

# SATPRO Installation of antennas and RF modules

## Installation of antennas and RF Modules

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In the SATPRO there are variants, on this page we show you how to install the different antennas, RF modules and other XLR5 devices, please follow the correct steps, depending on the antennas and RF module you have purchased. **Installation BQ89 Antenna and WMX481 RF Module (868-950Mhz)** Looking at the SATPRO from the back (You will see the display).

On the right aluminum profile, remove the 8 studs of M8x10 on the end using an allen key or similar.

In the SATPRO transport case, take the aluminum bar with the plastic cap on the far right.

In the SATPRO-RM transport case, take the BQ89 antenna which has the WMX481 module integrated together with 2 knobs of M6, 2 nylon washers and 2 nuts.



Add the 2 washers on the 2 knobs, on the front of the BQ89 antenna place each knob at one end and thread the nuts a little, then position them horizontally.

Take the aluminum bar together with the BQ89 antenna and put the nuts in the hole of the bar, you have to put the antenna

in the front part of the bar.

Make the union between the aluminum profile of the SATPR0 and the aluminum bar of the BQ89 antenna.

Once the BQ89 antenna is placed in the SATPR0, it must point forward.

Screw the 8 studs of M8x10 into the aluminum profile.



Place the RCBUS communications cable from the WMX481 (868-950Mhz) module inside the bar until you reach the cable guide on the side of the SATPR0, also underneath until you reach the next cable guide and now connect the male jack connector to the RCBUS female connector of the SATPR0.



**Installation MX433 Moxon Antenna or Yagui Antenna and WMX481 RF Module (433Mhz)** Looking at the SATPR0 from the back (You will see the display).

On the right aluminum profile, remove the 8 studs of M8x10 on the end using an allen key or similar.

In the SATPR0 transport case, take the aluminum bar with the plastic cap on the far right.

In the SATPR0-RM transport case, take the WMX481 (433Mhz) together with 2 knobs of M6, 2 nylon washers and 2 nuts.



Add the 2 washers on the 2 knobs, on the front of the WMX481 (433Mhz) place each knob at one end and thread the nuts a little, then position them horizontally.

Take the aluminum bar (without placing it in the SATPR0), take the WMX481 (433Mhz), insert the nuts inside the bar, placing it face-on and as close to the

left end of the aluminum bar and screw the knobs until you fix the WMX481 (433Mhz), you have to put WMX481 (433Mhz) on the back of the bar, at this point don't place the bar on the SATPRO yet.



#### **Option with Moxon Antenna:**

From the SATPRO-RM suitcase or from a separate box take the moxon MX433 antenna together with 1 knob of M6, 1 washer and 1 nut.

The Moxon antenna has a specific plastic piece to be placed on the top of the SATPRO aluminum bar, take the knob, add the washer, place it in the hole of the plastic piece, screw the nut a little and place it horizontally.

Take the aluminum bar (without placing it in the SATPRO), take the Moxon antenna, insert the nut inside the bar, placing it on the top and near the right end of the aluminum bar and screw the knob until the antenna is fixed. The antenna should be facing the front of the SATPRO.

Take the aluminum bar that will have the WMX481 module (433Mhz) and the Moxon antenna and place it on the SATPRO so that the bar is centered and screw the 8 studs of M8x10 to fix the bar.

Place the RCBUS communications cable from the WMX481 (433Mhz) module inside the bar until you reach the cable guide on the side of the SATPRO, also underneath until you reach the next cable guide and now connect the male jack connector to the RCBUS female connector of the SATPRO.

Use a cable with an SMA-Male to SMA-Male connector to make the connection between the WMX481 (433Mhz) and the Moxon antenna.

#### **Option with Yagui Antenna:**



From a separate box take the Yagui antenna together with 2 knobs of M6, 2 washers and 2 nuts.

According to variants, the Yagui antenna has a specific aluminum and plastic piece to be able to place the antenna on the top of the SATPRO aluminum bar and will also serve to place a counterweight.

Take the two knobs, add the washers to each knob, place the knobs from the top into the holes at the ends of the aluminum piece and screw the two nuts on each knob a little, place the nuts in a horizontal position.

Take the aluminum bar (without placing it in the SATPRO), take the Yagui antenna, insert the nuts inside the bar, placing it on the top and near the right end of the aluminum bar and screw the knobs until the Yagui antenna is fixed. The antenna should be facing the front of the SATPRO.



Take the aluminum bar that will have the WMX481 (433Mhz) and the Yagui antenna and place it on the SATPRO so that the bar is centered and screw the 8 studs of M8x10 to fix the bar.



Place the RCBUS communications cable from the WMX481 (433Mhz) module inside the bar until you reach the cable guide on the side of the SATPRO, also underneath until you reach the next cable guide and now connect the male jack connector to the RCBUS female connector of the SATPRO.



Use a cable with SMA-Male connector to N-Male connector and connect the WMX481 (433Mhz) to the Yagui antenna.

So that SATPRO supports the weight of the Yagui antenna the center of gravity must be balanced, you will need to add a 1.5-2Kg counterweight so that SATPRO can correctly move the antenna once it is in operation.

