

## Multiband Combiner Single and Twin with Convertible Mounting Brackets



### INTRODUCTION

Convertible Mounting Brackets support installation of CommScope Multiband Combiners (MBC) such as Diplexers, Triplexers, etc. using a variety of mounting methods.

Using integrated stacking tabs or tie plates, multiple devices can be stacked together and mounted to a common support.

All hardware required for stacking and conversion between mounting methods is included with the product, allowing it to mount to standard pole, wall, rods, framing channels, or rack.

The MBC can be installed indoors as well as in an unprotected outdoor environment. It can be installed in any orientation.

However, orienting the MBC with the AISG connector (where present) facing down is preferred whenever practical. This

ensures an extra measure of protection against weather exposure that is independent of installation workmanship.

### TECHNICAL SUPPORT

Installation instruction video can be found at <https://www.youtube.com/playlist?list=PLtNgUjhC9bF1GJze8xauYV6R2rVioZAWx>

Obtain further product information at [www.commscope.com](http://www.commscope.com) or from your local CommScope Sales Representative.

The CommScope Customer Technical Support center is available 24 hours/day, 7 days/week by calling:

- (800) 255-1479 option #3 (North America)
- +1 (708) 349-3300 (International)

**1 Identify and Inspect Parts.** The product includes the following items:

- (1) Single or Twin Multiband Combiner with brackets
- (2) Band clamps
- (2) Spare screws, M6×18 (not included with Single) – or – (3) Tie plates + (12) screws, M4×12
- (1) Installation Instructions

**2 Obtain Tools and Supplies.** The following items are required or recommended:

- 7 mm or 9/32" hex socket wrench
- 5 mm or 3/16" hex (Allen) – or – T20 (Torx) screwdriver
- #3 Phillips screwdriver
- Suitable hardware for mounting to other than pole
- (1-2) AWG 5-10 (5-16 mm<sup>2</sup>) ground cables with terminals

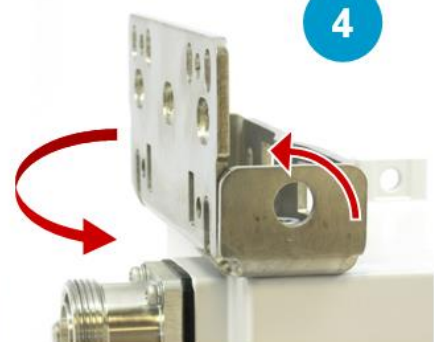
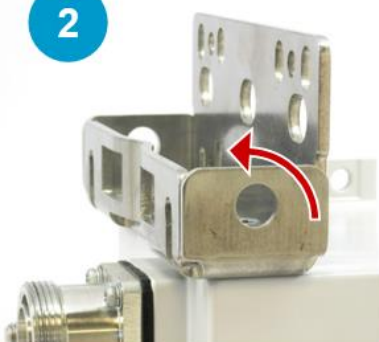
**3 Repositioning and/or Moving Brackets.** The Convertible Mounting Brackets can be rotated and repositioned into four alternate positions as required for the different mounting methods:

- |                              |                                |
|------------------------------|--------------------------------|
| 1. Pole or rod mounting      | 2. Horizontal or rack mounting |
| 3. Vertical or wall mounting | 4. Optional for rack mounting  |

Loosen and back out the two screws. To change between positions 1-2-3 it is not necessary to completely remove the screws.

Lift and rotate the bracket to the desired position. Ensure the bracket is seated onto the locating bosses in the housing before re-tightening the screws. Recommended torque 6.2 Nm (4.6 ft-lbs).

If moving bracket to a new location, remove thread protection plugs or screws and install these in the previous location.



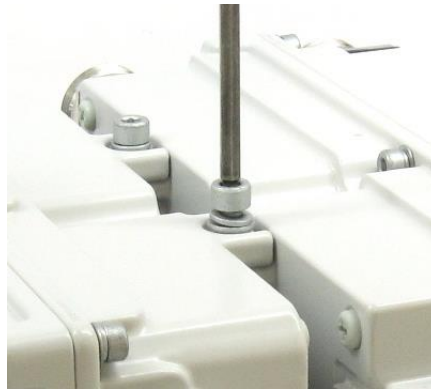
**4 Stacking.** Two or more twin MBCs can be stacked together for mounting to threaded rods. Three twins can be stacked for rack mounting. A single MBC can be stacked to a twin for pole or wall mounting.

Remove the Convertible Mounting Brackets from any locations where they are not needed. Proceed according to stacking feature type:

**A) Integrated Stacking Tabs.** Retain the M6×18 mounting screws in a clean container to keep debris from collecting in the protective gel on the screw threads. Remove the thread protection plugs from the stacking tabs to be used. Install these plugs in any open threads where a Convertible Mounting Bracket was removed. Align the stacking tabs of the two MBC units and join together using 4 ea screws M6×18. Use retained screws and spare screws as needed. Recommended torque 6.2 Nm (4.6 ft-lbs).

**B) Tie Plates.** Remove and discard thread protection screws from the tie plate locations. Use 4 tie plates to join two MBC units. Install the tie plates using the provided longer screws. Tighten all screws securely.

Reinstall or reposition Convertible Mounting Brackets according to the intended application.



*Integrated stacking tabs*



*Tie plates*



*Remove and retain thread plugs*



*Install thread plugs in vacant threads*



*Install bracket in new location*

**5 Pole Mounting.** Use the two included band clamps. Insert the open end into one of the rectangular apertures in the Convertible Mounting Bracket and out the other aperture in the same bracket. Align the MBC with the pole. In case of pre-tightened clamp version (pic #1), insert the open end of the band into the buckle and push through until snug around the pole. Close the buckle and engage the locking tabs. In case of screwed clamp version (pic #2), insert the open end of the band into the buckle and screw it. Tighten both clamps firmly. Recommended torque 10 Nm (7.4 ft-lbs).

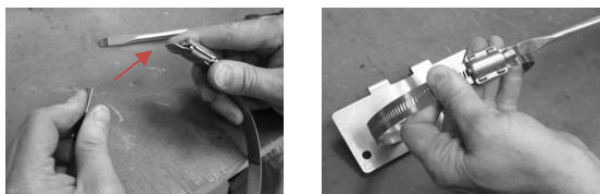
*Pic #1*



*Band clamp, buckle open*

*Buckle closed and locked*

*Pic #2*



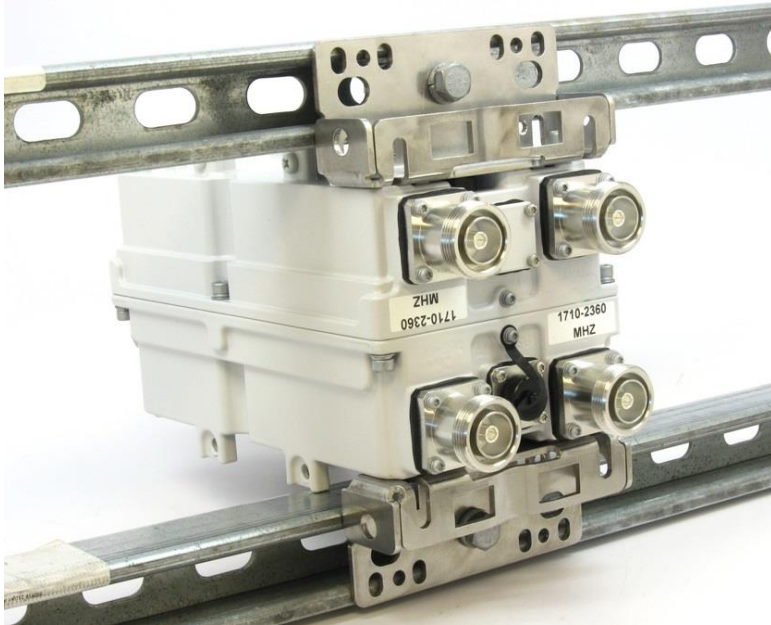
*insert the open end of the band into the buckle & screw it*



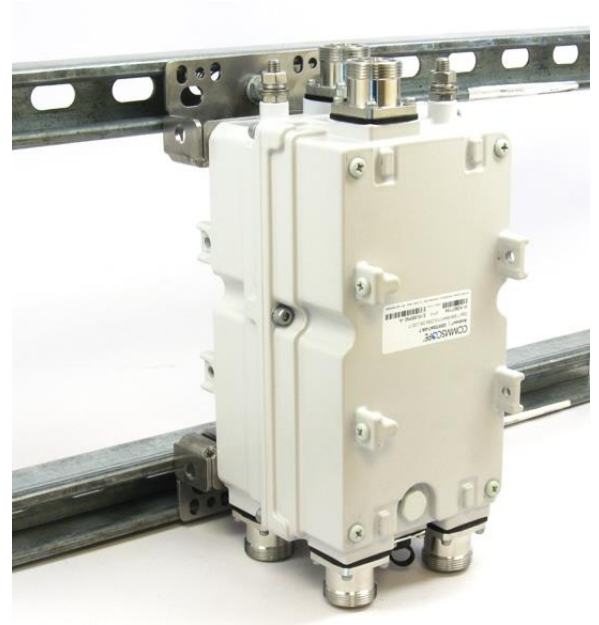
*Twin MBC, pole mounted*

**6 Horizontal Mounting to Framing Channels.** Move one bracket to place it opposite the other so that both brackets are on the same end of the body. Reposition both brackets to position 2. Attach the assembly to parallel framing channels using suitable bolts (3/8" or M10).

**7 Vertical Mounting to Wall or Framing Channels.** Reposition both brackets to position 3. Attach to wall using 2-4 suitable screws with diameter 1/4" – 3/8" (6-10 mm). Or, attach to framing channels using suitable bolts (3/8" or M10).



*Horizontal mounting to framing channels*



*Vertical mounting to framing channels*

**8 Suspending on Threaded Rods.** Stack two or more twin MBC units together as shown in 4 above. Leave brackets on the two end units in position 1. Remove brackets on the middle unit(s) and install thread protection plugs. Attach the assembly to threaded rods with diameter 3/8" or 10 mm. Secure with nuts and lock washers at top and bottom of brackets.



*Three stacked twin MBCs  
suspended on threaded rods*

**9 Rack Mounting, 19" Rack.**

Stack three twin MBC units together as shown in 4 above. Attach front brackets on the two end units in position 4 (position 2 optional). Remove all other brackets and install thread protection plugs. Mount the assembly to a standard 19" rack with four suitable screws. Inner and outer pairs of holes are provided to match the rack pattern for centering in 3U or 4U (compare pictures at right).

**Rack Mounting, 23" Rack.** To install in a 23" rack, different product types may support either or both methods as illustrated:

- A) Extend the width of the stacked assembly by attaching additional brackets (3 shown) using spare M6×18 screws.

– or –

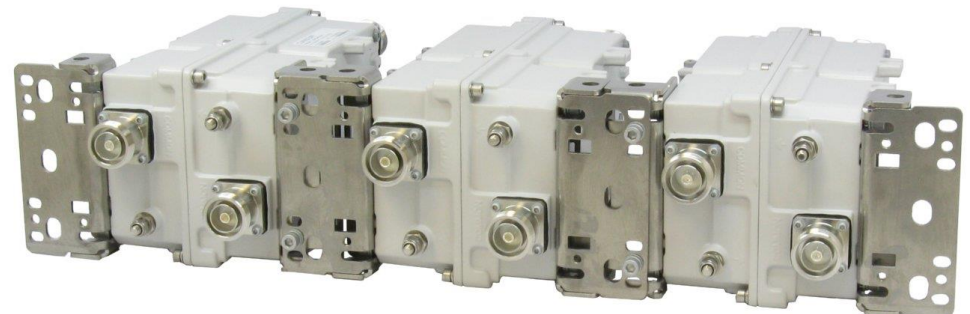
- B) For wider space between units, leave inner bracket on each end unit attached in position 1. Mount center unit (with brackets in position 4) to end units using spare M6×18 screws.



*Three stacked twin MBCs mounted in 19" rack, centered in 3U*



*Method A: twin MBCs mounted in 23" rack, centered in 4U*



*Method B: twin MBCs assembled for mounting in 23" rack*

**10 Attach Ground Cables.** Attach an AWG 5-10 (5-16 mm<sup>2</sup>) ground cable to each ground stud on the MBC units. Tighten the nut to 6 Nm (4.5 ft-lbs) torque using a 10 mm wrench. Avoiding sharp bends, route the ground cables to the common frame or ground bar. Trim, and attach with suitable terminals and hardware.

**11 Connect RF Jumpers.** Tighten RF connections to 25-29 Nm (18-22 ft-lbs) torque. In outdoor installations, fit caps part no. DF-CAPKIT on unused ports. Wrap with weatherproofing materials as needed.

**12 Install RET Control Cables.** See Teletilt® RET Control Cables Guide, bulletin #639581 available on [www.commscope.com](http://www.commscope.com). On unused AISG ports, ensure the protective cap is installed and firmly tightened (by hand only). To mitigate the risk of weather exposure where the MBC is mounted with the AISG connector facing up, take extra care to follow the correct procedure.

**COMMSCOPE®**

POWERED BY

**ANDREW®**

[www.commscope.com](http://www.commscope.com)

Visit our Web site or contact your local CommScope representative for more information

© 2014 CommScope, Inc. All rights reserved

All trademarks identified by ® or ™ are registered trademarks or trademarks, respectively, of CommScope, Inc.

This document is for planning purposes only and is not intended to modify or supplement any specifications or warranties relating to CommScope products or services.