

## WARNINGS

### Risk of personal injury or damage to equipment and property! Always observe the following:

- Do not open unit. Unit may be serviced only by qualified personnel due to hazardous voltages inside.
- Do not block side vent slots
- Do not place unit on or near sources of heat / moisture
- Ensure required load current does not exceed max rating of unit
- Use an appropriate dc over-current protection device in line with the optional battery connection
- Use wire and connectors rated for the maximum load current and size of battery fuse or circuit breaker
- Ensure battery polarity is correct before connecting to unit. Incorrect polarity or excess voltage could damage the unit and void the warranty.

### ICT COMM SERIES POWER SUPPLY

The ICT COMM SERIES switching power supplies deliver continuous trouble-free operation and incorporate extra filtering, providing a virtually noise-free environment for a wide range of communications equipment and 12V and 24V accessories. An optional battery back-up model is available (ICT12-20B).

### BATTERY BACKUP MODEL

The ICT12-20B uses an isolation diode between the BATT terminal, and the Load + Output. When in back-up mode the voltage supplied to the load will be the external battery voltage less the drop across the diode, which is approximately 0.6V. So, for example a battery at a voltage of 13.8V will provide approximately 13.2V to the load.

**For prolonged AC outages, the battery may be discharged to a very low level.** It is good practice to ensure the battery has enough capacity to power the load for long durations and still ensure it is not discharged below approximately 11V. This will help to prevent permanent loss of battery capacity due to over-discharge.

Excessive load current from the battery is limited by an internal ATO type fuse. A short circuit or other over-current event on the load wiring will cause this fuse to open, protecting the internal circuitry.

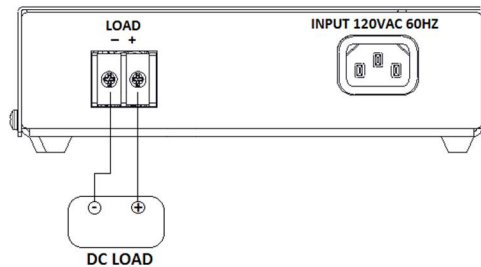
### INSTALLATION

Make the following connections using wire and connectors appropriately rated for the maximum input and output current rating of the unit:

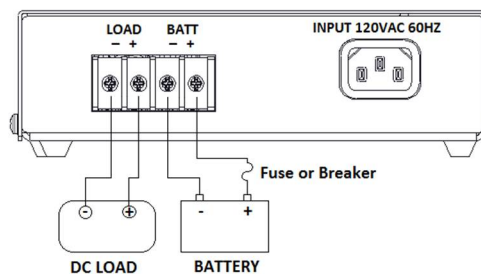
- If installed with radio install radio cover before making any connections
- Connect the supply LOAD (+) output terminal to the load positive input
- Connect the supply LOAD (-) output terminal to the load negative input terminal
- **Battery back-up model**
  - Connect the battery negative to the supply BATT (-) battery terminal
  - Connect the battery positive to an over current protection device (fuse or breaker)
  - Connect the fuse or breaker to the supply BATT (+) terminal
- Plug the enclosed power cord into the input plug on the back of the unit. Plug the other end into the AC outlet
- Turn on the power switch

### CONNECTIONS

DC Power Supply



DC Power Supply with Battery Back-up



### LIMITED WARRANTY

ICT Limited Warranty is only intended for the benefit of the original Purchaser of this product. This Warranty is not transferable or assignable without the prior written permission of ICT. ICT's sole obligation and liability under this warranty is limited to either repairing or replacing defective products at the sole discretion of ICT. When repairing or replacing the products, ICT may use products or parts that are new, equivalent to new or re-conditioned. Parts repaired or replaced during the warranty period will be under warranty for the remainder of the warranty period.

The warranty period on ICT products purchased new from ICT is two years. The warranty period for a repaired product or part thereof is ninety (90) days or the remainder of the unexpired term of the new product warranty period, whichever is greater. Repair or replacement of a defective product or part does not extend the original warranty coverage period.

No claim will be accepted unless written notice of the claim is received by ICT in accordance with ICT's Return Material Authorization (RMA) procedure, as soon as reasonably possible after the defect is discovered. A valid product serial number must be provided with the RMA claim to prove eligibility. The RMA form is available on the ICT website at [www.ict-power.com/support/warranty-repair/](http://www.ict-power.com/support/warranty-repair/).

The Purchaser shall at their own risk and cost return the defective product to ICT's factory or designated repair center once an RMA is issued by ICT. Return of the products to the customer after repair is completed shall be prepaid by ICT unless otherwise mutually agreed between the parties. Products shipped to ICT which have incurred freight damage will not be covered by this Warranty and any repairs or replacement parts, components or products needed will be invoiced in the full current price amount and returned freight collect to Purchaser. It is the Purchaser's responsibility to check the product upon receipt for any damage during shipping and to contact the carrier or shipper regarding such damage.

Product that is returned as defective, which is determined to operate within published specifications will be returned to the Purchaser freight collect. This Warranty will be void if the product has been subjected to misuse, neglect, accident, exposure to environmental conditions not conforming to the products' limits of operation, improper installation or maintenance, improper use of an electrical source, defects caused by sharp items or by impact pressure, a force majeure event, has been modified or repaired by anyone other than ICT or its authorized representative, has been subjected to unreasonable physical, thermal or electrical stress, improper maintenance, or causes external to the unit including but not limited to general environmental conditions such as rust, corrosive atmospheres, sustained temperatures outside the specified operating range of the equipment, exposure to power surges and/or electrical surges, improper grounding, mould or dust, animal or insect damage, water damage or immersion in liquid of any kind. ICT does not control the installation and use of any ICT product. Accordingly, it is understood this does not constitute a warranty of performance or a warranty of fitness for a particular purpose.

## SPECIFICATIONS

MODEL	ICT12-12	ICT12-20	ICT12-20B	ICT12-30	ICT24-10	ICT24-15
DC Output Voltage	13.8V			27.6V		
Peak Current Rating	12A	20A		30A	10A	15A
Continuous Current Rating	10A	17A		25A	7A	13A
Battery Charge Current	-----	-----	2A	-----	-----	-----
Output Ripple	<60mV p-p	<50mV p-p				
Efficiency	85%	86%			89%	
Line Regulation	0.20 %					
Load Regulation	0.50%					
AC Input	120 +/- 10 Vac 60Hz					
Cooling	Convection or Fan					
Temperature	-20°C to 35°C (Reduce output current by 2% per °C for ambient above 35°C)					
EMC	FCC part 15 class B limits					
Safety:	CSA/UL EN60950-1					



**Innovative Circuit  
Technology Ltd.**



## PROTECTION FEATURES

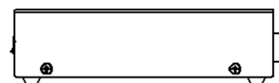
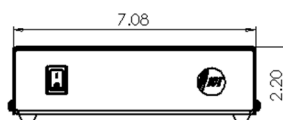
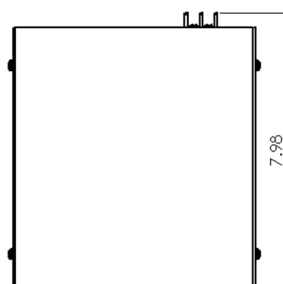
Internal circuitry will help protect the load, battery and power supply in case of the following events:

- Output Short Circuit – current regulated to less than the max rated level
- Output Over Voltage – Voltage clamps at +5% of rated voltage
- Input Over current – internal AC fuse will open

### (Battery BACKUP Model ONLY)

- Battery over current – dc output fuse will open
- Reverse Battery connection – dc output fuse will open

## DIMENSIONS (inches)



## COMM SERIES DC Power Supply

INSTRUCTION MANUAL

855-153-000

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