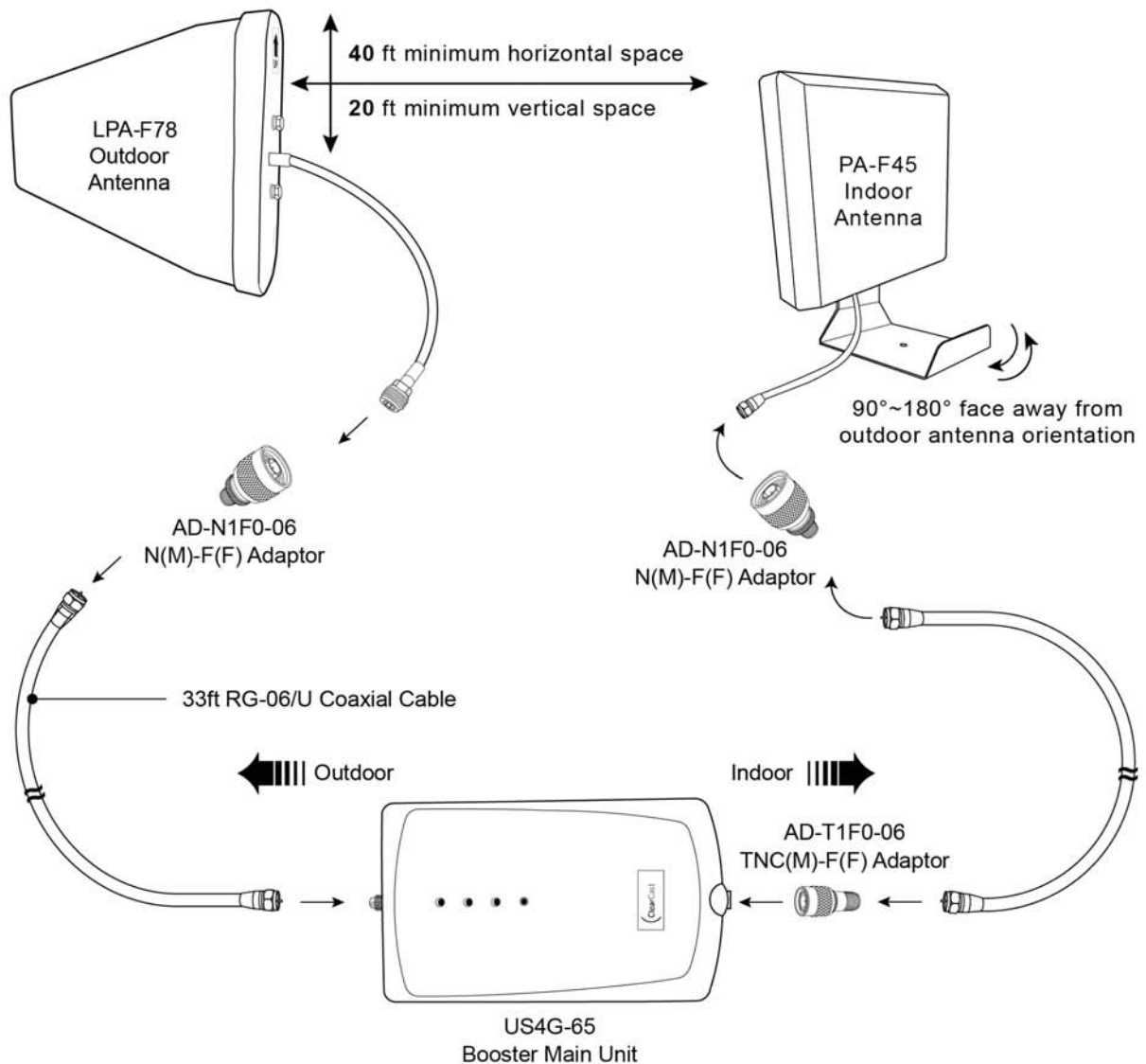


A3

- Please keep the space 20 ft vertical and/or 40 ft **minimum** horizontal of the indoor antennas clear.
- The outdoor antenna should **be kept 6 ft away** or 5 ft **higher than** windows.
- The outdoor and indoor antennas should be kept **facing away** or at an angle of **90° to 180° from each other**.
- Avoid placing the outdoor antenna **facing** the house or making the outdoor and indoor antennas facing the **same direction**.
- Do not fasten the outdoor antenna after it is installed. Secure it in a manner such that it can still be **rotated** to find the best orientation for reception.

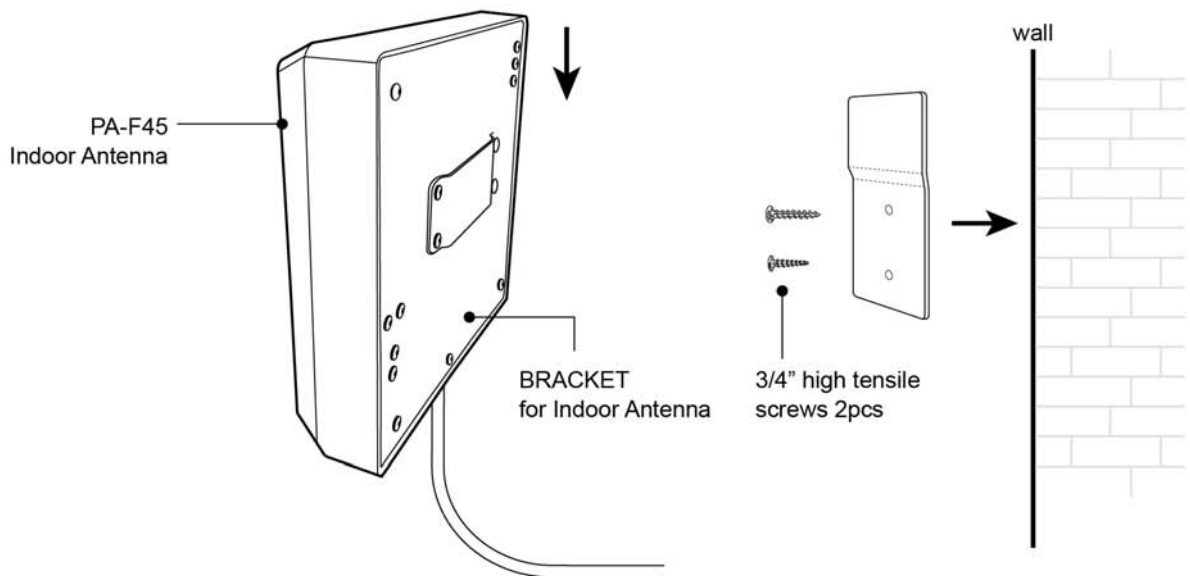
**A4**

- 1 · In order to maintain the tidiness of the indoor environment, the coaxial cables can be hidden above the ceiling or along the wall to the main unit.
- 2 · Outdoor antenna connectors, adapters, 33 ft coaxial cable connectors connecting to the main unit.

Step B Installation and fastening of indoor antenna

There are 2 ways to fasten an indoor antenna. Note that the installation position must maintain vertical **minimum** and/or horizontal spacing and be kept **facing away** or at an angle of 90° to 180° from the outdoor antenna (see page 3 and 4).

- B1** **Direction-securing bracket:** When fastening on an indoor wall, keep module facing away from or at an angle of 90° to 180° from the outdoor antenna. If this cannot be done, use the B2 method to fasten the indoor antenna.

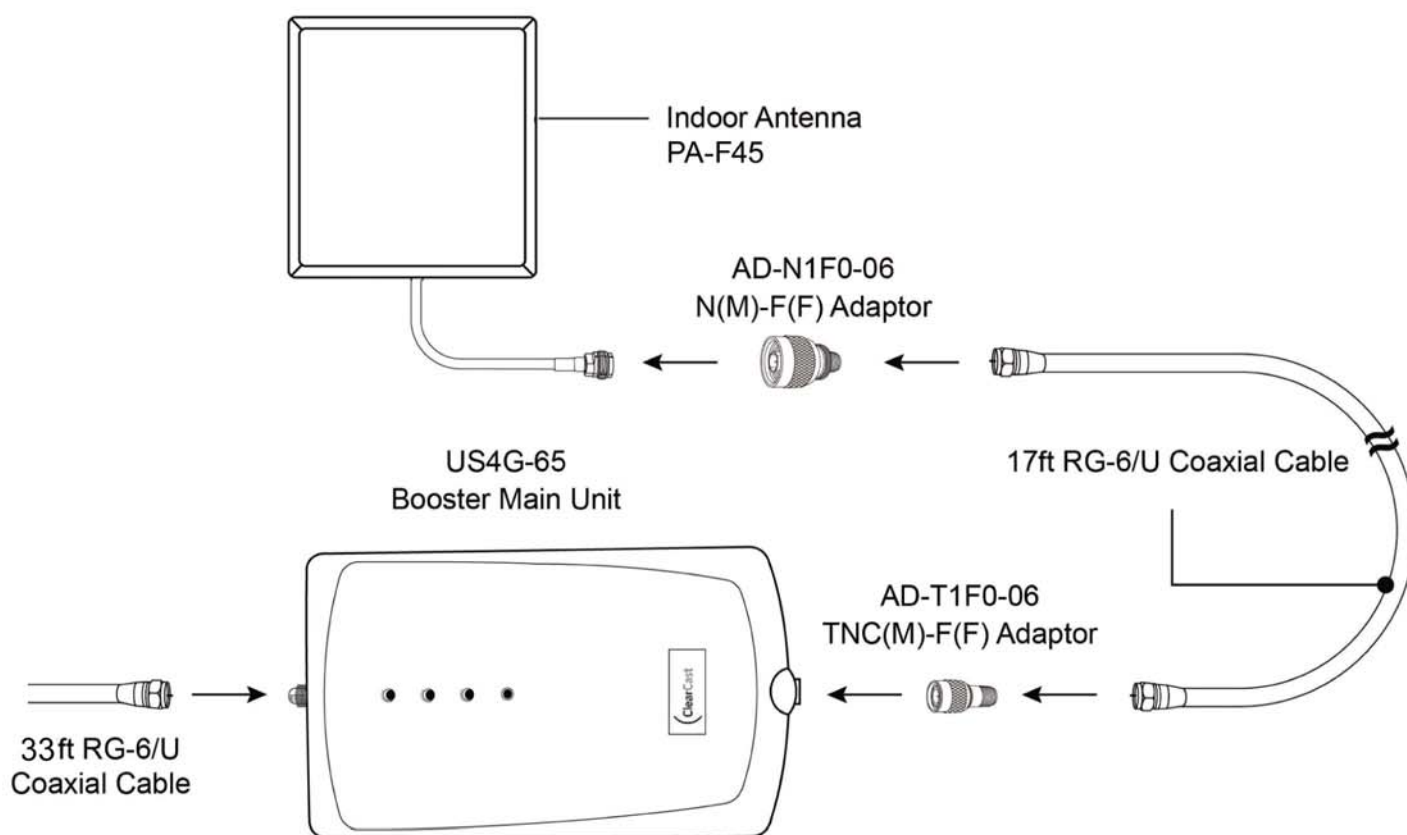


- B2** **Movable indoor antenna fastening bracket:**
Adjust to face away from or at an angle of 90° to 180° from the outdoor antenna.
Adhere to a table or cabinet with double sided tape after finding best reception procedure was done.

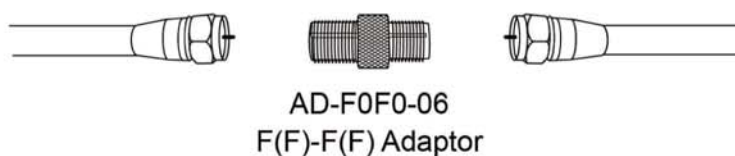


B3

Connects the indoor antenna connector, adapter, the 17 ft coaxial cable, and the main unit. If not long enough, extend with an 11 ft coaxial cable by AD-F0F0-06 adapter. (option)



(Option) Connection of 11ft RG-6/U Extension Coaxial Cable



Note:

1. **Adjust** the position/orientation of the indoor antenna before "Powering up booster".
Do not move or rotate the indoor antenna during testing or use.
2. Every time you "Tune the indoor antenna", the main unit **must** be reset.
If the LED indicators on the main unit blink red, the location / orientation of the indoor antenna must be adjusted until each LED indicators stay red or green.
3. The best position to install the indoor antenna is **5 to 7 ft** above the ground.
4. In order to maintain the tidiness of the indoor environment, the coaxial cable connecting the main unit to the indoor antenna can be hidden above the ceiling or along the wall.
5. Cellphone are to be used **more than** 3m away from the indoor antenna.

Step C LED Light status Indication & Reset the Booster

Each LED of the main unit **stays** red or green to display the **normal** operation of the corresponding frequency band and the reception strength. Bands shown in red have weaker reception, and bands in green have stronger reception. Of these 4 LEDs, some may appear red, and some may appear green.

Every time the outdoor or indoor antenna is adjusted, or when the booster system is in use, all LEDs on the main unit **must** stay either red or green.

If anyone or more LEDs on the booster **blink**, the main unit is **not** working properly.

The LEDs **should not blink red** at any time.

If the cell tower is **too close** to the house, the frequency band will be indicated by a blinking **green LED**.

See page 13 and 14 for the handling procedures when LEDs blink red or green.

Indoor reception quality, coverage, and LED light corresponding to reception strength and signal quality are shown below:

Signal level Range						
Reception Bars						
Indoor Reception Grade	extremely weak	weak	fair	good	excellent	excessive (over) reception
Indoor Reception Quality/Coverage	poor deadzone	usable small	fair moderate	good moderate	excellent large	corresponding band shut down
LED Light (Solid)	Red	Red	Red	Red or Green	Green	blinking Green

Solid Red:

- 1 · The house is far from the base station, and the reception is weak.
- 2 · The outdoor antenna is probably not adjusted to the best orientation. Please refer to Step D on pages 11 and 12 to find the orientation for best reception.

Note: · In remote areas where the signal is **extremely weak**, the LED display may still appear solid red even after Step D is taken to adjust the outdoor antenna to the best orientation for best reception. However, there may be minimal coverage of indoor service.

- Even if the LED indicators stay solid red, the outdoor antenna that **aims at** the direction of the cell tower after adjustment can provide a **greater** indoor coverage and **better** reception quality than those not aligned with the cell tower.

Solid Green: The booster is in the best reception configuration. Try to adjust the orientation of the outdoor antenna so that all LED indicators stay green.

Note: If the LED indicators show solid green, but the indoor reception is poor, please refer to page 14 for solutions.

Abnormal state:

Anyone or more LED indicators **blink red** and the main unit has detected that the installation is in an **abnormal** state. Power is **cut off** for all frequency bands.

If the LED indicators blink green, it means that the cell tower at this frequency band is too close to the house. (**Not necessarily** the carrier registered by the user. Booster only cuts off amplification of this frequency band, other frequency bands are normal.)

Please refer to page 13 and 14, and follow the instructions for various abnormal LED statuses to restore normal operation.

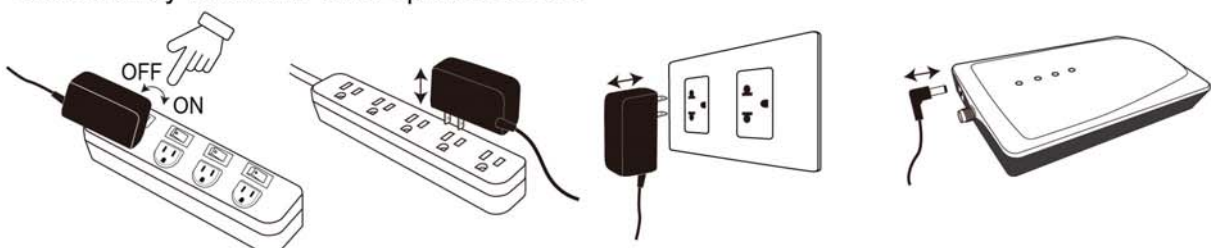
Reset the Booster

Try to use a 110 V AC power strip with a surge protector to supply power to the AC-DC adapter of the booster. If each power socket has a separate power switch, it will be more convenient to reset the main unit during the STEP D Find Best Reception process.

Do not power off/power on (**reset**) the main unit too quickly. Leave an interval of **3 seconds** or more between off and on to protect the AC-DC adapter and the booster main unit.

Every time the orientation and/or the location of the outdoor or indoor antenna is **adjusted**, the booster needs to be **reset to make sure** that the main unit is working **properly**. If the LED indicators blink red, the orientation/location of the outdoor and indoor antenna needs to be adjusted until the main unit works properly.

Different way to Reset/Power up the Booster.



Step D Find Best Reception & Reception Bars vs. Indoor Service Area and Quality

Adjusting/finding the **best reception orientation** of the outdoor antenna is the **most important** step in installing the cellphone signal booster. It will **determine** the cellphone indoor reception quality and service coverage of voice call and internet access.

Reception Level & Bars vs. Indoor Service Area and Quality :

Signal level
Range



Outdoor Reception Bars/Grade						
	extremely weak	weak	fair	good	excellent	corresponding band shut down
Outdoor Reception Level (dBm)	-120	-110	-100	-90	≥ -89	≥ -59
Reference Indoor Coverage Range	dead zone/ very small	small	moderate	moderate	large	cellphone Link with Cell tower directly
Coverage (sq.ft)	≤ 300	800	1500	3000	5000	
Indoor Reception Quality	poor	poor	fair	good	excellent	cellphone Link with Cell tower directly
LED Light Status (solid)	RED	RED	RED	RED/GREEN	GREEN	Blinking Green

Find Best Reception

It is best to have **2 people** working on this at the same time. One person **adjusts** the orientation of the outdoor antenna, and the other person works indoors to **record** the reception bars for each orientation of the outdoor antenna. Next, the outdoor antenna is **secured** at the orientation which provides the most reception bars.

STEP1: First, rotate the outdoor antenna to about the middle of the adjustable range. The individual (working outdoors) should get behind the **back** of the antenna, then **remove** their hands from the antenna surface. The individual working indoors should then **power up** the main unit and then slowly back away more than 3 ft from the indoor antenna with a cellphone in hand. Once the reception bar signal strength indicator shows 2 to 3, **wait for** about 30 to 50 seconds to make sure that the reception bars is **stable**.

Remember the position in which the individual is standing. Maintain the **same posture** as the **testing baseline** when adjusting various orientations on the outdoor antenna. Then, record the reception bar and turn off power.

STEP2: Divide the rotation range of the outdoor antenna into 8 - 10 orientations, then follow the steps below:

(Outdoors) Rotate the orientation of the outdoor antenna to the far left (or the far right) → The individual gets behind the back of the antenna and removes hands → (Indoors) Power up the main unit → Stand on the testing **baseline** point, **maintain** posture, and **wait for** about 30 to 50 seconds (These **3 key point are very important !**) → **Record the cellphone bars** → Power off → **Repeat:** (Outdoors) Adjust the outdoor antenna to the **next** orientation → (Indoors)....

Note:

- 1 · Different holding postures in the same indoor position can **change** cellphone reception bar (especially in areas with weak reception), which will influence finding the optimal orientation of the outdoor antenna for best reception.
- 2 · During the adjustment of the outdoor antenna, if **any** single LED **blinks red** during the main unit reset, the unit must be **powered off** immediately. Refer to the solutions in the Abnormal LED Light Status & Troubleshooting on page 13, then re-power the main unit. Once all LED indicators show **proper function**, continue with the Find Best Reception step.

STEP3: Repeat the above steps until all orientations of the outdoor antenna are adjusted from left to right in sequence, then record the corresponding reception bars. The orientation of the outdoor antenna with the best reception bars represents the optimal direction for reception. Use your cellphone indoors to make calls and walk around to confirm reception.

STEP4: Start fastening the brackets that secure the outdoor antenna. Wrap the outdoor antenna connector, adapter, and coaxial cable with waterproof tape. The coaxial cable entering the house needs to be kept in a **U** shape and should be clamped to the wall every 2 to 3 ft along the path.