

K30 Operating Instructions

Overview

The K30 from TecNiq Inc. is an emergency flasher which relies on a SYNC signal to coordinate the flash pattern between two or more connected lights. To evaluate the K30s, please connect two lights as shown below in Figure 1.

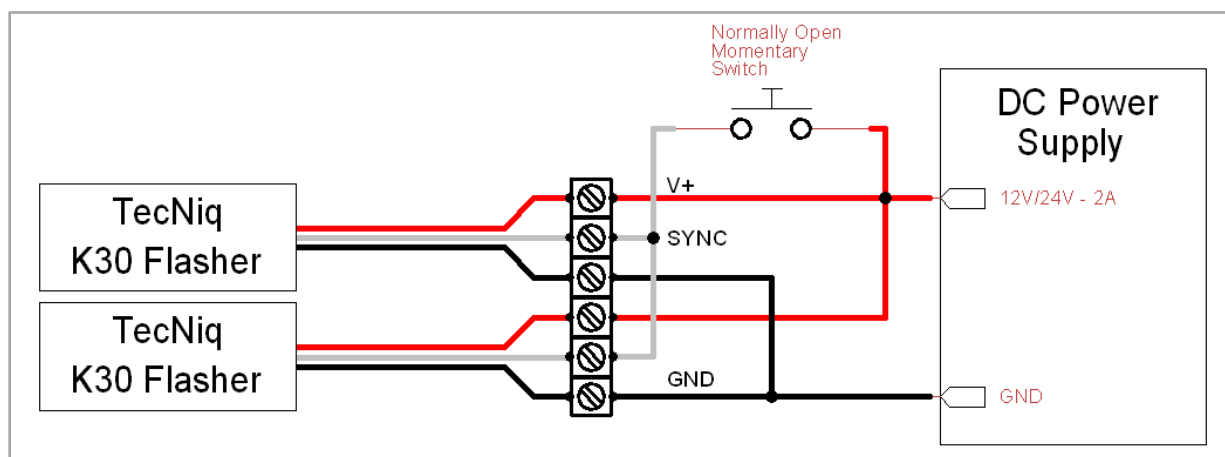


Figure 1 – K30 Connection Diagram

The K30 can run from a 12 VDC or 24 VDC power supply and can consume up to 1.7 A when flashing at 12 VDC, so ensure the power supply can provide adequate amperage.

The SYNC line can also be used to select new flash patterns and change the flash mode from Normal Mode to Wig-Wag Mode. The following sections provide more details on the different modes.

- Flash Pattern Selection: How to change the flash pattern
- Wig-Wag Mode Selection: How to toggle Wig-Wag Mode
- Flash Patterns: List of available flash patterns
- Flash Modes: Explanation of Normal Mode and Wig-Wag Mode
- Operating Modes: Describes how the SYNC line is used for changing modes
- Confirmation Flashes: Shows the difference between the confirmation flashes

K30 Operating Instructions

Flash Pattern Selection

To select a different flash pattern, please follow the procedure listed below.

- Power the K30 using an adequate supply
- Press and hold the SYNC line to V+ for at least 2 seconds
- The K30 will display one of the confirmation flashes as shown in Figure 3 to indicate it is entering the Flash Pattern Selection mode
- The confirmation flash is dependent on whether the light is currently in Normal Mode or Wig-Wag Mode
- By default, the current flash pattern will remain selected as the first flash pattern choice
- Each successive press of the SYNC line to V+ will increment the pattern through those listed in Table 1, always starting with flash pattern 1
- To select the current flash pattern and exit the flash pattern selection mode, do not press the SYNC line to V+ for approximately 6 seconds
- The K30 will display the same confirmation flash listed above, indicating that the flash pattern has been selected
- The K30 will start flashing with the selected flash pattern
- The newly selected flash pattern will persist through a power cycle

Wig-Wag Mode Selection

To place a K30 into Wig-Wag mode, please follow the procedure listed below.

- Power the K30 using an adequate supply
- Press and hold the SYNC line to V+ for at least 2 seconds
- The K30 will display the Normal Mode confirmation flash as shown in Figure 3
- Release the SYNC Line from V+ and the K30 is now in Flash Pattern Selection Mode
- Press and hold the SYNC line to V+ for at least 2 seconds
- The K30 will display the Wig-Wag Mode confirmation flash as shown in Figure 3
- The K30 is now in Wig-Wag Mode, and will be out of phase with a light in Normal Mode
- After entering Wig-Wag Mode, the K30 will remain in Flash Pattern Selection Mode, so each successive press of the SYNC line to V+ will increment the flash pattern
- To exit the Flash Pattern Selection Mode, do not press the SYNC line to V+ for approximately 6 seconds
- The K30 will display the Wig-Wag Mode confirmation flash, indicating that the flash pattern has been selected and it is in Wig-Wag Mode

K30 Operating Instructions

Wig-Wag Mode Selection – Continued

- The K30 will start flashing with the selected flash pattern in Wig-Wag Mode
- The newly mode will persist through a power cycle
- Follow the same procedure to put the light back into Normal Mode

Flash Patterns

The following flash patterns are available in the prototype demonstration software.

Pattern	Name	Flashes per Minute
1	Single Flash	75
2	Double Flash	75
3	Triple Flash	75
4	Quad Flash	75
5	Single Flash	150
6	Double Flash	150
7	Triple Flash	150
8	Quad Flash	150
9	Active Flash	75
10	Nova Flash	75
11	Power Flash	75
12	Power Flash	150
13	Dual Bright	75
14	Ramp Flash	75
15	Ramp Flash	150
16	Action Ramp	75/150

Table 1 – Available K30 Flash Patterns

K30 Operating Instructions

Flash Modes

The K30 comes in single color and dual color models and each light will synchronize with other lights based on its current mode. Table 2, shown below, demonstrates how two lights will synchronize based on their colors and selected mode assuming Flash Pattern 1 has been selected. A single color light will also synchronize with a dual color light.

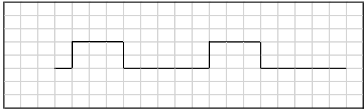
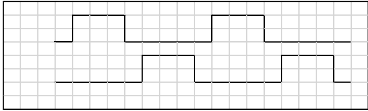
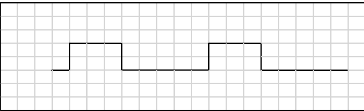
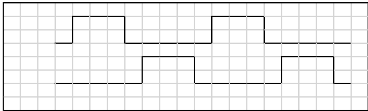
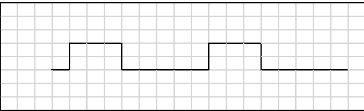
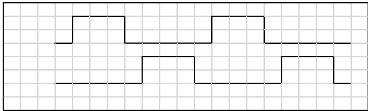
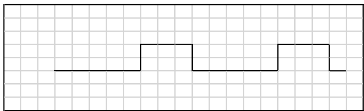
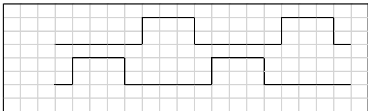
	Single Color	Dual Color
Normal Mode (Both Lights)	 Light 1	 Light 1 – Colors 1 and 2
	 Light 2	 Light 2 – Colors 1 and 2
Wig-Wag Mode (Only Light 2)	 Light 1	 Light 1 – Colors 1 and 2
	 Light 2	 Light 2 – Colors 1 and 2

Table 2 – Synchronization of Different Flash Modes

K30 Operating Instructions

Confirmation Flashes

Figure 3 illustrates the difference in the confirmation flash between Normal Mode and Wig-Wag mode – not drawn to scale. The confirmation flash can be seen when entering or exiting the Flash Pattern Selection Mode, or when the Wig-Wag Mode is changed. The different confirmation flashes allow the user to tell whether the light is in Normal Mode or Wig-Wag Mode independently of other K30s.

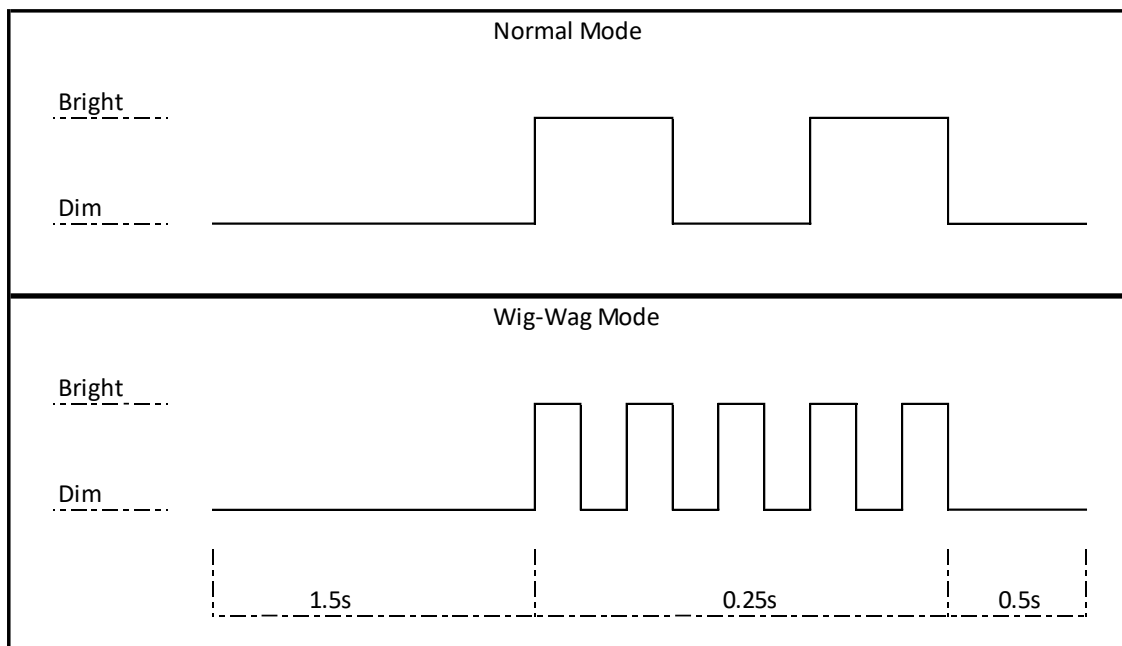


Figure 3 – Differences in Confirmation Flashes between Normal Mode and Wig-Wag Mode