

Rove R8 REPEATER USER GUIDE

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Introduction:

The Rove R8 repeater user guide is designed to give a detailed overview on how to install, register and manage Poly repeaters

Document History

REVISION	AUTHOR	ISSUE DATE	COMMENTS
1.0	MLE	16-09-2020	

What is new

What new features have been added.

VERSION	FEATURE
V515	

Main topics:

- Installation
- Locate automatic
- Manual registration
- Firmware update
- LED indications

Installation of Repeater

After planning the network, next is to determine the proper places or location the repeater. The repeater should be mounted as high as possible (2 meters or higher).

3.1 Package – Contents/Damage Inspection

Before Package Is Opened:

Examine the shipping package for evidence of physical damage or mishandling prior to opening. If there is a proof of mishandling prior to opening, you must report it to the relevant support center of the regional representative or operator.

Contents of Package:

Make sure all relevant components are available in the package before proceeding to the next step.

Every shipped repeater package/box contains the following items:

- 1 x Power supply
- 1 x Repeater
- 1 x Table stand
- 1 x Safetysheet

Damage Inspection:

The following are the recommended procedure for you to use for inspection:

1. Examine all relevant components for damage.
2. Make a “defective on arrival – DOA” report or RMA to the operator. Do not move the shipping carton until the operator has examined it. If possible, send pictures of the damage. The operator/regional representative will initiate the necessary procedure to process this RMA. They will guide the network administrator on how to return the damaged package if necessary.
3. If no damage is found, then unwrap all the components and dispose of empty package/carton(s) in accordance with country specific environmental regulations.

3.2 Poly Base Station Mechanics

The repeaters front end shows an LED indicator that signals different functional states of the repeater.

The indicator is off when the repeater is not powered on.

Hardware installation:

The repeater should be mounted on a wall in a height less than 2 meters.

Screws and Anchors needed (Not supplied by Poly)

2x Screws = Screw wall mount M3.5x31

2x Anchors: Length 29,6mm, OD 6,0mm, ID 4,8mm

NOTE: The repeater should be mounted on a wall not higher than 2 meters

3.4 Recommended external DC adapters

Part Nr	Description	Manufacturer	Type
S005CAV0500100	SMPS,100-240VAC,5V 1000mA with USB-A	Ten Pao International LTD	EU
S005CAB0500100			UK
S005CAS0500100			AU
S005CAU0500100			US

Repeater registration options:

There are 2 different ways to register Poly repeater's "Local Automatic" and "Manually"

Local Automatic:

In this mode the repeater registers to the base station with best signal strength, this option is only recommended for single cell systems and Multi cell systems where the repeater is only able to sync with one specific base station.

Manually:

Manual registration is used in most cases when adding repeaters to a multi cell system. Manual registration allows to determine what base stations the repeater must connect to.

Register repeater(s) "Local Automatic":

NOTE: Do not power on the repeaters before they have been added on the base station

NOTE: When adding first repeater the base station(s) will reboot, this is because encryption is being enabled, the same goes if all repeaters is deleted, then the system will reboot to disable encryption.

Step 1: To register repeater(s), navigate to the Repeater page.

Screen shot



The screenshot shows a web interface for managing repeaters. At the top, there is a header "Repeaters". Below the header, there are two links: "Add Repeater" and "Refresh". Below the links is a table with the following columns: "Idx", "RPN", "Name/IPEI", "DECT sync source", "DECT sync mode", "State", "FW Info", and "FWU Progress".

Step 2: Click "Add Repeater" and select "Local Automatic" from the dropdown

Screen shot

Step 3: Give the repeater a name and press “save”

Step 4: Power on the repeater(s) and registration will start.

When the LED is steady green the repeater is successfully registered.

Screen shot

Idx	RPN	Name/ IPEI	DECT sync source	DECT sync mode	State	FW Info	FWU Progress	
<input type="checkbox"/>	<u>1</u>	RPN09	Repeater 1/ 0298D02668	RPN08 (-26dBm)	Local Automatical	Present@RPN08	39	Off

Check All / Uncheck All
With selected: [Delete Repeater\(s\)](#), [Register Repeater\(s\)](#), [Deregister Repeater\(s\)](#)

PARAMETERS	DESCRIPTION
IDX	System counter
RPN	<p>SINGLE CELL SYSTEM:</p> <p>The base has always RPN00, first repeater will then be RPN01, second repeater RPN02 and third RPN03 (3 repeaters maximum per base)</p> <p>MULTI CELL SYSTEM:</p> <p>Bases are increment by 2^2 in hex, means first base RPN00 second base RPN04 etc., in between RPN01, 02, 03 addressed for repeaters at Primary base and 05, 06, 07 addressed for Secondary base (3 repeaters maximum per base)</p>
NAME/IPIE	Name and IPIE number of the repeater
DECT SYNC MODE	DECT Sync mode – Manually or Automatic
STATE	State of the repeater Enabled/Disabled
FW INFO	Firmware version
FWU PROGRESS	How many percentages of the firmware is loaded / Off if no firmware is being loaded

Register repeater(s) “Manually”:

NOTE: Do not power on the repeaters before they have been added on the base station

NOTE: When adding first repeater the base station(s) will reboot, this is because encryption is being enabled, the same goes if all repeaters is deleted, then the system will reboot to disable encryption.

Step 1: To register repeater(s), navigate to the Repeater page.

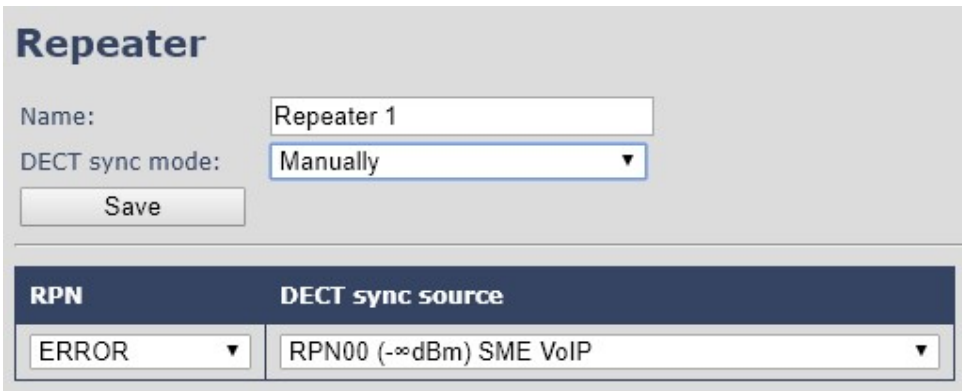
Screen shot



The screenshot shows the 'Repeaters' management page. At the top, there is a header 'Repeaters'. Below the header, there are two links: 'Add Repeater' and 'Refresh'. Below these links is a table with the following columns: 'Idx', 'RPN', 'Name/IPEI', 'DECT sync source', 'DECT sync mode', 'State', 'FW Info', and 'FWU Progress'.

Step 2: Click “Add Repeater” and select “Manually” from the dropdown

Screen shot



The screenshot shows the 'Repeater' configuration form. It has a title 'Repeater'. There are two input fields: 'Name:' with the value 'Repeater 1' and 'DECT sync mode:' with a dropdown menu showing 'Manually'. Below these fields is a 'Save' button. Below the 'Save' button is a table with two columns: 'RPN' and 'DECT sync source'. The 'RPN' column has a dropdown menu showing 'ERROR'. The 'DECT sync source' column has a dropdown menu showing 'RPN00 (-∞dBm) SME VoIP'.

Step 3: Give the repeater a name and press “save”

Step 4: select what base station the repeater needs to register to “DECT sync source” drop down

In this case there are three base stations in the multicell (RPN00, RPN04 and RPN08) and three repeaters can be connected to each base station.

Select the base station the repeater needs to register to.

E.g. RPN04

Screen shot

Repeater

Name:

DECT sync mode:

RPN	DECT sync source
<input type="text" value="ERROR"/>	<input type="text" value="RPN00 (-∞dBm) SME VoIP"/>
	<input type="text" value="RPN00 (-∞dBm) SME VoIP"/>
	<input type="text" value="RPN01 (-∞dBm) Repeater"/>
	<input type="text" value="RPN02 (-∞dBm) Repeater"/>
	<input type="text" value="RPN03 (-∞dBm) Repeater"/>
	<input type="text" value="RPN04 (-∞dBm) SME VoIP"/>
	<input type="text" value="RPN05 (-∞dBm) Repeater"/>
	<input type="text" value="RPN06 (-∞dBm) Repeater"/>
	<input type="text" value="RPN07 (-∞dBm) Repeater"/>
	<input type="text" value="RPN08 (-∞dBm) SME VoIP"/>
	<input type="text" value="RPN09 (-∞dBm) Repeater"/>
	<input type="text" value="RPN0A (-∞dBm) Repeater"/>
	<input type="text" value="RPN0B (-∞dBm) Repeater"/>

Step 5: Select the RPN for the repeater.

ERROR: The repeater will choose the first available slot on the selected base station.

RPN x: The repeater connects to RPN x of the chosen base station.

E.g. Base station RPN04 + RPN1 repeater, then the repeater connects to "RPN5"

Screen shot

Repeaters

[Add Repeater](#)

[Refresh](#)

Idx	RPN	Name/ IPEI	DECT sync source	DECT sync mode	State	FW Info	FWU Progress	
<input type="checkbox"/>	<u>1</u>	RPN02	Repeater 1/ 0298D02668	RPN00 (-26dBm)	Manually	Present@RPN00	39	Off

[Check All](#) / [Uncheck All](#)

With selected: [Delete Repeater\(s\)](#), [Register Repeater\(s\)](#) [Deregister Repeater\(s\)](#)

Firmware update:

The repeaters are updated over air.

Step 1: Navigate to Firmware Update page

Step 2: Enter "Firmware Update server address", "Firmware path" and DECT402x firmware version

Screen shot

Firmware Update Settings

Firmware update server address:

Firmware path:

Terminal file path:

Type	Required version	Required branch	Startup picture
Update Base Stations	<input type="text" value="0"/>	<input type="text" value="0"/>	
8200	<input type="text" value="0"/>	<input type="text" value="0"/>	
8633	<input type="text" value="0"/>	<input type="text" value="0"/>	
8632	<input type="text" value="0"/>	<input type="text" value="0"/>	
8630	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text"/>
8631	<input type="text" value="0"/>	<input type="text" value="0"/>	
8930g	<input type="text" value="0"/>	<input type="text" value="0"/>	
DECT4024	<input type="text" value="0"/>	<input type="text" value="0"/>	

PARAMETER	DEFAULT VALUE(S)	DESCRIPTION
FIRMWARE UPDATE SERVER ADDRESS	Empty	IP address or DNS of firmware update files source Valid Inputs: AAA.BBB.CCC.DDD or <URL> Example: firmware.poly.net or 10.10.104.41
FIRMWARE PATH	Empty	Location of firmware on server (or firmware update server path where firmware update files are located). Example: polyFWU
TERMINAL FILE PATH	Empty	Location of image (folder where background and start up image are located). Example: Images
REQUIRED VERSION	Empty	Version of firmware to be upgraded (or downgraded) on handset, repeater, or base station. Valid Input(s): 8-bit string length. E.g. 400 Note: Value version 0 will disable firmware upgrade Note: Two handset types will be serial firmware upgraded. First type 8630 then type 8430.
REQUIRED BRANCH	Empty	Branch of firmware to be upgraded (or downgraded) handset, repeater or base station. Valid Input(s): 8-bit string length. E.g. 01

NOTE: Repeater firmware do not follow the normal version numbers.

LED and button:

Power cycle

The repeater basically has two modes: Subscribed or not subscribed.

When powered up without a registration, the following applies.

Power	Press	Action
OFF	00s < x < XXs	Nothing
ON	00s < x < 05s	Nothing
ON	05s < x < 300s	Search for suitable base and start registration procedure if a suitable is found

When powered up with a registration, the following applies:

Power	Press	Action
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OFF	00s < x < XXs	Nothing
ON	00s < x < 60s	Search for source base/repeater
ON	60s < x < XXs	Search for any base/repeater in the system

Button

In the below table the action of the button press is presented.

Button	Press	Action
1	00s < x < 02s	Nothing
1	02s < x < 06s	Delete registration Old registration is deleted, and a new registration procedure is started.
1	18s < x < 60s	Enable or disable repeater monitor beep tone in handset during call.
1	60s < x < XXs	Nothing

LED

LED	Indication	Action
GREEN	Off	Power Off
GREEN	Slow flash	Unlocked, Searching for base station
GREEN	Double flash	Registration/subscription mode and searching for open base station – registering procedure.
GREEN	Steady on	Locked to base station and ready for use - idle
RED	Off	No handset relayed by repeater
RED	<i>n</i> flash	<i>n</i> handset relayed by repeater
RED	Steady on	1. Registration procedure timed out after 5 min. 2: When key is held pressed the LED will light up in 2 sec. to indicate that releasing the key will delete registration, LED turns off after 4 more sec.
RED/GREEN	Flashing Red/Green	Recovery mode – repeater is locked to base station/repeater without repeater mode activated. 1: Sync. Source base station/Repeater not found (Manual mode). 2: Timeout during RPN allocation due to busy base station/Repeater.

FCC Warning :

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.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For Repeater

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter located or operating in conjunction with any other antenna or transmitter.

ISED Warning :

This device complies with ISED licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ISED Radiation Exposure Statement:

For Repeater

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Déclaration d'ISED sur l'exposition aux radiations:

Pour répéteur

Cet équipement est conforme aux limites d'exposition aux radiations ISED définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps. Cet émetteur ne doit pas être situé ou fonctionner conjointement avec une autre antenne ou un autre émetteur.