

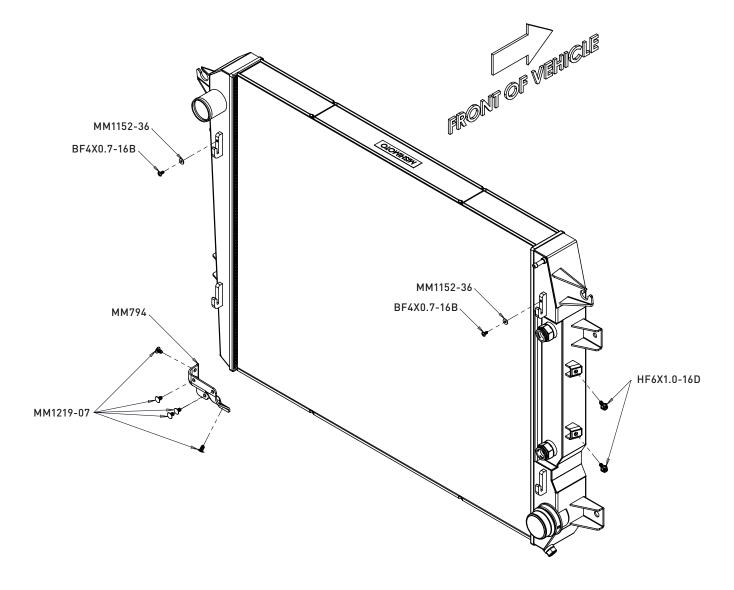
# INSTALLATION GUIDE

2017–2019 CHEVROLET/GMC 6.6L L5P DURAMAX PERFORMANCE ALUMINUM RADIATOR SKU: MMRAD-DMAX-17

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PARTS BREAKDOWN		
PART NUMBER	DESCRIPTION	QUANTITY
MM5520	RADIATOR	1
MM794	FAN SHROUD PATCH PANEL	1
MM1152-36	WASHER	2
BF4X0.7-16B	BOLT	2
HF6X1.0-16D	BOLT	2
MM1219-07	TREE CLIP	5
ORC-400-55-N/B-70	0-RING	1



**INSTALLATION GUIDE** 

#### IMPORTANT SAFETY INFORMATION

- Mishimoto recommends you use safety glasses and protective gloves during the installation of our products
- > Raise vehicle only on jack stands or on a vehicle lift
- > Allow vehicle to cool completely prior to attempting installation
- Do not run the engine or drive the vehicle while overheating; serious damage can occur
- > Please dispose of any liquids properly
- Mishimoto is not responsible for any vehicle damage or personal injury due to installation errors, misuse, or removal of Mishimoto products
- If you need any assistance while installing our products, reach out to our Customer Service Team at 1-877-GOMISHI

#### **TOOLS NEEDED**

2.5MM ALLEN KEY 13MM WRENCH

T15 TORX BIT 14MM WRENCH

7MM SOCKET FLATHEAD SCREWDRIVER

10MM SOCKET PICK TOOL

10MM DEEP SOCKET PANEL TOOL

11MM DEEP SOCKET PLIERS

13MM SOCKET RULER

15MM SOCKET DRAIN PAN

18MM SOCKET DRILL

1/4" RATCHET AND EXTENSION 1/4" DRILL BIT

3/8" RATCHET AND EXTENSION ANGLE GRINDER

10MM WRENCH

### 

- **01.** Remove the driver-side fender flare and fender liner. (17x T15 torx screws, 1x 7mm bolt, 1x 13mm bolt)
- **02.** Remove the passenger-side fender flare and fender liner. (17x T15 torx screws, 1x 7mm bolt, 1x 13mm bolt)
- 03. Drain the engine coolant.
- 04. Remove the radiator cover. (12x pop clips)



05. Remove the grille. (4x 10mm bolts)



**INSTALLATION GUIDE** 

**06.** Disconnect the electrical harness from behind the center of the bumper. (1x electrical connector)

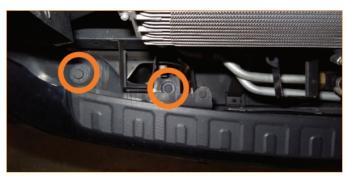


**07.** Remove the front bumper brace bolts. (2x 15mm bolts)





**08.** Remove the front bumper bolts, then remove the bumper from the vehicle. (4x 18mm bolts)





**09.** Remove the plastic cover in the passenger-side wheel well. (1x pop clip)



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**INSTALLATION GUIDE** 

10. Remove the front bumper filler panels located below the headlights. [1x 10mm bolt and 2x 7mm screws on each side]





11. Remove the headlights. (4x 10mm bolts and 1x electrical connector on each side)





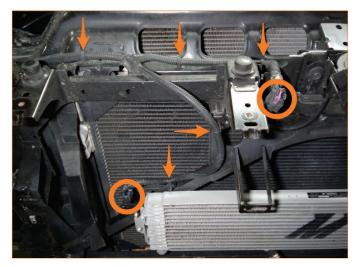


**INSTALLATION GUIDE** 

**12.** Remove the threaded headlight mounting clips from the fenders. [1x mounting clip on each side]



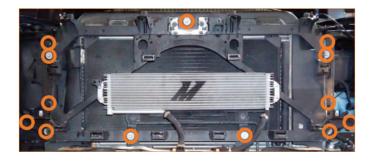
**13.** Disconnect the temperature sensor and hood latch, then unclip the wire harness from the upper radiator support and grille support. (2x electrical connectors, 5x harness routing tree clips)



**14.** Using a marker or scribe, mark the location of the hood latch. Remove the hood latch from the grille support and place it to the side. [2x 13mm bolts, 1x harness tree clip, 1x hood latch cable routing tree clip]



- **15.** Remove the grille support from the vehicle. (7x 13mm bolts, 6x 10mm nuts)
- \*\* If you have the Mishimoto transmission cooler kit installed on your vehicle, you'll need to disconnect the hoses from the cooler.\*\*



16. Remove the bolts securing the radiator to the upper core support.
(2x 13mm bolts)

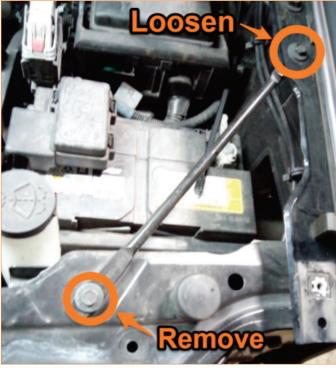






**INSTALLATION GUIDE** 

17. Remove the bolt securing the brace to the upper core support and loosen the bolt securing the brace to the driver-side fender. Move the brace away from the upper core support. (2x 10mm bolts)





- **18.** Remove the upper core support from the vehicle. (6x 10mm bolts)
- \*\*The upper A/C condenser mounts will stay attached to the upper core support and will slide off the top of the condenser as the core support is removed.\*\*





19. Remove the air intake tube, air box, and air box mounting bracket.



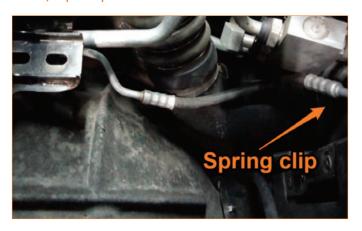
**INSTALLATION GUIDE** 

**20.** Remove the air intake box bracket. (5x 10mm bolts and 1x line routing tree-clip)





- **21.** Remove the cold-side intercooler pipe from the intercooler. (1x spring clip)
- \*\*If you have the Mishimoto intercooler pipe kit installed on your vehicle, skip to step 25\*\*



**22.** Remove the bolt securing the stock cold-side intercooler pipe to the engine and disconnect the air temperature sensor. (1x 13mm bolt and 1x electrical connector)



- **23.** Remove the stock cold-side intercooler pipe from the intake manifold. (1x plastic locking ring)
- \*\*Tip Rotate the plastic locking ring clockwise and then pull downward on the pipe to remove it\*\*



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**INSTALLATION GUIDE** 

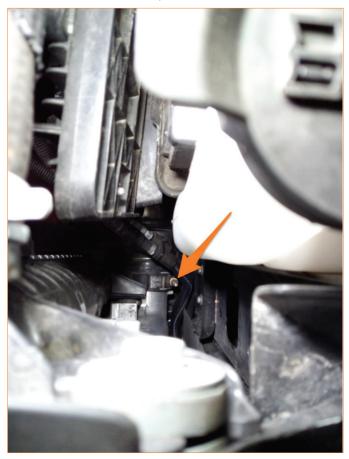
24. Remove the stock cold-side pipe from the vehicle.



**25.** Remove the cold-side intercooler pipe lower section from the vehicle. (1x constant tension T-bolt clamp)



**26.** Disconnect the hot-side intercooler pipe from the intercooler. (1x constant tension T-bolt clamp)





**INSTALLATION GUIDE** 

**27.** Looking through the driver-side wheel well, mark the location of the steering gear box bolt on the fan shroud.



**28.** Remove the bolts securing the radiator to the intercooler. (4x 13mm bolts)





**29.** Remove the grommets from the driver-side brackets on the radiator. (2x grommets)

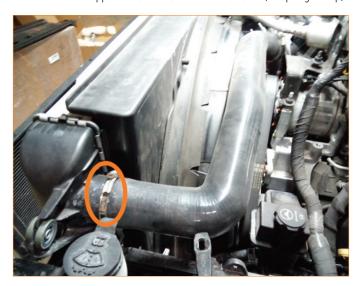


**INSTALLATION GUIDE** 

**30.** Unseat the A/C condenser from its lower mounts. Lift the A/C condenser up and over the power steering cooler, then place it back down carefully.



- **31.** Lift the radiator up slightly and push it towards the engine, then remove the stock intercooler from the vehicle.
- **32.** Remove the upper radiator hose from the radiator. (1x spring clamp)



**33.** Remove the overflow hose from the radiator. (1x spring clamp)



**34.** Remove the lower radiator hose from the radiator. (1x quick disconnect fitting)

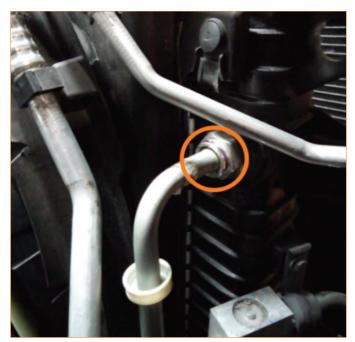


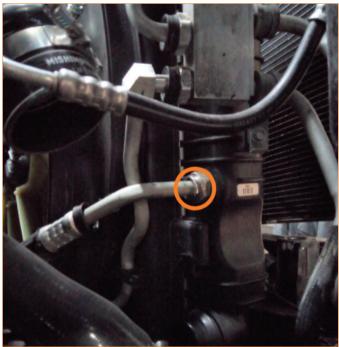
**INSTALLATION GUIDE** 

**35.** Remove the two bolts securing the transmission cooler thermal bypass valve to the passenger side of the radiator. (2x 10mm bolts)



**36.** Remove the transmission cooler lines from the quick-disconnect fittings on the radiator. (2x spring clips)





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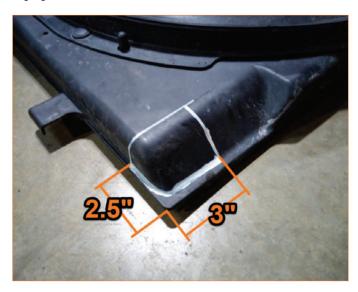
**INSTALLATION GUIDE** 

**37.** Disconnect the temperature sensor and hood latch, then unclip the wire harness from the upper radiator support and grille support. (2x electrical connectors, 5x harness routing tree clips)





- 38. Remove the radiator from the vehicle.
- 39. Remove the fan shroud from the vehicle.
- **40.** Mark the lower driver-side corner of the fan shroud as shown in the above image. Cut the marked area out of the fan shroud using an angle grinder.



**41.** Draw around the steering gear box bolt location previously marked on the fan shroud at step 27 as shown in the above image. Cut the marked area out of the fan shroud using an angle grinder.



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**INSTALLATION GUIDE** 

**42.** Place the provided plastic fan shroud patch panel over the cut area from step 40 and mark the 5x hole locations. Use a %" drill bit to drill the holes.



**43.** Fasten the plastic fan shroud patch panel to the fan shroud using the provided tree clips. (5x MM1219-07 tree clips)



**44.** Remove the grommets from the upper radiator mounts and reinstall them onto the Mishimoto radiator. (2x grommets)





- 45. Reinstall the fan shroud into the vehicle.
- 46. Install the Mishimoto radiator into the vehicle.
- **47.** Secure the fan shroud to the Mishimoto radiator using the provided hardware. (2x MM1152-36 washers and 2x BF4X0.7-16B bolts)







#### **INSTALLATION GUIDE**

- **48.** Install the transmission cooler lines into the quick-disconnect fittings on the Mishimoto radiator.
- **49.** Fasten the transmission cooler thermal bypass valve to the Mishimoto radiator using the provided hardware. (2x HF6X1.0-16D)



- **50.** Replace the O-ring in the lower radiator hose quick-disconnect with the provided O-ring, then connect the quick-disconnect fitting to the Mishimoto radiator. (1x ORC-400-55-N/B-70 o-ring)
- 51. Reinstall the overflow hose.
- **52.** Reinstall the upper radiator hose.
- 53. Reinstall the intercooler into the vehicle.

- **54.** Reinstall the grommets to the driver-side brackets on the radiator. (2x grommets)
- **55.** Lift the radiator up and pull it towards the intercooler. Set the upper radiator-to-intercooler brackets onto the intercooler brackets.
- **56.** Secure the radiator to the intercooler.
- **57.** Lift the A/C condenser up and over the power steering cooler, then place it back down carefully into its lower mounting points.
- 58. Reinstall the upper core support to the vehicle. (6x 10mm bolts)
- **59.** Reinstall the brace to the upper core support. (2x 10mm bolts)
- 60. Fasten the radiator to the upper core support.
- 61. Reinstall the cold-side intercooler pipe.
- **62.** Reconnect the hot-side intercooler pipe. (1x constant tension t-bolt clamp)
- **63.** Reinstall the air intake box bracket. (5x 10mm bolts and 1x line routing tree-clip)
- 64. Reinstall the air intake tube, air box, and air box mounting bracket.
- **65.** Reinstall the grille support to the vehicle. (7x 13mm bolts, 6x 10mm nuts)
- \*\* If you have the Mishimoto transmission cooler kit, reconnect the transmission cooler lines.\*\*
- **66.** Reinstall the hood latch to the grille support. (2x 13mm bolts, 1x harness tree clip, 1x hood latch cable routing tree clip)
- **67.** Reconnect the temperature sensor and hood latch, then secure the wire harness to the upper radiator support and grille support. [2x electrical connectors, 5x harness routing tree clips]
- **68.** Reinstall the threaded headlight mounting clips to the fenders. (2x mounting clips)
- **69.** Reinstall the headlights. (4x bolts and 1x electrical connector on each side)



**INSTALLATION GUIDE** 

- **70.** Reinstall the front bumper filler panels located below the headlights. (1x 10mm bolt and 2x 7mm screws on each side) (2x electrical connectors, 5x harness routing tree clips)
- 71. Reinstall the plastic cover in the passenger-side wheel well. (1x pop clip)
- 72. Reinstall the front bumper. (4x 18mm bolts)
- 73. Reinstall front bumper brace bolts. (2x 15mm bolts)
- 74. Reconnect the electrical harness behind the center of the bumper.(1x electrical connector)
- 75. Reinstall the grille. (4x 10mm bolts)
- 76. Reinstall the radiator cover. (12x pop clips)
- **77.** Reinstall the driver-side fender flare and fender liner. (17x T15 torx screws, 1x 7mm bolt, 1x 13mm bolt)
- **78.** Reinstall the passenger-side fender flare and fender liner. (17x T15 torx screws, 1x 7mm bolt, 1x 13mm bolt)
- 79. Refill and bleed the coolant.
- 80. Check the transmission fluid level, add fluid as needed.
- 81. Check the vehicle for any coolant, transmission fluid, and boost leaks.

Congratulations! You have completed your installation.

\*For **Disposal Instructions**, and **Warranty Information** continue to the following page.



**DISPOSAL INSTRUCTIONS** 

#### **DISPOSAL INSTRUCTIONS**

- Do not dispose of any product as unsorted municipal waste.
  Use separate collection facilities. Contact your local authority for information regarding the collection systems available.
- > Never improperly dispose of any coolant, oil, or other chemicals.



This product can expose you to chemicals which are known to the state of California to cause cancer.