Handset Charging Rack
OpenStage WL 3 / OpenStage WL3 Plus

Installation Guide
A31003-M2000-J102-2-7631
Our Quality and Environmental Management Systems are implemented according to the requirements of the ISO9001 and ISO14001 standards and are certified by an external certification company.
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Introduction

This document describes how to install and operate the Handset Handset Charging Rack. Each Handset Charging Rack charges six handsets simultaneously.

![The Handset Charging Rack](image)

**Installation Alternatives**

- The Handset Charging Rack as delivered can be installed as a single unit. When installed as a single unit, the power cord with the C14 connector may be used with a suitable extension cord to be plugged into a wall outlet.
- If more than one Handset Charging Rack is used in a serial configuration a fixed installation must be made. For safety reasons it is NOT allowed to supply more than one unit by the power cord with the C14 connector. When units are supplied in series, the installation must be made by an authorized electrician and the C14 connectors must be removed. Maximum five units may be connected in serial power supply.

In Sweden, Norway and Finland a connection to protective earth (safety grounding) must be provided.

In the USA and Canada the Handset Charging Rack must only be installed as a single unit, serial configuration is not permitted.

**Safety**

The Handset Charging Rack is connected to 100-240VAC/0.7A 50/60 Hz. For safety reasons:

- the safety covers on top of the supply voltage terminal blocks must be mounted to prevent hazardous situations, like electric shock.
- when servicing the units the mains power supply cable must be disconnected.

<table>
<thead>
<tr>
<th>Supply voltage:</th>
<th>100-240VAC/0.7A 50/60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building fuse for fixed installation:</td>
<td>10 A max.</td>
</tr>
</tbody>
</table>

For PERMANENTLY CONNECTED EQUIPMENT, a readily accessible disconnect device shall be incorporated in the building installation wiring. The disconnect device shall disconnect both poles.

For PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and shall be easily accessible.
In Sweden, Norway and Finland the unit must be connected to a wall outlet with protective earth (safety grounding). For other countries it is recommended to use a protective earth connection.

- Suomi: Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan.
- Norge: Apparatet må tillkoples jordet stikkontakt.
- Sverige: Apparaten skall anslutas till jordat uttag.

**Regulatory Compliance Statements (EU/EFTA only)**

This equipment is intended to be used in the whole EU & EFTA.

This equipment is in compliance with the Council Directive on Radio and Telecommunication Terminal Equipment (R&TTE) 1999/5/EC. The Declaration of Conformity may be consulted at:


The product is marked with [CE](https://github.com).

**Regulatory Compliance Statements (USA and Canada only)**

**FCC Compliance Statements for USA**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**IC Requirements for Canada**

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la Classe B conforme à la norme NMB-003 du Canada.

**Modifications**

Changes or modifications to the equipment not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

**Technical Solution**

The following functionality is provided by the Handset Charging Rack:

- Charging of the handset battery.

> The Handset Charging Rack has a button/LED on the front, but it has no function.
Installation and Configuration

Installation of the Handset Charging Rack

General

- The unit shall be placed in a dry environment with a temperature range from +5°C up to +40°C (41°F to 104°F).
- The units shall be mounted on a vertical wall.
- Avoid mounting the Handset Charging Rack in a sunlit place. This can affect the charging capacity.
- Avoid mounting the Handset Charging Rack where radio/network coverage is not sufficient. This can reduce the messaging capacity.
- The unit shall be mounted on concrete or plaster walls only.
- If the Handset Charging Rack is connected to a power supply via an AC wall plug, serial power supply connection is not allowed.
- If the Handset Charging Rack is connected to a power supply via an AC wall plug, the socket-outlet shall be situated near the equipment and shall be easily accessible.
- If the Handset Charging Rack is connected to a power supply via a fixed connection, a readily accessible disconnect device shall be incorporated in the building installation wiring.

Delivery Includes:
- Handset Charging Rack
- Power supply cord including IEC C14 connector (male)
- Inlet accessory kit including cable support holders and screws

An extension cord IEC C13 AC connector (female, IEC60320-C13) to wall socket has to be ordered separately. It shall be connected between the pre-installed IEC C14 AC connector (male) and the wall socket.

Required Tools etc.
- Screwdrivers
- Cutting pliers
- Multimeter
- Screws and wall plugs for wall mounting. Make sure the screws and wall plugs have the correct length for the type of wall used. See example below:

<table>
<thead>
<tr>
<th>Wall material</th>
<th>Plug length</th>
<th>Screw diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single plasterboard</td>
<td>Thorsman TP1</td>
<td>3.5 – 5 mm</td>
</tr>
<tr>
<td>Double plasterboard</td>
<td>Thorsman TP2</td>
<td>3.5 – 5 mm</td>
</tr>
<tr>
<td>Concrete</td>
<td>Thorsman TP2</td>
<td>3.5 – 5 mm</td>
</tr>
</tbody>
</table>

Examples of Ways to Mount the Handset Charging Racks

Different ways to mount Handset Charging Racks is shown in Figure 4. It is possible to set up different combinations of Handset Charging Racks and Battery Pack Chargers.

Installation Steps for Handset Charging Rack

The installation is done in two steps:
1. Wall mounting.
2. Electrical installation.
Wall Mounting

First, make an outline of how the Handset Charging Racks are to be placed.

- **TIP:** If several Handset Charging Racks (or Battery Pack Chargers) are to be mounted close to each other, mount them so that there is enough space between them to be able to disconnect the handsets (vertical distance) and to be able to open the top cover (horizontal distance).

- **TIP:** When you are planning the location of the modules, start to mount them in a height that makes it easy to reach the handsets and to read the handsets’ display.

Measure and mark the drill holes by using the dimensions in Figure 2. Drill and fasten the Handset Charging Rack on the wall with four screws.

*Figure 2  Mounting dimensions [mm] - Handset Charging Rack from the back*

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Electrical Installation

**Power Supply by Power Cord to Wall Outlet**

The Handset Charging Rack is delivered with a cord with an IEC C14 connector (male). An extension cord IEC C13 AC connector (female, IEC60320-C13) to wall socket has to be ordered separately. It shall be connected between the pre-installed AC connector (male) and the wall socket.
Installation Test
1. Connect the mains power supply cord to the wall socket.
2. Put a handset in a charging slot to check if the handset's LED lights up.

Power Supply by Fixed Connection

- If the Handset Charging Rack shall be connected with a fixed connection, the AC connection must be done by a authorized electrician.

- It is possible to use any of the two AC terminal blocks for AC input. Consequently, the unused terminal block may be used to connect the next Handset Charging Rack or battery pack charger.

The Power Supply module connects to 100-240VAC/0.7A 50/60 Hz. When working with the units the mains power supply cable must always be disconnected. The safety covers must be mounted on top of the power supply terminal blocks to prevent hazardous situations, like electric shock.

Examples of how Handset Charging Racks can be mounted and connected by fixed installation to a power source.
Opening the Top Cover
Open the top cover by first pressing on the sides of the top cover, then lifting it upwards.

Fixed Installation in Detail
Fixed installation of the first Handset Charging Rack or single unit with fixed electrical installation.
1. Remove the C14 connector from the power cord. Measure, cut and strip the power cord to be connected to the disconnect device.
2. Connect the mains power supply cord to the disconnect device.

The IEC color code is used in the power cord supplied.

Wiring color codes:

<table>
<thead>
<tr>
<th>IEC</th>
<th>US</th>
<th>Old</th>
<th>Load</th>
<th>Also called</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown</td>
<td>Black</td>
<td>Red</td>
<td>Active</td>
<td>Line, Hot</td>
</tr>
<tr>
<td>Blue</td>
<td>White</td>
<td>Black</td>
<td>Neutral</td>
<td>Return, Cold, Grounded connector</td>
</tr>
</tbody>
</table>
Installation and Configuration

**Installation of Additional Units in a Serial Power Configuration**

1. If the additional Handset Charging Rack has not yet been mounted on the wall, do this according to Figure 2.
2. Open the top cover of the Handset Charging Rack closer to the AC power source.
3. Remove the cover which protects the unused AC output terminal block of the Handset Charging Rack closer to the AC power source.
4. Mount the cable support holder at the unused opening in the Handset Charging Rack closer to the AC power source. The cable support holder is provided in the parts bag. See Figure 6.
5. Remove the C14 connector from the additional Handset Charging Rack. Cut and strip the mains power supply cord coming from the additional Handset Charging Rack to the length required.
6. Run the power supply cord from the additional Handset Charging Rack through the cable support holder of the previous Handset Charging Rack, see Figure 7.

<table>
<thead>
<tr>
<th>Gr/Ye **</th>
<th>Green</th>
<th>Green</th>
<th>Earth</th>
<th>Ground, Safety Earth, Earth Ground, Grounding conductor ***</th>
</tr>
</thead>
</table>

* The “Old” standard was used in various countries (including Australia), and some wiring may still use these colors.
** Gr/Ye - Green with Yellow stripe - this is the standard world wide, although it is not common in the US or Canada at present.
*** Gr/Ye - Green with Yellow stripe - this is the standard world wide, although it is not common in the US or Canada at present.

**Maximum five units may be connected in power series.**

**It is not allowed to connect additional Handset Charging Racks or Battery Pack Chargers if the chargers are connected to the power supply via an AC plug.**

**Disconnect the power supply connection before working on the units.**
7. Connect the power supply cord from the additional Handset Charging Rack to the unused terminal block in the Handset Charging Rack closer to the AC power source. Note the embossed markings L, earth symbol and N, see Figure 8.

8. Mount the safety cover and fasten it with one screw.
9. Secure the mains power supply cable with two screws (2), which are provided in the parts bag, see Figure 7.
10. Replace the top cover, see Figure 5.
11. Fasten the power cord to the wall depending on local regulations.
12. If more Handset Charging Racks shall be connected, repeat the above steps 1-12 for the next unit.
Installation Test
1. When the fixed installation is completed, apply AC power by switching on the disconnect device.
2. Put a handset into a charging slot to check if the handset’s LED lights up.

Commissioning

The commissioning includes the following:
• Installation test
• Charging

Installation Test
For Installation test, see Installation Test in the chapter before.

Charging
To verify that the charging works, do as follows:
Place a handset in a charging slot. Start of charging may be indicated differently depending on handset model.

Operation

Operation of the Handset Charging Rack
When the Handset Charging Rack is connected to external power supply, normal operation is done as follows:
Handset charging
1. Connect the Handset Charging Rack to the AC power supply.
2. Place a handset in the charging slot to start charging.

Handset disconnection
1. First, tilt the handset forwards.
2. Then, lift the handset upwards.

Do not try to lift the handset upwards before tilting it forwards.