐ **6 POINT CONTROLLER**

Ram #	30H	30H	30H	30H	30H	30H	30H	30H
Point	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456

☐ **32 POINT CONTROLLER**

Ram #	30H	31H	32H	33H	30H	31H	32H	33H
		1111111	11122222	22222333		1111111	11122222	22222333
Point	12345678	90123456	78901234	56789012	12345678	90123456	78901234	56789012

☑ **64 POINT CONTROLLER**

Ram #	30H	31H	32H	33H	34H	35H	36H	37H
		1111111	11122222	22222333	33333334	44444444	45555555	55566666
Point	12345678	90123456	78901234	56789012	34567890	12345678	90123456	78901234

● = LAMP IS ON ○ = LAMP IS OFF

PROGRAMMING WORK SHEET

ALDOR Electronic Services

PROJECT NAME SAMPLE #2 SHT 1 OF 2

PATTERN NAME THE PROGRAMMER FILLS OUT THIS SPACE DATE 4-4-98

☑ Check the box of the board type this program is for

☐ **6 POINT CONTROLLER**

Ram #	30H	30H	30H	30H	30H	30H	30H	30H
Point	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456

☐ **32 POINT CONTROLLER**

Ram #	30H	31H	32H	33H	30H	31H	32H	33H
		1111111	11122222	22222333		1111111	11122222	22222333
Point	12345678	90123456	78901234	56789012	12345678	90123456	78901234	56789012

☑ **64 POINT CONTROLLER**

Ram #	30H	31H	32H	33H	34H	35H	36H	37H
		1111111	11122222	22222333	33333334	44444444	45555555	55566666
Point	12345678	90123456	78901234	56789012	34567890	12345678	90123456	78901234

● = LAMP IS ON ○ = LAMP IS OFF

6 POINT SCINT SPEED SET BY CLK 3 / TIMES THROUGH SET BY DIP SWITCH

REPEAT ALL ON / OFF 10 TIMES

SPELL OFF TIME SET BY CLOCK 2

STEP#							
1	●●●○○●●	●●○○●●●●	○○●●●●○○	●●●○○●●	●●○○●●●●	○○●●●●○○	●●●○○●●	●●○○●●●●
2	○●●●●○○●	●●●○○●●●	●○○●●●●○	○●●●●○○●	●●●○○●●●	●○○●●●●○	○●●●●○○●	●●●○○●●●
3	○○●●●●○○	●●●●○○●●	●●○○●●●●	○○●●●●○○	●●●●○○●●	●●○○●●●●	○○●●●●○○	●●●●○○●●
4	●○○●●●●○	○●●●●○○●	●●●○○●●●	●○○●●●●○	○●●●●○○●	●●●○○●●●	●○○●●●●○	○●●●●○○●
5	●●○○●●●●	○○●●●●○○	●●●●○○●●	●●○○●●●●	○○●●●●○○	●●●●○○●●	●●○○●●●●	○○●●●●○○
6	●●●○○●●●	●○○●●●●○	○●●●●○○●	●●●○○●●●	●○○●●●●○	○●●●●○○●	●●●○○●●●	●○○●●●●○
7 ALL OFF	○○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○
8 ALL ON	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●
9	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●○	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●○
10	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●○○	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●○○
11	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●○○○	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●○○○
12	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●○○○○	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●○○○○
13	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●○○○○○	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●○○○○○
14	●●●●●●●●	●●●●●●●●	●●●●●●●●	●○○○○○○	●●●●●●●●	●●●●●●●●	●●●●●●●●	●○○○○○○
15	●●●●●●●●	●●●●●●●●	●●●●●●●●	○○○○○○○	●●●●●●●●	●●●●●●●●	●●●●●●●●	○○○○○○○
16	●●●●●●●●	●●●●●●●●	●●●●●●●●	○○○○○○○	●●●●●●●●	●●●●●●●●	●●●●●●●●	○○○○○○○
17	●●●●●●●●	●●●●●●●●	●●●●●●●○	○○○○○○○	●●●●●●●●	●●●●●●●●	●●●●●●●○	○○○○○○○
18	●●●●●●●●	●●●●●●●●	●●●●●●○○	○○○○○○○	●●●●●●●●	●●●●●●●●	●●●●●●○○	○○○○○○○
19	●●●●●●●●	●●●●●●●●	●●●●●○○○	○○○○○○○	●●●●●●●●	●●●●●●●●	●●●●●○○○	○○○○○○○
20	●●●●●●●●	●●●●●●●●	●●●●○○○○	○○○○○○○	●●●●●●●●	●●●●●●●●	●●●●○○○○	○○○○○○○
21	●●●●●●●●	●●●●●●●●	●●●○○○○○	○○○○○○○	●●●●●●●●	●●●●●●●●	●●●○○○○○	○○○○○○○
22	●●●●●●●●	●●●●●●●●	●●○○○○○○	○○○○○○○	●●●●●●●●	●●●●●●●●	●●○○○○○○	○○○○○○○
23	●●●●●●●●	●●●●●●●●	●○○○○○○○	○○○○○○○	●●●●●●●●	●●●●●●●●	●○○○○○○○	○○○○○○○
24	●●●●●●●●	●●●●●●●●	○○○○○○○○	○○○○○○○	●●●●●●●●	●●●●●●●●	○○○○○○○○	○○○○○○○
25	●●●●●●●●	●●●●●●●○	○○○○○○○○	○○○○○○○	●●●●●●●●	●●●●●●●○	○○○○○○○○	○○○○○○○
26	●●●●●●●●	●●●●●●○○	○○○○○○○○	○○○○○○○	●●●●●●●●	●●●●●●○○	○○○○○○○○	○○○○○○○
27	●●●●●●●●	●●●●●○○○	○○○○○○○○	○○○○○○○	●●●●●●●●	●●●●●○○○	○○○○○○○○	○○○○○○○
28	●●●●●●●●	●●●●○○○○	○○○○○○○○	○○○○○○○	●●●●●●●●	●●●●○○○○	○○○○○○○○	○○○○○○○
29	●●●●●●●●	●●○○○○○○	○○○○○○○○	○○○○○○○	●●●●●●●●	●●●○○○○○	○○○○○○○○	○○○○○○○
30	●●●●●●●●	●○○○○○○○	○○○○○○○○	○○○○○○○	●●●●●●●●	●●○○○○○○	○○○○○○○○	○○○○○○○
31	●●●●●●●●	○○○○○○○○	○○○○○○○○	○○○○○○○	●●●●●●●●	○○○○○○○○	○○○○○○○○	○○○○○○○
32	●●●●●●●○	○○○○○○○○	○○○○○○○○	○○○○○○○	●●●●●●●○	○○○○○○○○	○○○○○○○○	○○○○○○○
33	●●●●●●○○	○○○○○○○○	○○○○○○○○	○○○○○○○	●●●●●●○○	○○○○○○○○	○○○○○○○○	○○○○○○○
34	●●●●○○○	○○○○○○○○	○○○○○○○○	○○○○○○○	●●●●○○○	○○○○○○○○	○○○○○○○○	○○○○○○○

ALL OFF / ALL ON TIME = 5 SECONDS SET BY CLK 1

PROGRAMMING WORK SHEET

ALDOR Electronic Services

PROJECT NAME SAMPLE #2 SHT 2 OF 2

PATTERN NAME THE PROGRAMMER FILLS OUT THIS SPACE DATE 4-4-98

☑ Check the box of the board type this program is for

☐ **6 POINT CONTROLLER**

Ram #	30H	30H	30H	30H	30H	30H	30H	30H
Point	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456

☐ **32 POINT CONTROLLER**

Ram #	30H	31H	32H	33H	30H	31H	32H	33H
		1111111	11122222	22222333		1111111	11122222	22222333
Point	12345678	90123456	78901234	56789012	12345678	90123456	78901234	56789012

☑ **64 POINT CONTROLLER**

Ram #	30H	31H	32H	33H	34H	35H	36H	37H
		1111111	11122222	22222333	33333334	44444444	45555555	55566666
Point	12345678	90123456	78901234	56789012	34567890	12345678	90123456	78901234

● = LAMP IS ON ○ = LAMP IS OFF

STEP#								
35	●●●●○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	●●●●○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○
36	●●●○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	●●●○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○
37	●●○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	●●○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○
38	●○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	●○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○
39	○○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○	○○○○○○○○

ALL OFF 2 SECONDS THEN BACK TO STEP 1

ALTHOUGH NOT STATED CLOCK #1 WILL ALSO BE USED TO SET THIS OFF TIME. IT WILL BE PROGRAMMED AS A ONE SECOND LOOP REPEATED 2 AND 5 TIMES IN SOFTWARE TO MAKE THE PROPER DELAYS. IF THE 2 SECOND TIME IS SET THE 5 SECOND TIME WILL AUTOMATICALLY BE SET.

PROGRAMMING WORK SHEET

ALDOR Electronic Services

PROJECT NAME SAMPLE #3 SHT 1 OF 1

PATTERN NAME THE PROGRAMMER FILLS OUT THIS SPACE DATE 4-4-98

☑ Check the box of the board type this program is for

☐ **6 POINT CONTROLLER**

Ram #	30H	30H	30H	30H	30H	30H	30H	30H
Point	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456	xx123456

☑ **32 POINT CONTROLLER**

Ram #	30H	31H	32H	33H	30H	31H	32H	33H
		1111111	11122222	22222333		1111111	11122222	22222333
Point	12345678	90123456	78901234	56789012	12345678	90123456	78901234	56789012

☐ **64 POINT CONTROLLER**

Ram #	30H	31H	32H	33H	34H	35H	36H	37H
		1111111	11122222	22222333	33333334	44444444	45555555	55566666
Point	12345678	90123456	78901234	56789012	34567890	12345678	90123456	78901234

● = LAMP IS ON ○ = LAMP IS OFF

CLK #1 = REPEAT 3 POINT SCINT TILL STEPS 1 THRU 20 SPELL ON

SPELL ON RATE SET BY CLK 2

STEP#								
1	●			●●				
2	●●			●○●				
3	●●●			○●●○				
4	●●●●							
5	●●●●○							
6	●●●●●○							
7	●●●●●●○							
8	●●●●●●●							
9	●●●●●●●	●						
10	●●●●●●●	●●						
11	●●●●●●●	●●●						
12	●●●●●●●	●●●●						
13	●●●●●●●	●●●●○						
14	●●●●●●●	●●●●●○						
15	●●●●●●●	●●●●●●○						
16	●●●●●●●	●●●●●●●						
17	●●●●●●●	●●●●●●●	●					
18	●●●●●●●	●●●●●●●	●●					
19	●●●●●●●	●●●●●●●	●●●					
20	●●●●●●●	●●●●●●●	●●●●	●●●●●				
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

ON

OFF

CLK 3 = FLASH ON/OFF TILL REMOTE INPUT DETECTED

THEN BACK TO TOP