



## MAF Conversion Kit for E34 535i

### Installation Instructions

#### Parts Included:

- Split Second ARC2
- Split Second ARM1
- MAF Sensor
- MAF Aluminum Adapter
- MAF Wiring Harness
- 4" 90 Degree Elbow
- 4"-3.5" Air Filter Box Reducer
- 3.5"-3" MAF Reducer

**Note:** It is recommended that all electrical connections be soldered and covered by heat shrink tubing. Crimp and instant splice connectors are OK if done carefully and double checked for proper connection.

1. Disconnect the battery
2. Remove the air flow meter held by the 10-mm nuts bolted to top of the valve cover.
3. Remove the rubber boot mounted to the back of the air filter box.
4. Remove the air filter box. Cut and remove the plastic inlet to the air filter box located at the bottom.
5. Attach the 4" - 3.5" reducer to the inlet of the air filter box.
6. Reinsert the air filter box in its stock location.
7. Assemble the MAF adapter to MAF sensor. Assemble the 4" 90 degree elbow to the end of MAF adapter.
8. Assemble the 3.5"-3" MAF reducer to the back of the MAF sensor.
9. Install the 90 degree elbow to the outlet of the air filter box. Rotate the MAF assembly to install into stock location.
10. Tighten hose clamp on air filter box and the MAF sensor.
11. Remove glove box. There are two straps located on the front and two quick disconnects located in the back.
12. Before you remove panel above the glove box, assemble the mounting brackets on the side of the ARC2. Mark the panel for mounting locations.
13. Remove the panel above the glove box. There are screws located at the top of the panel.

14. Mount the ARC2 on driver side (left) of glove box light.
15. Fish the ARC2 wire harness through the vent hose located underneath the glove box. This hose travels to the DME located in the engine compartment.
16. Locate the power wires of the ARC2. Six inches from the end of the wire jacket cut the **RED, BLACK, BROWN, and GREEN** wires. These wires will connect to end of the MAF wire loom. Save the old wires, they will be used later.
17. In the DME box on the right side of the engine bay you will see two grommets. Poke a hole through the grommet closest to the windshield and route the **RED, BLACK, BROWN, and GREEN** wires through. Leave two inches of the uncovered wire on the DME side.
18. Connect these wires to the MAF loom. Connect each wire to their corresponding colors.
19. Unplug the harness from the DME located closest to the front window. Find the **GRAY/YELLOW, GRAY/VIOLET, and BROWN/BLUE** wires.
20. Connect the **VIOLET** wire of the ARC2 to the **GRAY/YELLOW (7)** wire.
21. Connect the **GRAY** wire of the ARC2 to the **GRAY/VIOLET (44)** wire.
22. Connect the **YELLOW** wire from the ARC2 to the **BROWN/BLUE (52)** wire.
23. Connect the **RED** wire left over from the MAF loom to the DME **RED/BLUE (37)** wire. Connect the other end of the **RED** wire to the **RED** wire going to the ARC2 and MAF sensor.
24. Located on the side of the DME you will find the mounting tab. Connect the left over **BLACK** wire to the sensor ground **GRAY/BLUE (26)** wire. Connect the other end of the **BLACK** wire to the black wire going to the ARC2 and MAF sensor.
25. Plug the DME connector back into the DME.
26. Find a suitable place to mount the ARM1. We recommend on top of the steering column. Mount the ARM1 using the Velcro provided.
27. Underneath the steering column you will find a gap between the column and dash. Route the wire through that gap.
28. Remove the upper kick panel located underneath the driver's feet. First you must remove the right side kick panel and remove the two lower front dash bolts located in front of the kick panel.
29. Located on the driver's side next to the windshield you will find the fuse box. Remove the lid to gain access to the grommet behind the fuse box. Make a hole through the grommet using a straightened coat hanger. Feed the wire through the grommet. Attached the **BROWN** and **ORANGE** wires of the ARM1 to the coat hanger and pull through into the engine compartment. On the left side of the engine mid way along the engine you will find the oxygen sensor loom. On the EGO side of the connector you will find four wires. Two will be **WHITE** and the other two will be **GRAY** and **BLACK**.

30. Using an instant splice, connect the **ORANGE** wire to the **BLACK** wire of the oxygen sensor.
31. Connect the **BROWN** wire of the ARM1 to the **GRAY** wire of the oxygen sensor.
32. Underneath the dash you will notice a couple of wire looms. One of these looms will contain a black connector closest to the left fender. This is the spot where we will get the power for the ARM1.
33. Connect the **RED** wire of the ARM1 to the **GREEN/YELLOW** wire using an instant splice connector.
34. Connect the **BLACK** wire of the ARM1 to the BLACK/GREEN wire using an instant splice.
35. Above the black connector to the driver's right you will see a white connector. One of these connectors will contain a **GRAY/BLACK** wire. Connect the **WHITE** wire of the ARM1 to that wire.
36. Reassemble the kick panel.
38. A good starting point for ARC2 settings are as follows:

LOW:	-2%	(1 click to the left of zero)
MID:	+16%	(8 clicks to the right of zero)
HIGH:	-6%	(3 clicks to the left of zero)
ACCEL	+4%	(4 clicks up from zero)
39. Fine tune the ARC2 settings per the adjustment procedure in the ARC2 data sheet.

If you have any difficulty with installation, please call us at (949)863-1359 for assistance. We hope you enjoy the precise, filtered operation of your new ARC2 air/fuel ratio calibrator and increased horsepower of your 535i.

**THANK YOU FOR CHOOSING SPLIT SECOND**