R-BBU BATTERY BACK-UP UNIT
INSTRUCTION MANUAL

IMPORTANT INSTALLATION INSTRUCTIONS

WARNING – To reduce the risk of severe injury or death to persons:

1. READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.

2. Make sure the available power supply to be connected to the device is of the same voltage, frequency and phase as indicated on the nameplate of the device.

3. Read and understand the wiring diagram of the device and any other equipment to be connected to the device.

4. Always disconnect power whenever installing or servicing the device.

5. All wiring must be permanent and comply with National Electrical Code (NEC) and local code requirements.

6. For “Indoor Dry” location use only.

⚠️ Disconnect power at the fuse box before proceeding with any wiring.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>ELECTRICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Power : 100~240 VAC , 50 / 60 Hz , 1.7A Max.</td>
</tr>
<tr>
<td>Battery : 24 VDC , 5AH</td>
</tr>
<tr>
<td>Output Power : 24 VDC , 1A Max.</td>
</tr>
</tbody>
</table>

NOTES:
1. This battery back-up device is for providing 24VDC power only, and is intended to be used with a release device.

2. Device must be connected to power source for at least 8 hours to fully charge batteries.
INSTALLATION INSTRUCTIONS

1. Structure supporting device must be adequate for weight of device.

2. Attach panel to wall using suitable fasteners for mounting conditions, such as
   • expansion or sleeve anchors into concrete
   • sleeve anchors into masonry
   • self-tapping screws into steel framing
   • lag screws into wood framing

On drywall construction, it may be necessary to bridge across studs with a suitable support system.

MAINTENANCE INSTRUCTIONS

1. Replace batteries with the same type every two years or less. [24VDC, 5AH X 1 set (battery X 2)]

2. Check and replace batteries if output voltage is below 19 volts. (Low battery may be indicated by an audible or visible warning – see page 6).

⚠️ Disconnect power supply to the device before servicing.

WARNING

.documents

- Inspect and service whenever a malfunction of the device or equipment connected to it is observed or suspected.
- Before servicing, always disconnect power supply to the device.
- Replace fuses only with those of the same type and rating.
- All replacement parts must be compatible with those originally provided. Consult manufacturer for replacement parts.

⚠️ Do not place hands or tools in the device when the power is connected or when testing the device or equipment connected to it. Always disconnect power before servicing or adjusting the device or other equipment connected to it.
R-BBU DIMENSIONS

Dimensions:
- Height: 7 3/8"
- Width: 11 1/2"
- Depth: 4 3/4"
- 9 7/8" x 4 1/2" x 1 1/16"
R-BBU Connections

NOTE: Consult factory for other approved audible/visible warning devices.
## R-BBU Data Sheet & Functional List

**Release Device Battery Backup Unit**

### R-BBU

---

### Data Sheet

<table>
<thead>
<tr>
<th>Item</th>
<th>Content</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Input Voltage</td>
<td>100~240 VAC</td>
</tr>
<tr>
<td>2</td>
<td>Input Frequency</td>
<td>50 / 60 Hz</td>
</tr>
<tr>
<td>3</td>
<td>Input Current</td>
<td>1.7 A</td>
</tr>
<tr>
<td>4</td>
<td>Output Voltage</td>
<td>24 VDC</td>
</tr>
<tr>
<td>5</td>
<td>Output Current</td>
<td>1 A</td>
</tr>
<tr>
<td>6</td>
<td>Battery Capacity</td>
<td>24 VDC, 5 AH X 1 set (battery X 2)</td>
</tr>
<tr>
<td>7</td>
<td>AC power present</td>
<td>Dry Contact</td>
</tr>
<tr>
<td>8</td>
<td>Low Battery Warning</td>
<td>Dry Contact and buzzer sound</td>
</tr>
<tr>
<td>9</td>
<td>Models to connect (standby Hrs)</td>
<td>FCA (up to 3.3 hours), FKA (up to 3.3 hours), AR-D (up to 10 hours), Firefly IV (up to 10 hours), FTA (up to 8 hours), FS-EP 30<del>50 (up to 7 hours), FS-EP 70</del>150 (up to 3.3 hours)</td>
</tr>
<tr>
<td>10</td>
<td>Optional extra battery pack (to extend standby Hrs)</td>
<td>24 VDC, 5AH X 2 sets (battery X 4) FCA (up to 9.9 hours), FKA (up to 9.9 hours), AR-D (up to 30 hours), Firefly IV (up to 30 hours), FTA (up to 24 hours), FS-EP 30<del>50 (up to 21 hours), FS-EP 70</del>150 (up to 9.9 hours)</td>
</tr>
<tr>
<td>11</td>
<td>Net Weight lbs(kgs)</td>
<td>7.7lbs (3.5kgs) (not including battery)</td>
</tr>
<tr>
<td>12</td>
<td>Package Gross Weight lbs(kgs)</td>
<td>17.6lbs (8kgs) (including battery)</td>
</tr>
</tbody>
</table>

### Function List

<table>
<thead>
<tr>
<th>Item</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AC abnormal signal output contact</td>
</tr>
<tr>
<td>2</td>
<td>DC power output through AC or DC source independently</td>
</tr>
<tr>
<td>3</td>
<td>MAX 1 A charging current</td>
</tr>
<tr>
<td>4</td>
<td>Optional extra battery pack</td>
</tr>
</tbody>
</table>
R-BBU 100~240VAC 1 PHASE

NOTES:
1. CN1 - POWER OUTPUT 24VDC.
2. CN2 - INPUT POWER 30VDC.
3. CN3 - BATTERY CONNECTION.
4. CN4(1, 2, 3) - BATTERY LOW DRY CONTACT.
5. CN4(4, 5) - AC POWER ON CONTACT NORMAL CLOSE.
6. CN7 - OPTIONAL EXTRA BATTERY PACK CONNECTION.
7. CN5(1, 2) GREEN LED - AC POWER ON.
8. CN5(3, 4) RED LED - BATTERY LOW.
9. CN5(5, 6) BUZZER - NO BATTERY: INTERMITTENT BEEP.
   BATTERY LOW: CONTINUOUS BEEP.

2014.03.05
R-BBU CONNECTIONS

WARNING: TURN OFF POWER BEFORE INSTALLATION

NOTE:
1. CN7 - OPTIONAL EXTRA BATTERY PACK CONNECTION.

FROM R-BBU TB2(V+) (V-)

TO FCA & FKA
DR AR-D Release or Firefly IV
DR FTA
DR FS-EP

FROM R-BBU TB2(V+) (V-)

WARNING: DISCONNECT BATTERY POWER (CN0) BEFORE INSTALLATION

2013.08.13

U.S. GEAR
08/2018
<table>
<thead>
<tr>
<th>FS EP Board with YELLOW CN18,19 Socket Pin</th>
<th>FS EP Board with GREEN CN18,19 Connector</th>
</tr>
</thead>
</table>

![Diagram of FS EP Board with YELLOW CN18,19 Socket Pin](image)

![Diagram of FS EP Board with GREEN CN18,19 Connector](image)