

# Starburst Instructions

Thanks for buying PBS Lighting's Starburst Professional controller. This computerized controller has over 60 pre-programmed lighting patterns that can be programmed in any combination and then played back for your lighting display. The speed of each pattern can be controlled and programmed into the controller during programming and fine tuned during playback as well. The number of outputs can be changed from ten to two outputs if desired and each output will handle 150 watts max (1.25 amps) and a max of 10 amps for the entire controller.

**Note:** Even though the Starburst has been manufactured with some moisture protection in place, the Starburst should not be considered waterproof. The controller should not be placed in standing water and be protected from rain and snow such as a waterproof enclosure.

**Note:** If you make a mistake in programming the patterns, you can reset the computer. To reset the computer, remove the power for 30 seconds. Reconnect the power and press and hold switch #3 for 10 seconds. There will be 4 light outputs (2, space, 2) on the outputs that will flash 5 times. The computer is reset to the factory spec's

## Connect 10 lights to the outputs

### To program the patterns

1. **Press and hold S2 for 7 seconds**, wait for half of the outputs to flash back and forth 5 times.
2. **Press S2 again** to move down the pre-programmed patterns. There are over 60 pre-programmed patterns stored in the computer. You can program as few as one pattern and as many as 30 patterns. **Pressing S2 will move you down** the patterns. As you move through the pre-programmed patterns, they will display on the lights connected to the outputs. In the middle of the pre-programmed pattern and the last pre-programmed pattern is a blank pattern to add a delay in any programmed sequences if desired.
3. **Press S3 to move up** the pre-programmed patterns.
4. **Adjust the speed** of the pattern being displayed for desired effect. As you adjust the dial, you will see the effect on the outputs. The Starburst Professional will also allow you to fine tune the speed after all the patterns are entered into the computer during play back. You will notice after you have entered all your sequences into the computer, that the speed is a little different on play back. This is normal. The computer just noticed the last setting of the speed control dial used during programming. Just adjust the speed control during play back to return to the speeds set when you programmed your sequences. This allows you to fine tune the speed of the sequences during play back.
5. **Press S1** to add the pattern to the computer. This selects the pattern to play and is played only **once** in your program and a single output will be lit and flash on the display to indicate how many times that the pattern will play once.
6. To **repeat** the number of times the pattern is played, **press S1 again up to 30 times**. The light outputs will show the number lights for the number of repeats for the pattern and the light outputs will blink. After the first 10 outputs are lit for the first 10 repeats, the light outputs will roll over and display the next set of 10 repeats and so on for a total of 30 repeats. Go to step 2 and repeat steps 2- 6 to add additional patterns to your program.
7. When you have all the patterns added to your program (30 patterns max), **Press and hold S2 for 7 seconds**, wait for the outputs to flash 3 times. Your chosen patterns are now stored in the computer and are ready for your display. The controller will start to play the sequences as programmed; it might take one or two seconds for the current playing pattern to clear and the new program to start.
8. There is one blank pattern at the end of the patterns collection. This allows a space to be added to the patterns being programmed.
9. If you made a mistake in programming, reset the computer (See Below) and start over.
10. **Whenever S2 is pressed** to enter programming mode, the current stored program of patterns will be cleared. If no pattern is selected, and S2 is pressed again to leave the programming mode, the system will reset to the factory settings in which all patterns stored in the computer will be shown 5 times and then move to the next pattern.

### To reset the computer

To reset the computer to the factory settings, **press and hold S3 for 10 seconds**. There will be 4 light outputs (2, space, 2) on the outputs that will flash 5 times. The computer will then return to a preset program of displaying all the pre-programmed patterns (over 60), repeating each pattern 3 times then going to the next pattern. You can change from the default factory program by following the steps in the "To program the patterns" section. If the Starburst doesn't seem to act correctly or freezes, disconnect the power supplies and reconnect in 30 seconds. This will reset the computer and return the computer to its last programmed sequenced stored.

**MAXIMUM CURRENT LOAD PER CHANNEL IS 150 Watts ( 1.25 amps)**

Light Type	Current Draw Per Light Set	Max # Per Output Channel
Mini-lights 50 light set	.2 amps	7 Strings
Mini-lights 100 light set	.35 amps	4 Strings
LED Mini-lights 70 light set	.05 amps	15 Strings

### Trouble Shooting

**Note:** You will need to connect ***both*** the black wall transformer power and the white male 120 AC plug for the controller to operate correctly. Do not connect to a dimmer switch or dim the controller's power supplies or it will damage the unit.

The light outputs of the controller will not come on:

Make sure that the wall transformer is connected. To the controller and the transformer is connected to a 120AC supply. Do not connect the transformer to a dimmer, this will damage the controller. It's ok to connect the controller to a timer to control when the display comes off and on.

The display light outputs of the controller are working, but the lights in the display are not working:

Check that you have the AC IN connected to a 120 AC power supply. **The fuse might be blown, replace the fuse with a 10 amp, slow blow, 5mm X 20mm fuse only. Any larger will damage the controller.**

### Programming

Pattern doesn't appear to change or freeze when programmed is finished. The current pattern needs to finish playing before the change will take place. This could take several seconds to happen because some patterns are long.

The patterns will look good with all ten output channels selected. As you reduce the number outputs selected, not all patterns will be available or look correct. It just means that the selected pattern / output combination looks odd. The unit is working correctly and all that is needed is to just select another program combination.

There is one blank pattern at the end of the patterns selections collection. This allows a space to be added to the patterns being played back.

To **repeat** the number of times a pattern is played more than 30 times, press S1, 10 times for the first set of 30 repeats (the outputs will show only 10 lights at a time). **Press S2 to add the program** into the computer, this will also advance to the next stored pattern. **Press S3** once to go back one pattern (to the one you just programmed) and **press S1** again for the additional **repeats**.

**Note:** Even though the Starburst has been manufactured with some moisture protection in place, the Starburst should not be considered waterproof. The controller should not be placed in standing water and be protected from rain and snow such as a waterproof enclosure.

**Note:** If you connect too many lights to the controller, the fuse will blow. If this happens, reduce the number of lights connected to the controller and replace the fuse. Always replace the fuse with a 5mm X 20mm, 10 amp, slow blow fuse. Any larger fuse will damage the controller. Always disconnect the controller from all power sources when replacing the fuse.