



A Benny Lee Company

# PRODUCT USER GUIDE

## DP-20ATC-2JC-24

### 24-Volt Rack Mount ATC/ATO, ATM Fuse Panel

### Owners Guide

*(These instructions are intended for use by a technician familiar with electronic products)*

- Single Bus 100 Amps Max, 75 Amps Max per 10-Fuse Block
- Up to 20 Blade fuses (ATC/ATO, ATM, Mini, Micro) on main buss\*
- 15 Amps max per position on output screws
- Two JCASE® Fuse Circuits on separate barrier strip (40 Amps Max Each – One 30 Amp JCASE® Fuse, and One 40 Amp JCASE® Fuse Included)
- Three Green LED lights that indicate power status
- For use with 24 volt system
- Requires Automotive Blade Style fuses. (Not Included)
- 3 Year Warranty



\* ATC/ATO, ATM, Mini, Micro fuses not included

### DESCRIPTION

The DP-20ATC-2JC-24 Fuse panel is a Rack mount (1U) 100 Amp 24 VDC power distribution panel that provides up to 20 load circuits protected by individual blade-style fuses. (ATC/ATO, ATM, Mini, Micro fuses not included). Each circuit can be fused up to 15 Amps, with 75 Amps Max per 10-Fuse Block. Each JCASE®-fused circuit (A and B) can be fused up to 40 Amps, with a total 22-circuit load of 100 Amps maximum. Heavy duty DC input connectors provide strong ¼ inch studs to accept up to 100 amps at 24 VDC from a single power supply. All inputs and outputs are isolated from the frame for use in positive ground, negative ground, or floating applications. Fuses and LED status indicators are on the front of the unit, while input and output, are on the rear. Three green LEDs are provided, one for the power input status, and one for the load side of each JCASE®-fused circuit. One 30 Amp JCASE fuse and one 40 Amp JCASE fuse are included. Load connections are available via rear-panel barrier strips.

### SPECIFICATIONS

Input Voltage .....	20 to 30 VDC
Input Current .....	100 Amps Max
Output Amperage (ATC/ATO, ATM, Mini, Micro) .....	15 Amps Max per Position, 20 positions, 75 Amps Max per 10-Fuse Block
Output Amperage (JCASE®) .....	40 Amps Max each A and B
Output Amperage (Total of All Fuse Positions) .....	100 Amps Max
Size .....	1.75" H x 19" W x 11" D
Weight .....	8.0 lb.

## INSTALLATION WARNING

The individual user should take care to determine, prior to use or installation, whether this device is suitable, adequate or safe for the use intended. Since individual applications are subject to great variation, DuraComm makes no representation or warranty as to the merchantability, suitability or fitness of these units for any specific application.

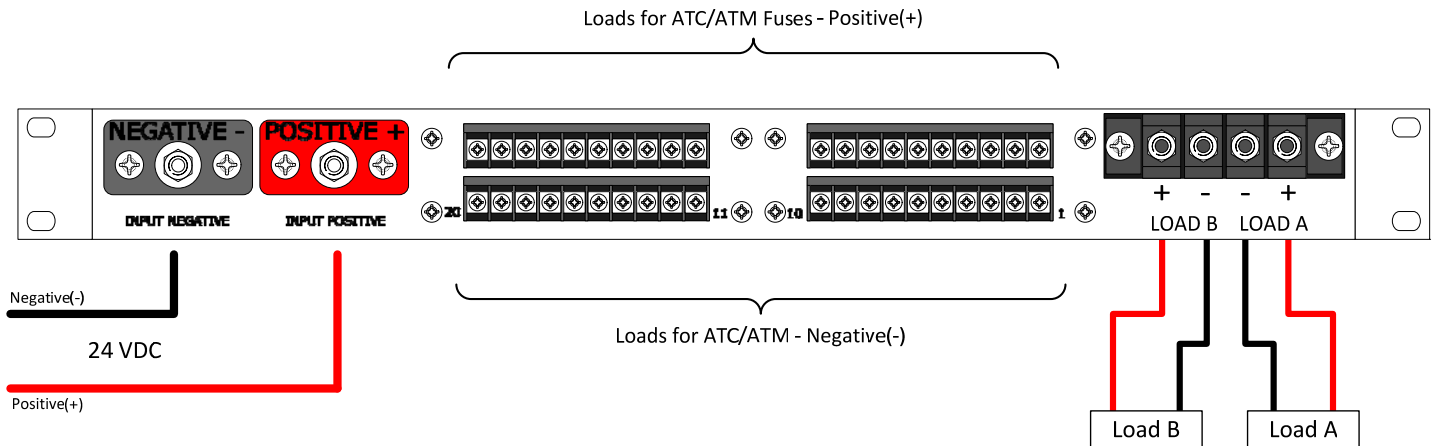
**DO NOT** block any of the cooling vents on the sides and always allow adequate ventilation by not installing the unit inside tightly closed spaces. Physical mounting position is not critical but the cooling vents must not be blocked.

Failures require investigation as to cause and/or repair of the unit.

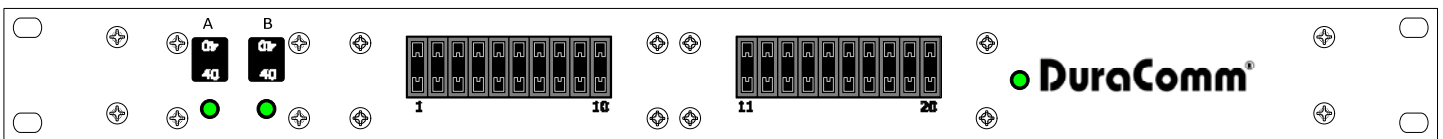
**THERE ARE NO USER SERVICEABLE PARTS INSIDE. SERVICE AND REPAIR MUST BE REFERRED TO QUALIFIED FACTORY PERSONNEL**

## Connecting Power and Loads

- Inputs and outputs are isolated from frame for use in + or – frame grounding situations. Positive leads are fused.
- Ensure source power lines are off and locked out before installation.
- Ensure loads are switched to off, if possible.
- Connect 24 VDC Negative(-) to the Input Negative connector. Connect 24 VDC Positive(+) to the Input Positive Connector.
- Connect loads to circuits 1 through 20. Upper terminal blocks are Positive(+) and lower terminal blocks are Negative(-).
- Install ATC/ATM fuses for loads 1 through 20 that are appropriate for each load. User is responsible for proper fuse determination. ATC/ATM Fuses are not supplied with the DP-20ATC-2JC-24.
- Connect Load A and Load B to barrier strip terminals, and verify that positive and negative are connected properly. Install JCASE® fuses for loads A and B that are appropriate for each load. User is responsible for proper JCASE® fuse determination. One 30 Amp JCASE fuse and one 40 Amp JCASE fuse are supplied with the DP-20ATC-2JC-24.
- Remove source power lockout and turn on power to DP-20ATC-2JC-24. Verify all DP-20ATC-2JC-24 front panel LEDs are ON.
- Switch on loads one at a time, when you are ready to install and use them.
- This completes the DP-20ATC-2JC-24 installation.



- 3 Green LEDs for DC power “ON” indication



## **CONDUCTOR PRETREATMENT**

All kinds of copper conductors can be clamped without treatment. DO NOT solder tin stranded conductors. The solder yields and fractures under high pressure. The result is increased contact resistance and excessive temperature rise. Additionally, corrosion has been observed due to the fluxes. Notch fractures at the transition from the rigid tinned part to the flexible conductors are also possible. Ferrules can be used as a protection when wiring stranded conductors. Copper ferrules prevent the current transfer from being influenced by dissimilar metals and remove the risk of corrosion. Always use the correct tool to crimp the ferrule.

## **RECOMMENDED COPPER WIRE SIZE FOR CURRENT CAPACITY**

*(Insulated Wire, Single Conductor in free air)*

<b><u>Current Level in Amperes</u></b>	<b><u>Wire Size</u></b>
<i>&lt;7 AMPERES</i>	<i>20 AWG Up to 5 feet 18 AWG Up to 10 feet</i>
<i>14 AMPERES</i>	<i>18 AWG Up to 5 feet 16 AWG Up to 10 feet</i>
<i>20 AMPERES</i>	<i>16 AWG Up to 5 feet 14 AWG Up to 10 feet</i>
<i>30 AMPERES</i>	<i>14 AWG Up to 5 feet 12 AWG Up to 10 feet</i>
<i>40 AMPERES</i>	<i>12 AWG Up to 5 feet 10 AWG Up to 10 feet</i>
<i>50 AMPERES</i>	<i>10 AWG Up to 5 feet 8 AWG Up to 10 feet</i>
<i>70 AMPERES</i>	<i>8 AWG Up to 5 feet 6 AWG Up to 10 feet</i>
<i>100 AMPERES</i>	<i>6 AWG Up to 5 feet 4 AWG Up to 10 feet</i>

## LIMITED WARRANTY

*DuraComm warrants to the initial end user, each power supply manufactured by DuraComm to be free from defects in material and workmanship, when in normal use and service for a period of three years from the date of purchase, from an authorized DuraComm dealer.*

*Should a product manufactured by DuraComm fail or malfunction due to manufacturing defect, or faulty component, DuraComm, at its option, will repair or replace the faulty product or parts thereof, which, after examination by DuraComm, prove to be defective or not operational according to specifications in effect at the time of sale to the initial end user. The product that is replaced or repaired under the provisions of this warranty, will be warranted for the remainder of the original warranty period, only, and will not extend into a new three year warranty period.*

*The limited warranty does not extend to any DuraComm product which has been subject to misuse, accidental damage, neglect, incorrect wiring not associated with manufacture, improper charging voltages, or any product which has had the serial number removed, altered, defaced, or changed in any way.*

*DuraComm reserves the right to change, alter, or improve the specifications of its products at any time, and by so doing, incurs no obligation to install or retrofit any such changes or improvements in or on products manufactured prior to inclusion of such changes.*

*DuraComm requires any product needing in or out of warranty service to be returned to DuraComm. All requests for warranty service must be accompanied by proof of purchase, such as bill of sale with purchase date identified. DuraComm is not responsible for any expenses or payments incurred for the removal of the product from its place of use, transportation or shipping expenses to the place of repair, or return expenses of a repaired or replacement product to its place of use.*

*The implied warranties which the law imposes on the sale of this product are expressly LIMITED, in duration, to the three (3) year time period specified herein. DuraComm will not be liable for damages, consequential or otherwise, resulting from the use and operation of this product, or from the breach of this LIMITED WARRANTY.*

*Some states do not allow limitations on the duration of the implied warranty or exclusions or limitations of incidental or consequential damages, so said limitations or exclusions may not apply to you. This warranty gives you specific legal rights which vary from state to state.*

*This warranty is given in lieu of all other warranties, whether expressed, implied, or by law. All other warranties, including WITHOUT LIMITATION, warranties of merchantability and fitness or suitability for a particular purpose, are specifically excluded. DuraComm reserves the right to change or modify its warranty and service programs without prior notice.*

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