



**MODEL: LST100 - 100 W TRANSFORMERS**  
 INPUT: 120 VAC, 1 A MAX, OUTPUT: 12, 13 OR 14 VAC, 100 W

**MODEL: LST300 - 300 VA TRANSFORMERS**  
 INPUT: 120 VAC, 3 A MAX, OUTPUT: 12, 13 OR 14 VAC, 300 VA

## Installation Operation and Service Manual

Instruction for models: LST100/LST300 Transformers

### IMPORTANT SAFETY INSTRUCTIONS

#### READ, FOLLOW, AND UNDERSTAND ALL INSTRUCTIONS AND WARNINGS

#### **WARNING - RISK OF FIRE OR ELECTRICAL SHOCK**

- Special wiring methods are needed if the installation requires running wire through a building structure.
- Do Not submerge transformer.
- Do Not exceed the maximum ratings of individual components, wiring devices, and current carrying capacity of conductors.
- Select cable for each secondary output in accordance with tables in this manual.
- Select power source by combining bulb wattage.
- For landscape lighting appliances, low voltage cable shall be buried a maximum of 6 inches (15.2 cm) in order to connect to the main low voltage cable.
- Installation shall be done by a qualified professional according to all state, local, and national electrical codes.

#### GENERAL INFORMATION

These safety transformers were created to provide 12 volts to pool/spa lights, submersible fixtures, outdoor garden lights. In the event of a fault or overload, the built-in circuit can cut power to the transformer. These transformers are designed for direct connection to underwater lights in pools and spas.

#### SPECIFICATIONS

**Enclosure Size:** 7¼" (19.4 cm) high x 5¼" (13.3 cm) wide x 4½" (11.4 cm) deep. Mounting brackets top and bottom.

**Enclosure Type:** LST100 and LST300 - 0.048" corrosion resistant steel with electrostatically applied paint.

**Knockouts:** Total of ten ½" - ¾" combination. (4) bottom, (2) right side, (2) left side, (2) back.

#### LANDSCAPE LIGHTING APPLICATIONS

Use only CSA or UL certified low-voltage cable. Low voltage cable shall be buried a maximum of 6" (15.2 cm) in order to connect to the main low voltage cable.

#### POOL/SPA UNDERWATER LIGHTING APPLICATION

*For field wiring information, please refer to the instructions attached to inside of front cover.*

#### INSTALLATION:

- Make sure that all unused taps (leads) are separately insulated.
- Use the Transformer Cable-Voltage Selection Charts as a guide to determine the correct wire size.
- The voltage at lamp terminals after installation should be 12 ± 0.3 VAC.
- Voltages above 12.3 VAC at the light may cause the internal safety fuse of the transformer to switch off and on. To prevent this from happening, follow the Transformer Cable-Voltage Selection Charts for correct voltage and wire gauge selection.

1. Select power source by combining bulb wattage.
2. Determine length of cable run(s).
3. Determine wire gauge needed to deliver necessary power.
4. Connect cable to output tap of transformer given in table.

Transformer Wattage (W)	Minimum Gauge AWG
300	12
100	16



**MODEL: LST100 - 100 W TRANSFORMERS**  
 INPUT: 120 VAC, 1 A MAX, OUTPUT: 12, 13 OR 14 VAC, 100 W

**MODEL: LST300 - 300 VA TRANSFORMERS**  
 INPUT: 120 VAC, 3 A MAX, OUTPUT: 12, 13 OR 14 VAC, 300 VA

## Transformer Cable-Voltage Selection Charts

For Model: LST100/LST300 Transformers

Transformer Cable - Voltage Selection Chart						
Length of Cable	100 W Transformer					
10 ft	13 V	12 V	12 V	12 V	12 V	12 V
25 ft	13 V	13 V	12 V	12 V	12 V	12 V
50 ft	14 V	13 V	13 V	12 V	12 V	12 V
75 ft		14 V	13 V	13 V	12 V	12 V
100 ft			13 V	13 V	13 V	12 V
125 ft			14 V	13 V	13 V	12 V
150 ft			14 V	13 V	13 V	13 V
175 ft			14 V	14 V	13 V	13 V
200 ft				14 V	13 V	13 V
250 ft				14 V	13 V	13 V
Wire Gauge (AWG)	#16*	#14	#12	#10	#8	#6

\* Minimum Gauge Cable

\*\* Blank fields indicate conditions not suited for wiring

Transformer Cable - Voltage Selection Chart				
Length of Cable	300 VA Transformer			
10 ft	12 V	12 V	12 V	12 V
25 ft	13 V	13 V	12 V	12 V
50 ft	14 V	13 V	13 V	12 V
75 ft		14 V	13 V	13 V
100 ft			13 V	13 V
125 ft			14 V	13 V
150 ft			14 V	13 V
175 ft			14 V	14 V
200 ft				14 V
250 ft				14 V
Wire Gauge (AWG)	#12*	#10	#8	#6

\* Minimum Gauge Cable

\*\* Blank fields indicate conditions not suited for wiring