TL70 Programmable Audible Tower Light Module

BANNER ®
more sensors, more solutions

Datasheet
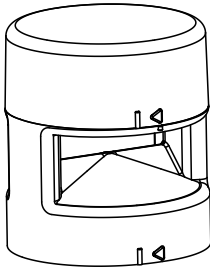
- Install a MP3 or WAV file, up to 130 seconds in length
- Continuous sound file playback
- Flash memory can be re-programmed multiple times
- Simple to use Windows® [1] interface

Models

TL70 Segment Housing		Audible Alarm	Housing Color
SG-TL70	–	AP - Programmable Audible	Blank - Black C - Gray

For example, SG-TL70-AP (Programmable audible in black housing).

For more information regarding TL70 Modular Tower Light Final Assemblies, refer to the following documents:

- TL70 Modular Tower Light Final Assembly Datasheet (p/n 182214)
- TL70 Wireless Modular Tower Light Datasheet (p/n 185469)
- TL70 Universal AC Voltage Modular Tower Light Datasheet (p/n 191349)

⚠️ **WARNING: Risk of Hearing Loss— All effective warning horns produce loud sounds that may cause, in certain situations, permanent hearing loss.** The device should be installed far enough away from potential listeners to limit their exposure while still maintaining its effectiveness. Reference OSHA Code of Federal Regulations 1910.95 Noise Standard for guidelines that may be used regarding permissible noise exposure levels.

Configure the DIP Switches

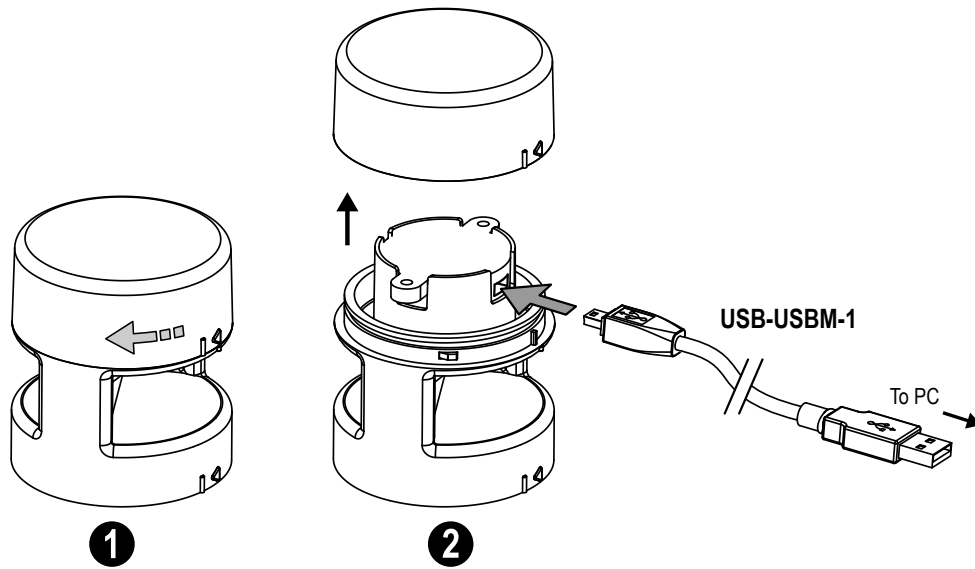DIP Switch 1 (SW1)

ON
1 2 3 4 5 6 7 8
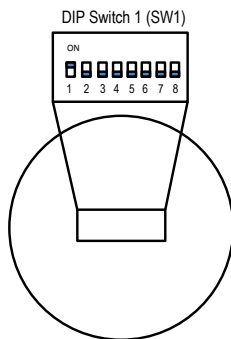
Input channel select–Use switch positions 1 through 6 on SW1, to select the channel that would be used to operate the audible module. Switch positions 7 and 8 are not used.

---

[1] Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.

Programming the Audible Tower Module

To prepare for programming the audible module, download the Banner Audio GUI from *www.bannerengineering.com*. Save the program to the desired location on your computer.

> **Note:** During programming, external power must be removed from the audible module.

To program the module:

1. Remove the module top cover by rotating counterclockwise.
2. Connect programming cable (USB-USBM-1) from computer USB connection, to USB mini connection of the audible module.
3. Select Banner Audio GUI on your computer. Select "Add File" on the GUI, to choose the desired MP3 or WAV file, then select "Open".
4. Select "Write" to program the desired file. You will receive a message "Write Success", when the new audible file has been installed.
5. Remove the cable from the audible module, and re-install the top cover, by aligning the protruding alignment marks, and turning clockwise.
6. The audible module is now ready for use.

For additional information, see the Programming Instructions file which is part of the Banner Audio GUI installation. Compatible with Windows 2000, XP, Vista, Windows 7 and 8.

Specifications

Supply Voltage and Current
B-TL70 (DC Base): 12 V dc to 30 V dc

Maximum current:
250 mA at 12 V dc
110 mA at 30 V dc

B-TL70-Z (Universal AC Voltage Base): 100 V ac to 240 V ac; 50/60 Hz

Maximum current:
65 mA at 120 V ac and 60 Hz
45 mA at 230 V ac and 50 Hz

Supply Protection Circuitry
Protected against transient voltages

Environmental Rating
IEC IP50

Operating Conditions
-20 °C to +50 °C (-4 °F to + 122 °F)
95% at +50 °C maximum relative humidity (non-condensing)

Construction
Audible segments and covers–polycarbonate

Vibration and Mechanical Shock
Vibration 10 Hz to 55 Hz 0.5 mm p·p amplitude per IEC 60068-2-6
Shock 15G 11 ms duration, half sine wave per IEC 60068-2-27

Alarm
Maximum intensity (typical) at 2.5 KHz:
85 dB at 1 meter

Frequency range: 100 Hz to 6 KHz. Continuous tones of 2 KHz and above, may sound distorted due to sampling rate
Sampling rate: 12 KHz
Maximum file length: 130 seconds
Flash memory: Only 1 file can be stored in the memory, for playback. Module is able to be re-programmed multiple times, with new files for playback.
Repeating continuous file playback; Restarts if power is removed, then reapplied
**Pre-installed file:** 2.5 KHz steady tone
For programming use cable USB-USBM-1 or comparable USB to USB mini cable
Volume adjustment: The volume of a MP3 or WAV file, can be modified to change the sound intensity, over a limited range. Although Banner does not promote or publicize any particular audio software, we have found that Audacity can be easily used to modify existing audio files. Audacity is free, open source audio software, available for downloading, at the following web address: *http://www.audacityteam.org/*.

Certifications

CE   c(UL)us LISTED

Dimensions

70 mm Dia
[2.76"]

79.6 mm
[3.13"]
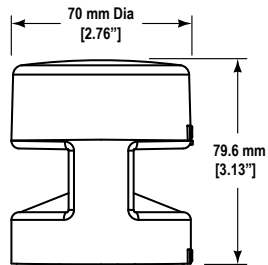
Banner Engineering Corp. Limited Warranty

Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AND WHETHER ARISING UNDER COURSE OF PERFORMANCE, COURSE OF DEALING OR TRADE USAGE.

This Warranty is exclusive and limited to repair or, at the discretion of Banner Engineering Corp., replacement. **IN NO EVENT SHALL BANNER ENGINEERING CORP. BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR ANY EXTRA COSTS, EXPENSES, LOSSES, LOSS OF PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY PRODUCT DEFECT OR FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER ARISING IN CONTRACT OR WARRANTY, STATUTE, TORT, STRICT LIABILITY, NEGLIGENCE, OR OTHERWISE.**

Banner Engineering Corp. reserves the right to change, modify or improve the design of the product without assuming any obligations or liabilities relating to any product previously manufactured by Banner Engineering Corp. Any misuse, abuse, or improper application or installation of this product or use of the product for personal protection applications when the product is identified as not intended for such purposes will void the product warranty. Any modifications to this product without prior express approval by Banner Engineering Corp will void the product warranties. All specifications published in this document are subject to change; Banner reserves the right to modify product specifications or update documentation at any time. Specifications and product information in English supersede that which is provided in any other language. For the most recent version of any documentation, refer to: *www.bannerengineering.com*.

For patent information, see *www.bannerengineering.com/patents*.

more sensors, more solutions