

TORK®

POOL/SPA CONTROLS



MAY 2009

NSi

A DIVISION OF NSI INDUSTRIES, LLC

MECHANICAL TIME SWITCH FEATURES

P SERIES 24 HOUR TIME SWITCH

QUICK INSTALL/RELEASE LEVER

for easy installation and removal when installing into pool panels

REAL TIME SWITCH FACE

easy to set and check time

LOAD INDICATOR LAMP

CAPTIVE TRIPPERS

15 minute intervals; no lost trippers

CONVENIENT EXTERNAL ROCKER SWITCH

3 position switch:

- Timer/Auto
- OFF/Standby
- ON

To close down the pool without affecting the time settings, move the rocker switch to OFF, it is that simple!

ID LABELING

silkscreened labeling clearly displays time switch ratings as well as terminal identification for easy field installation



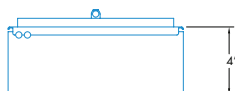
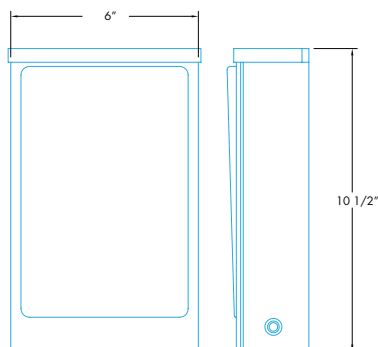
POOL/SPA PANELS WITH TIME SWITCHES



TOTAL FLEXIBILITY: YOUR WAY!

These and the panels on the following pages come with factory installed time switches as specified, speeding up your installation!

- **NEMA 3R POOL/SPA PANEL WITH 24 HOUR MECHANICAL TIME SWITCH(ES) INSTALLED**
- **INSIDE WIRING COMPARTMENT WITH PROVISION FOR 2 WHILE-IN-USE WIRING DEVICES**
- **REMOVABLE AND REVERSIBLE SIDE OPENING DOOR**
- **2 CIRCUIT, 20AMP LOAD CENTER FOR SUPPLEMENTAL 120V CIRCUIT/CONVENIENCE OUTLET**



DIMENSIONS



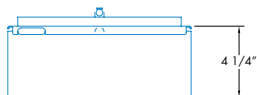
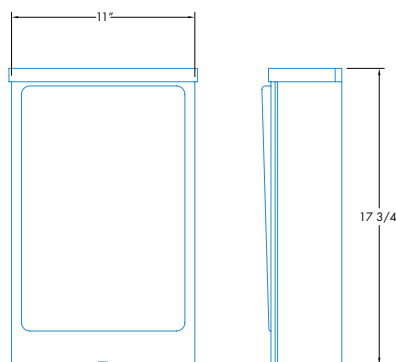
CATALOG NO	UPC CODE	TIME SWITCH	CLOCK INPUT	CONTACTS	RATINGS
PP-20R-P4	53001	P1104-M	240V	DPST, NO	40A, 7.5HP@240V
PP-20R-2P4	53003	P1104-2M	240V	DPST, NO	40A, 5HP@240V

100 AMP POOL/SPA PANELS WITH TIME SWITCHES



NEMA 3R POOL/SPA PANELS WITH 24 HOUR MECHANICAL TIME SWITCH(ES) INSTALLED AND:

- 100A, 120/240V LOAD CENTER WITH 5/10 BREAKER BASE
- REMOVABLE AND REVERSIBLE SIDE OPENING DOOR
- INSIDE WIRING COMPARTMENT WITH PROVISION FOR 2 WHILE-IN-USE WIRING DEVICES
- PROVISION FOR 2 GANG SUPPLEMENTAL DEVICE PLATES



DIMENSIONS



PP-100R-P4

CATALOG NO	UPC CODE	TIME SWITCH 1	CLOCK INPUT	FIREMAN'S SWITCH	CONTACTS	RATINGS	TIME SWITCH 2	CLOCK INPUT	CONTACTS	RATINGS
PP-100R-P4	53004	P1104-M	240V	NO	DPST, NO	40A, 7.5HP@240V				
PP100R-P4P1	53005	P1104-M	240V	NO	DPST, NO	40A, 7.5HP@240V	P1101-M	120V	DPST, NO	40A, 3HP@120V
PP100R-2P4	53006	P1104-M	240V	NO	DPST, NO	40A, 7.5HP@240V	P1104-M	240V	DPST, NO	40A, 7.5HP@240V
PP-100R-P4P4FM	53009	P1104-M	240V	YES	DPST, NO	40A, 7.5HP@240V	P1104FM-M	240V	DPST, NO	40A, 7.5HP@240V
PP-100R-F2F4FM	94034	PPF1102-M	240V	YES	DPST, NO	40A, 7.5HP@240V	P1104FM-M	240V	DPST, NO	40A, 7.5HP@240V



Panel with Freeze Protection

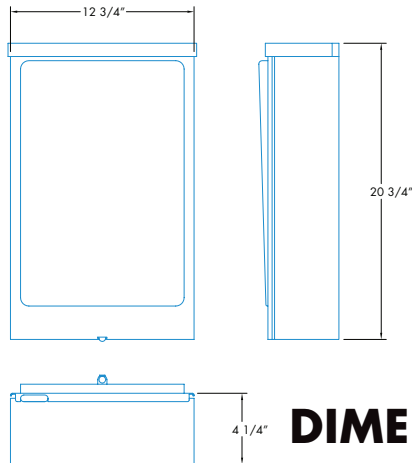
One or more of the following patents apply: 6.753.485, 6.791.039, 6.827.230B1, 6.930.268. Additional Patents pending.

120 AMP POOL/SPA PANELS WITH TIME SWITCHES



NEMA 3R POOL/SPA PANELS WITH 24 HOUR MECHANICAL TIME SWITCH(ES) INSTALLED AND:

- 120A, 120/240V LOAD CENTER WITH 8/16 BREAKER BASE
- REMOVABLE AND REVERSIBLE SIDE OPENING DOOR
- INSIDE WIRING COMPARTMENT WITH PROVISION FOR 2 WHILE-IN-USE WIRING DEVICES
- PROVISION FOR 2 GANG SUPPLEMENTAL DEVICE PLATES



DIMENSIONS



PP-125R-P4



PP125R-2P4

CATALOG NO	UPC CODE	TIME SWITCH 1	CLOCK INPUT	CONTACTS	RATINGS	TIME SWITCH 2	CLOCK INPUT	CONTACTS	RATINGS
PP-125R-P4	53007	P1104-M	240V	DPST, NO	40A, 7.5HP@240V				
PP-125R-2P4	53008	P1104-M	240V	DPST, NO	40A, 7.5HP@240V	P1104-M	240V	DPST, NO	40A, 7.5HP@240V

120 AMP POOL/SPA PANELS WITH TIME SWITCH AND LV TRANSFORMER



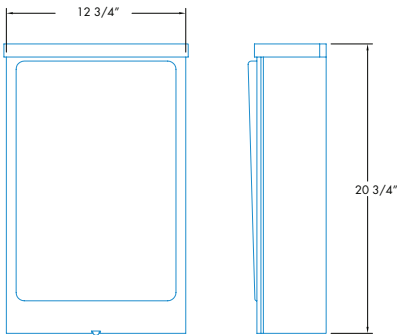
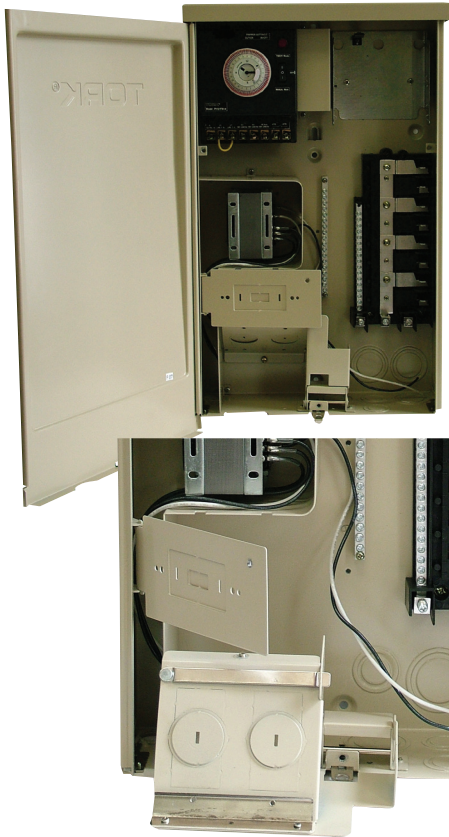
LIGHTING REQUIREMENTS?

These panels come with factory installed time switches and a 100W or 300W transformer for pool lighting.

NEMA 3R 120 AMP POOL/SPA PANELS WITH 24 HOUR MECHANICAL TIME SWITCH(ES) INSTALLED AND TRANSFORMER, PLUS:

- 120A LOAD CENTER WITH 8/16 BREAKER BASE
- REMOVABLE AND REVERSIBLE SIDE OPENING DOOR
- INSIDE WIRING COMPARTMENT WITH PROVISION FOR 2 WHILE-IN-USE WIRING DEVICES
- PROVISION FOR 2 GANG SUPPLEMENTAL DEVICE PLATES

PP-125R-P4-100X



DIMENSIONS

CATALOG NO	UPC CODE	TIME SWITCH 1	CLOCK INPUT	CONTACTS	RATINGS	TRANSFORMER	RATINGS	LV NIPPLE
PP-125R-P4-100X	94018	P1104-M	240V	DPST, NO	40A, 7.5HP@240V	100W	120V/ 12V, 13V INSTALLED	SUPPLIED
PP-125R-P4-300X	94019	P1104-M	240V	DPST, NO	40A, 7.5HP@240V	300W	120V/ 12V, 13V, 14V INSTALLED	SUPPLIED

One or more of the following patents apply: 6.753.485, 6.791.039, 6.827.230B1, 6.930.268. Additional Patents pending.

2 CIRCUIT POOL TIME SWITCHES WITH WHILE-IN-USE GFCI OUTLETS



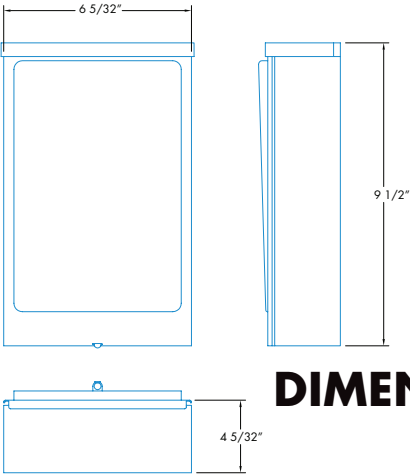
These NEMA 3R outdoor while-in-use enclosures feature a time-controlled GFCI outlet as well as always ON GFCI outlet. The time switch can be either mechanical or digital depending on your preference. Ideal for small pools.



PP-10R-M-GFCI



PP-10R-E-GFCI



DIMENSIONS

CATALOG NO	UPC CODE	TIME SWITCH	GFCI SINGLE OUTLET	RATINGS	GFCI OUTLET	RATINGS
PP-10R-M-GFCI	53010	MECHANICAL	TIMED	15A, ½HP @120V, GFCI protected	ALWAYS ON	15A, 120V
PP-10R-E-GFCI	53011	DIGITAL	TIMED	15A, ½HP @120V, GFCI protected	ALWAYS ON	15A, 120V

TIME SWITCH MECHANISMS

P SERIES MECHANICAL TIME SWITCH

Mechanical time switches are effective and economical. The captive trippers are very easy to set, allowing for intervals as low as every 15 minutes. Best of all, they can't be lost! Additionally, these time switches are provided with an external manual/OFF/timer rocker switch and a load indicator light. The authentic clock face makes setting the time switch easy. All PF models offer freeze protection with the addition of the Thermostat accessory device (PFPT).



CATALOG NO	UPC CODE	DESCRIPTION	CLOCK INPUT	CONTACT RATINGS	HP RATING
P1101-M	10056	24 Hour Mechanical time switch	DPST, 2NO	40A Resistive/Inductive	3HP@120V
P1104-M	10057	24 Hour Mechanical time switch	DPST, 2NO	40A Resistive/Inductive	7.5HP@240V
PF1101-M*	94020	24 Hour Mechanical time switch	DPST, NO	40A Resistive/Inductive	3HP@120V
PF1104-M*	94021	24 Hour Mechanical time switch	DPST, NO	40A Resistive/Inductive	7.5HP@240V
PFPT	94028	Thermostat Accessory Device: 33-42°F, 120-240V. +/- 2° tolerance, 5° differential for freeze protection capability.*			

P SERIES MECHANICAL TIME SWITCH WITH FIREMAN SWITCH (HEATER CUTOFF)

All the same features as our standard time switches (above) with an additional switch which will turn off the pool heater before shutting the pool pump (Fireman Switch).

CATALOG NO	UPC CODE	DESCRIPTION	CLOCK INPUT	CONTACT RATINGS	HP RATING	FIREMAN'S SWITCH	FIREMAN'S SWITCH RATING
P1101FM-M	10060	24 Hour Mechanical time switch	DPST, NO	40A Resistive/Inductive	3HP@120V	YES	SPST, 15A@120V
P1104FM-M	10061	24 Hour Mechanical time switch	DPST, NO	40A Resistive/Inductive	7.5HP@240V	YES	SPST, 15A@120V
PF1101FM-M*	94024	24 Hour Mechanical time switch	DPST, NO	40A Resistive/Inductive	3HP@120V	YES	SPST, 15A@120V
PF1104FM-M*	94025	24 Hour Mechanical time switch	DPST, NO	40A Resistive/Inductive	7.5HP@240V	YES	SPST, 15A@120V
PFPT	94028	Thermostat Accessory Device: 33-42°F, 120-240V. +/- 2° tolerance, 5° differential for freeze protection capability.*					

P SERIES DIGITAL TIME SWITCH

Digital time switches provide ultimate flexibility and reliability. It offers 24 hour programming as well as 7 day programming, and can be programmed 7 different ways. Battery backup protects programs. Time switches are DPST (2 NO) and have an additional NC contact.



CATALOG NO	UPC CODE	DESCRIPTION	CLOCK INPUT	CONTACT RATINGS	HP RATING
PEW101-M	82432	7 DAY Digital time switch	DPST, 2NO	40A Resistive/Inductive	3HP@120V
PEW104-M	82442	7 DAY Digital time switch	DPST, 2NO	40A Resistive/Inductive	7.5HP@240V
PFEW101-M*	94029	7 DAY Digital time switch	DPST, 2NO	40A Resistive/Inductive	3HP@120V
PFEW104-M*	94030	7 DAY Digital time switch	DPST, 2NO	40A Resistive/Inductive	7.5HP@240V
PFPT	94028	Thermostat Accessory Device: 33-42°F, 120-240V. +/- 2° tolerance, 5° differential for freeze protection capability.*			



*PFPT note: voltage, current & HP ratings are based on the ratings of the time switch mechanism PFPT is installed with.

FREEZE PROTECTION CONTROLS WITH & WITHOUT TIME SWITCH MECHANISMS

Freeze protection controls are designed to provide protection to the pool/spa equipment and plumbing against freezing weather conditions. These mechanisms can be used with our complete line of pool and spa control panels. A variety of models are available to help the installer find the right freeze protection for the application.



FREEZE PROTECTION THERMOSTAT MECHANISMS

CATALOG NO	UPC CODE	DESCRIPTION	THERMOSTAT RANGE	CONTACT RATINGS	HP RATING
PFP2-M	94026	Freeze protection thermostat only	33 to 42°F	40A@240V	7.5HP
PFP3-M*	94027	Freeze protection thermostat only	33 to 42°F	40A@120/240V*	3HP@120V, 7.5HP@240V

*Neutral must be installed. Thermostat: +/- 2° tolerance, 5° differential. Can be installed in conjunction with P Series and 1100 Series.
For use with other TORK time switch models, consult factory.



FREEZE PROTECTION THERMOSTAT MECHANISMS WITH 24 HOUR MECHANICAL TIME SWITCHES

CATALOG NO	UPC CODE	DESCRIPTION	THERMOSTAT RANGE	CONTACT RATINGS	HP RATING
PFP1102-M	94022	Freeze protection thermostat and 24 hour mechanical time switch: DPST, NO	33 to 42°F	40A@240V	7.5HP
PFP1103-M*	94023	Freeze protection thermostat and 24 hour mechanical time switch: DPST, NO	33 to 42°F	40A@120/240V*	3HP@120V, 7.5HP@240V

*Neutral must be installed. Thermostat: +/- 2° tolerance, 5° differential. Can be installed in conjunction with P Series and 1100 Series.
For use with other TORK time switch models, consult factory.



FREEZE PROTECTION THERMOSTAT MECHANISMS WITH 7 DAY DIGITAL TIME SWITCHES

CATALOG NO	UPC CODE	DESCRIPTION	THERMOSTAT RANGE	CONTACT RATINGS	HP RATING
PFPEW1102-M	94031	Freeze protection thermostat and 7 day digital time switch: DPST, NO	33 to 42°F	40A@240V	7.5HP
PFPEW1103-M	94032	Freeze protection thermostat and 7 day digital time switch: DPST, NO	33 to 42°F	40A@120/240V*	3HP@120V, 7.5HP@240V

*Neutral must be installed. Thermostat: +/- 2° tolerance, 5° differential. Can be installed in conjunction with P Series and 1100 Series.
For use with other TORK time switch models, consult factory.

FREEZE PROTECTION CONTROLS IN NEMA 3R ENCLOSURES

For stand-alone Freeze Protection applications requiring a separate outdoor raintight enclosure. Enclosures include our Easy-Hinge patented Removable & Reversible Door for easy, customized solutions. Can be installed in conjunction with P Series and 1100 Series time switch mechanisms. **For use with other TORK time switch models, consult factory.**

FREEZE PROTECTION THERMOSTAT MECHANISMS INSTALLED IN NEMA 3R ENCLOSURE

CATALOG NO	UPC CODE	DESCRIPTION	THERMOSTAT RANGE	CONTACT RATINGS	HP RATING
PFP2	94035	Freeze protection mechanism installed in NEMA 3R Outdoor Enclosure	33 to 42°F	40A@240V	7.5HP
PFP3*	94036	Freeze protection mechanism installed in NEMA 3R Outdoor Enclosure	33 to 42°F	40A@120/240V*	3HP@120V, 7.5HP@240V

*Neutral must be installed. Thermostat: +/- 2° tolerance, 5° differential. Can be installed in conjunction with P and 1100 Series. **For use with other TORK time switch models, consult factory.**



FREEZE PROTECTION THERMOSTAT MECHANISMS WITH 24 HOUR MECHANICAL TIME SWITCHES INSTALLED IN NEMA 3R ENCLOSURE

CATALOG NO	UPC CODE	DESCRIPTION	THERMOSTAT RANGE	CONTACT RATINGS	HP RATING
PFP1102	94037	Freeze protection thermostat and 24 hour mechanical time switch: DPST, NO installed in NEMA 3R Outdoor Enclosure	33 to 42°F	40A@240V	7.5HP
PFP1103*	94038	Freeze protection thermostat and 24 hour mechanical time switch: DPST, NO installed in NEMA 3R Outdoor Enclosure	33 to 42°F	40A@120/240V*	3HP@120V, 7.5HP@240V

*Neutral must be installed. Thermostat: +/- 2° tolerance, 5° differential. Can be installed in conjunction with P and 1100 Series. **For use with other TORK time switch models, consult factory.**



FREEZE PROTECTION THERMOSTAT MECHANISMS WITH 7 DAY DIGITAL TIME SWITCHES INSTALLED IN NEMA 3R ENCLOSURE

CATALOG NO	UPC CODE	DESCRIPTION	THERMOSTAT RANGE	CONTACT RATINGS	HP RATING
PFPEW1102	94039	Freeze protection thermostat and 7 day digital time switch: DPST, NO installed in NEMA 3R Outdoor Enclosure	33 to 42°F	40A@240V	7.5HP
PFPEW1103*	94040	Freeze protection thermostat and 7 day digital time switch: DPST, NO installed in NEMA 3R Outdoor Enclosure	33 to 42°F	40A@120/240V*	3HP@120V, 7.5HP@240V

*Neutral must be installed. Thermostat: +/- 2° tolerance, 5° differential. Can be installed in conjunction with P and 1100 Series. **For use with other TORK time switch models, consult factory.**

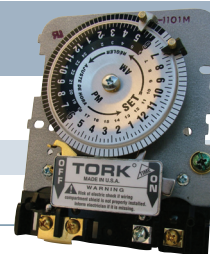


TIME SWITCH MECHANISMS

1100 SERIES ELECTROMECHANICAL TIME SWITCHES

All pool/spa panels accept conventional electromechanical time switch mechanisms with IAP adapter plate.
For more information on the 1100 Series, see page 6 of our Electromechanical Catalog, or online at www.tork.com.

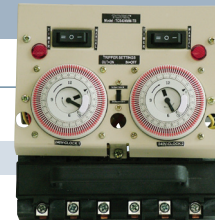
CATALOG NO	UPC CODE	DESCRIPTION
1101M	10022	24 Hour Dial, SPST, NO, 40A Resistive & General Purpose, 20A Inductive, 2HP@120V*
1103M	10023	24 Hour Dial, DPST, NO, 40A Resistive & General Purpose, 20A Inductive, 2HP@120V*
1104M	10024	24 Hour Dial, DPST, NO, 40A Resistive & General Purpose, 20A Inductive, 5HP@240V*
WITH FIREMAN SWITCH		
1101 FM M	10025	Same as 1101M above, complete with fireman switch (heater cutoff): SPST, 24V, 760VA*
1104 FM M	10026	Same as 1101M above, complete with fireman switch (heater cutoff): SPST, 24V, 760VA*
ADAPTER PLATE		
IAP	95031	Adapter Plate to mount 1100 Series time switches into pool/spa panels



*Freeze Protection Option: Order Freeze Protection Thermostat Mechanism Models PFP2-M or PFP3-M

ACCESSORIES & REPLACEMENT PARTS

CATALOG NO	UPC CODE	DESCRIPTION
The following time switches are for REPLACEMENT ONLY in models PP-20R-2P1 and PP-20R-2P4. These cannot be installed in PP-20R, PP-20R-P1, or PP-20R-P4		
P1101-2M	10058	(2) 24 Hour Mechanical time switches, each DPST, NO: 40A Resistive/Inductive per pole, 2HP@120V
P1104-2M	10059	(2) 24 Hour Mechanical time switches, each DPST, NO: 40A Resistive/Inductive per pole, 5HP@240V



ACCESSORIES		
PFPT	94028	Thermostat Accessory Device: 33-42°F, 120-240V. +/- 2° tolerance, 5° differential. note: voltage, current & HP ratings are based on the ratings of the time switch mechanism PFPT is installed with.
WP-1GA	10062	Angular Single Gang (While-in-Use) Device Plate for models PP100R and for PP125R without transformer
IAP	95031	Adapter Plate to mount 1100 Series time switches into pool/spa panels

PFPT FREEZE PROTECTION THERMOSTAT ACCESSORY DEVICE FOR USE WITH STANDARD TIME SWITCH MECHANISMS

Device can be utilized in conjunction with TORK PF models only. It is installed into pool panel device plates in a similar way to any other wiring device. Ordering information above.



TRANSFORMERS & POOL JUNCTION BOXES

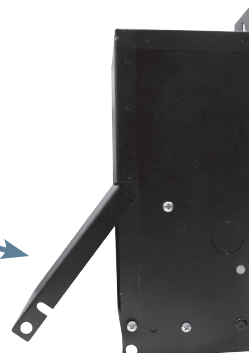
LOW VOLTAGE POOL & SPA TRANSFORMERS

Engineered for lighting applications such as pool/spa lighting, fountain lighting and outdoor landscape lighting. Supplies 12 volts with built-in circuit protection which disconnects power to the transformer in the event of overload. Grounded shield between primary and secondary windings. Enclosures are NEMA 3R and are available in stainless steel or steel with electrostatically applied finish; mounting brackets top and bottom.

APPLICATIONS:

- Pool and Spa Lighting
- Fountain Lighting
- Outdoor Landscape Lighting

EASY-OPEN DOOR slides open for easy installation, wire leads included. Door slides over captive screw to lock.



SHOWN: T100
Black Steel Enclosure

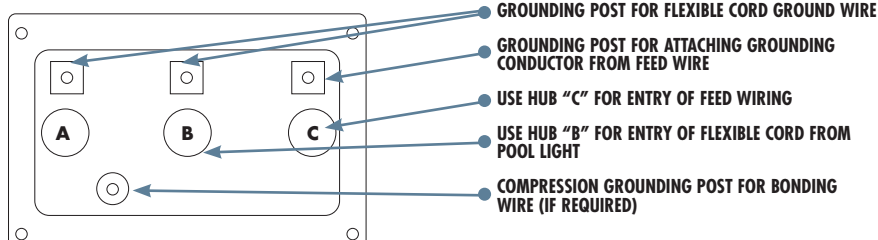
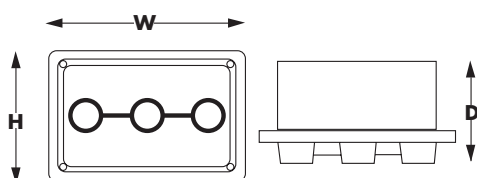
CATALOG NO	UPC CODE	DESCRIPTION	DIMENSIONS H x W x D	INPUT	OUTPUT	SHIPPING WEIGHT (LBS)
TP100	00000	100 Watt Transformer in Black Steel Enclosure	8.82 x 4.25 x 4.14	120V, 1 AMP	12 or 13V	9
TP100S	00000	100 Watt Transformer in Stainless Steel Enclosure	8.82 x 4.25 x 4.14	120V, 1 AMP	12 or 13V	9
TP300	00000	300 Watt Transformer in Black Steel Enclosure	8.82 x 4.25 x 4.14	120V, 3 AMP	12, 13, 14 or 15V	10.5
TP300S	00000	300 Watt Transformer in Stainless Steel Enclosure	8.82 x 4.25 x 4.14	120V, 3 AMP	12, 13, 14 or 15V	10.5
TP600	00000	600 Watt Transformer in Black Steel Enclosure	9.57 x 6.0 x 5.14	120V, 6 AMP	12, 13, 14 or 15V	19
TP600S	00000	600 Watt Transformer in Stainless Steel Enclosure	9.57 x 6.0 x 5.14	120V, 6 AMP	12, 13, 14 or 15V	19

POOL & SPA JUNCTION BOXES

For installation of underwater pool lights, our junction boxes are for low voltage connections below pool water level. Solid brass wiring platform with grounding post and three ground terminals for use with metallic or PVC conduit. Meets NEC, UL and CSA Standards.



CATALOG NO	UPC CODE	DESCRIPTION	DIMENSIONS W x H x D	NPF CONDUIT HUB A, B, C	PIPE SIZE	SHIPPING WEIGHT (LBS)
PB-50	94041	Pool Junction Box	5 3/8" X 3 11/16" X 3 3/16"	1/2, 1/2, 1/2	1/2"	1.5
PB-75	94042	Pool Junction Box	5 3/8" X 3 11/16" X 3 3/16"	3/4, 3/4, 3/4	3/4"	1.5
PB-100	94043	Pool Junction Box	5 3/8" X 3 11/16" X 3 3/16"	3/4, 1, 3/4	3/4" & 1"	1.5



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TERMS OF SALE

TORK VENDOR NUMBER: 786261

1. Prices are F.O.B. our plant.
2. Prices do not include any sales tax.
3. Freight charges will be prepaid on all orders \$250.00 and over shipping within continental USA using standard shipping methods and service.
4. Minimum order – \$100.00.
5. Claims for shortage, erroneous charges or price corrections shall be deemed waived unless made in writing, delivered to NSi within 30 days of invoice.
6. Terms of payment – 2% 10th prox. net 25th following.
7. Warranties – NSi guarantees all products to be free of defects in material and workmanship for a period of 1 year from date of sale. Any claims for defective material must be agreed to in writing by NSi. Defective material will be replaced on an F.O.B. – our factory basis. NSi disclaims the implied warranty of fitness for a particular application.

OTHER PRODUCTS AVAILABLE

NSi can provide many other products for special applications which are not listed in this catalog. If you require an item which you do not find listed, please contact us. We would be pleased to provide a quotation upon receipt of a drawing or a sample.

GUARANTEE

It is our goal to provide extraordinary products and services on a daily basis. If our products or service do not meet with your satisfaction, please let us know immediately and we promise to make every reasonable effort to remedy the situation.

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