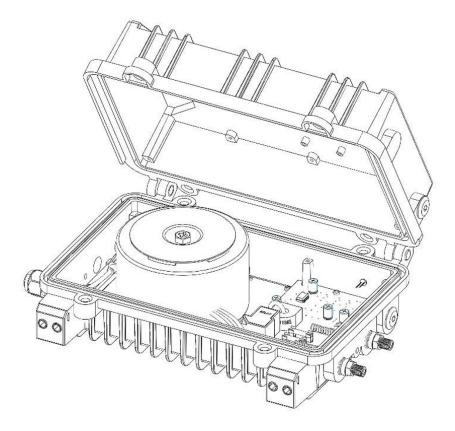


# **USER MANUAL**

FA 6 AC 102020

**AC 129 TR Power Supply** 





**NOTE:** Photographs contained in this manual are for illustrative purposes only. These photographs may not match your installation. Products are subject to change through continuing improvements without prior notice.

**NOTE:** Operator is cautioned to review and be fully aware of the drawings and illustrations contained in this manual before proceeding. If there are questions regarding safe operation of the unit, please contact the supplier directly. Save this user manual properly.

**NOTE:** We shall not be held liable for any damage or injury involving its enclosures, power supplies, generators, batteries, or other hardware if used or operated in any manner or subject to any condition not consistent with its intended purpose, or is installed or operated in an unapproved manner, or improperly maintained.

**NOTE:** Following symbols have been placed throughout this manual. Where these symbols appear, use extra care and attention.

**WARNING!** presents safety information to PREVENT INJURY OR DEATH to the technician or user.

**CAUTION!** indicates safety information intended to PREVENT DAMAGE to material or equipment.





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#### **OVERVIEW**

#### **Safety Precautions**

- Read user manual carefully before proceeding with any part of the unit.
- Read user manual carefully before proceeding with any part of the unit.
- Installation and operation of the unit must be performed only by qualified personnel and always in accordance with applicable electrical codes.
- It is recommended that user contacts local utilities, local building maintenance departments, and cable/piping locator services to ensure that installation does not interfere with existing utility or building cables/piping.
- Always use proper lifting techniques whenever handling the unit.
- Do NOT connect the ac inlet while servicing the unit or installing the unit.
- Always wear insulating gloves and face shield whenever working with the unit.
- The unit must be well earthed before proceeding with installation or operation. Failure to do so can cause electrical shock.
- The unit should be installed vertically and place for installation of the unit must be ventilated and away from flammable, explosive and corrosive material.
- Wiring of the unit and connection of output ports must be firm and reliable. Poor connections may cause fire.
- Verify that AC input voltage to the equipment matches with respect to voltage and frequency prior to installation.
- Verify that output voltage from the equipment matches the voltage requirements of the connected equipment (load).
- Always refer to supplier's recommendation whenever REPLACING spare parts of the unit.
- Unauthorized alteration or repair is not allowed without supplier's written authorization.

#### **Unpacking**

Remove FA Non-standby Power Supply from the shipping container and verify if all parts you ordered have been included. Standard package should contain the follows:

- One (1) piece of FA Power Supply
- One (1) copy of User Manual (this document)

Carefully inspect the contents of the shipping container. If any items are damaged or missing, contact the supplier immediately. Most shipping companies have only a short claim period.

#### **Pre-installation Inspection**

- During shipping, movement of components may occur. Inspect the power supply for
  possible shipping-related failures, such as loosened or damaged connectors. If
  needed, inspect the interior for loose or damaged connectors. Correct any
  discrepancies before proceeding with the power supply installation.
- Do not attempt to install a damaged power supply without first passing a complete Pre-installation Inspection and Start-up Test.

#### **CAUTIONS!**

Use the original shipping container if the unit needs to be returned for service. If the original container is not available, make sure the unit is packed with at least three inches (or eight centimetres) of shock-absorbing material in all orientations to prevent shipping





damage. We are not responsible for damage caused by improper packaging on returned units.

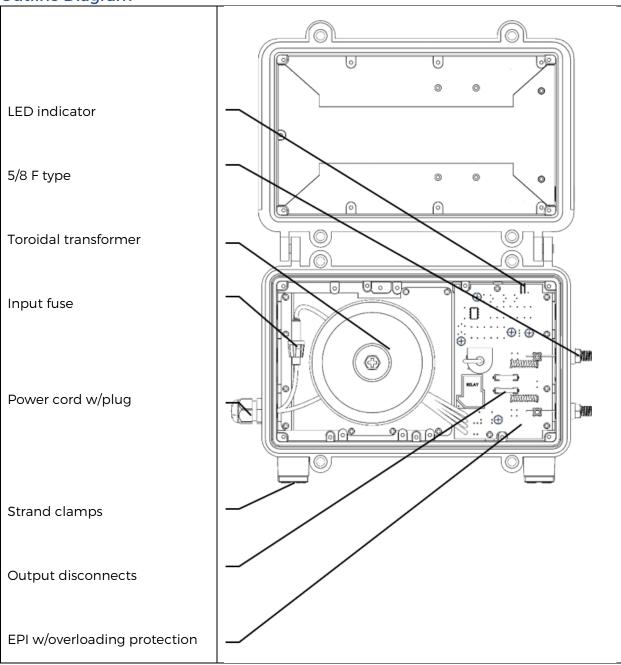
#### **Brief Introduction**

FA series power supply is designed for powering signal processing equipment's in cable networks and well known for its brilliant features:

- Toroidal linear transformer provides reliable performance and high efficiency.
- Input and output protections, short circuit protection and automatic reset upon removal of short.
- Optional field-selectable output voltages\* extend applications of the unit.
- Two 5/8" female connectors can be used as both output or one signal input and one signal output.
- Embedded Power Inserter (EPI) saves investment on power inserter and time to install facilities like this.
- **O** Durable powder coated aluminium enclosure provides weather resistance protection.
- Strand mounting design makes the installation simple and also enables installation next to the loads.
  - \*Configurations may vary on different models.



Outline Diagram



# **Technical Specifications**

Table 1:

Model	Input V.	Input Freq.	Output V.	Output Ic	Max. Output Power
FA 6 AC	220 Vac	50 Hz	60 Vac	6 A	360 VA
FA 10 AC	220 Vac	50 Hz	60 Vac	10 A	600 VA





#### Table 2:

Input voltage range	+/- 15%	
Power factor	0.90 at full load	
Output waveform	Sine wave	
Output protection	Current limited; 150% of max. current rating	
Efficiency	>=85%	
Bandwidth	860MHz	
Flatness	+/-0.5dB	
Insertion Loss	1.5dB (5MHz to 860MHz)	
Return Loss	14dB (5MHz to 860MHz)	
Finish		
Material		
Operating Temperature		
Humidity		

#### **INSTALLATIONS**

#### **Installation Notes**

- Installation of the unit must be performed only by qualified personnel.
- Strictly follow installation directions.
- Installation of the unit must be firm and reliable. Failure to do so may result in that the unit drops from the installation location and possibly injure passerby. We don't assume any responsibility for damage of the unit and the injury caused by this.



# **Strand Mounting Installation**



- 1.- Loosen screws of fixing clips
- 2.- Split iron thread from the cable and let fixing clips through
- 3.- Finally, fasten fixing clips and check-up if installation is firm and reliable

#### **AC Output Connections**

Two 5/8" female connections are provided for output connection.

#### **Output Connections**

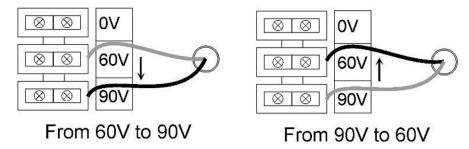
- 1) Prepare the incoming coaxial cable used for distribution of power and external fitting (prepared by the users).
- 2) Remove external material of the cable about 4 centimetres long and leave the centre core in good conditions.
- 3) Properly loosen the seizure screws on the pin terminal
- 4) Make centre core of coaxial cable pass through 5/8" female connection and the pin terminal. Tighten the seizure screws.
- 5) Tighten the cable connector (external fitting) into the 5/8" female connection.

#### **Output Voltage Reconfiguration**

Field-selectable output voltage may be available on some models. A threeposition terminal block is mounted on EPI cover for output voltage selection. Simply switch the tap into the



position where the voltage required is present. Finally tighten seizure screws of the terminal block. A sketch is given below for reference. It may not match your installation.



#### WARNING!

- Poor connection between cable/wire and the connectors may cause fire.
- The unit must be turned off prior to output voltage selection.

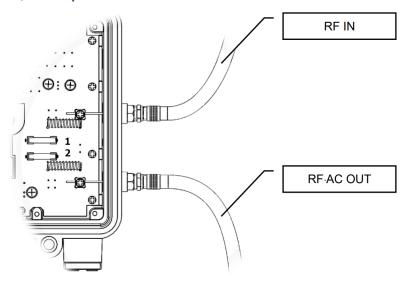
#### **CAUTIONS!**

Do the selection carefully. Wrong selection may damage the loads.

#### **Embedded Power Inserter (EPI) Operation**

EPI equipped on the unit provides an operation, which enables distribution of power along with CATV signals together using the same coaxial cable. In this case, one of the two 5/8" female works as input and another as output. Sure, both 5/8" female connectors can be used AC outputs. In this case, it is recommended that users remove disconnect of the port that is NOT in operation.

#### **EPI Operation w/ RF Input**

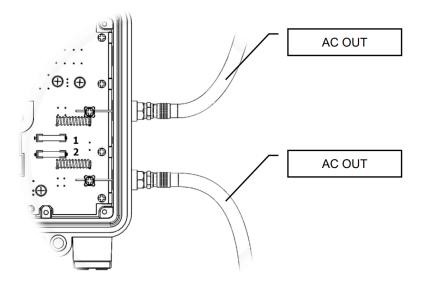


Note: In case there is no need of voltage at RF IN just remove corresponding connection, in above case no.1.

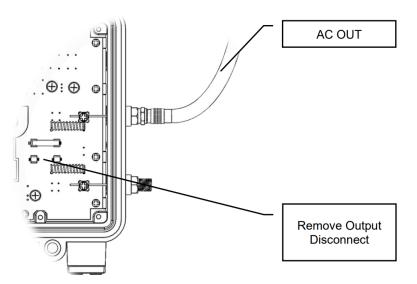


## **EPI Operation w/o RF Input**

## 1.- EIP operation w/ two AC OUT



#### 2.- EIP operation w/ one AC OUT



Note: It's recommended to remove the disconnect of the output that is not used.

#### **Utility Power (AC Input) Connection**

If no specific requirements, input connection of FA non-standby power supply is made via a power cord with standard plug. Users just need to plug it into a well earthed outlet. The outlet shall be equipped with an emergency breaker.

**CAUTIONS!** Verify and make sure voltage of the utility fed to the power supply match with nominal specifications of the unit. Fail to do so will damage the power supply

**NOTE** An external service disconnect (UL listed) shall be installed between utility power and FA Series power supply. The disconnect device is provided by the user. Please consult the local



supplier, supplier of the service disconnects and your local utility for specific installation instructions and guidelines. All electric codes apply.

#### **STARTUP & TEST**

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

- 1) Verify that AC input voltage to the equipment matches with respect to voltage and frequency again.
- 2) Use RMS meter to measure output voltage of the unit. Please DO NOT use multimeter to measure output voltage of the power supply. It can't read out the value correctly.
- 3) If no output, please refer to Trouble Shooting Guidelines.

WARNING! Transformer may be very hot during operation. Allow it to cool before service

#### TROUBLE SHOOTING GUIDELINES

The table below is designed to display typical symptoms, causes and solutions, beginning with the most obvious and working systematically through the unit. Following solutions in the table, users can repair the units in the field. In the event that a component(s) of the unit needs to be replaced, please contact the supplier for recommendations. Improper replacement may damage the unit, even the loads. If symptoms of problems that will have arisen are not listed in the table below, please contact the supplier for technical supports.

Symptoms	Probable Causes	Solutions
No output	Utility power failure	Verify AC input connections
		Verify circuit braker status
No output	Poor connection at 5/8"	Verify the connection and
	female connector	make the connection again
High or low output	High or low AC input	Verify input voltage and
		correct the AC input

SAVE THE MANUAL FOR FUTURE REFERENCE