

# INSTALLATION MANUAL

## MASTERLINE Ultimate Small Cell

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### GENERAL INFORMATION

Read the cable system user manual and installation manual carefully. General safety instructions apply unless this document stipulates more specific instructions. HUBER+SUHNER declines all liability and claims if the specifications are not met.

### NOTES IN THIS MANUAL

The following symbols are used in this manual.



#### Info notes:

Info notes contain important instructions for installation and proper use of the product throughout its life cycle. The info notes also indicate that non-compliance may result in material damage or financial loss.



#### Notes about hazards and safety precautions:

Notes which indicate that non-compliance may result in danger to life and limb, as well as to material damage. It is imperative that these notes are heeded.

### NOTES ON THE FULFILMENT OF LEGAL CRITERIA

The installation of optical communications systems requires that requisite permits be obtained from all the competent authorities. The installation technician is responsible for compliance with all applicable regulatory restrictions, usage regulations and other guidelines. This applies to permanent and temporary installations.

- Ascertain the applicable restrictions and usage regulations prior to installation.
- Draw up a cable-laying plan prior to installation.
- Check the finished system for compliance with usage and safety regulations.

### INSTALLATION

#### Step 1:

#### Slinging points:



The Masterline Ultimate Small Cell may only be lifted up at the slinging points marked in red.



Avoid buckling the cable or bending it at less than the minimum radius while the device is being raised.



All plug-type cables must be unplugged prior to raising.



#### Step 2:

#### Fixing:



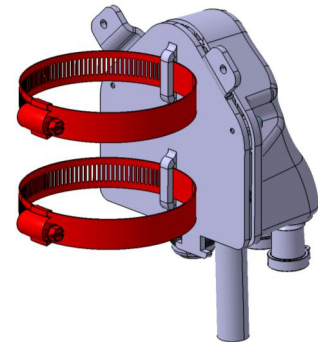
#### Mast mounting:

The Small Cell may only be fixed to a flat base by the fixing lugs marked. The fixing technique must be adapted to suit the base. Please heed the instructions given by the manufacturer of the fixing materials.



#### Mast mounting:

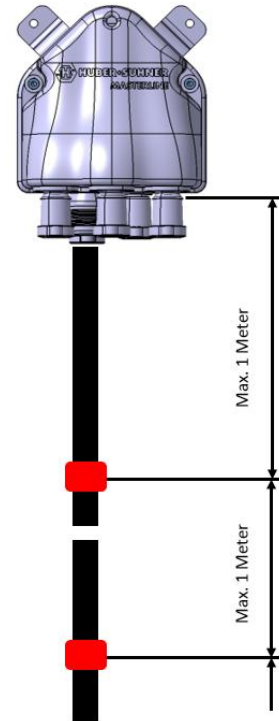
Always use two hose clamps to fix the Small Cell to a mast. Guide the hose clamps at the bottom into the lugs provided and then secure them to the mast.



**Step 3:**



The feeder cable (only applies with types MLU SC A1 and MLU SC H1) must be secured within 1 meter by means of a suitable cable clamp. The offset between the first cable clamp and the cable entry must be kept to a minimum. The cable must be fastened at regular intervals of not more than 1 meter using a suitable cable clamp.



**Step 4:**

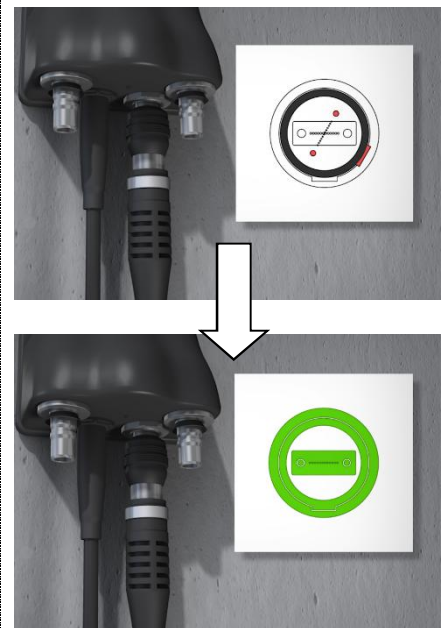



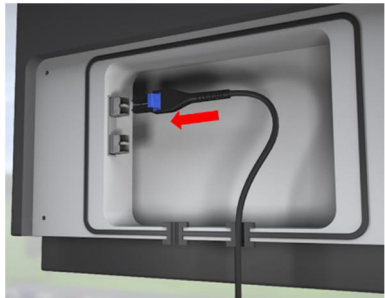



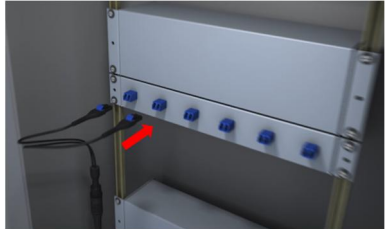
In the case of a daisy chain installation, all the Small Cell housings must be fastened in accordance with steps 1 and 2.

**Step 5:**



Once all the Small Cell housings have been fastened in accordance with the regulations, they can be connected together with jumper cables. Remove the protective cap before plugging in and turn the connector to the correct position without applying pressure. Then engage the connector by pressing. Turn it gently in the opposite direction to check that the connector is properly engaged.



|                       |  |   |
|-----------------------|--|---|
| <p><b>Step 6:</b></p> |  <p>Connect the Small Cell housing to the RRH using jumper cables.<br/>                 The connectors can be engaged in the ports provided by applying gentle pressure. Turn it gently in the opposite direction to check that the connector is properly engaged.<br/>                 Please refer to the general instructions in the user manual for guidance on handling cables and laying multi-connector cables.</p>              |    |
| <p><b>Step 7:</b></p> |  <p>All jumper cables must be fastened at regular intervals of not more than 1 meter using cable clamps.</p>  |   |
| <p><b>Step 8:</b></p> |  <p>Once all the jumper cables have been connected, the main line can be connected to the base station or to the fiber-optic cable.<br/>                 The protective tube must be removed before connecting.<br/>                 When untwisting the protective tube, ensure that the cable is not twisted around its own axis.</p>  |   |
| <p><b>Step 9:</b></p> |  <p>Connect the Small Cell housing to the base station using suitable cables.<br/>                 The connectors can be engaged in the ports provided by applying gentle pressure. Turn it gently in the opposite direction to check that the connector is properly engaged.<br/>                 Please refer to the general instructions in the user manual for guidance on handling cables and laying multi-connector cables.</p> |  |