

2001–2006 BMW E46 M3 PERFORMANCE ALUMINUM FAN SHROUD KIT

PARTS LIST AND INSTALLATION GUIDE

PARTS LIST

- 1PC** | ALUMINUM FAN SHROUD
- 1PC** | MISHIMOTO 16" SLIM ELECTRIC FAN
- 2PC** | FAN REMOVAL TOOL
- 2PC** | OPTIONAL MISHIMOTO FAN CONTROLLER (1/8" NPT OR PROBE)

ADDITIONAL HARDWARE

(IF PURCHASING OPTIONAL FAN CONTROLLER)

- 1PC** | MISHIMOTO FAN CONTROLLER
- 1PC** | TEMPERATURE SENSOR (1/8" NPT OR PROBE)
- 1PC** | INLINE FUSE JUMPER
- 2PC** | BUTT SPLICES
- 2PC** | 0.25" WIDE QUICK-DISCONNECT TERMINALS
- 2PC** | 3/8" STUD SIZE RING TERMINALS
- 1PC** | 3/8" BLACK WIRE COVER, 5' LENGTH
- 1PC** | 3/16" BLACK SHRINK WRAP, 6" LENGTH
- 1PC** | 1/4" BLACK SHRINK WRAP, 2" LENGTH
- 3PC** | 7.5" BLACK ZIP TIES

TOOLS NEEDED

- | | |
|-------------------------------|--------------------------------|
| FLATHEAD SCREWDRIVER | 32MM WRENCH |
| NEEDLE-NOSE PLIERS | WIRE STRIPPERS |
| T25 TORX SOCKET | SOLDERING IRON |
| 1/4" DRIVE RATCHET | SOLDER |
| 10MM SOCKET | SHRINK TUBING |
| 19MM SOCKET | HEAT SOURCE |
| 3/8" DRIVE RATCHET | BMW-APPROVED COOLANT |
| MISHIMOTO FAN TOOL (SUPPLIED) | DIFFICULTY LEVEL: 4/5 |
| | INSTALL TIME: 2–3 HOURS |

DISCLAIMER

- 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.
- Mishimoto suggests that a trained professional install all Mishimoto products.

INSTALLATION INSTRUCTIONS

01 | REMOVING THE STOCK FAN SHROUD

1. Remove the air intake duct. (3x pop clips)



2. Once the vehicle has cooled down, remove the cap from the radiator reservoir.
3. Using a flathead screwdriver, remove the quick-disconnect clip from the upper radiator hose.



4. Disconnect the coupler for the upper radiator hose.

CONTINUED ON FOLLOWING PAGE >

01

2001–2006 BMW E46 M3 PERFORMANCE ALUMINUM FAN SHROUD KIT INSTALLATION GUIDE

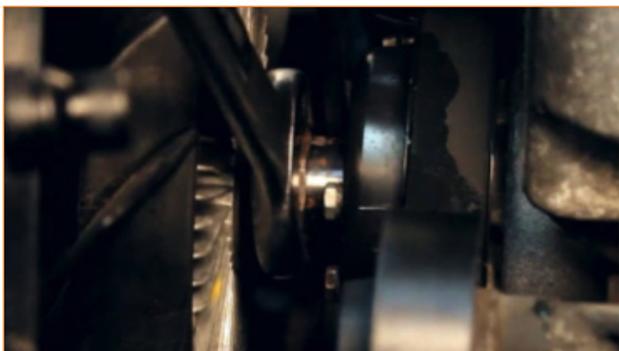
5. Remove the plastic side trim on the fan shroud. (1x pop clip)
6. Remove the small overflow port from the quick-disconnect coupler, and then remove the plastic trim using a flathead screwdriver.
7. Remove the plastic trim from the opposite side of the radiator. (1x pop clip)



8. Remove the electrical connector. Set the connector aside until needed later.
9. Disconnect the plug on the stock fan shroud.
10. Remove the screws from the lower fan shroud. (2x T25 Torx screws)



11. Remove the screws from the upper fan shroud. (2x T25 Torx screws)
12. Remove the upper radiator hose completely. (1x clamp)
13. Remove the stock mechanical fan by turning the fan clockwise using a 32mm wrench and the supplied Mishimoto fan-removal tool.



14. Remove the fan and fan shroud assembly from the vehicle.

02 | INSTALLING AND WIRING THE MISHIMOTO FAN SHROUD

1. Install the Mishimoto Aluminum Fan Shroud.
2. Reinstall the long mounting screw for the upper shroud on the passenger side. (1x T25 Torx socket)
3. Install the supplied bolts for the lower shroud. (2x 10mm)
4. Reconnect the upper radiator hose to the engine. (1x clamp, flathead screwdriver)
5. Reconnect the upper radiator hose to the radiator. Listen for the "click" sound of the quick-disconnect clamp to seat the hose correctly.
6. Reconnect the small overflow port.
7. Warning: To avoid damage and injury, disconnect the battery before performing the following steps.
8. Using zip ties, mount the fan relay on the metal beam located near the ABS system.



9. Cut both zip ties that hold together the harness wires for the fan controller.
10. Locate the red positive wire on the harness. Route the red wire, ensuring that it is long enough to reach the black negative wire on the back of the Mishimoto fan.
11. Strip the end of the red wire connected to the wire harness, exposing approximately 1/4" of wire.
12. Place one inch of shrink tubing over the red wire.
13. Attach a female spade connector to the end of the red wire.
14. Solder the wire to the female spade connector.
15. You can now connect the red wire from the harness to the black wire of the Mishimoto fan. Slide the shrink tubing over the connection of the wires and use a heat source to melt the tubing.
16. Splice the end of the supplied red wire. Leave approximately 1/4" of exposed wire.
17. Cut a 3/4" piece of shrink tubing and slide it onto the red wire.

CONTINUED ON FOLLOWING PAGE >

02

2001–2006 BMW E46 M3 PERFORMANCE ALUMINUM FAN SHROUD KIT INSTALLATION GUIDE

18. Crimp a ring connector onto the loose red wire. Solder the ring connector to the exposed wire.



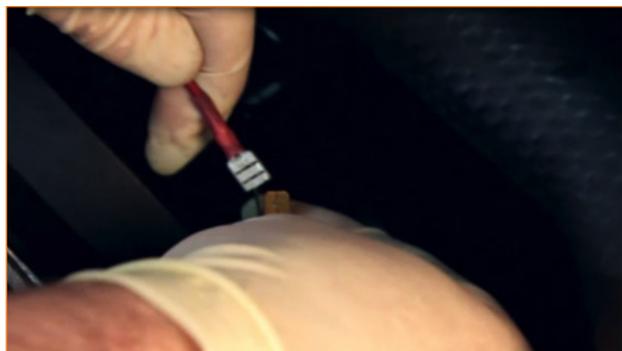
19. Slide the shrink tubing over the base of the ring connector and use a heat source to melt the shrink tubing. Be sure the tubing covers any exposed wire.

20. Cut a 3/4" piece of shrink tubing and slide onto the red wire.

21. Crimp a female spade connector onto the end of the red wire.

22. Solder the wire to the female spade connector.

23. Connect the female spade connector to the positive wire of the Mishimoto fan.



24. Slide the shrink tubing over the connection and proceed to melt the tubing using a heat source.

25. Connect the ring terminal of the loose red wire to the positive terminal of the engine bay near the passenger-side firewall.

26. Locate the green wire attached to the fan controller harness. Wrap and zip-tie this wire, as it is not used in this application.

27. If you have a probe-style sensor, place it between the fins of the radiator about 4–6" down on the passenger side.

28. Plug the sensor into the main fan relay unit.

29. Find the black wire connected to the main wire harness, and measure the correct length needed to reach the negative terminal of the engine bay. Cut the wire after measuring it.

30. Strip one end of the black wire.

31. Place 3/4" of shrink tubing on the black wire.

32. Crimp a ring connector to the end of the black wire.

33. Solder the ring connector to the exposed wire.

34. Slide the shrink tubing up to the base of the ring connector, and ensure that it covers any exposed wire. Use a heat source to melt the shrink tubing.

35. Connect the ring terminal to the negative battery terminal in the engine bay.

36. Place the supplied plastic wire loom around all the wires, from the back of the Mishimoto fan and sensor wire, to the battery terminals.

37. Secure the plastic wire loom using the supplied zip ties.

38. Reinstall the air intake duct. (3x pop clips)

39. On the passenger side of the firewall located just below the fan relay, locate the main access point to the BMW wiring harness. The wire harness has a rubber cover with one or two protruding nipples. Cut the tip off one of the nipples.

40. Feed the yellow wire from the fan relay harness through the rubber nipple.

41. Open the glove box and remove the 6x Phillips screws holding the glove box in place.

42. Using a little force, the glove box can be dropped down by pulling outward.

43. Measure the length of wire needed to reach the inside glove box (approximately two feet from the firewall).

44. Feed the yellow wire into the glove box. You will find gaps in the plastic of the glove box on the rear right side.

45. Strip the end of the yellow wire.

46. Crimp the end of the supplied fuse jumper onto the yellow wire.

47. Reinstall the glove box.

48. Drop the fuse box down by turning the two white tabs on top of the glove box.

49. Pull the 30 amp fuse and place it into the empty slot of the fuse jumper.

50. Plug the fuse jumper into the slot from which the 30 amp fuse was pulled.

51. Open the air bleed on the upper radiator hose.

52. Refill the system with a 50/50 mixture of BMW-approved coolant and distilled water.

53. You may now start the car. Let the car warm up to operating temperature. Make sure the fan can turn on and off.

54. You have now successfully installed the Mishimoto 2001–2006 BMW E46 M3 Performance Aluminum Fan Shroud Kit. Enjoy!