



Behind you all the way

LoadMax® Universal Roof Rack Support System
Fitting Instructions

milford.one



MILFORD Load ▶ Max® UNIVERSAL CANOPY ROOF RACK SUPPORT SYSTEM FITTING INSTRUCTION Part # 505500

The installation kit contains sufficient components for fitment. Do not substitute any components. A high degree of technical competence is necessary to correctly install this product.

**Installation time - Experienced 60mins.
Novice 120 mins.**

INTERNATIONAL PATENTS APPLIED AND PENDING.



WARNINGS

- **THE TESTED CAPACITY OF THIS PART SUBSTANTIALLY EXCEEDS THE MAXIMUM LOAD CAPABILITY OF THE VEHICLES BODY TUB & THE SAFE OPERATING LIMITS OF THE VEHICLE. WE RECOMMEND THAT YOU NEVER EXCEED EITHER THE MAXIMUM BODY TUB LOAD OR THE SAFE OPERATING ROOF LOAD IDENTIFIED BY THE VEHICLE / CANOPY MANUFACTURER. (FAILURE TO DO SO COULD RESULT IN VEHICLE DAMAGE, PERSONAL INJURY OR EVEN DEATH)**
- **FITTING INSTRUCTIONS MUST BE OBSERVED AT ALL TIMES.**
- **FAILURE TO OBSERVE THESE INSTRUCTIONS MAY VOID PRODUCT WARRANTY.**
- **RECOMMENDED FOR USE WITH ALL MILFORD ROOF RACK SYSTEM'S.**
- **SYSTEM NOT DESIGNED OR TESTED TO PERFORM AS A ROLL OVER PROTECTION SYSTEM (ROPS) OR CARGO TIE OFF POINT.**
- **LOAD MUST BE SECURELY FASTENED & CENTRALLY POSITIONED TO COMPLY WITH THE SYSTEM'S FUNCTIONALITY.**
- **PERIODICALLY CHECK ALL FASTENERS & TIGHTEN WHERE REQUIRED.**
- **IF DAMAGED, CORRODED OR INVOLVED IN AN ACCIDENT AFFECTED COMPONENTS SHOULD BE REPLACED.**
- **DO NOT MODIFY THE LoadMax® ROOF RACK SUPPORT SYSTEM IN ANY WAY UNLESS SPECIFIED.**
- **MODIFICATIONS TO THE LoadMax® ROOF RACK SUPPORT SYSTEM MAY VOID THE LOAD RATING AND WARRANTY.**
- **WHERE HIGH TENSILE THREADED FASTENERS ARE USED, THE LoadMax® ROOF RACK SUPPORT SYSTEM MUST BE INSTALLED USING THE SIZE AND GRADE FASTENERS SPECIFIED BY MILFORD INDUSTRIES.**

TOOLS REQUIRED

- | | |
|---|--|
| <ul style="list-style-type: none"> • Socket Wrench • Metric Hex Sockets • Metric Spanners • Torque Wrench • Hex Drive Bits • Straight Edge - Approx. 1200mm • Power Drill • Ø5mm Drill Bit • Ø16mm Fine Tooth Hole Saw • Metal Cutting Saw* | <ul style="list-style-type: none"> • Drill Stops • Steel Rule/Tape Measure • Marker Pen • Masking Tape • Raised Work Platform • Soldering Iron or Similar (round) • Silicon Sealant • Vacuum Cleaner |
|---|--|
- *only if required in Step 18.

FASTENER TORQUES

Fastener size	Fastener class	Recommended torque
M8 X 1.25	8.8	22Nm
M10 x 1.5	8.8	44Nm

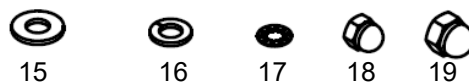
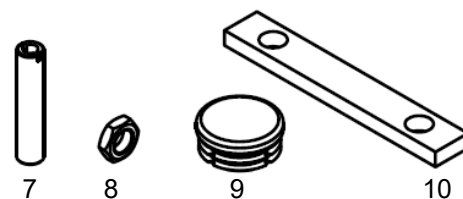
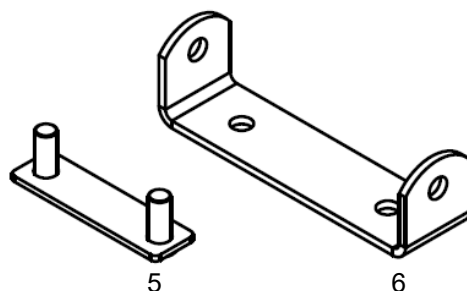
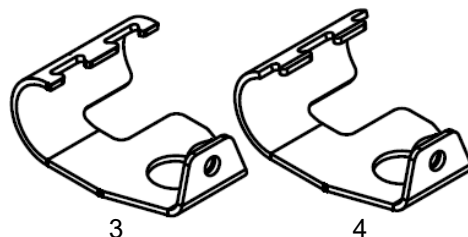
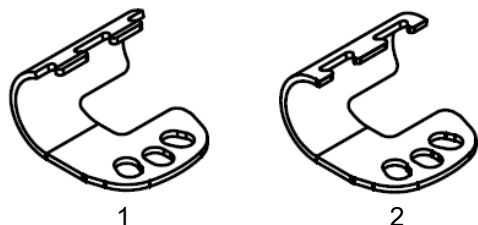


MILFORD Load ▶ Max® UNIVERSAL CANOPY ROOF RACK SUPPORT SYSTEM FITTING INSTRUCTION Part # 505500

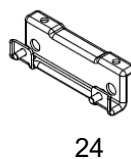
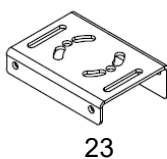
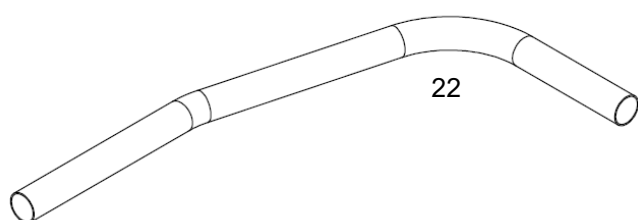
Parts List (4 units)

Important: Check contents of kit before commencing fitment and report any discrepancies or damage.

Item	Component Name	Part No.	Qty
1	Clamp - Formed, Part A, Lower	753546	4
2	Clamp - Formed, Part B, Lower	753548	4
3	Clamp ASM - Part A, Upper	753553	4
4	Clamp ASM - Part B, Upper	753555	4
5	Bracket ASM	753556	4
6	Bracket - Formed	753551	4
7	Double Threaded Spacer - M12 x M8 x 58	753557	8
8	Hex Nut - M12 x 1.25 ZP	922256	8
9	Plastic Tube Enclosure	904731	8
10	Roof Sealing Gasket	904209	4
11	Button Hd. Socket Screw - M8 x 16mm ZP	913140	8
12	Button Hd. Socket Screw - M8 x 60mm ZP	913141	16
13	Washer - Flat, 8mm ZP	932085	8
14	Washer - Spring, 8mm ZP	932030	24
15	Flat Washer - 10mm ZP	932005	8
16	Washer - Spring, 10mm ZP	932010	8
17	Washer - Internal Tooth, 8mm ZP	932195	8
18	Hex Nut - Domed Cap, M8 CP	922261	8
19	Hex Nut - Domed Cap, M10 CP	922260	8
20	Screw - Self Tapping	912610	16
21	Angled Tub Rail Adaptor - Plastic	904208	8
22	Support Tube	505506	4
23	Support Clamp	753570	4
24	Clamping Bracket ASM	753572	4
25	Warning Label - Adhesive (not shown)	907659	1



Note: Items 22, 23 & 24 shown at a reduced scale





**MILFORD Load ▶ Max® UNIVERSAL CANOPY
ROOF RACK SUPPORT SYSTEM
FITTING INSTRUCTION
Part # 505500**

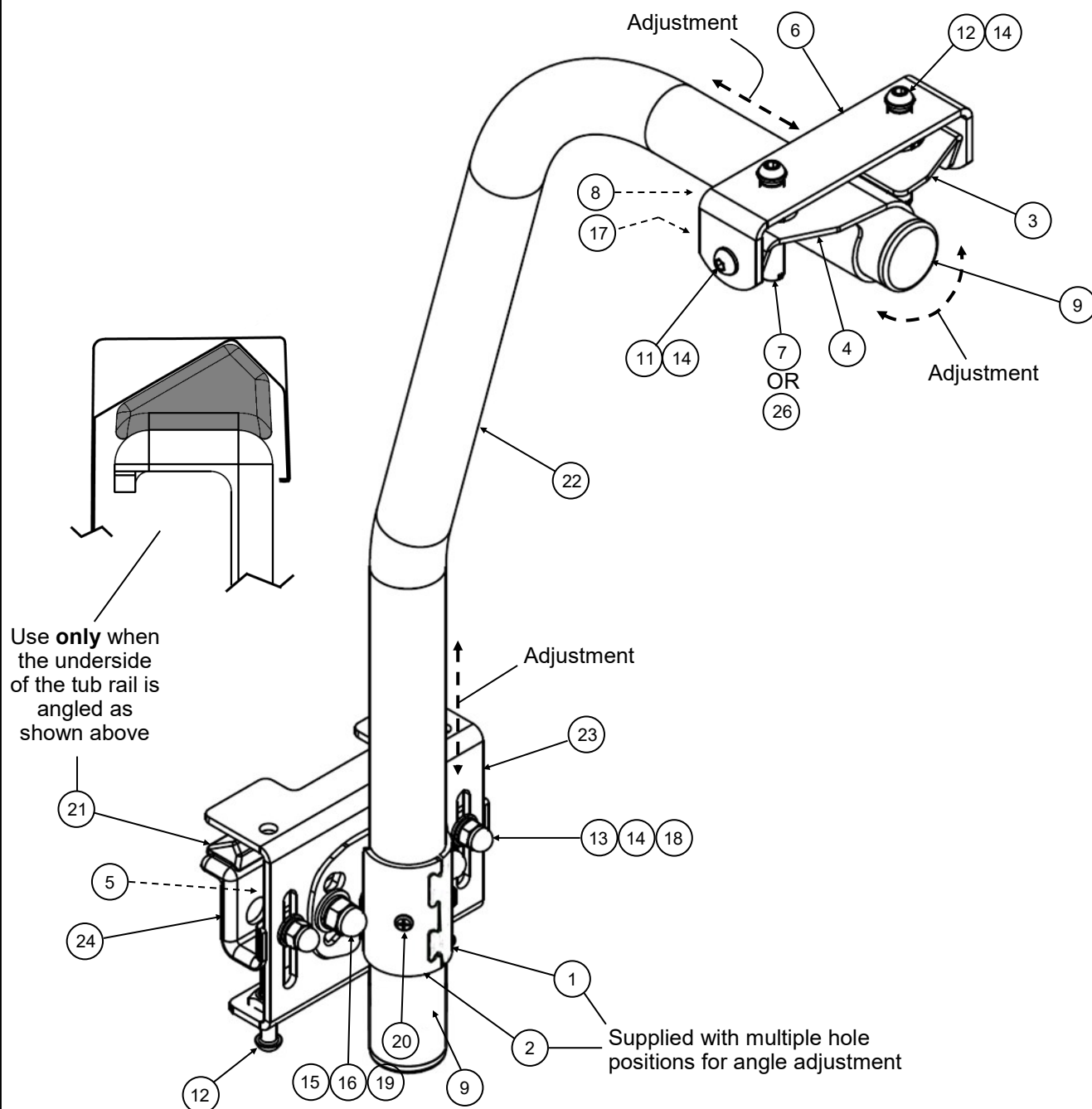
LoadMax® PRODUCT OVERVIEW



LoadMax® roof rack support system shown with Milford EcoRack® mounting channels and cross bars.

MILFORD Load ▶ Max® UNIVERSAL CANOPY ROOF RACK SUPPORT SYSTEM FITTING INSTRUCTION Part # 505500

LoadMax® SUPPORT ASSEMBLY (1 unit)



ADVICE TO FITTERS

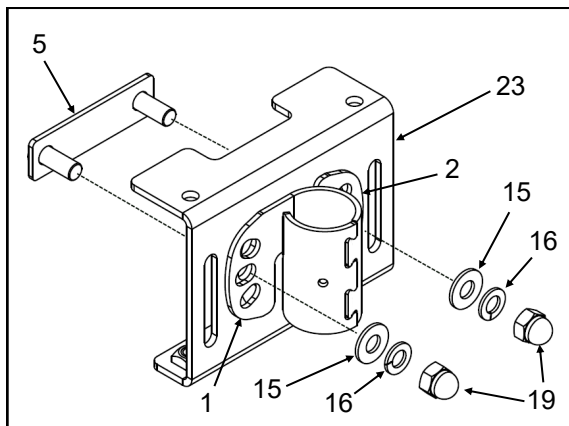
Note: To fit the roof rack support system & cross bar system the following is essential:

- ☐ Always drill perpendicular to surface (Unless stated otherwise).
- ☐ A positive drill stop should always be used to prevent accidental damage to hidden panels etc.
- ☐ Ensure Safety Eye Protection and Gloves are worn as required when using cutting tools.
- ☐ Check screws in relevant components by hand before installation. Should there be resistance re-tap threads and re-check.

CARE SHOULD BE TAKEN NOT TO CROSS THREAD THE FASTENERS DURING INSTALLATION OF COMPONENTS TO THE VEHICLE. ALL FASTENERS SHOULD BE TIGHTENED TO THE RECOMMENDED TORQUES.

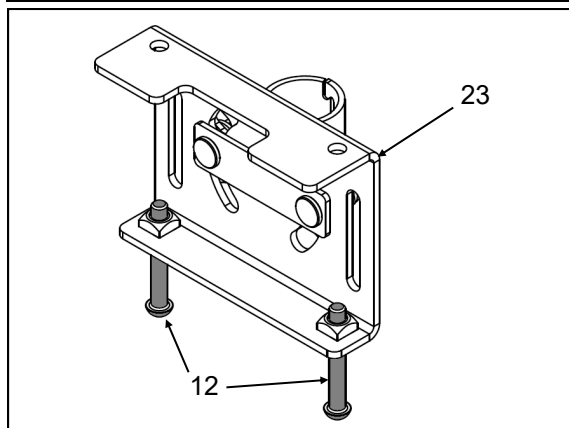
MILFORD Load ▶ Max® UNIVERSAL CANOPY ROOF RACK SUPPORT SYSTEM FITTING INSTRUCTION Part # 505500

ASSEMBLY OF THE LoadMax® SUPPORTS

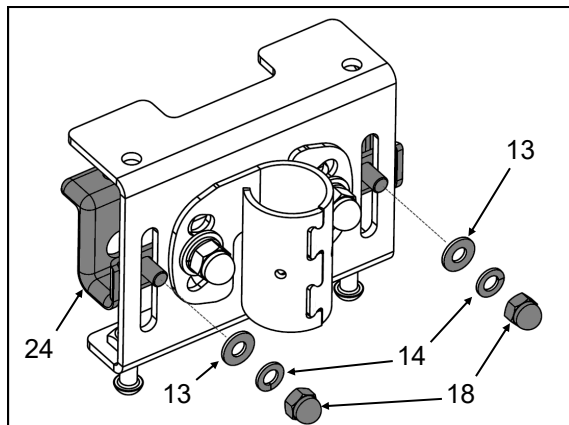


1. Link the clamps (1 & 2) together as shown with the dovetail interlocked.
2. Loosely secure the clamp ASM to the support clamp (23) as shown.

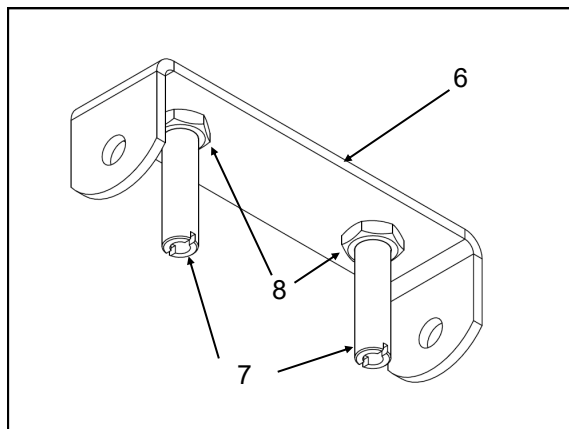
Note: The clamp assembly is shown in the straight up and down position. This is the usual position for the front canopy supports. The rear supports should be angled to suit the angle of the canopy at the rear. (LHS/RHS) The angle will normally be established in the vehicle.



3. Thread the M8 button head screws (12) into the captive nuts in the support clamp as shown.



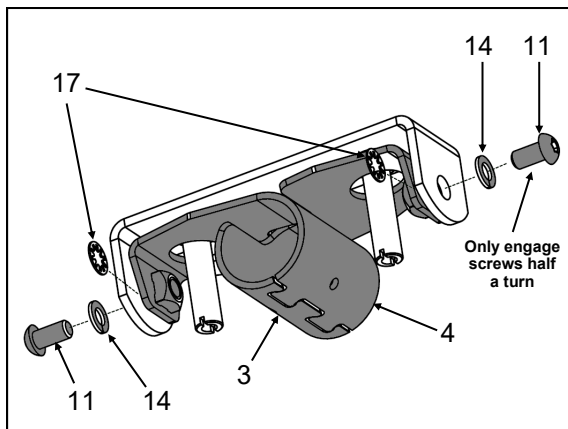
4. Loosely secure the clamping bracket ASM (24) to the support clamp as shown.



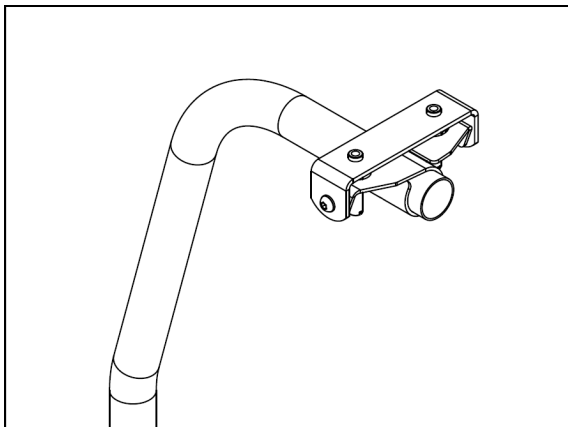
5. Thread a thin hex nut (8) onto each of the double threaded spacers (7) with approximately 8mm protruding.
6. Thread the spacers into the 'C' bracket as shown. Leave loose.

MILFORD LoadMax® UNIVERSAL CANOPY ROOF RACK SUPPORT SYSTEM FITTING INSTRUCTION Part # 505500

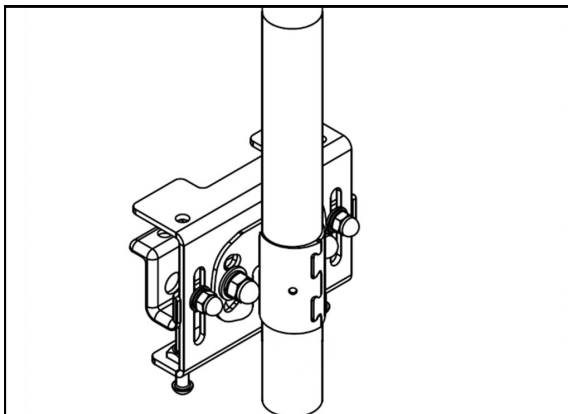
ASSEMBLY OF THE LoadMax® SUPPORTS - Cont'd



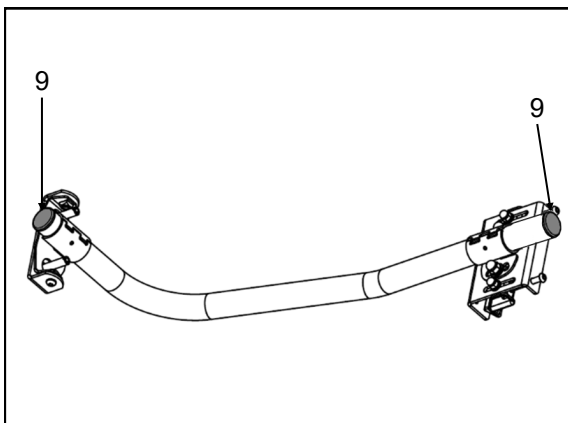
7. Link the clamps (3 & 4) together as shown with the dove tails interlocked.
8. Loosely secure the clamp ASM to the 'C' bracket ASM as shown. Ensure the tooth washers (17) are installed in between the brackets. **Note: The button head screws should only be engaged half a turn at this step.**



9. Slide the upper clamp assembly from above over the top of the support tube (22) as shown.



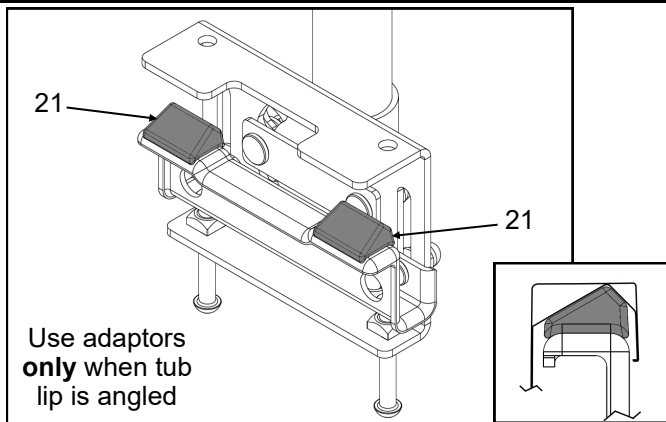
10. Slide the lower bracket assembly over the bottom of the support tube (22) as shown.



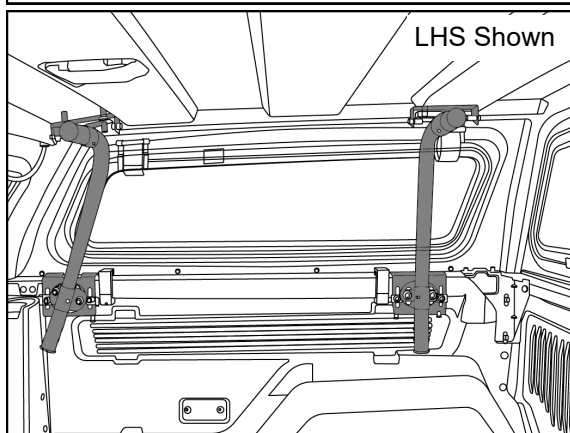
11. Fit the plastic plugs (9) to the ends of the support tube as shown.
12. Assemble the other 3 LoadMax® supports following the above steps, remembering that the rear supports will usually need to be set at an angle to suit the canopy.

**MILFORD Load ▶ Max® UNIVERSAL CANOPY
ROOF RACK SUPPORT SYSTEM
FITTING INSTRUCTION
Part # 505500**

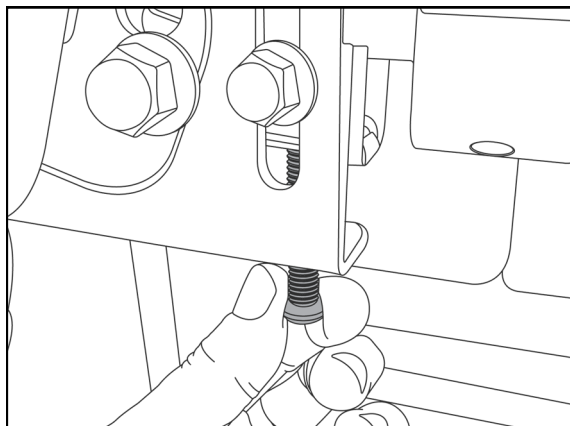
INSTALLATION OF THE LoadMax® SUPPORTS IN UTE TUB



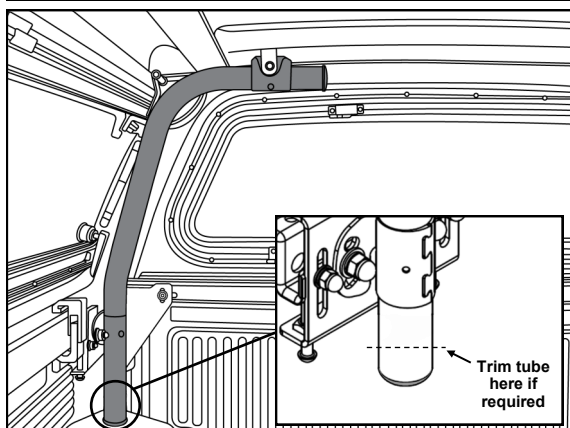
13. The ute tub canopy should be installed following the instructions provided with the canopy.
14. If the ute tub lip is angled on the underside, fit the plastic tub rail adaptors (21) to the bottom clamping bracket ASM's as shown.



15. Working on one side to start with, locate a LoadMax® support ASM over the tub lip and canopy flange at the front and rear of the canopy.
16. **The selected positions will need to work around the canopy clamps and side window hinges, locks etc., on both sides of the canopy where applicable.**



17. Lightly clamp the supports to the tub lip by adjusting the clamping bracket upwards using the 2 adjusting screws.

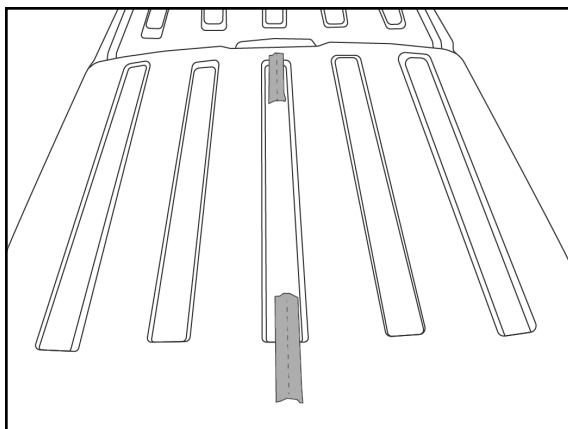


18. Loosely adjust the support tubes in the tube clamps so the tops of the support tubes are sitting horizontal when viewed from the rear, and at 90° to the centre line of the vehicle.

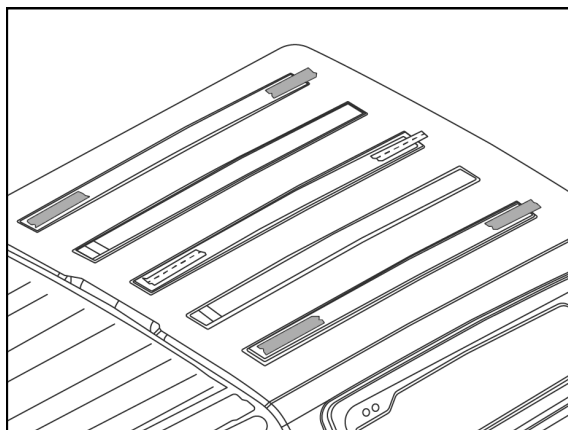
Note: If LoadMax® is obstructed by tub body, trim bottom section of support tube (22) as shown. Remove and re-apply plastic plugs (9) to trimmed support tube.

**MILFORD Load ▶ Max[®] UNIVERSAL CANOPY
ROOF RACK SUPPORT SYSTEM
FITTING INSTRUCTION
Part # 505500**

ESTABLISH THE MOUNTING HOLE POSITIONS IN THE CANOPY

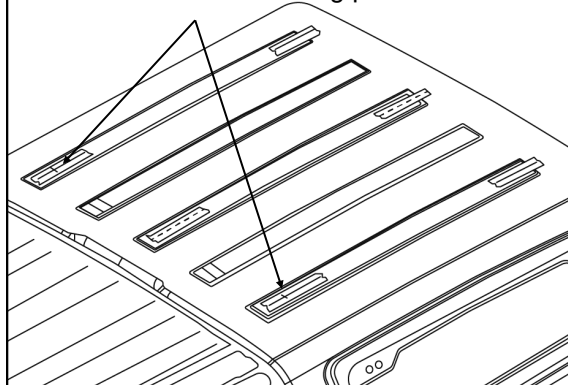


19. On the outside of the canopy affix masking tape in the approximate centre of the canopy roof.
20. Carefully establish a centre line of the canopy and mark a line on the masking tape.
21. On the inside of the canopy do the same.

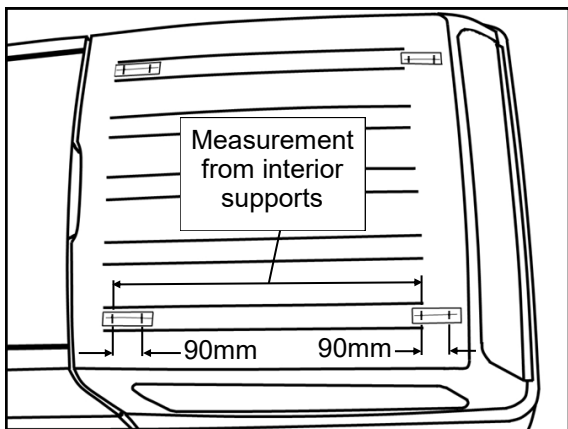


22. On the outside of the canopy establish a suitable flat mounting area which is within the adjustable range of the upper front clamp ASM. Check that this location will also work for the other 3 mounting positions
23. Affix masking tape in these approximate locations.

Forward most mounting points



24. Using the centre line to measure off mark a line parallel to the centre line in the selected mounting area.
25. Repeat on the other side.
26. Establish the distance from the front of the canopy to the first mounting point of the front support ASM.
27. Transfer this measurement to the top of the roof on both sides.

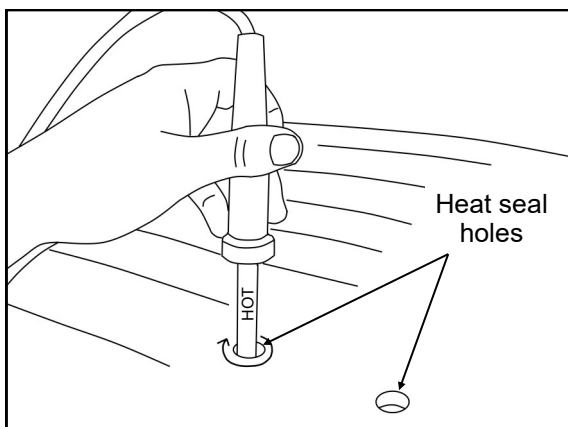
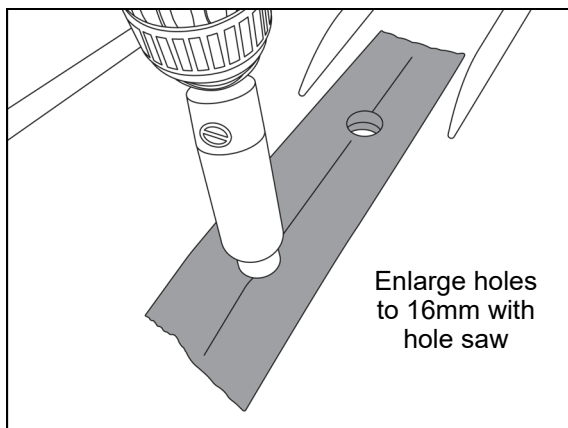
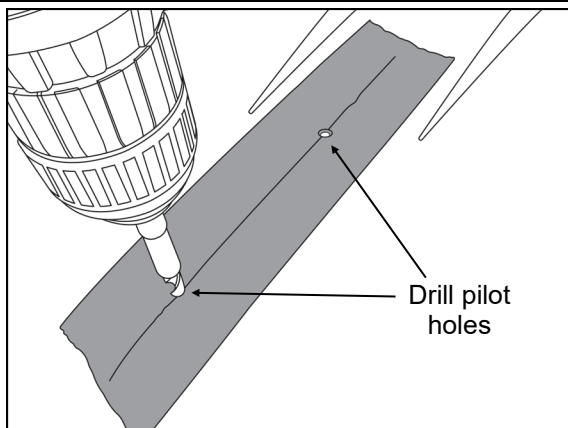


28. On the inside of the canopy measure the distance from the first mounting point of the front support to the first mounting point of the rear support.
29. Transfer this measurement to the outside of the canopy marking it on the parallel lines.
30. From each of the marked locations on the outside of the canopy measure 90mm rearward and mark these positions on the parallel lines.
31. Double check all of the above dimensions.



**MILFORD Load ▶ Max[®] UNIVERSAL CANOPY
ROOF RACK SUPPORT SYSTEM
FITTING INSTRUCTION
Part # 505500**

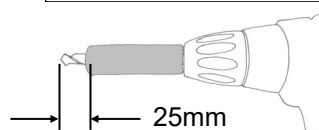
DRILLING THE CANOPY ROOF



Warning: Always refer to the canopy manufacturers recommendations for drilling the canopy.



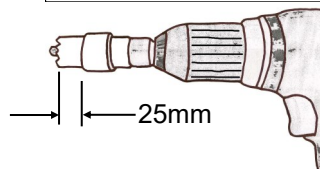
32. Ensure the upper clamp ASM's are moved away from the drilling area.
33. Using a 5mm drill bit with a drill stop set at 25mm, drill a pilot hole at each of the marked positions on the canopy roof. Drill through all layers.



34. Using a fine tooth 16mm hole saw with a drill stop set at 25mm, enlarge each of the pilot holes. (Cutting from both sides is recommended to avoid saw breakout)
35. Vacuum away any drilling swarf.



Warning: It is important that the 16mm hole sides are smooth and chatter free to avoid crack propagation.

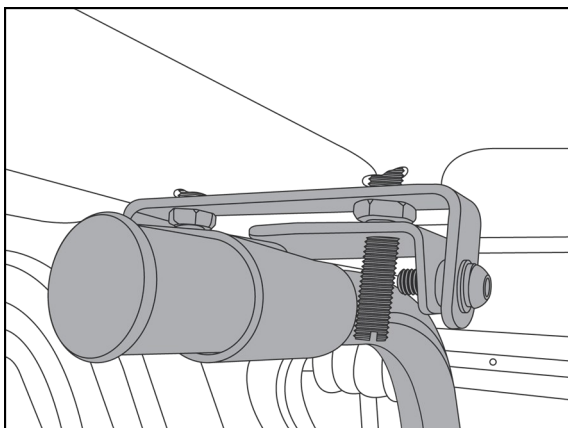


Note: Step 36 is recommended for vacuum formed canopies.

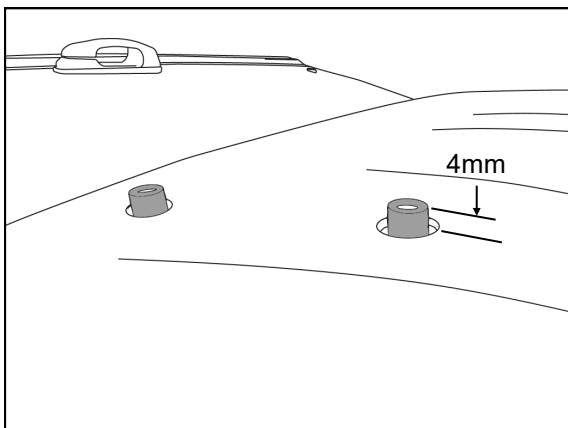
36. Using a hot **round** soldering iron or other similar heating tool, carefully melt the sides of the cut 16mm holes to heat seal any micro cracks. (Care should be taken to not enlarge the holes or damage the paint.)
37. Remove the masking tape from the outside and inside of the canopy.

**MILFORD Load ▶ Max® UNIVERSAL CANOPY
ROOF RACK SUPPORT SYSTEM
FITTING INSTRUCTION
Part # 505500**

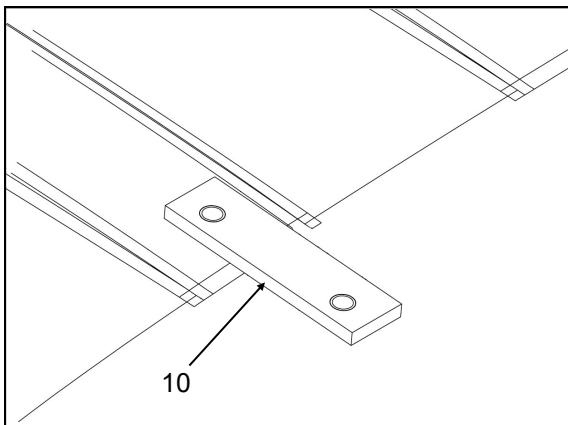
COMPLETE INSTALLATION OF THE LoadMax® SUPPORTS



38. Position the other 2 LoadMax® support ASM's in the ute tub opposite the first pair.
39. Adjust and lightly clamp each of the 4 support ASM's until they align with the drilled holes in the canopy, with about 4mm clearance to the roof lining.

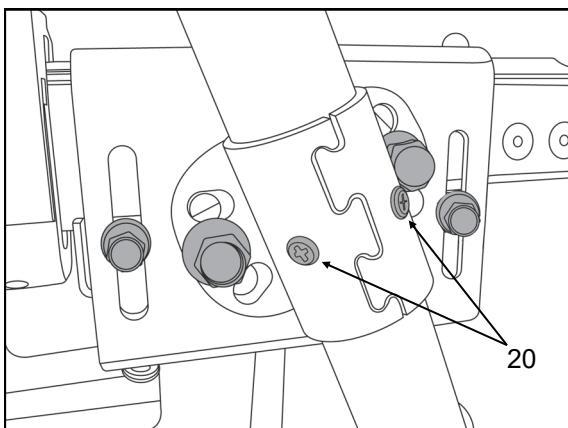


40. Adjust the double threaded spacers until there is 4mm of each spacer protruding past the outside roof surface.



41. Place the roof sealing gaskets (10) over the threaded spacers then attach the desired roof rack/roof bars to the threaded spacers using M8 x 1.25 screws (12) with spring washers (14) under heads.

Where necessary apply silicon sealant around the mounting holes for additional sealing.



42. Tighten the bottom clamping screws until the lower bracket ASM's are tight on the tub rim.
43. Tighten and torque up all of the LoadMax® nuts and screws to tightly clamp the support tubes in place.
44. Complete the assembly by drilling a pilot hole at each of the self tapping screw holes.
45. Screw a self tapping screw into each of the screw holes.
46. Affix the warning label (25) to the rear RHS tube support in a prominent position facing rearward.

