

## Model: PX100 and PX100S - 100 Watt Transformers

INPUT: 120 V.AC, OUTPUT: 12 V.AC or 13 V.AC

## Model: PX300 and PX300S - 300 Watt Transformers

INPUT: 120 V.AC, OUTPUT: 12 V.AC, 13 V.AC or 14 V.AC

### IMPORTANT SAFETY INSTRUCTIONS

When installing and operating this Product and other associated equipment, basic safety precautions should always be followed, including the following:

1. Read and follow all instructions.
2. Do not submerge transformer.
3. Do not connect two or more transformers in parallel or use with dimmers.
4. This transformer must be installed by a qualified electrician, according to the National Electrical Code (including article 680) or Canadian Electrical Code (including section 68) and, local code requirements. For Canadian installations, supply circuit must be protected by a ground fault circuit interrupter.
5. If transformer is used for direct connection of underwater lights, refer to NEC 680-21(b) or CEC 68-060,062 AND 066 for further details.
6. Do not install this equipment within 5 feet (3 meters for Canadian installations) of any body of water. USE COPPER CONDUCTORS ONLY.
7. Do not exceed the maximum ratings of individual components, wiring devices, and current carrying capacity of conductors.
8. For grounding and bonding this transformer and the installation, refer to section 680 of the National Electrical Code or section 68 of the Canadian Electrical Code.

**READ, FOLLOW AND SAVE THIS INSTRUCTION MANUAL**

### GENERAL INFORMATION

These Safety Transformers are specifically designed to supply 12 volts to pool/spa lights, submersible fixtures and outdoor garden lights. A grounded shield between the primary and secondary windings assures safe operation and the built-in circuit protection will disconnect power to the transformer in case of defect or overload. These transformers are suitable for direct connection to underwater Pool and Spa lights.

#### SPECIFICATIONS

**Enclosure Size:** 7 1/4" (19.4 cm) high x 5 1/4" (13.3 cm) wide x 4 1/2" (11.4 cm) deep. Mounting brackets top and bottom.

**Enclosure Type:** (A) 0.048" corrosion resistant steel with electrostatically applied beige coating. (B) 0.036" stainless steel.

**Knockouts:** Total of ten 1/2"-3/4" combination. (4) bottom, (2) right side, (2) left side, (2) back.

Model	Input 60 Hz.	Secondary Output		Enclosure Type
		Lamp Watts*	Volts	
PX100	120V. 1 Amp Max.	100 Max.	12 or 13	A
PX100S	120V. 1 Amp Max.	100 Max.	12 or 13	B
PX300	120V. 3 Amp Max.	300 Max.	12, 13 or 14	A
PX300S	120V. 3 Amp Max.	300 Max.	12, 13 or 14	B

\* Any combination of bulbs, any tap.



# INSTALLATION

## Pool/Spa Underwater Lighting Application

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

- The enclosure of the transformer must be provided with a fail-proof ground as required by NEC, Article 680 and any applicable local codes For Canadian installations, the supply circuit must be protected by a ground fault circuit interrupter.
- For direct wiring of underwater lights, the installation must comply with article 680-21(b) of the National Electrical Code, or articles 68-060, 062 and 066 of the Canadian Electric Code.
- The transformer should be mounted at least 1 foot above the deck level with the field wiring compartment down.
- Make sure that all unused taps (leads) are separately insulated.
- Use the following tables as a guide to determine the correct wire size.
- Check voltage at lamp terminals after installation. It should be  $12 \pm 0.3$  volts.

### 120 Volt Primary Input - 100 Watt Output

Distance* Feet	2#6AWG	2#8AWG	2#10AWG	2#12AWG	2#14AWG
5 Ft.	12V	12V	12V	12V	12V
30 Ft.	12V	12V	12V	13V	13V
60 Ft.	12V	12V	13V	13V	
90 Ft.	12V	13V	13V		
120 Ft.	13V	13V			
150 Ft.	13V	13V			
180 Ft.	13V				
210 Ft.	13V				
240 Ft.	13V				

\* Length of run to light from transformer.

### 120 Volt Primary Input - 300 Watt Output

Distance* Feet	2#6AWG	2#8AWG	2#10AWG	2#12AWG
5 Ft.	12V	12V	12V	12V
10 Ft.	12V	12V	12V	13V
20 Ft.	12V	12V	13V	13V
30 Ft.	12V	13V	13V	14V
40 Ft.	13V	13V	14V	
50 Ft.	13V	13V	14V	
60 Ft.	13V	14V		
70 Ft.	13V	14V		
80 Ft.	13V	14V		
90 Ft.	14V			
100 Ft.	14V			
110 Ft.	14V			

\* Length of run to light from transformer.

## LANDSCAPE LIGHTING APPLICATIONS

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

Using the correct gauge cable and wattage is essential to obtaining proper lighting performance. Use this chart to determine the minimum gauge cable to be used depending on the total lamp wattage for your light plan. Determine the total lamp wattage by adding together all the individual lamp wattage's being used. Do not exceed the maximum wattage rating for the transformer. Route low voltage cable to desired fixture locations. Hide cable as desired, only after entire installation is completed and lighting effect is achieved.

SERIES	TOTAL LAMP WATTAGE	RECOMMENDED GAUGE CABLE for up to 100 Ft. run*
PX300	201-300	12
PX300S	157-200	14 - 12
	121-156	16 - 14 - 12
	0-120	18 - 16 - 14 - 12
PX100	0-100	18 - 16 - 14 - 12
PX100S		

\* For runs between 100 to 150 ft. long, increase cable size by one gauge.

## WARRANTY

If this product fails due to a defect in material or workmanship, Intermatic Incorporated will repair or replace it free of charge.

Models PX100 and PX300 - within one (1) year from date of installation

Models PX100S and PX300S transformers - within ten (10) years from date of installation; enclosure - the life of the product.

The warranty does not cover labor for removal or reinstallation and does not apply to: (a) damage caused by accident, abuse, mishandling, or dropping; (b) a unit which has been subject to unauthorized repair; (c) units not used in accordance with directions; (d) damages exceeding the cost of the product. Some states do not allow a limitation of damages so the foregoing warranty may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

This warranty service is available, if the defective product or its defective component is returned with proof of purchase and date of installation, either (a) to the dealer from whom the unit was purchased or (b) by shipping prepaid to the Intermatic Service Center, Intermatic Incorporated, Intermatic Plaza, Spring Grove IL 60081-9698

*Because of our commitment to continuing research and improvements, Intermatic Incorporated reserves the right to make changes, without notice, in the specifications and material contained herein and shall not be responsible for any damages, direct or consequential, caused by reliance on the material presented.*

**INTERMATIC INCORPORATED, SPRING GROVE, IL 60081-9698**

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