

-xxW-xx-x



Taikan

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USER MANUAL

Non-Standby Ferroresonant Power Supply



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

Taikan Strand Mount Power Supply Owner's Manual

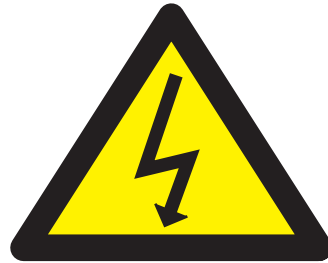
This manual is intended for use by purchasers of Taikan's PSS series of power supplies and their qualified technicians. This document is the property of Taikan Company Inc. ("Taikan") and embodies proprietary subject matter.

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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.
- > Installation must be firm and reliable to prevent falling from the aerial mounting.
- > 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.

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.

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SECTION ONE // INTRODUCTION



PRODUCT SUMMARY

PSS-xxW-xx (a non-standby power supply) provides conditioned power to a signal amplifier in 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. PSS-xxW-xx is designed to be mounted on an aerial line.

OPERATIONAL THEORY

PSS-xxW-xx contains a ferroresonant transformer, resonant capacitor, an input switch, and input/output connections. The transformer that the PSS-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
- Automatic restart upon removal of short circuit
- User selectable output voltages
- 5/8" female connection
- Durable anodized aluminum housing
- Aerial installation
- Input and output protections
- Short circuit protection\
- *Optional: Time delay relay (TDR)*

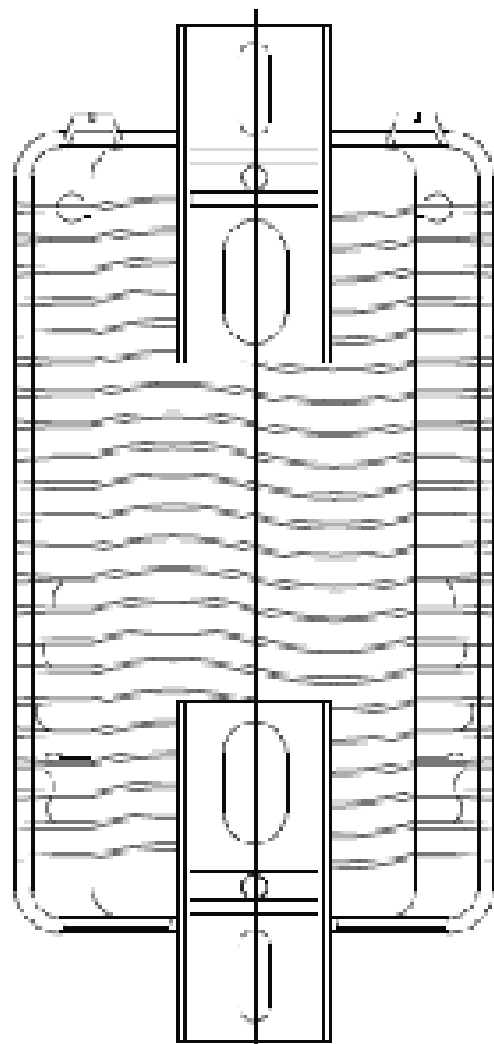
SECTION TWO // INSTALLATION

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** Your package should contain the following:
- > Strand Mount Power Supply
 - > Two Mounting Brackets

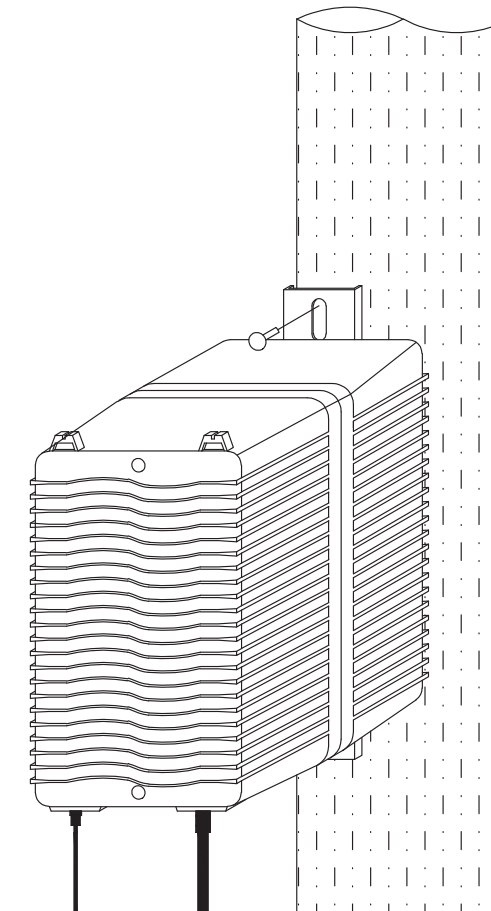
- 2** Secure the two enclosed brackets on the top of the power supply. Torque the brackets tightly.



A **Wooden Pole.**

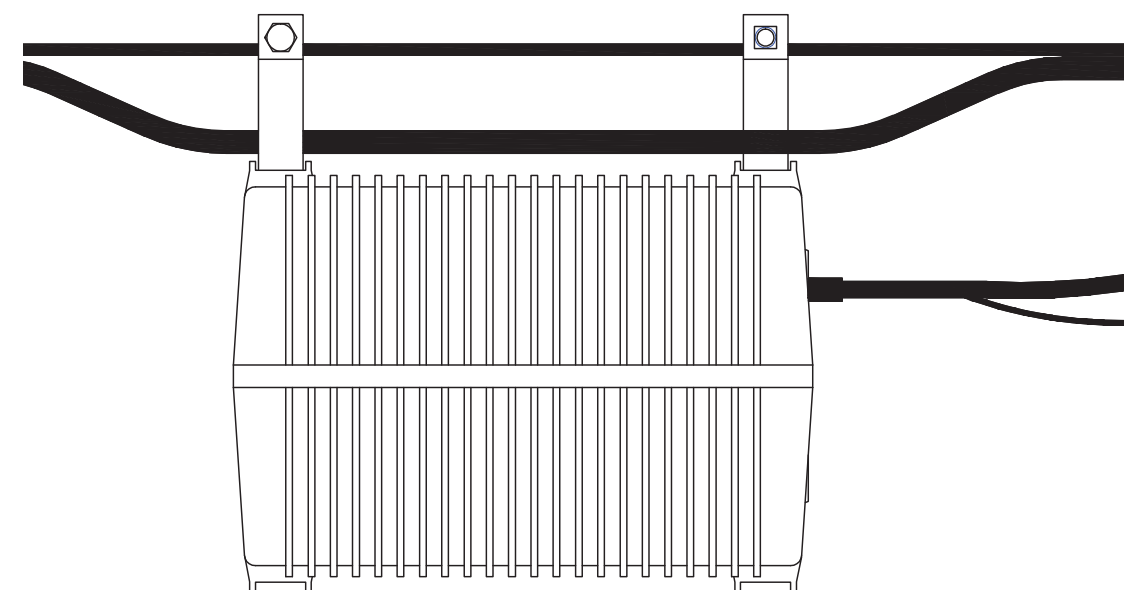
Drill two holes in the pole and affix the power supply with the brackets provided.

Note: Make sure the indicator light and cable are facing downward.



B **Aerial.**

Use mounted hanging brackets (not provided) to clamp to the steel cable.

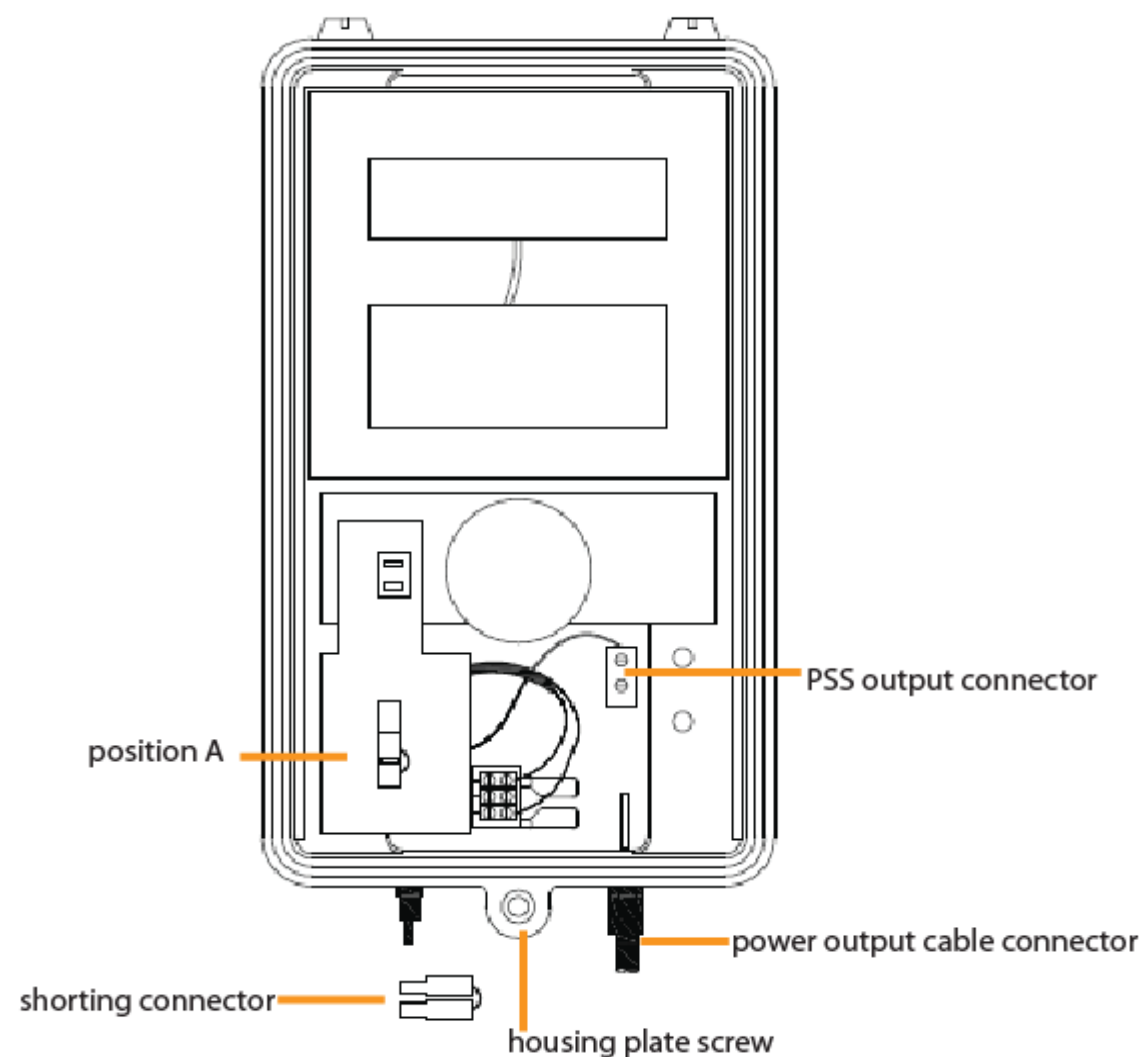


SECTION THREE // CONFIGURATION

OUTPUT CONFIGURATION (WITHOUT TIME DELAY CIRCUIT)

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

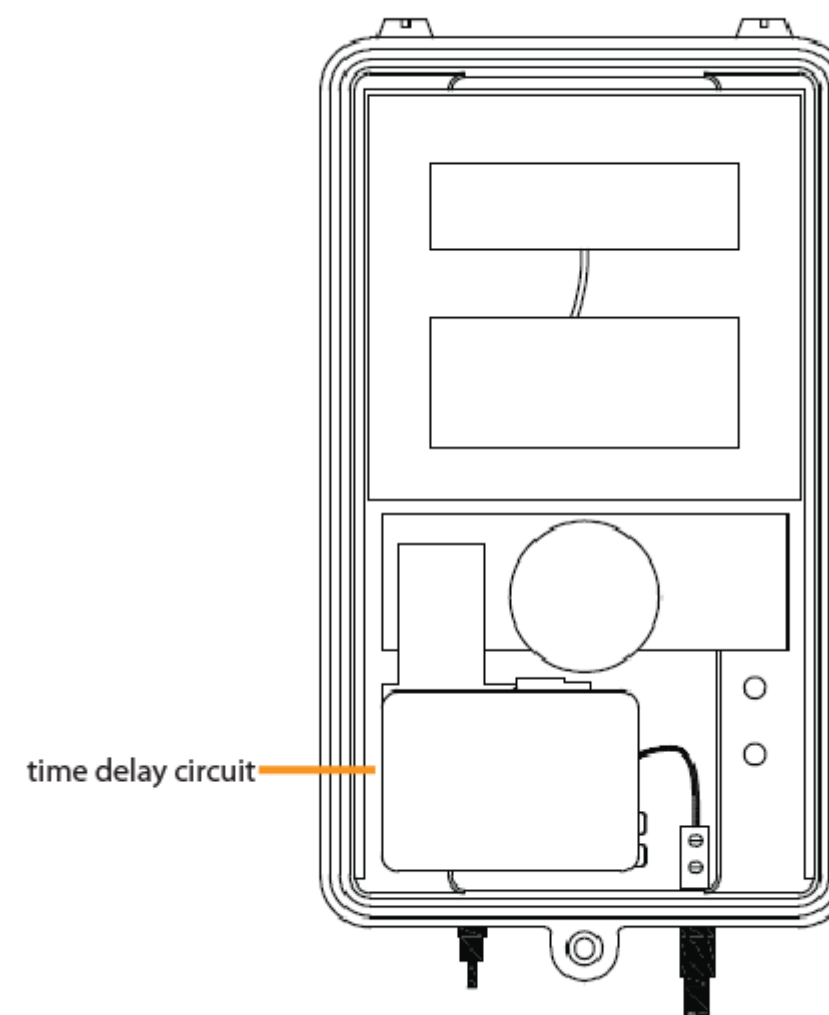
1. Open the power supply by unscrewing the cover with a 1/2" (1.3cm) socket wrench.
2. Attach the power output connector to the power supply. Secure the output connector by tightening the screws.
3. If a time delay circuit is not being used, the shorting cable should be installed at position A shown below.
4. Connect the PSS output connector to the power output connector.



OUTPUT CONFIGURATION (WITH TIME DELAY CIRCUIT)

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

1. If the time delay circuit is being used, remove the shorting connector and plug the black time delay circuit.
2. Before closing the case, make sure the rubber gasket is in the proper place.
3. Torque the plate screw closed with 30-40 kgf.cm
4. Send the power through the power supply unit. The indicator light should come on. If the time delay circuit is installed there will be a 20 second delay.



SECTION FOUR // TROUBLESHOOTING

FINAL NOTES

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

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** on the following page.

TROUBLESHOOTING

The table below is designed to display typical symptoms, causes and solutions, beginning with the most obvious and working systematically through the product. Following the solutions in the table, users 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 recommendations. Improper replacement may damage the product, or even the loads.

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

NOMINAL SPECIFICATIONS

Model Number	Standard Carton	Dimensions	Carton Weight
PSS-xxW-xx-x	1 pc	28 x 16 x 22 cm / 11 x 6.3 x 8.6 in.	18 kg / 40 lbs

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

SECTION FIVE // RETURN & WARRANTY

PRODUCT RETURN PROCEDURE

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

1. Contact a Taikan Representative at support@taikan.com to obtain a Return Authorization Number
2. When sending back the product for repair please include the following information:
 - > Return Authorization Number
 - > Model Number
 - > Serial Number
 - > Reason for Return
3. Prior to repairing the device, we will inform you about the test results and any additional repair charges that may apply (in the event the damage was caused by improper handling/care). 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. The product will still be under warranty after it is returned. The repair component is good 90 days after you have received the product. (See below)

STANDARD TAIKAN PRODUCT WARRANTY

Taikan provides a Limited 1 year Warranty ("Warranty") to original purchaser on its product against manufacturing defect and workmanship under normal use and service. Taikan will, during the Warranty period, repair or replace the product to correct defects in material and workmanship. (Please note, fiber products carry a limited 3 year warranty) 1 year parts and 2 years labor.

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.