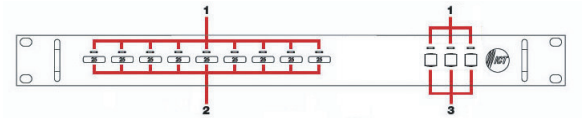
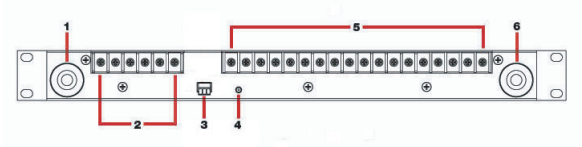
FRONT PANEL



1. FUSE STATUS LEDS: Turns on when a fuse is blown or missing.
2. ATO/ATC FUSES: Location of the ATO/ATC fuses up to 25A.
3. JCASE FUSES: Location of the JCASE fuses up to 40A.

BACK PANEL



1. NEGATIVE INPUT STUD: For DC power source connection up to 180A peak and 150A continuous.
2. OUTPUT TERMINAL BLOCK 10 – 12: For DC load connection up to 40A each pair.
3. ALARM CONNECTOR: For external alarm circuit to monitor unit fault.
4. CHASSIS GROUND STUD: For Earth ground connection.
5. OUTPUT TERMINAL BLOCK 1 – 9: For DC load connection up to 25A each pair.
6. POSITIVE INPUT STUD: For DC power source connection up to 180A peak and 150A continuous.

INSTALLATION

1. Inspect panel and accessories to make sure everything is complete and in good condition.

2. For rack set up, install panel on the rack using appropriate size screws and star washers on all four mounting holes. If equipment rack is not electrically connected to Earth ground, connect a ground cable from the ground stud on the back of the panel to a known Earth ground point. Otherwise, the four mounting screws and washers are sufficient for earth ground connection.

OR

For non–rack set up, connect a ground cable from the ground stud on the back of the panel to a known Earth ground point.

3. Remove the plastic shield(s) covering the output terminal block(s) located on the back of the panel. Connect the positive of the load to the positive terminal point (labeled "+") and the negative of the load to the negative terminal point (labeled "–").

4. Install fuse on the front of the panel for each output terminal block. The fuse number on the front of the panel matches the output terminal block number on the back of the panel. Use fuse size that is a few amps higher than the intended load. For terminal blocks with no load connected, insert any size fuse to prevent the LED on the front of the panel from turning on and the alarm from activating if the form "C" alarm is used.

5. Remove the plastic caps covering the input insulated studs. Connect the positive of the power source to the red insulated stud (labeled "+") and the negative of the power source to the black insulated stud (labeled "–").

6. Re–install plastic shield(s) to the output terminal block(s) and plastic caps to the input studs.

7. For form "C" alarm monitoring, connect your external alarm circuit to the alarm connector located on the back of the panel. Depending on your alarm circuit (refer to table 2), you can connect it between normally open (NO) and common (C), normally close (NC) and common (C), or both. The alarm connector can be disconnected from the panel for easy installation.

8. Power up the distribution panel, and check for proper operation of the connected load(s), fuse status LEDs and form "C" alarm (if using).

Table 1. Fuse Status LED

LED	FUSE STATUS
ON	Blown or missing
OFF	Good

Table 2. Form "C" Alarm

NC/C PINS	NO/C PINS	CONDITION
Open	Closed	One or more blown or missing fuse
		No power to unit
Closed	Open	All fuses are good and inserted

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ICT DC DISTRIBUTION PANEL

ICT180S–12 STANDARD MODEL (SERIES 2)

INSTRUCTION MANUAL

INNOVATIVE CIRCUIT TECHNOLOGY LTD.

855–313–004

ICT STANDARD DC DISTRIBUTION PANEL

The ICT180S–12 Standard DC Distribution Panel was designed for either 12 or 24VDC applications. It provides 12 output positions that are individually protected by blade type fuses. Nine of the outputs use the ATO/ATC blade fuse and are rated up to 25A each. Three of the outputs use the JCASE fuse and are rated up to 40A each. Each positive output terminal point is connected through a fuse to a positive internal bus. All negative output terminal points are connected to a negative internal bus.

Fuse status can be monitored through the LEDs. These fuses and LEDs are located on the front of the Panel for easy monitoring and replacement. Form "C" alarm contacts (C/NC/NO) are provided on the back of the panel for an external alarm circuit. All these features are packaged in a 1RU enclosure to save valuable rack space, and 19" wide front plate to fit all standard 19" equipment racks.

PRODUCT SPECIFICATIONS

Operating Voltage:	10 to 32VDC
Panel Capacity:	150A (Continuous) 180A (Peak)
Fuse Capacity:	25A Max ATO/ATC Blade x 9 40A Max JCASE x 3
Voltage Drop (without fuse):	60mV (Typical)
Alarm Contact:	Form "C" Dry Contacts 1A/60VDC Max
Input Connector:	Heavy Duty Insulated M10 Stud 75in-lbs Max
Output Connector:	Barrier Terminal Block M4 Screws 8-20AWG Wire Range 12in - lbs Max
Alarm Connector:	Euro Terminal Block M2 Screws 16-28AWG Wire Range 1in-lbs Max
Operating Temperature:	-4°F to 140°F -20°C to +60°C
Dimensions:	19.0" x 5.4" x 1.75" 483mm x 137mm x 45mm
Weight:	4.0lbs 1.8kg
Warranty:	2 years

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WARNINGS

To reduce the risk of personal injury and property damage, please exercise caution and follow the warnings below.

- No user serviceable parts inside. Only ICT personnel are authorized to service the unit
- Keep sources of moisture away from the unit.
- Read manual completely before starting installation or operation of unit. Manual should be saved for future reference.
- Observe correct polarities when making the input and output connections.
- Securely tighten all connections and insert fuses fully. Refer to product specifications for maximum torque for the connectors.
- Use appropriate wire size for both input and output connections.
- Connect unit to an Earth ground point.
- Turn off power source before installing/removing fuses, connecting/disconnecting loads, or connecting/disconnecting power source.
- Allow input insulated studs and fuses to cool off before handling. Depending on the current flowing through them, they may be too hot to touch.
- Do not connect any power source to the output terminal blocks. Doing so will cause the fuse status LEDs and alarm to not work properly.
- It is recommended that the power source be equipped with current limit protection.

NOTE

Due to the breaker/fuse detection circuitry internal to the distribution panel, it may be possible to measure a voltage on the output terminal(s) even if that output's breaker or fuse is open (with no load connected). This is normal operation. The detection circuitry is a high–impedance circuit, and while a voltage may be present on the output terminal, it is purely a signal voltage and does not support loading. Any load device connected to the output will immediately pull this voltage to zero volts.

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/.

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.

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