

List of actions for customer at reception of QRFH Receiver system

1. Check all the packing and goods for any damage
 - a. Check the shock detectors on the parcels. If red inform transport agent that a significant shock occurred during transport
 - b. Inform transport agent if any damage found on the goods
2. Unpack the goods and ensure that the following items are included:
 - a. Printed copy of check list at reception for customer (this document)
 - b. Printed copy of User Manual
 - c. Printed copy of FAT report
 - d. Printed copy of ICD
 - e. QRFH cryogenic receiver
 - f. M&C DAQ-PSU Drawer (unit with no screen)
 - g. M&C PC Drawer (unit with screen)
 - h. Set of cables as defined in section 3 "Installation & Integration" figure 3-1 "Subsystem configuration and interconnection cables" and section 3.4 "Inter-Units Cables" of the user Manual
 - i. Vacuum valve handle (x1)
 - j. Black plastic key for M&C drawers' doors (x2)
3. In laboratory: connect the system modules as shown in section 3 "Installation & Integration" of the user Manual
 - a. **WARNING:** the QRFH cryogenic receiver is a wideband RF amplification system which is very sensitive to RF signals emitted in the near environment. TO PREVENT ANY CRITICAL DAMAGES ON THE AMPLIFIERS, ensure that there is no RF emitting sources in the close environment of the receiver before connecting the power supply of the receiver. For instance, ensure that all mobile phones are in "plane mode" (all emissions off) in the room where the receiver is located. If any doubt you can also place a metallic plate on the input interface of the receiver.
 - b. Once the system is powered, on the touchscreen interface go in tab "More" and read the value for the vacuum inside the receiver, in mbar. Please report this value along with date and PC time to your Callisto contact. We will ensure that the receiver thermal insulation has not degraded due to transportation.
 - c. Although this is not mandatory, we highly recommend that the receiver cryogenic and RF performance is tested on ground, in laboratory before mounting it on the antenna. This is to ensure that the system has not been damaged by the transportation.
 - i. Ensure that the receiver is firmly attached to a mechanical support structure so it cannot move and fall.
 - ii. Connect dry air input/output to the gas ports on the base plate, according to user manual pressure requirements.
 - iii. Follow the instruction of the user manual to start the cryocooling
 - iv. Repeat the FAT tests and compare results with the FAT report provided with the receiver.