



SpectrumVoIP™

How to register a Yealink repeater (RT10) to a base station (W52P/W56P)





The steps are a summary of the Yealink RT10 user guide available [RT10-Userguide.pdf](#).

De-register the repeater

If the Repeater is not Factory default, then follow the steps below.

1. Ensure the repeater is unpowered.
2. Power the repeater between 1 to 5 seconds then power it off.
3. Power the repeater between 25 to 35 seconds then power it off.
4. Upon the next power cycle, the unit has been factory reset.

Case A: Auto registering the repeater to the nearest base station

1. Ensure the base station is already setup and powered.
2. Ensure the repeater is unpowered and within reach of the base station.
3. Enable Repeater mode on the base via a handset:
 - a. From any handset, go to Settings, System Settings, then add a checkmark to Repeater Mode.
 - b. The handset will warn "Setting takes effect after base reboot. Reboot now or not?"
 - c. Select Yes when appropriate.
 - d. Wait for the base to complete rebooting, the handset will eventually show it is registered again.
4. On the base station, press and hold the wireless button (front face) for 2 seconds. The base is now ready to be paired (the handset icon on the base will flash green).
5. While the base is flashing, power on the repeater. Let the repeater LED flash until it is solid red. The repeater is paired and ready.



Case B: Manual registering the repeater to the nearest base station

1. Ensure the base station is already setup and powered.
2. Enable Repeater mode on the base via a handset:
 - a. From any handset, go to Settings, System Settings, then add a checkmark to Repeater Mode.
 - b. The handset will warn "Setting takes effect after base reboot. Reboot now or not?"
 - c. Select Yes when appropriate.
 - d. Wait for the base to complete rebooting, the handset will eventually show it is registered again.
3. Ensure the repeater is unpowered and within reach of the base station.
4. Power on the repeater between 1 to 5 seconds then un-power it.
5. Power on the repeater once more, the LED indicator on the repeater flashes slowly.
6. There is now a 5 minute window to register with the base:
 1. On the base, press and hold the wireless button (front face) for 2 seconds. The base is now ready to be paired (the handset icon on the base will flash green).
 2. If the LED flashes fast **without interruptions** then go to 5 in this subsection.
 3. If the LED flashes fast **with interruptions** then go to 4. in this subsection.
 4. Registration of handset:
 - a. If the password of the base station has been changed, reset it to '0000' then re-register the handset. The LED indicator on the base should flash fast without interruptions.
 5. Assign a repeater number:
 - a. On the handset, dial #*9 and the off-hook key on the handset. The LED indicator illuminates.
 - b. Press a number between 2 and 7.
 - c. When the repeater has accepted the chosen number, the LED indicator will flash a corresponding number of times.
 - If you miss the confirmation flash, press the number again.
 - d. Accept the registration by pressing the * key and then press the on-hook key.
 - e. The repeater is now automatically restarted: the LED indicator goes off for 2 seconds, flashes for a brief moment and then stays illuminated.
7. Registration is completed.



Placement of the Repeater and Testing

- A raised position for the base and repeater where possible maximizes connectivity.
 - at or above the head works best so to avoid equipment or furniture.
- Avoid interference from other electrical appliances such as microwave ovens, Hi-Fi equipment, computers, etc.
- Avoid obstacles that can interfere with radio transmission such as thick wall and metal structures that may be in the coverage area between the base and repeater.
 - It is best the repeater has a direct line of sight to the base station. If there is poor connectivity between the base and the repeater (wireless), then the repeater may temporarily lose connection and will automatically re-register continually every few minutes.
 - The repeater would flash red when losing connection to the base by attempting to reconnect.
- All repeaters must be within range of the base station.
- Per manual: To find the best possible location for the repeater, you may need to try various locations. Place a call and walk around with the handset to determine the base station's coverage area. The verification tone allows you to easily check the extent of the repeaters' coverage area. The tone is audible on the handset during a call.
- To activate the verification tone on the repeater:
 - un-power the repeater.
 - Power it for 1 to 5 seconds and then un-power it
 - Power it again, the LED indicator on the repeater flashes slowly.
 - Power it off again.
 - Power it on again.
 - The verification tone is then activated.
- Please a call using the handset to check whether the handset is working in the extended area of the repeater.
- If the call is successfully handled by the repeater, you can hear the verification tone from the handset every few seconds.
- To de-activate the verification tone, repeat 4. from above (exactly the same steps as activating the verification tone).

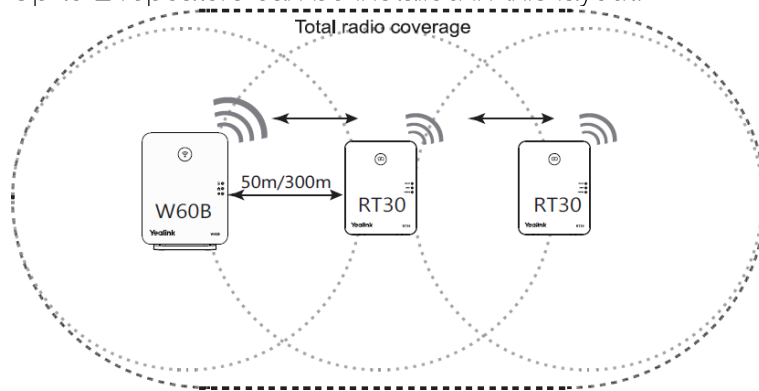


Multiple Repeaters

If the radio link level of RT30 is excellent to good, each repeater can have up to two calls (external and internal calls) at any time. The repeater can be used to extend the range (up to 300m in unobstructed outdoor areas and up to 50m inside buildings) in a single direction or in all directions. The automatic handover process is seamless. If the repeater is placed properly (overlapping the coverage of the base station), the handsets can move freely within the total coverage while on a call.

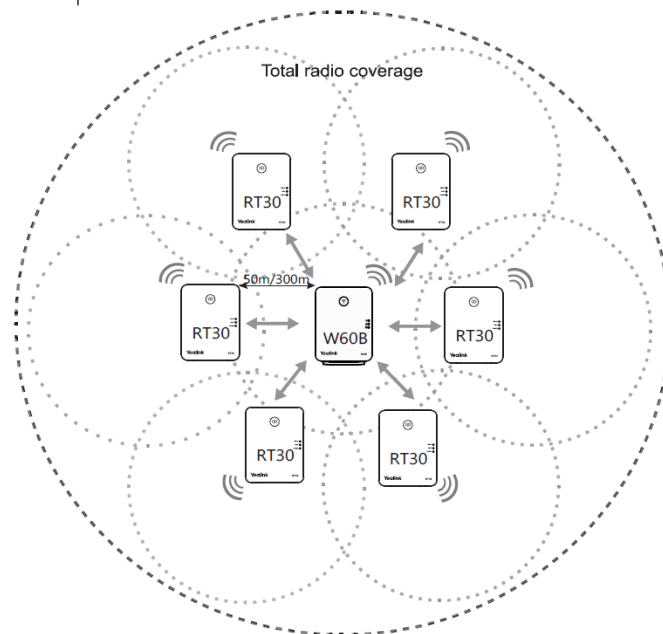
Cascade setup:

RT30 supports a sequential or "daisy chain" layout to extend the range in a single direction. Up to 2 repeaters can be installed in this layout.



Star setup:

Up to 6 repeaters can be registered to one base station to extend the range in a star layout. All repeaters must be installed within the base station coverage, as shown in the figure below.





Notes: limitations

- Each repeater can handle up to 2 concurrent calls.
- If there are no walls, then the max distance is up to 300 meters.
- If there are walls, then max distance is up to 50 meters from a repeater or base (depending on your configuration).