Quick Release Mounts for Sim Rigs

QR4rigs®

Change your rig in seconds, spend more time in the game!

Why extend your Wheel/Yoke Table?

To house the heavy and bulky hi-torque motors, FFB controllers are in general, big and very heavy compared to non-active controllers.

To use our QR systems with a FFB Yoke, you will need to extend your wheel table rearward. This extension is required to support the bulk and the weight of the Yoke body.

In this guide we 'suggest' a few methods of replacing your current wheel table with 40 series extrusion to be able to support a FFB Yoke with shopping lists for you to purchase from your hardware store and from QR4rigs.

The suggestions/examples that follow require you do some DIY, both on your rig and also to mount the FFB Yoke to the top of a (self-sourced) board that you can then attach the QR Plates underneath. We provide mounting dimensions to help you with making choices for your rig and marking out for your Yoke.

Of course, the examples do not have to be followed 100%, they are there to inspire you and give you a head start with the thinking process. Only the mounting dimensions and distances are critical for our QR Base Mounts and QR Plates.

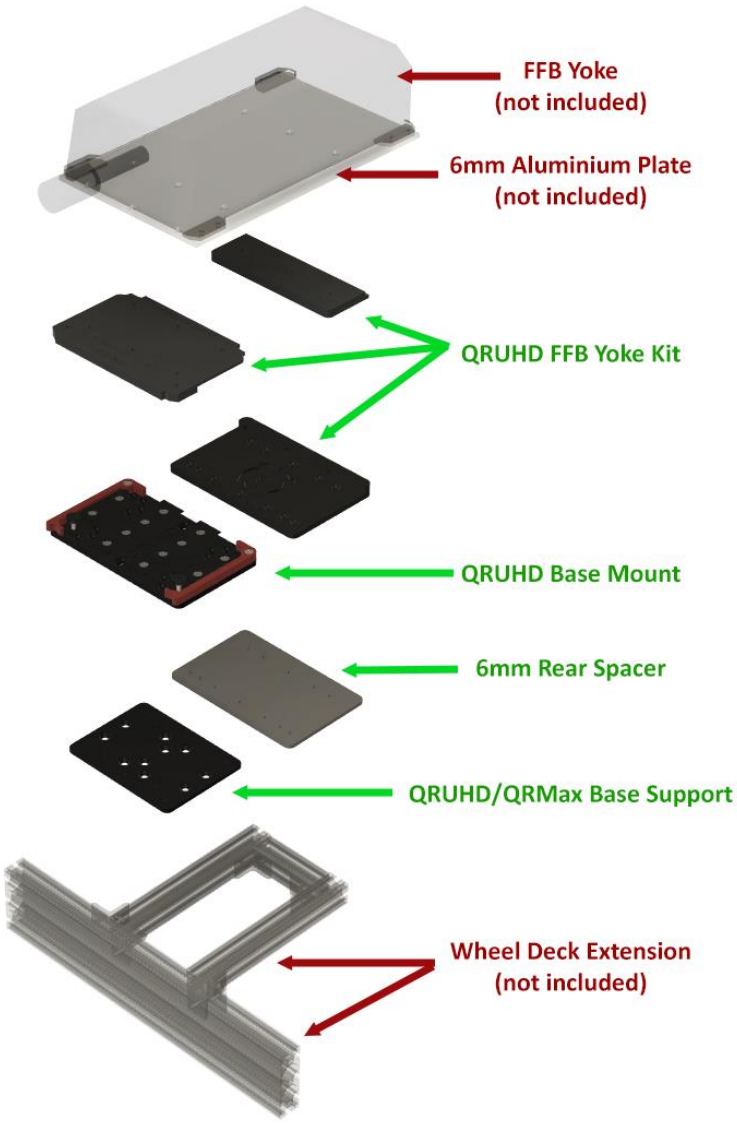
We have created a bundle kit that suits all the examples we show in this document.

- QRUHD 40-Series FFB Yoke Kit (Bundle) [QRUHDFFBYoke40Bundle]

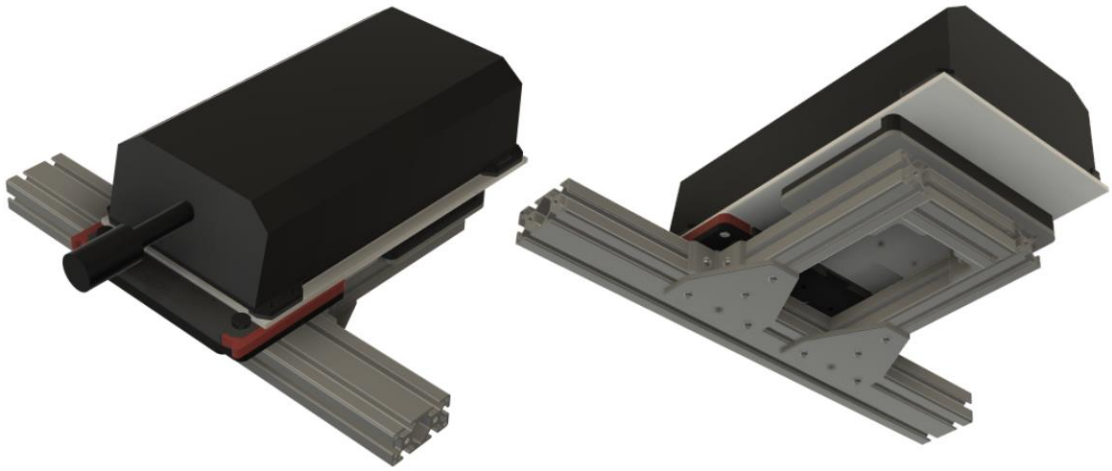
Parts show in **GREEN** are included along with all the fixings required to fix the components to the self-sourced 40-series extrusion-based Wheel Deck Extension (DIY) and the 6mm Board (DIY).

You will have to source the parts in **RED** and your own fixings for:

- Fixing the FFB Yoke to the self-sourced 6mm Board (DIY).
- Fixing together the extrusions, but we detail what is required in the Shopping Lists for our suggested Wheel Deck Extension(s) (DIY).
- Fixing the Wheel Deck Extension (DIY) to your rig.



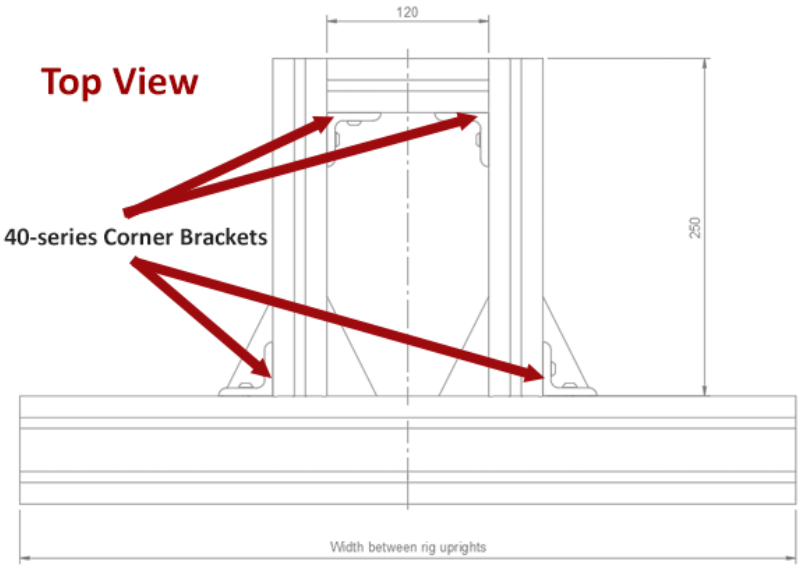
Example A. 4080 horizontal deck with 4040 rearward extension



Shopping List A.1

You will need to source the following products yourself as we do not provide them:

- **1x XYZmm[1] 4080[2] extrusion** (cut to the width between your rig uprights or fixing brackets)
- **2x 250mm 4040 extrusion**
- **1x 120mm 4040 extrusion**
- **4x 40mm M8 90° Corner Brackets**
- **2x 40-series M8 Tee Plates/Brackets**
- **16x M8x16mm Button Head Allen Screws**
- **16x M8 T-Nuts for 40-series extrusion**

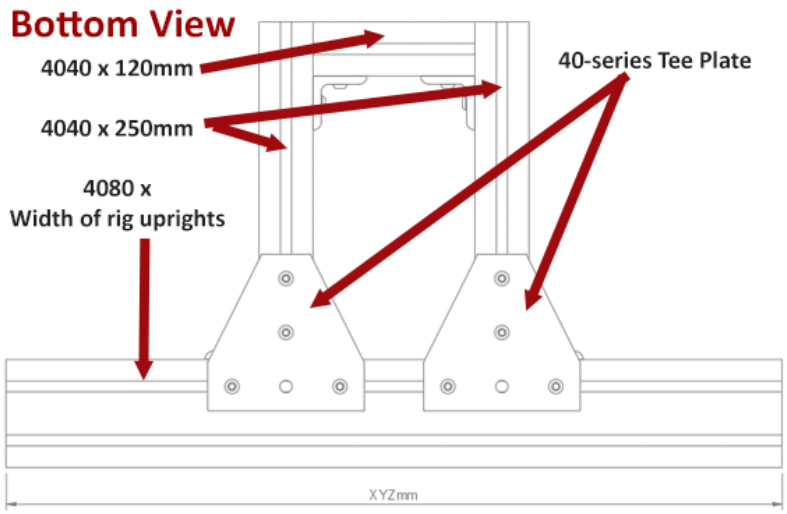


1. Assemble the components from Shopping List A.1 for your extended Wheel Table.

The layout of the components is shown right.

Keeping the sizes of the 4040 and the spacing accurate is crucial to be able to mount our QR components to the framework.

If you are using T-Nuts that need to be inserted before assembly, then take a note of the positions of the screws for the Corner Brackets and the Tee Plates and insert them first.



[1] XYZmm = distance between the fixing points on your rig. This could be between the uprights themselves if fitting directly or between the side brackets.
[2] 4080 & 4040 extrusion with 8mm slot width

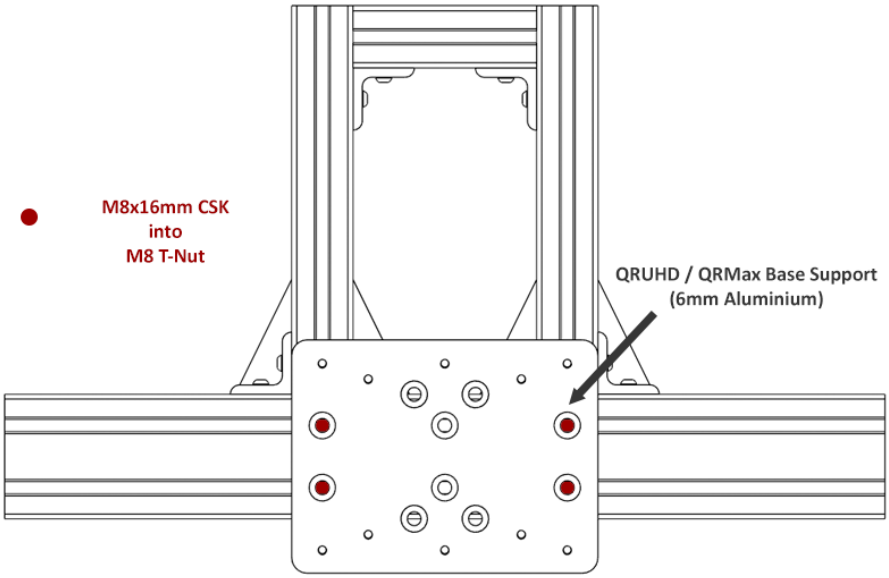
Shopping List A.2

For this solution you will need the following part(s) from **QR4rigs**:

- 1x QRUHD 40-Series FFB Yoke Kit (Bundle)

The following instructions use parts supplied in the bundle above.

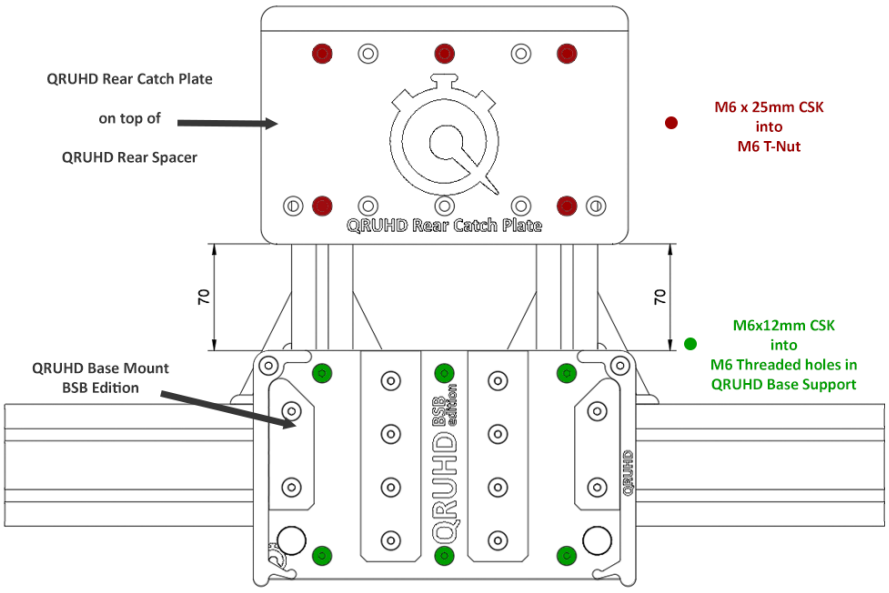
1. Insert 4x M8 T-Nuts in the extrusion in the positions shown in the picture on the right (in **RED**)



2. Using 4x M8x16mm CSK screws, fix the QRUHD/QRMax Base Support in place in the position shown in the picture on the right.

3. Using 6x M6x12mm CSK Screws (in **GREEN**), fix the QRUHD Base Mount in place on to the Base Support.

4. Put together the Rear Assembly:
   a. Place the QRUHD Rear Spacer plate under the QRUHD Rear Catch Plate
   b. From the topside push the 5x M6x25mm CSK screws through the Rear Catch Plate holes (in **RED**).
   c. Loosely attach the 5x M6 Hammer Head T-Nuts on to the ends of the M6x25mm screws.

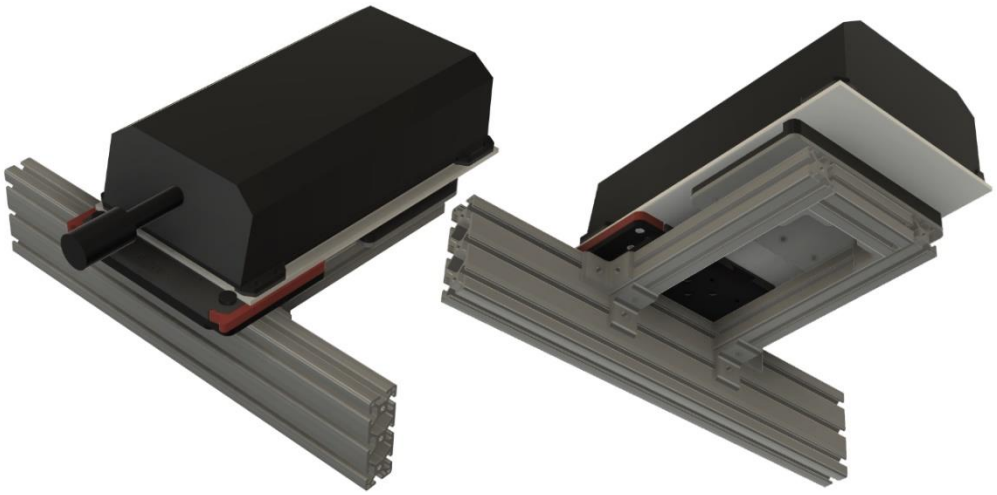


5. Place the Rear Assembly into position as shown above, aligning the T-Nuts with the slots of the 4040 extrusions. Once in place, ensure the distance between the back of the QRUHD Base Mount and the Rear Assembly is exactly 70mm on both sides.

You will now need to Assemble your yoke on to a piece of board or aluminium plate, 6mm thick is an adequate thickness.

You can skip the next few pages (Example B) if you have chosen Example A.

Example B. 40120 vertical deck with 4040 rearward extension

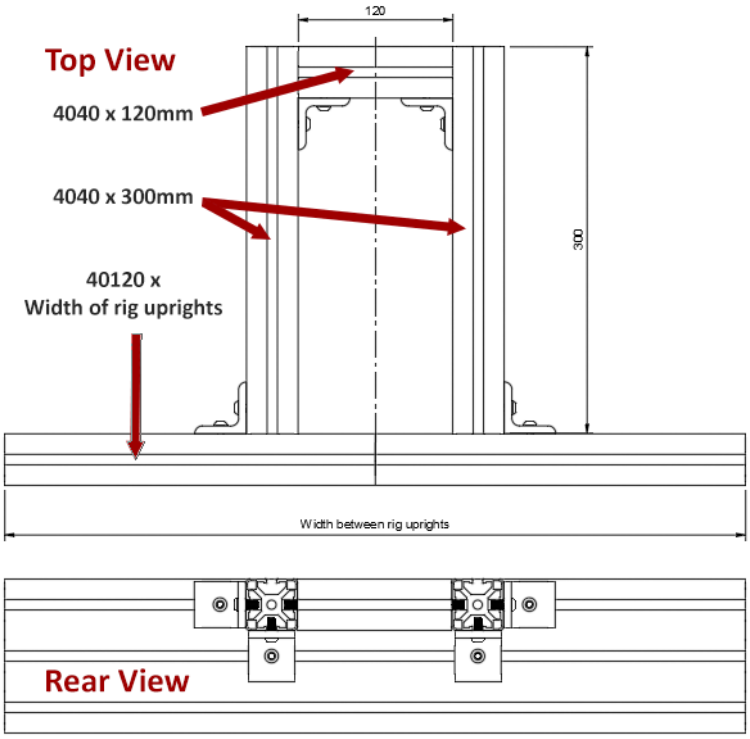


Shopping List B.1

You will need to source the following products yourself as we do not provide them:

- **1x XYZmm 40120[3] extrusion** (cut to the width between your rig uprights or fixing brackets)
- **2x 300mm 4040 extrusion**
- **1x 120mm 4040 extrusion**
- **6x 40mm M8 90° Angle Brackets**
- **12x M8x16mm Button Head Allen Screws**
- **12x M8 T-Nuts for 40-series extrusion**

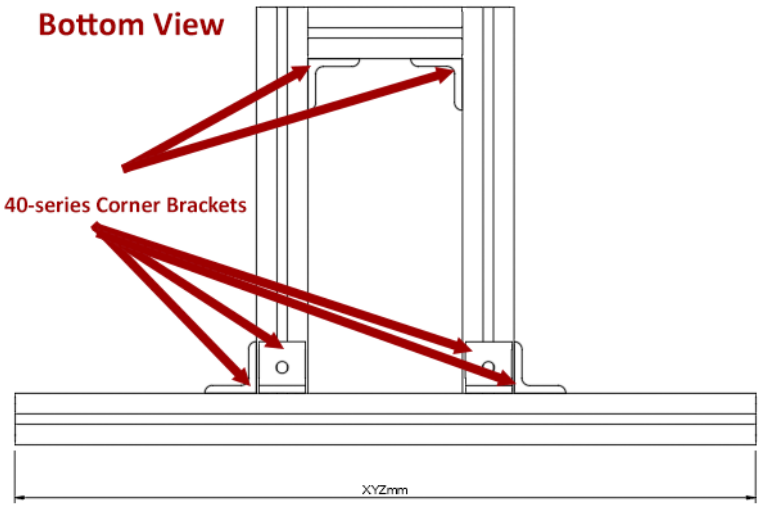
Keeping the sizes of the 4040 and the spacing accurate is crucial to be able to mount our QR components to the framework.



1. Assemble the components from Shopping List B.1 for your extended Wheel Table.

The layout of the components is shown right.

If you are using T-Nuts that need to be inserted before assembly, then take a note of the positions of the screws for the Corner Brackets and the Tee Plates and insert them first.



[3] 40120 and 4040 extrusions with 8mm slot width

Shopping List B.2

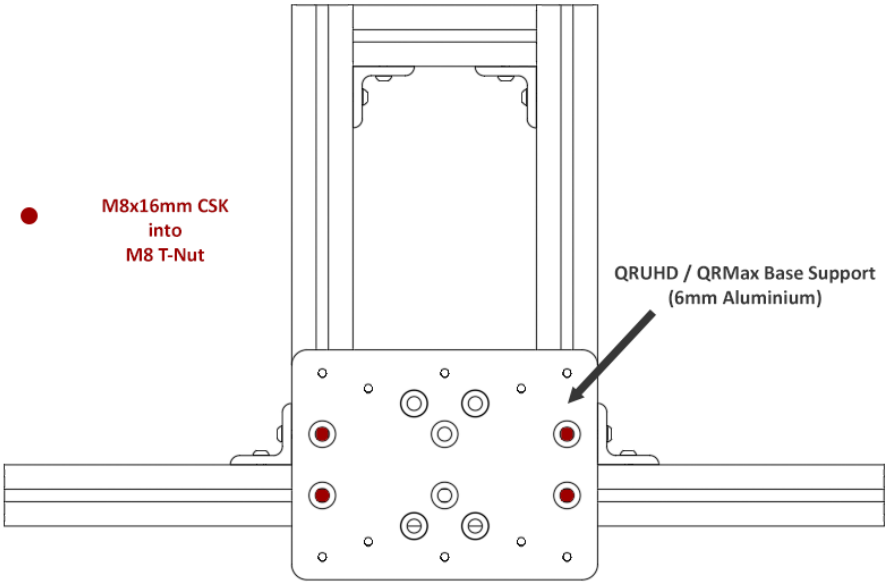
For this solution you will need the following part(s) from **QR4rigs**:

- 1x QRUHD 40-Series FFB Yoke Kit (Bundle)

The following instructions use parts supplied in the bundle above.

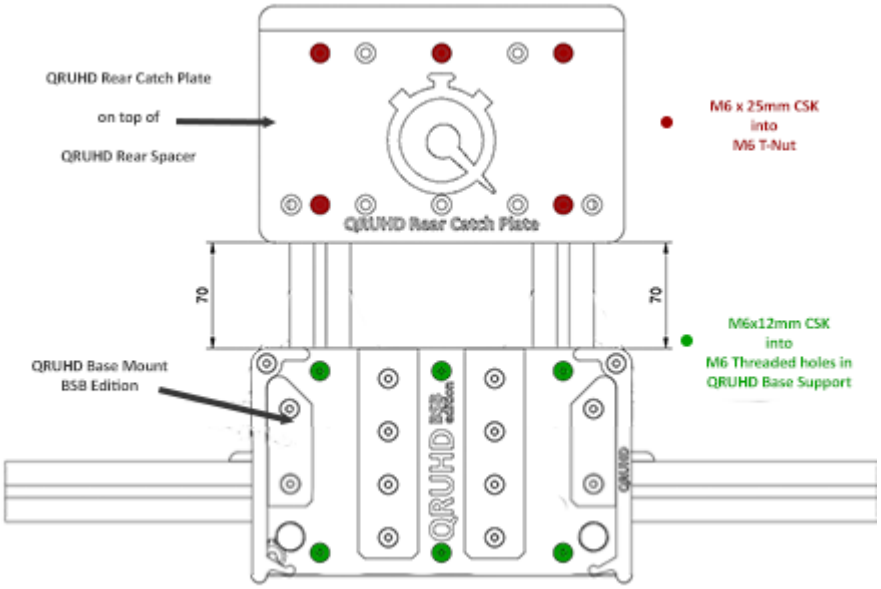
2. Insert 4x M8 T-Nuts in the extrusion in the positions shown in the picture on the right (in **RED**)

3. Using 4x M8x16mm CSK screws, fix the QRUHD/QRMax Base Support in place in the position shown in the picture on the right.



4. Using 6x M6x12mm CSK Screws (in **GREEN**), fix the QRUHD Base Mount in place on to the Base Support.

5. Put together the Rear Assembly:
   a. Place the QRUHD Rear Spacer plate under the QRUHD Rear Catch Plate
   b. From the topside push the 5x M6x25mm CSK screws through the Rear Catch Plate holes (in **RED**).
   c. Loosely attach the 5x M6 Hammer Head T-Nuts on to the ends of the M6x25mm screws.



6. Place the Rear Assembly into position as shown above, aligning the T-Nuts with the slots of the 4040 extrusions. Once in place, ensure the distance between the back of the QRUHD Base Mount and the Rear Assembly is exactly 70mm on both sides.

You will now need to Assemble your yoke on to a piece of board or aluminium plate, 6mm thick is an adequate thickness.[4]

[4] **Helpful Tips:** *If using wood/board consider using wood T-Nuts to secure the Yoke in place. If using Aluminium plate you may wish to tap M6 Holes in to it to secure the Yoke in place.*

Spacing for QRUHD FFB Yoke QR Plate and rear Hook Plate

In order to use the QRUHD FFB Yoke QR Kit, you will need to mount your FFB Yoke on to a board of some sort. You will need to source this yourself. Refer to the individual drawings in the Appendix for suggested sizes of board for your Yoke.

A thickness of 6mm (1/4”) plywood or MDF will work for the fixing kit we supply with the QRUHD FFB Yoke Kit.

For 6mm Board, we supply M6x16mm Countersunk Screws that fix through your board and into captive nuts in the QR Plate kit. You will need to ensure when you drill your board, that you don’t countersink the holes too deep, just deep enough for the heads of the screws to be flush with the surface will be perfect.

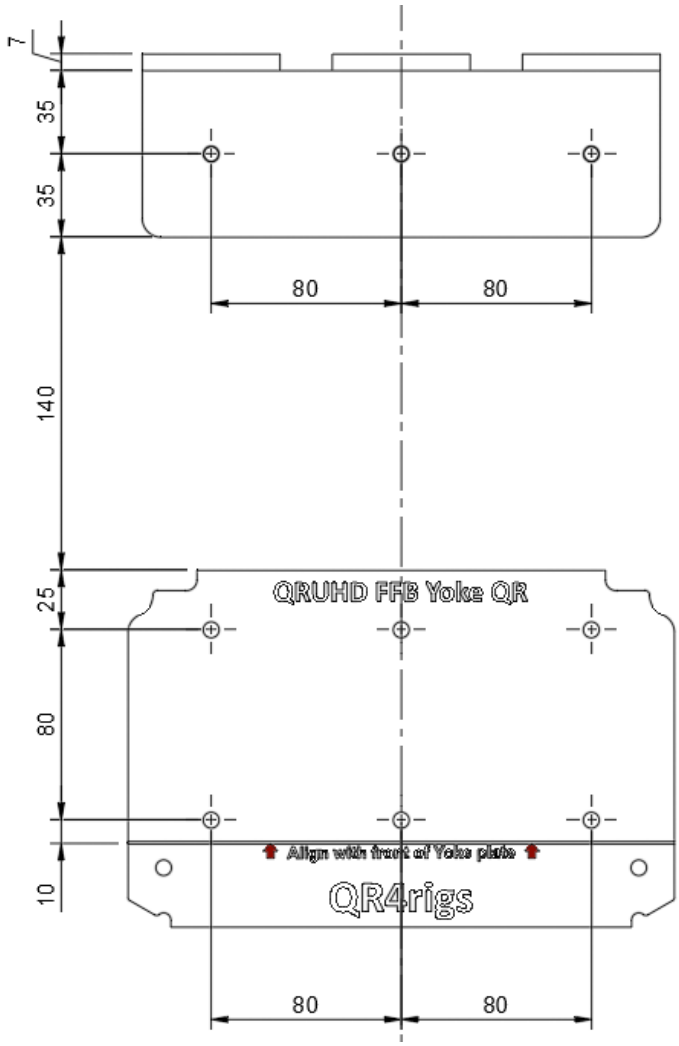
If you use a different thickness of board to mount your yoke to, you will need to source M6 Countersunk Screws of an appropriate length.

M6 Countersunk Screw Length = Board Thickness + 10mm

Hole spacing / Mounting dimensions are important for use with the suggested wheel table replacement/extension.

The required dimensions of the Countersunk holes you need to drill into your board are below.

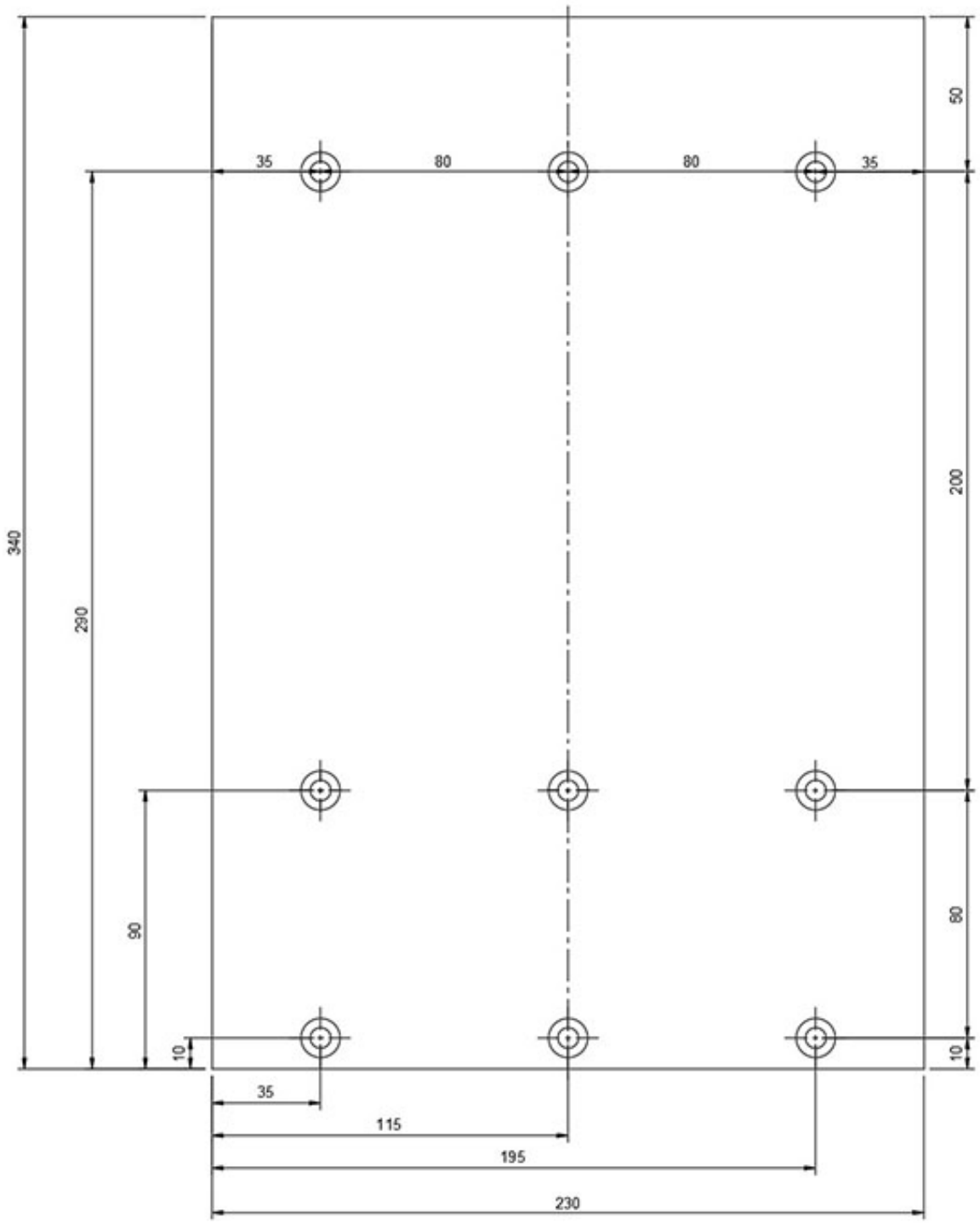
IMPORTANT. Align the edge of the board with the line on the QR Plate shown by the red arrows below. This will enable the use of the thumbscrews which will hold the QR Plate tightly in place once mounted.



Appendix

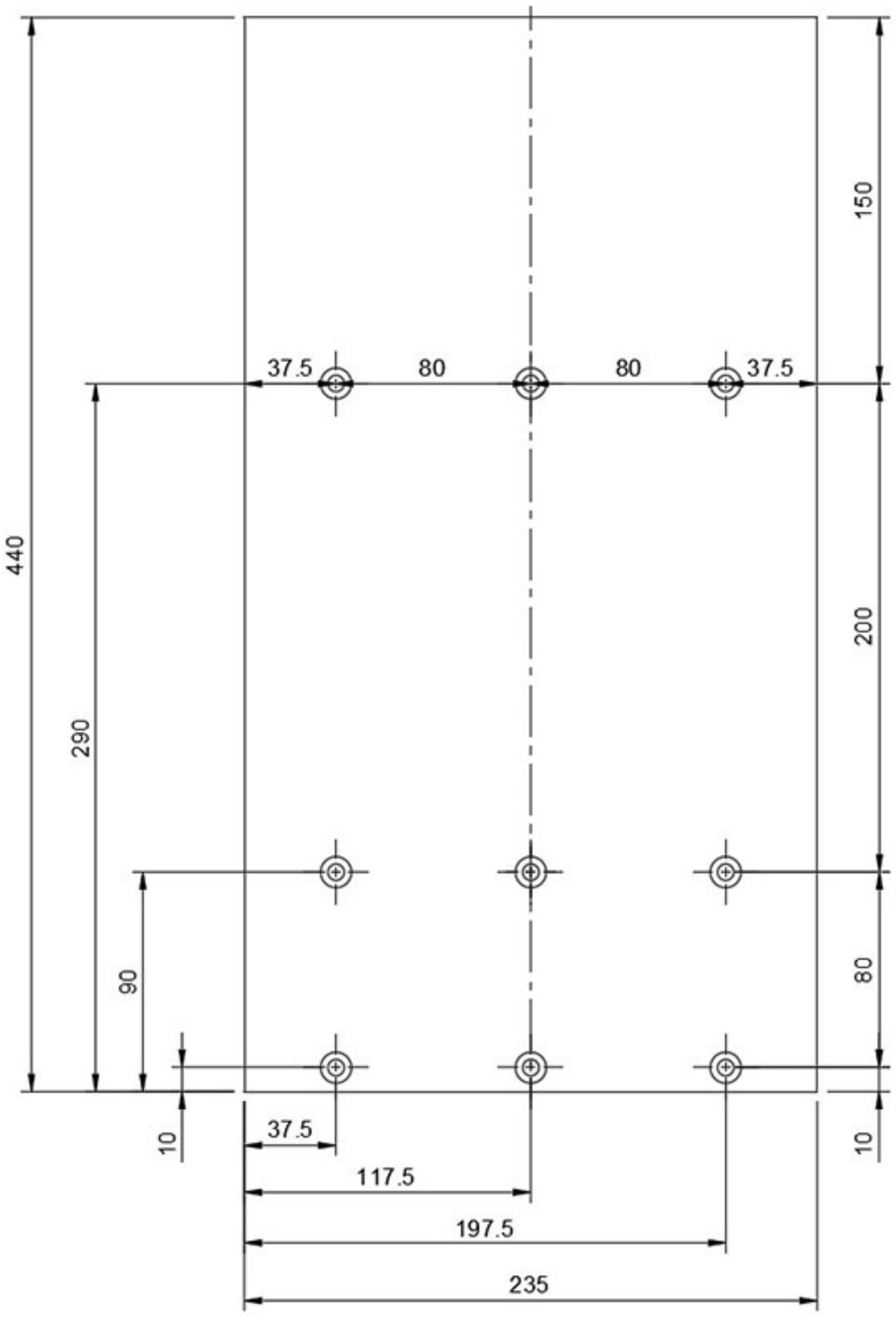
The following pages contain mounting diagrams and our recommendations for minimum board sizes for various yokes.

If your FFB or large format Yoke is not listed, please get in touch.



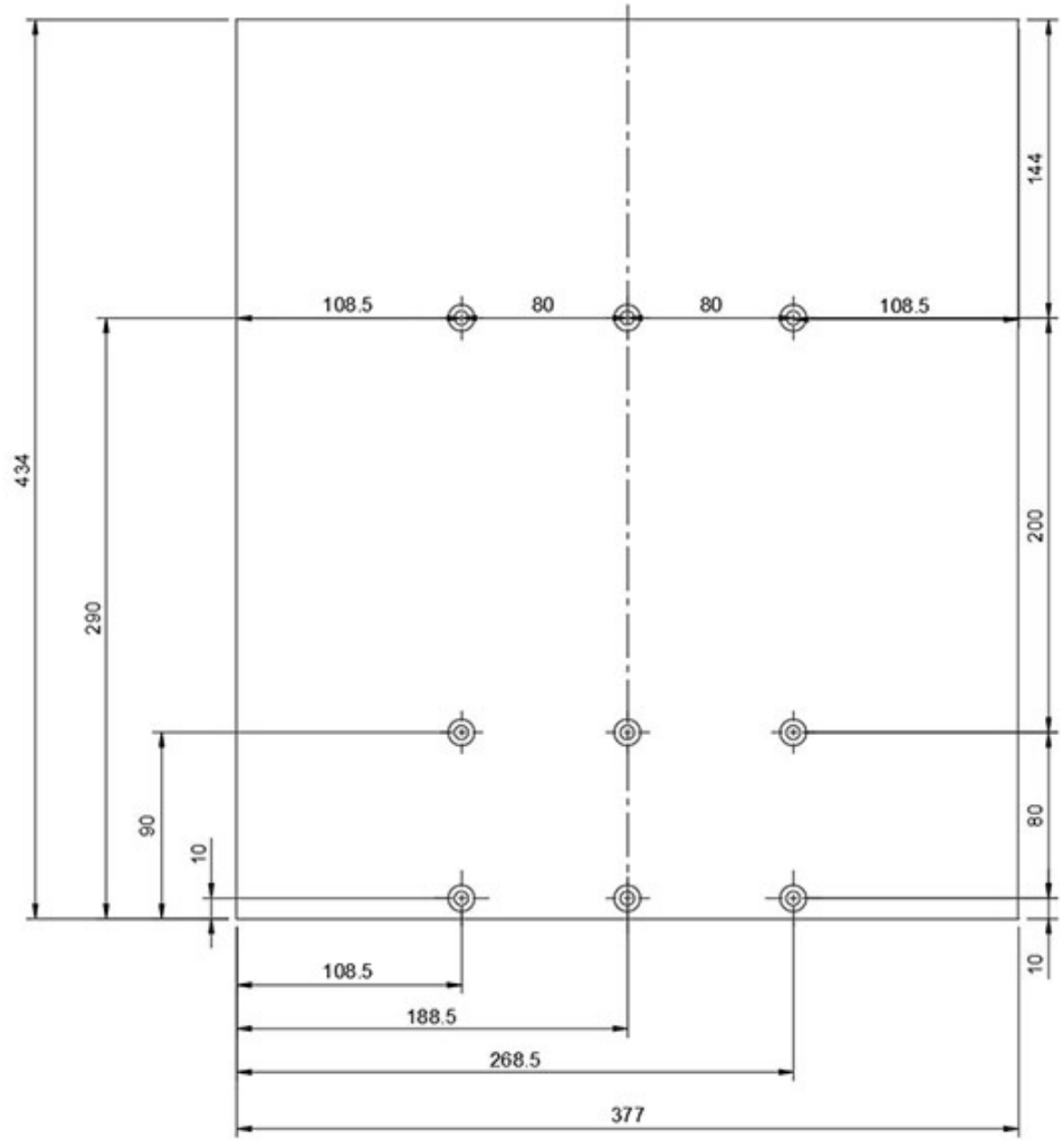
Brunner CSL-E NG

Suggested Minimum Board size = 340mm x 230mm



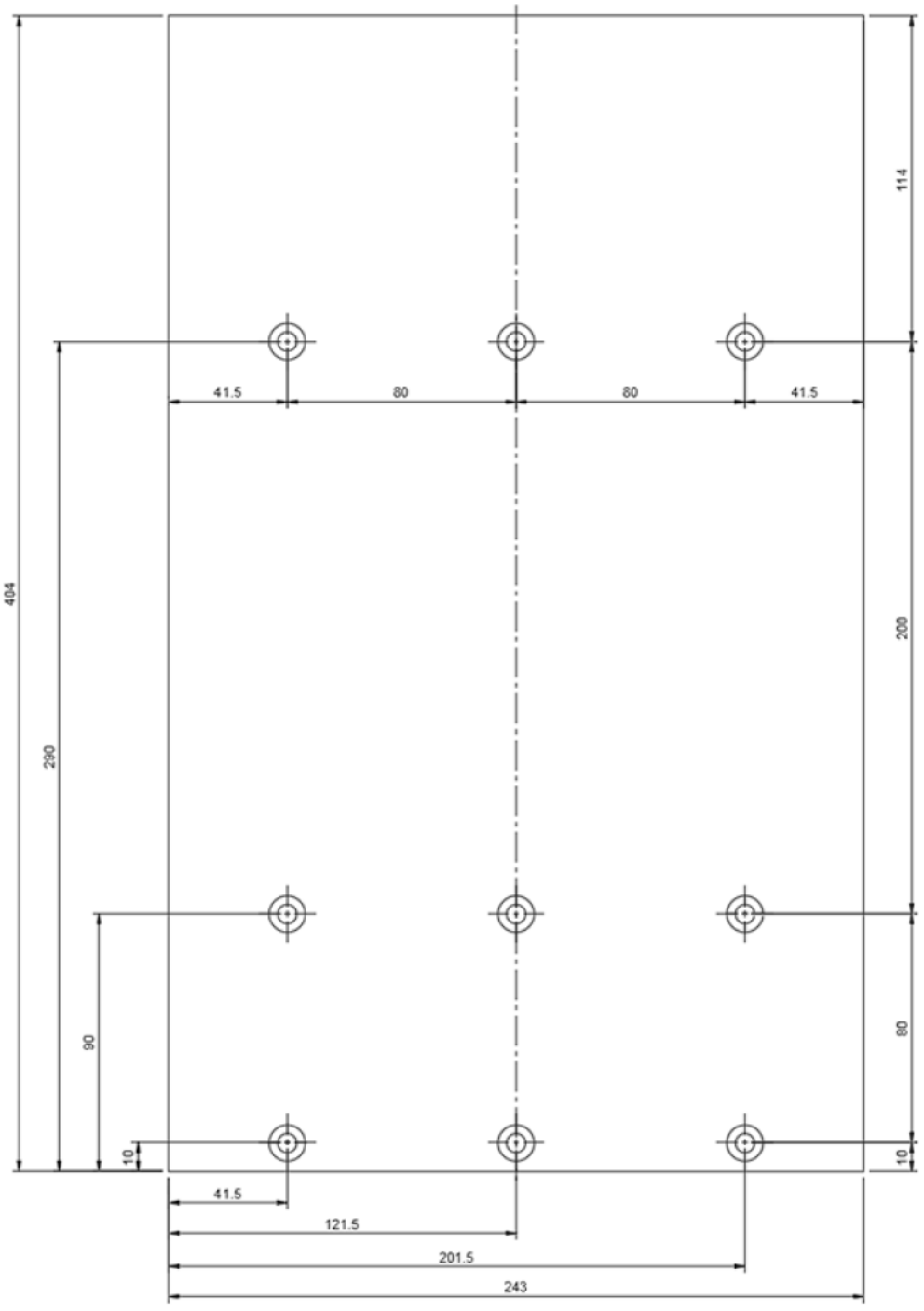
Brunner CSL-E MkII

Suggested Minimum Board size = 440mm x 235mm



Flitesim CSL-60/120

Suggested Minimum Board size = 434mm x 377mm



Moza AY210

Suggested minimum board size = 404mm x 243mm

If you require further support, please use the contact form on our website, or email us directly support@qr4rigs.com, we will be more than happy to help you.