

## Networking of multiple RCT Power inverters via LAN / WLAN

If there are more than two Power Storage or Power Inverter devices to be linked in one system, connection over the S0 interface is no longer possible.

The devices must be connected over the LAN/WLAN interface using a network switch or a home network router. The connected devices exchange information over this interface (e.g. house load, grid power, system peak power, power reduction factor, max. permitted feed-in power and SOC target).

Please note: The devices can only be connected to a network if they are integrated into a home network router or a network switch.

For integration into the home network router, please follow the corresponding procedure in the manual.

The integration with a fixed IP address is to be preferred. Configuring the home network router to assigning IP addresses automatically with Dynamic Host Configuration Protocol (DHCP) can lead to a loss of connection and data.

If the devices connect over a network switch, integration with a fixed IP address is mandatory

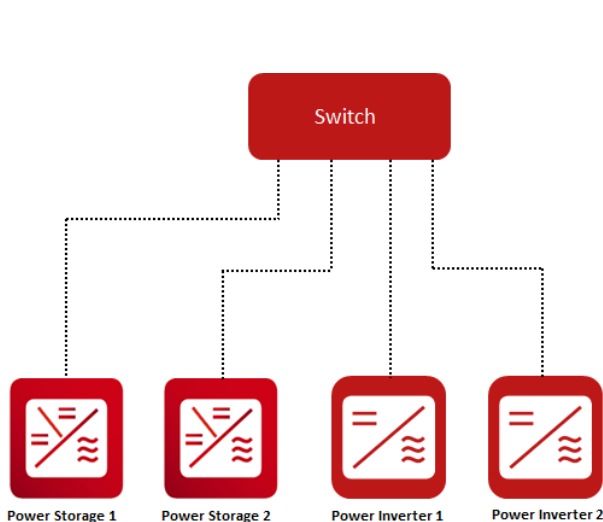


Fig. 1: Device networking via switch [4 clients]

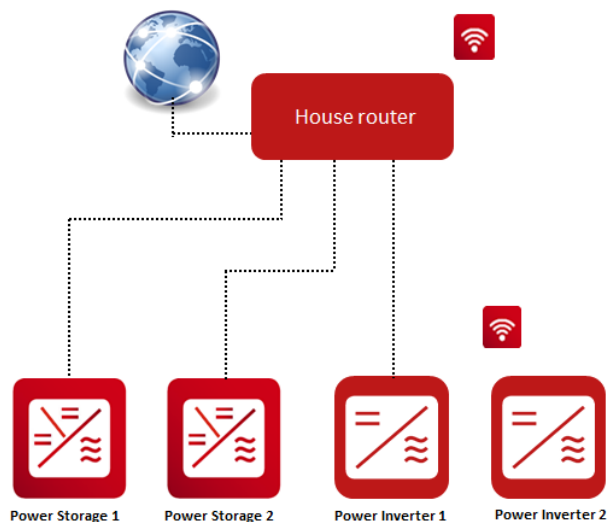


Fig 2: Device networking via router [4 clients]

Use the RCT Power APP to integrate multiple devices of RCT Power Storage and RCT Power Inverters into your home network. Integration must be performed for the Master device and all slave devices separately.

The following instructions are based on using a fixed IP address and Wi-Fi for the integration.

Please note: Software version 4464 or later must be installed for the RCT Power Inverter /RCT Power Storage to ensure that the integration of multiple inverters into the home network is successful.

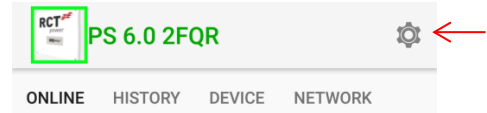
## 1.1 Integration Master device

Please use the Power Storage AC or DC as your master device.

Step	Description
------	-------------

1	Launch the "RCT Power APP" and connect to the Power Storage.
---	--

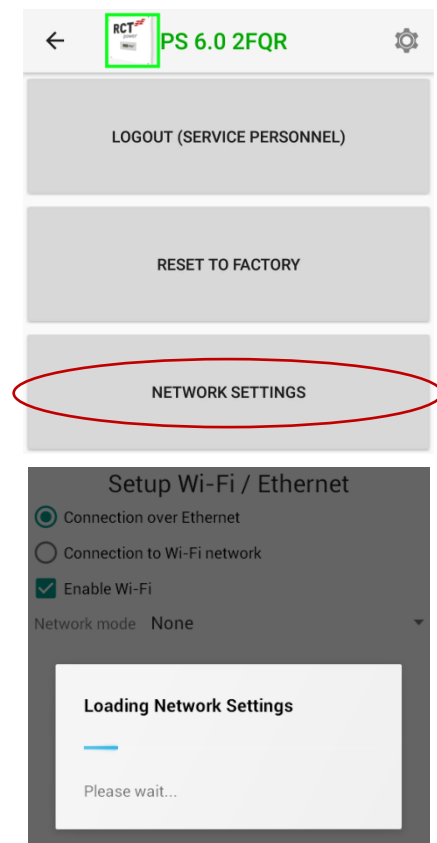
2	Press the Set-up icon "  ".
---	--



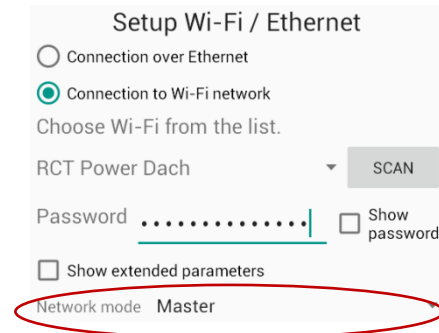
3	Tap on "LOGIN". Enter the password in the dialogue box and press "OK" to enter the configuration options screen.
---	--

(Login Installer Area, password: "installer",  
Login Customer Area, password: "\*\*\*\*\*")

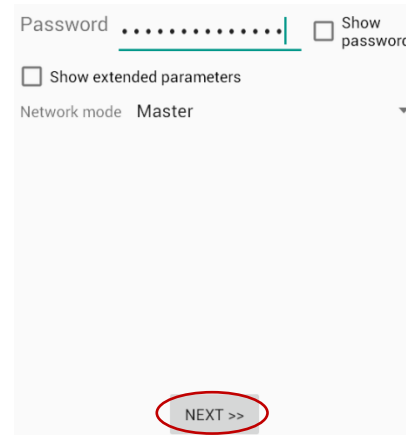
4	Press "NETWORK SETTINGS" and wait while the network settings load.
---	--



- Expand the selection list for "Network mode" and select "Master".



- Press "NEXT >>" to continue.

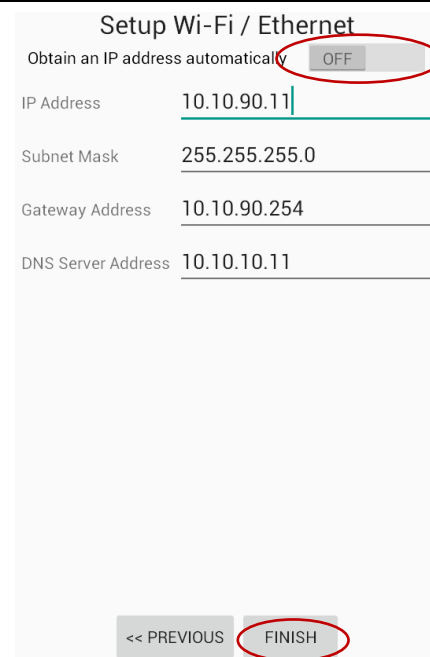


- Set slider button for "Obtain an IP address automatically" to "OFF" and tap "FINISH".



An IP address of 0.0.0.0 usually indicates that a device is not connected to a TCP/IP network. Connect your device to your home network to obtain a valid IP address (see section 7.1.6). If you are connecting your device to the home network using a network switch obtain the IP address from the switch.


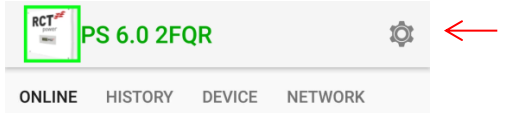
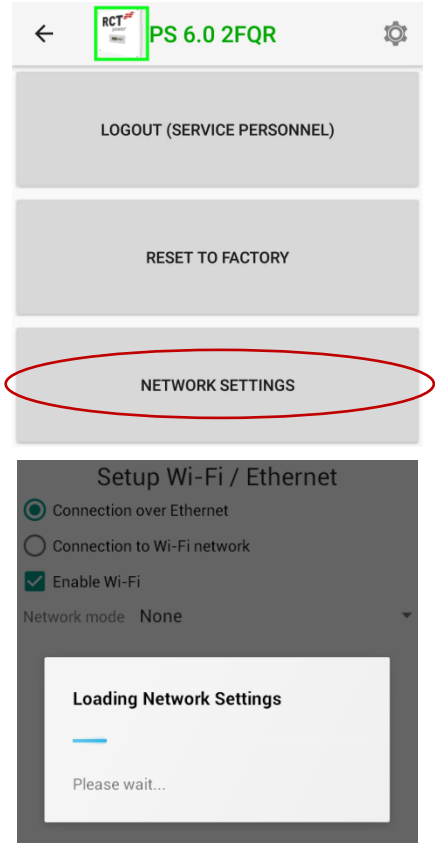
Make a note of the IP address of the master device. You will need it when you integrate the Slave devices.



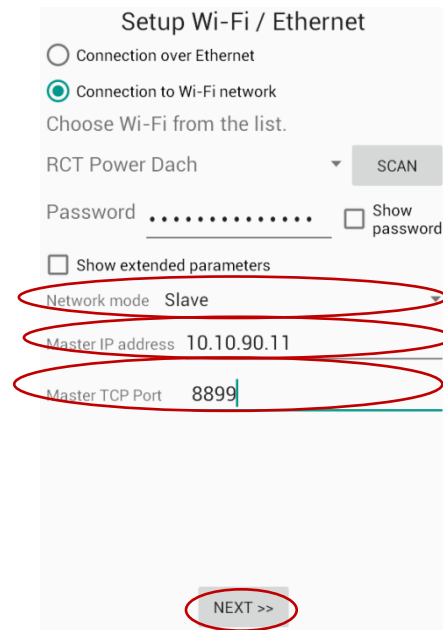
Wait until the message "Store changes ...done " appears and press "Finish" again.



## 1.2 Integration Slave device

Step	Description	
1	Launch the "RCT Power APP" and connect to the Power Storage that you want to integrate into the system.	
2	Press the Set-up icon "  ".	
3	Tap on "LOGIN" Login. Enter the password in the dialogue box and press "OK" to enter the configuration options screen.  (Login Installer Area, password: "installer", Login Customer Area, password: "*****")	
4	Press "NETWORK SETTINGS" and wait while the network settings load.	

- 5 Expand the selection list for "Network mode" and select "Slave".  
Add the IP address of the Master device in the field "Master IP address".  
The default value for the "Master TCP port" is 8899. It should only be changed if a networking device requires a different setting.

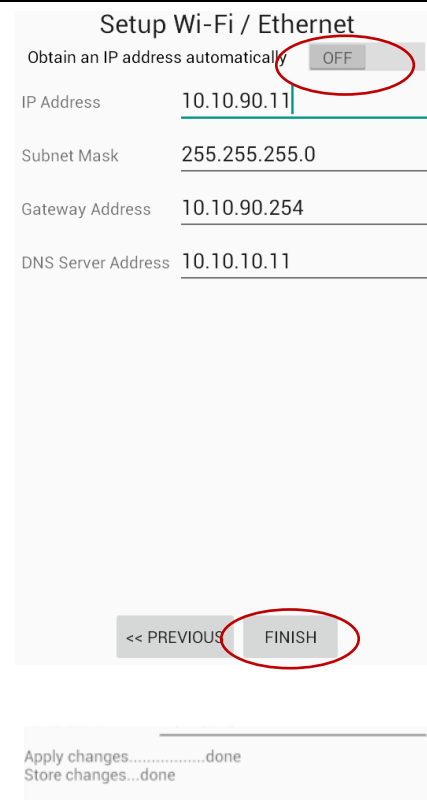


Press "NEXT >>" to continue.

- 6 Set slider button for "Obtain an IP address automatically" to "OFF" and tap "FINISH".



An IP address of 0.0.0.0 usually indicates that a device is not connected to a TCP/IP network. Connect your device to your home network to obtain a valid IP address (see section 7.1.6). If you are connecting your device to the home network using a network switch obtain the IP address from the switch.



Wait until the message "Store changes ...done " appears and press "Finish" again.



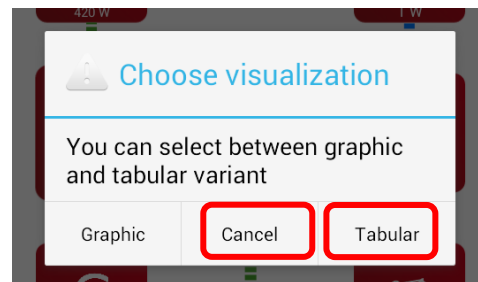
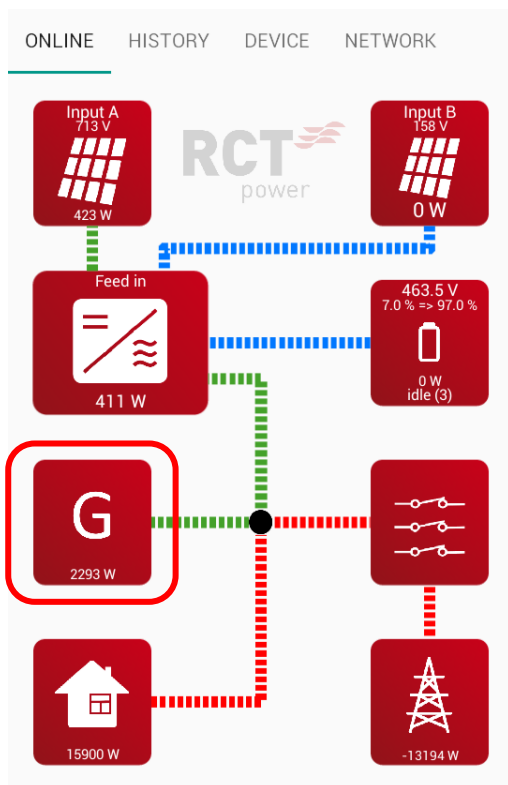
Please use this procedure to integrate all slaves in the system!

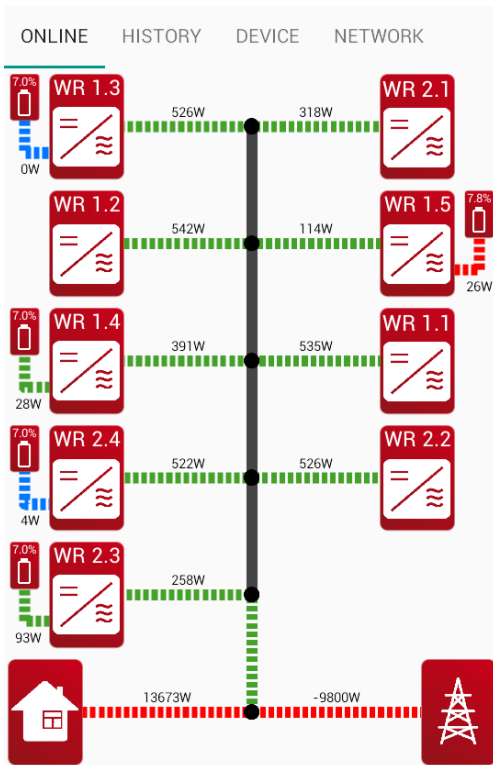
### 1.3 System Visualisation

The Master device distributes the parameters house load, network power, system peak power, power reduction factor, max. permitted feed-in power and SOC target in the network.

The required parameters for the system peak power and power reduction factor can only be set in the Master device. The values specified in the Slave devices will be overwritten by the Master device settings.

When the Master device is accessed by the RCT Power APP via the "ONLINE" menu a system visualisation is presented. The Slave devices in the system are grouped under the "G" icon. Tap on the icon to get more detailed information. "Graphic" and "Tabular" visualisations are available.:





●	WR 1.3 (0065A4630118/4655) 0
State	Power SOC Bat. power
Feed in	495 W 7.0 % 0 W idle
●	WR 2.2 (0066A2630062/4655) 359
State	Power
Feed in	512 W
●	WR 2.3 (0065A4630123/4655) 352
State	Power SOC Bat. power
Feed in	492 W 7.0 % 0 W idle
●	WR 1.5 (0065A4630119/4655) 342
State	Power SOC Bat. power
Feed in	116 W 7.8 % 26 W discharge
●	WR 2.1 (0066A2430012/4655) 352
State	Power
Feed in	307 W
●	WR 1.2 (0066A2630067/4655) 343
State	Power
Feed in	523 W
●	WR 2.4 (0065A4630127/4655) 359
State	Power SOC Bat. power
Feed in	510 W 7.0 % 3 W

Example: system view “Graphic”

Example: system view “Tabular”



The inverter display indicates if the inverter is used as a Master or a Slave Device by adding an additional letter after the IP address. (“S” for Slave and “M” for Master )

## 1.4 Firmware update via network

The network connection of Master and Slave devices allows for an update of the Control Software for the Master device and follow up with a subsequent software update of the Slaves devices. This function deactivated by default and requires activation in the RCT Power APP.

Unfortunately, an update of the BMS software over a network is at the moment not possible.

Step	Description
1	Launch "RCT Power APP" and establish connection to your Master device.
2	Press the Set-up icon "  ". 
3	Tap on "LOGIN" Enter the password in the dialogue box and press "OK" to enter the configuration options screen. (Login Installer Area, password: "installer", Login Customer Area, password: "*****")
4	Go to "DEVICE" → "Settings" → "Update". Under "Control Update" set tick mark for "Activate aut. update slaves". 
5	Please confirm the changed parameter with "Yes" in the dialogue box. An update of the Master device <b>Control Software</b> will automatically update the Control Software of the Slave device. 



If the master device has a more current software version than one of the slaves before the activation of the automatic update parameter, the update process starts immediately. Changed settings cannot be stored. Only one slave at a time can be updated.