





***Please read this manual thoroughly before use.
Retain this manual for future reference.***

Taikan Pole Mount Power Supply Owner's Manual

This manual is intended for use by purchasers of Taikan's PSP series of power supplies and their qualified technicians. This document is the property of Taikan Company Inc. ("Taikan") and embodies proprietary subject matter.

All design, manufacture, reproduction, use and sale rights regarding these products are expressly reserved.

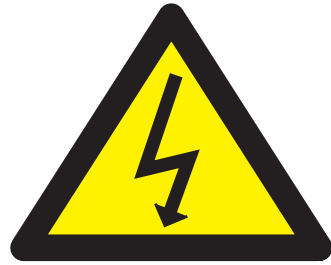
This manual may not be reproduced without written consent from Taikan.

All copyright, patent and trade secrets for this manual and product are expressly reserved by Taikan. Specifications are also subject to change without notice.

TABLE OF CONTENTS

| | |
|---------------------------------------|-----------|
| Preface | |
| Safety Precautions | 03 |
| Introduction | 04 |
| Product Summary | |
| Operational Theory | |
| Standard Features | |
| Installation | 06 |
| Installation Notes | |
| Configuration | 07 |
| Input Configuration | |
| Output Configuration | |
| Final Notes | |
| Troubleshooting | 08 |
| Nominal Specifications | |
| Return & Warranty Policies | 09 |
| Product Return Procedure | |
| Standard Taikan Product Warranty | |

SAFETY PRECAUTIONS



Note:

The power supply carries high voltages.
Be extremely cautious during operation.



Please be cognizant of all safety guidelines and
adhere to the recommendations listed.

- > Read the user manual carefully before proceeding with any part of the installation.
- > Installation and operation of the product must be performed only by qualified personnel and always in accordance with applicable electrical codes.
- > Always use proper lifting techniques whenever handling this product to avoid injury.
- > Do NOT connect the AC inlet while servicing the product or installing the product.
- > Always wear insulating gloves and face shield whenever working with the product.
- > The product must be well grounded before proceeding with installation or operation. Failure to do so can cause electrical shock.
- > The product should be placed vertically during installation and operation so as to disperse the heat generated by the product.
- > Installation must be firm and reliable to prevent falling from the pole.
- > Product must be ventilated and away from flammable explosive and corrosive material.
- > Wiring of the product and connection of output ports must be firm and reliable. Poor connection of products may cause a fire.
- > Verify the input voltage of the product and then give the product correct input voltage **BEFORE** powering it on.
- > If any parts need to be replaced notify a Taikan representative at support@taikan.com
- > Unauthorized alteration or inappropriate repair is **NOT** allowed and may cause irreparable damage to product. Taikan does not assume any responsibility for these modifications.

SECTION ONE // INTRODUCTION



PRODUCT SUMMARY

PSP-xxW-xx (a non-standby power supply) provides conditioned power to a signal amplifier for cable television and broadband distribution systems.

The transformer is directly mounted to the chassis and supplies the load with current limited, fully regulated AC power that is free from disturbances caused by spikes, surges and other forms of power line transients.

Once the AC power enters the transformer, it is converted into a quasi-square wave and regulated at the required output voltage. PSP-xxW-xx is designed to be mounted on either a pole or a wall.

OPERATION THEORY

PSP-xxW-xx contains a ferroresonant transformer, resonant capacitor, an input switch & input/output connections. The transformer that the PSP-xxW-xx utilizes is a ferroresonant design, which features constant and fully regulated output voltage, and offers stable performance and high reliability.

Primary and secondary windings of the transformer are physically isolated from each other by a steel core which effectively reduces the capacitive coupling of spikes and noise to the secondary winding. The resonant capacitor is connected to the secondary winding of the transformer forming a tank circuit.

The advantage of this type of transformer/capacitor design is the ability of the transformer to regulate its output voltage over a wide range of input voltages and output loading. This is advantageous in cable television applications since active devices are protected from dangerous voltage fluctuations.

STANDARD FEATURES

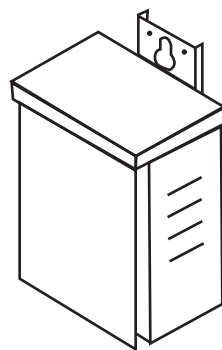
- Constant voltage ferroresonant transformer
- Complete line conditioning
- Fully regulated, clean, and reliable output power
- Input and output protections
- Short circuit protection
- Automatic restart upon removal of short circuit
- User selectable output voltages
- 5/8" female connection
- Durable LED indicator
- Durable anodized aluminum housing
- Pole and wall mount installations
- *Optional: Time delay relay (TDR)*

SECTION TWO // INSTALLATION

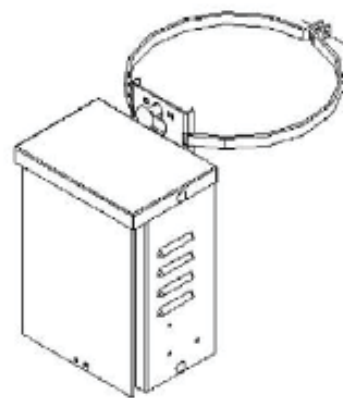
INSTALLATION NOTES

- > Installation of the product must be performed only by qualified personnel.
- > Strictly follow the installation directions.
- > Installation of the product must be firm and reliable so as to prevent falling from the installation location. Failure to do so can damage the product and may injure passers-by under the product. Taikan does **NOT** assume any responsibility for the installation.

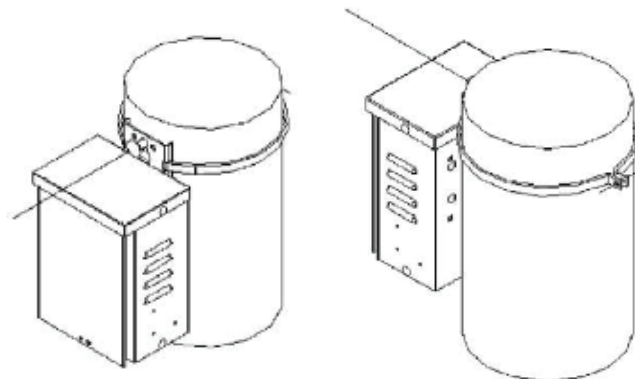
- 1 The package should contain the following:
- > Pole mount power supply



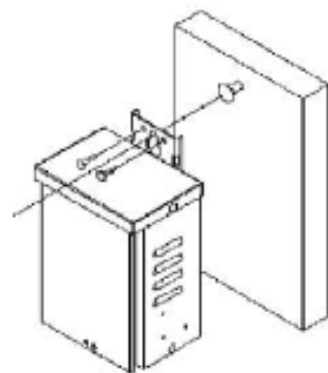
- 2 Use a metal strap or hook to hang the pole mount power supply.



- 3 Securely fasten the power supply with a hook or metal fasteners.



- 4 Alternatively, secure the power supply with two screws and a bolt that may already be on the pole.



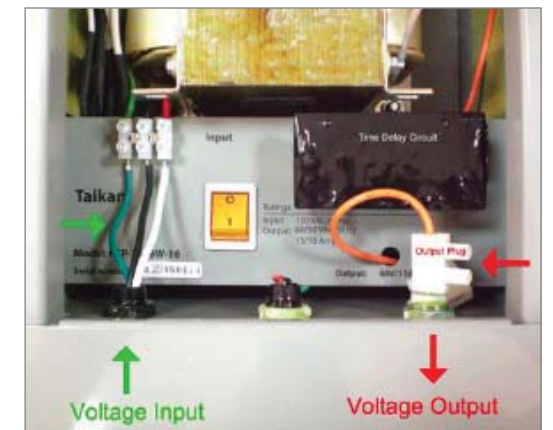
SECTION THREE // CONFIGURATION

INPUT CONFIGURATION

Note: IN/OUT configuration must be performed only by qualified personnel

PSP-xxW-xx is equipped with a three-pin terminal block for utility power connection. The terminal block is placed inside the housing of the product. Properly connect the utility power to the power supply through the terminal block: “black” for live wire, “red” for null wire, and “green” for ground wire. **Note: The product must be grounded.**

NOTE TO CATV SYSTEM INSTALLERS: This reminder is provided to call your attention to NEC Articles 810- 21, 820-22, and 820-40 that provide guidelines for proper grounding. In particular, these articles specify that the cable ground shall be connected to the building grounding system, as close to the point of cable entry as practical.



OUTPUT CONFIGURATION

Output connections of PSP-xxW-xx attach a 5/8” female pin connector.

- > Coaxial Cable Connection

1. Connect the 5/8” female pin connector to the housing.
2. Fix the cable with 5/8” female by proper cable connector.
3. To obtain 60VAC output, connect the output plug to the pin connector.

Note: Make sure the connection is firm and reliable.

Note: Before starting to rewire, the product must be turned OFF and the utility power must be removed from the product.

FINAL NOTES

Once the connections and configurations are complete, start-up the power supply and then the test may begin. Before starting the test, all loads must be removed from the products.

1. Verify the power requirements of the product.
2. Use a multimeter to measure the output voltage of the product. The regulation of the output voltage is 5%.
3. If there is no output, please refer to the **Troubleshooting** Section.

SECTION FOUR // TROUBLESHOOTING

TROUBLESHOOTING

The table below is designed to provide possible solutions for power supplies with no output. By following the solutions in the table, the user can repair the products in the field. In the event that a component of the product needs to be replaced, please contact your Taikan representative at support@taikan.com for product recommendations. Improper replacements may damage the product or even the loads.

| SYMPTOMS | PROBABLE CAUSES | SOLUTION |
|-------------|---|---|
| > No Output | <ul style="list-style-type: none"> > Utility power failure > Broken fuse > Poor connection at pin terminal > Poor connection at 5/8" female connector | <ul style="list-style-type: none"> > Verify utility power in the line > Replace the broken fuse > Please refer to IN/OUT configuration > Verify the connection and make the connection again. |

NOMINAL SPECIFICATIONS

| Model Number | Standard Carton | Dimensions | Carton Weight |
|--------------|-----------------|--|----------------|
| PSP-xxW-xx-x | 1 pc | 24.5 x 17 x 33.5 cm / 9.6 x 6.7 x 13.2 in. | 18 kg / 40 lbs |

| Features | PSP-660W-xx-x | PSP-960W-xx-x | PSP-1260W-xx-x | PSP-1560W-xx-x | PSP-1569W-xx- |
|---------------------------|--|---------------|----------------|----------------|---------------|
| Output Power | X | | | | |
| Output Current | 360 W | 540 W | 720 W | 900 W | 900 W |
| Output Voltage | 6 A | 9 A | 12 A | 15 A | 15 A / 10 A |
| Output Waveform | 60 V | | | | 60 V / 90 V |
| Input Power Supply | Quasi-Square Wave | | | | |
| Input Frequency | 110 V ± 20% or (220 V ± 20%) | | | | |
| Input Power Factor | 50 or 60 Hz (± 3%) | | | | |
| Protection | 0.90 at Full Load | | | | |
| | Short Circuit Protection // Overload Current Limit // Start-up Output Delay // Output Surge Protection | | | | |
| | -40 °C ~ 55 °C (-40 °F ~ 131 °F) | | | | |

SECTION FIVE // RETURN & WARRANTY

PRODUCT RETURN PROCEDURE

If you need to return the product for repair, please follow these steps:

1. Contact a Taikan Representative at support@taikan.com to obtain a Return Authorization Number
2. When returning the product for repair include the following information:
 - > Return Authorization Number
 - > Model Number
 - > Serial Number
 - > Reason for Return
3. Prior to repairing the device, Taikan will inform you about the test results and/or any additional repair charges that may apply. Once we have received your confirmation we will proceed with the repair.
4. The repair period will depend on the severity of the problem.
5. After it is returned, the product will still be under its original warranty. The repair component(s) is under warranty for 90 days after you have received the repaired product. (see below)

STANDARD TAIKAN PRODUCT WARRANTY

Taikan provides a limited one year Warranty ("Warranty") to original purchaser on its product against manufacturing defect and workmanship under normal use and service. During the Warranty period Taikan will repair or replace the product to correct defects in material and workmanship.

This Warranty shall not apply to a product which has been altered in any way so as to affect its stability or durability, nor which has been subject to misuse or negligence. This Warranty does not cover a product which has been damaged by severe weather conditions such as extreme wind, ice, storms, lightning, or other natural weather conditions over which Taikan has no control.

Claimants under this Warranty shall present their claim along with the defective product to Taikan. Non-compliance with any part of this claim procedure may invalidate this Warranty in whole or part.

This Warranty is expressly in lieu of all other agreements and warranties, expressed or implied. Taikan does not authorize any person to assume for it the obligations contained in this warranty and neither assumes nor authorizes any representative or other person to assume for it any other liabilities in connection with the product delivered or provided.

In no event shall Taikan be liable for any loss of profits, loss of use, interruption of business, or indirect, consequential damages of any kind. Taikan will not be liable for damages in any amount greater than the purchase price of the product.