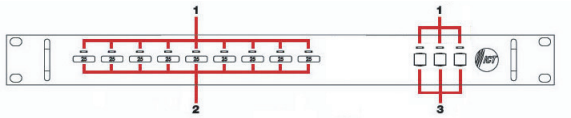
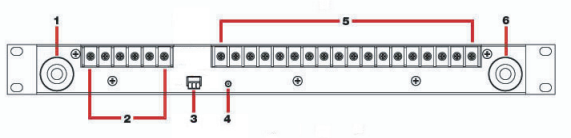
FRONT PANEL



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.

855–313–002

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:	3 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.

LIMITED WARRANTY

ICT Ltd. warrants to the original consumer purchaser that this product shall be in good working order, free from defects in materials and workmanship, for a period of three (3) years from the date of purchase. Should failure occur during the above stated time period, then ICT will, at its option, repair or replace this product at no additional charge except as set forth below. All parts, whether for repair or replacement, will be furnished on an exchange basis. All exchange pieces become the property of ICT. This limited warranty shall not apply if the ICT product has been damaged by unreasonable use, accident, negligence, disaster, service, or modification by anyone other than the ICT factory.

Limited warranty service is obtained by delivering the product during the above stated three (3) years warranty period to an authorized ICT dealer or ICT factory and providing proof of purchase date. If this product is delivered by mail, you will insure the product or assume risk of loss or damage in transit, and prepay shipping charges to the factory.

Every reasonable effort has been made to ensure that ICT product manuals and promotional materials accurately describe ICT product specifications and capabilities at the time of publication. However, because of ongoing improvements and updating of ICT products, ICT cannot guarantee the accuracy of printed materials after the date of publication and disclaims liability for changes, errors or omissions.

If this ICT product is not in good working order, as outlined in the above warranty, your sole remedy shall be repair or replacement as provided above. In no event will ICT be liable for any damages resulting from the use of or the inability to use the ICT product, even if an ICT employee or an authorized ICT dealer has been advised of the possibility of such damages, or for any claim by any other party.

ICT reserves the right to make changes without further notice to any products or documentation for improvement of reliability, function, or design.

ICT Ltd. does not recommend use of its products in life support applications wherein a failure or malfunction of the product may directly or indirectly threaten life or cause injury. The user of ICT products, which are to be used in life support applications as described above, assumes all risks of such use and indemnifies ICT against all damages.

INNOVATIVE CIRCUIT TECHNOLOGY LTD.
26921 GLOUCESTER WAY LANGLEY, BRITISH COLUMBIA, CANADA V4W 3Y3
T 604.856.6303 **F** 604.856.6365 **www.ict–power.com**