



# USER MANUAL

## RPP10

### REAC POWER PACK





## About REAC

REAC is passionate about helping people in their daily lives, and by providing a wide range of advanced power solutions suitable for many different applications, we hope to make people's lives a little bit easier. Our aim is to offer our clients an excellent service, backed up by experience and know-how in the application of advanced motion systems.

REAC's power solutions contain compact and strong electrical actuators, lift and tilt systems, control units and hand controls. We know that our customers have different needs and therefore our products are designed to be customized according to their application's specific requirements.

We are confident to say that we can solve a wide range of motion problems, so please challenge us!

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# Table of Contents

|          |                                      |          |
|----------|--------------------------------------|----------|
| <b>1</b> | <b>INTRODUCTION .....</b>            | <b>1</b> |
| 1.1      | DOCUMENTATION .....                  | 1        |
| 1.2      | SYMBOLS .....                        | 1        |
| 1.3      | ABBREVIATIONS .....                  | 1        |
| <b>2</b> | <b>PRODUCT DESCRIPTION .....</b>     | <b>2</b> |
| 2.1      | OVERVIEW .....                       | 2        |
| 2.2      | CONNECTORS .....                     | 2        |
| 2.3      | BATTERY DISCONNECTION FUNCTION ..... | 2        |
| 2.4      | SAFETY FUNCTIONS .....               | 3        |
| <b>3</b> | <b>OPERATION .....</b>               | <b>4</b> |
| 3.1      | BEFORE FIRST USE .....               | 4        |
| 3.2      | CONNECTING THE CONTROL BOX .....     | 4        |
| 3.3      | CHARGING THE BATTERY .....           | 5        |
| 3.4      | CHECKING BATTERY LEVEL .....         | 5        |
| <b>4</b> | <b>MAINTENANCE .....</b>             | <b>6</b> |
| 4.1      | SERVICE INTERVALS .....              | 6        |
| 4.2      | CLEANING AND DISINFECTION .....      | 6        |
| <b>5</b> | <b>TROUBLE SHOOTING .....</b>        | <b>7</b> |
| 5.1      | REPAIRS AND REPLACEMENT .....        | 7        |
| <b>6</b> | <b>TECHNICAL DATA .....</b>          | <b>8</b> |
| 6.1      | BASIC CHARACTERISTICS .....          | 8        |
| 6.2      | ENVIRONMENTAL CONDITIONS .....       | 8        |
| 6.3      | WARRANTY .....                       | 8        |
| 6.4      | WASTE DISPOSAL .....                 | 9        |
| 6.5      | LABELING .....                       | 10       |



# 1 Introduction

## 1.1 Documentation

This manual describes the RPP10 power pack.

The following related documentation is also available:

- RPP10 Datasheet
- User Manual – RCB11 and RCB12
- User Manual – RHC10 and RHC15

## 1.2 Symbols

The following symbols are used in the manual:



Injury to persons can occur if these instructions are not followed.



Damage to the product can occur if these instructions are not followed.



Useful tips, recommendations, and information for efficient and trouble-free use.

## 1.3 Abbreviations

|     |                           |
|-----|---------------------------|
| RCB | REAC Control Box          |
| RHC | REAC Hand Control         |
| RPP | REAC Power Pack           |
| VPI | Versatile Power Interface |

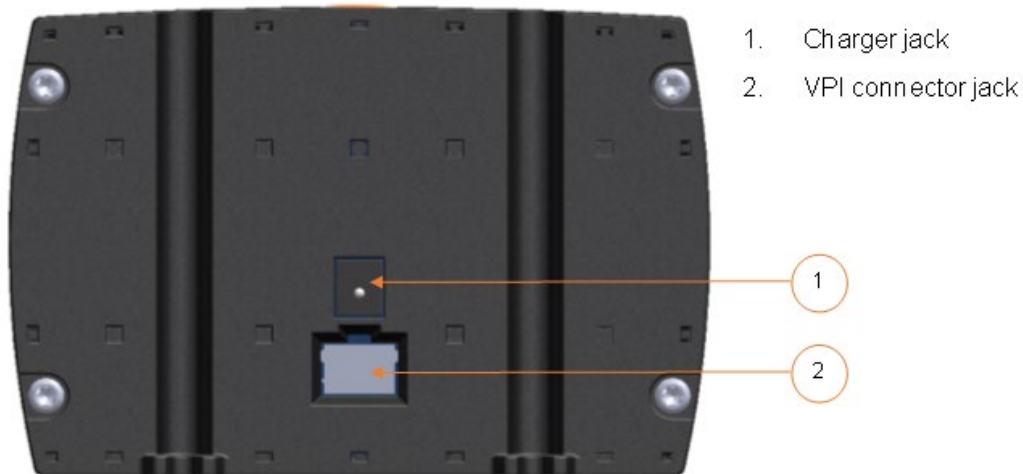
## 2 Product description

### 2.1 Overview

The REAC Power Pack RPP10 is a lead battery intended to be used as a power source.

The RPP10 is compatible with the REAC control boxes RCB11 and RCB12.

### 2.2 Connectors



#### **Charger jack**

The charger jack is used for connection of the battery charger.

#### **VPI connector**

The VPI connector is used for connection of the control box.

### 2.3 Battery disconnection function

To protect the battery from deep discharge and damaged battery cells, the control box (RCB11 or RCB12) has a function that can disconnect the battery completely internally.

The battery is automatically disconnected when the battery level is critically low or after 18 days of standby.

## 2.4 Safety functions

### 2.4.1 Battery ventilation

The RPP10 has ventilation channels (small square holes) at the back and front. The channels ensure ventilation of the battery and also allow moisture to come out.



Do not block or cover the ventilation channels at any time.

### 2.4.2 Disabled motor activation while charging

If the battery charger is connected, the control box (RCB11 or RCB12) prevents any motor activation. The reason is that the charger is not intended to run a motor and doing so might cause EMC disturbance from the charger.

## 3 Operation



In the unlikely event of battery acid leakage and if you get it in your eyes or on your skin: Rinse thoroughly with lots of water and contact your local healthcare for further consultation.

### 3.1 Before first use

Before using the RPP10 for the first time, you should charge the battery for 24 hours. This to ensure full charge and to prolong the lifetime of the battery.

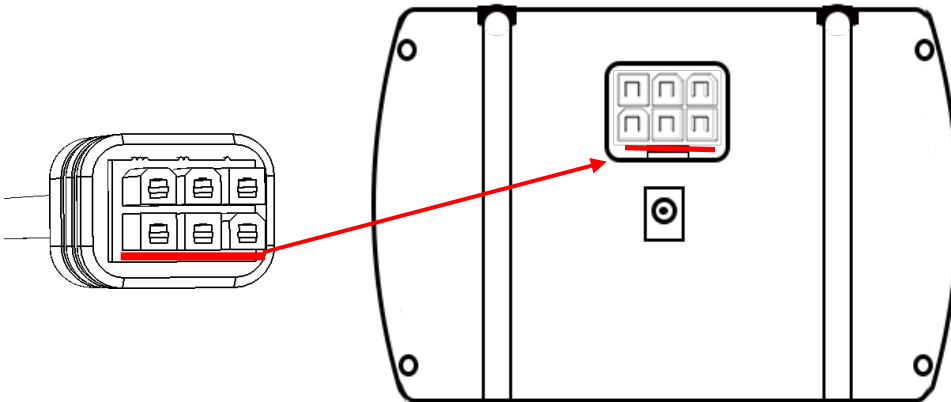
To charge the battery the first time, do the following:

1. Connect the RPP10 to a control box, see section 3.2.
2. Connect the battery charger to the RPP10 charger jack and to a wall socket.
3. Check that the LED on the charger is red, indicating charging.
4. Keep the charger connected for 24 hours.

### 3.2 Connecting the control box

You connect the control box to the VPI connector on the RPP10. For the RCB11, a VPI cable is needed. The RCB12 control box has a fixed VPI cable

The VPI connector is keyed and must be inserted according to the image below. Make sure the part of the connector that forms a straight line is facing the straight line on the RPP10 connector.



To connect the control box to the RPP10, do the following:

1. RCB11: Connect the VPI cable to the VPI connector on the control box.
2. Connect the VPI cable to the VPI connector on the RPP10.



Inserting the VPI connector the wrong way can cause damage the product.

### 3.3 Charging the battery

For an optimum lifetime, you should charge the battery as often as possible. If the battery is not charged regularly, it will be damaged due to self-discharge. Frequent deep discharge reduces the battery life.

During charging, the RPP10 must be connected to a control box.

To charge the battery, do the following:

1. Connect the RPP10 to a control box, see section 3.2.
2. Connect the battery charger to the RPP10 charger jack and to a wall socket.
3. Check that the LED on the charger is red, indicating charging.
4. The charging time is approximately 9 hours.

When the charging is completed, the LED on the charger is green.



Only use the battery charger delivered together with the RPP10.  
Charging must take place in a room with good air ventilation.  
The ambient temperature must not be below 0°C or above 40°C.



If the RPP10 has not been used for a long time, it is recommended to charge the battery for 24 hours.

### 3.4 Checking battery level

To check the battery charge level, you must connect the RPP10 to a RCB11 or RCB12 control box. For more information, refer to the user manual for the control box.



## 4 Maintenance

### 4.1 Service intervals

To ensure safe and proper operation, regular service is required. The service interval depends on the final application and the number of actuator cycles.

Between the planned service points, regular inspection and maintenance should also be performed.

The following maintenance schedule is suggested:

|                                                                                                            | Initially | Regularly | At planned service |
|------------------------------------------------------------------------------------------------------------|-----------|-----------|--------------------|
| <b>Power pack box</b><br>Make sure the RPP10 box is securely fastened.                                     | ✓         |           | ✓                  |
| <b>Cover</b><br>Check the plastic housing for mechanical damage (cracks).                                  | ✓         |           | ✓                  |
| <b>Cables</b><br>Make sure the cable that connects the RPP10 to the control box is firmly affixed.         | ✓         | ✓         | ✓                  |
| <b>Battery</b><br>Before use, make sure at least 1 green battery indicator LED is lit on the hand control. | ✓         | ✓         | ✓                  |

### 4.2 Cleaning and disinfection

| Cleaning instructions                                                                |
|--------------------------------------------------------------------------------------|
| Clean with a damp cloth or with a brush and water (water must not be under pressure) |



Make sure all connectors are plugged during cleaning. This to prevent ingress of water.  
Do not wash directly with a high-pressure cleaner.  
Do not use a steam cleaner.



For disinfection, it is recommended to use soap or equal and clean with a damp cloth.  
Cleaners and disinfectants must not:

- be highly alkaline or acidic,
- contain caustic agents,
- change the structure of the surface of the plastic or the adhesives.

## 5 Trouble shooting

| Problem                      | Probable cause                                   | Description                                                                                                       | Solution                                                                  |
|------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>System appears “dead”</b> | Low battery level.                               | When the level is critically low, the battery is automatically disconnected to protect the battery <sup>1</sup> . | Charge the battery.                                                       |
|                              | Loose contact between the RPP10 and control box. | Nothing happens when trying to activate the system.                                                               | Make sure the RPP10 is properly connected to control box.                 |
|                              | Battery disconnect functionality activated.      | Nothing happens.                                                                                                  | Connect the charger (see section 3.3).                                    |
|                              | Battery is worn out.                             | The battery level indicators on the hand control drop quickly after full charge.                                  | Service is needed.                                                        |
| <b>No Charging</b>           | Charger cable not connected.                     | The LED on the charger is not indicating charging.                                                                | Make sure the cable is properly connected to the RPP10 and a wall socket. |
|                              | Damaged batteries.                               | Charger connected for several hours, but no charging indication.                                                  | Service is needed.                                                        |

### 5.1 Repairs and replacement

To avoid risk of malfunction, all repairs must be carried out by authorized REAC workshops or by a REAC appointed representative. Products under warranty must also be returned to an authorized REAC workshop.



Do not open the product. Damage to the product can occur.

<sup>1</sup> Before this happens, the control box will give a warning sound and the low battery LED on the hand control will flash.

## 6 Technical Data

### 6.1 Basic characteristics

|                     | RPP10                              |
|---------------------|------------------------------------|
| Capacity            | 2.9 Ah                             |
| IP class            | IPX6                               |
| Battery type        | Lead                               |
| Charge time         | 9 h                                |
| Weight              | 2.4 kg                             |
| Flammability rating | UL94 V-0                           |
| Color               | Black (RAL9005)<br>White (RAL9016) |

### 6.2 Environmental conditions

|                           | RPP10            |
|---------------------------|------------------|
| <b>Operating</b>          |                  |
| Ambient temperature       | -15 °C to +50 °C |
| Relative humidity         | 15% to 90%       |
| Atmospheric pressure      | 700 to 1060 hPa  |
| <b>Storage</b>            |                  |
| Ambient temperature       | -20 °C to +50 °C |
| Relative humidity         | 15% to 90%       |
| Atmospheric pressure      | 700 to 1060 hPa  |
| <b>General</b>            |                  |
| Oxygen rich environment   | No               |
| Label reading environment | 50 cm / 500 lx   |



Do not use the product outside the specified limits. Personal injury and damage to the product can occur.

## Warranty

There is a warranty on REAC products against manufacturing faults. The warranty period begins on the purchasing date of the product and applies for 12 months. Warranty exclusions: REAC is entitled to deny any warranty if:

- The product has not been correctly used or the product usage specifications (load, environment, temperature, duty cycle, voltage, current, etc) have not been respected.

- The product has not been correctly maintained.
- The product has been tampered with.
- The product has been exposed to violent or abrasive treatment.

Nonconformities due to age of the product (for example, discolouring of painting) are excluded from warranty. In case of doubt regarding the existence of a defect or if an inspection is required, REAC reserves the right to request the return of the product.

Any additional warranty obligations for parts replaced free of charge or for any service provided without charge under this warranty shall be excluded.

Warranty of the replaced parts under warranty period will end on the date of expiry of the warranty period of the product concerned.

### 6.3 Waste disposal



All REAC products are marked with this symbol. According to *Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/CE*, the symbol indicates that the product must be taken to a proper disposal site and cannot be discarded in normal household waste.

RPP10 consist of several parts with different material, which means it cannot be disposed as one single item. It is recommended (at disposal) to disassemble and divide the product as much as possible into feasible waste groups to be able to recycle the product in the most environmentally friendly way.







The following waste groups have been identified for the RPP10:

|              | Cables                                                                                           | Electronics                                                                                                  | Metal                                                      | Plastic                                                   | Batteries                                                       |
|--------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------|
| <b>RPP10</b> | <ul style="list-style-type: none"> <li>• Internal harness</li> <li>• Connection cable</li> </ul> | <ul style="list-style-type: none"> <li>• Connector circuit board</li> <li>• Charger circuit board</li> </ul> | <ul style="list-style-type: none"> <li>• Screws</li> </ul> | <ul style="list-style-type: none"> <li>• Cover</li> </ul> | <ul style="list-style-type: none"> <li>• 2 × 12 V Pb</li> </ul> |

Some of these main groups can be divided into sub-groups. Metal can, for example, be divided into iron, stainless steel, and aluminum and alloy steel. Plastic can, for example, be divided into ABS, PA, PE, and PP. All REAC plastic units are provided with an interior code for plastic types and fiber contents.

## 6.4 Labeling





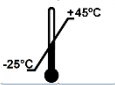

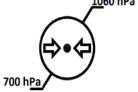

The following symbols are used on the label of REAC control system products.

|                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    | Rated voltage (24 VDC)                                                              |
| <b>IPXX</b>                                                                         | Ingress of particles (first character) and water (second character) as per EN60529. |
|    | IEC 60417-5840: Patient part of type B                                              |
|    | IEC 60417-5957: For indoor use only                                                 |
|    | WEEE compliant                                                                      |
|    | CE-label attached based on Low Voltage Directive and EMC Directive.                 |
|  | ISO 7010-M002: Risk(s) mitigated in accompanying documents                          |


### Label example - product





The following symbols are used on the packaging of REAC control system products.





|                                                                                     |                                   |
|-------------------------------------------------------------------------------------|-----------------------------------|
|    | Manufacturer/manufacturing date.  |
|    | Do not use if package is damaged. |
|    | Fragile, handle with care         |
|    | Keep dry                          |
|    | Temperature limits                |
|    | Relative humidity limits          |
|   | Atmospheric pressure limits       |
|  | Consult instructions for use      |

### Label example - packaging




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**FROM: REAC AB**  
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Sweden

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