



InvisiLens Anti-Reflective Gauge Faces



Installation Guide

325 Sharon Park Blvd. #652

Menlo Park, CA 94025

USA

(650) 241-1161

www.fes-auto.com

Table of Contents

Chapter 1. Welcome	4
Chapter 2. Disclaimer	5
Chapter 3. Handling and Cleaning	6
Chapter 4. 1 st Gen. Tachometer.....	7
4.1. Unfasten the gauge from the steering column.....	7
4.2. Unplug the gauge from the wiring harness	7
4.3. Remove the gauge back cover.....	8
4.4. Remove the front trim ring	9
4.5. Remove the original lens	9
4.6. Position the new lens	9
4.7. Apply spacers to trim ring.....	10
4.8. Reassemble trim ring	10
4.9. Reassemble the back cover.....	11
4.10. Restore gauge to the steering column.....	11
Chapter 5. 1 st Gen Center Speedo/Chrono	12
5.1. Remove the trim ring	12
5.2. Remove the original lens	12
5.3. Apply spacers to trim rings	12
5.4. Place the new lens inside the trim ring	13
5.5. Remount the trim ring (with the new lens).....	13
Chapter 6. 1 st Gen. Dual Speed & RPM Cluster.....	14
6.1. Unfasten the gauge from the steering column	14
6.2. Unplug the gauge from the wiring harness	14
6.3. Remove the gauge back cover.....	15

6.4	Remove the front trim rings.....	16
6.5	Remove the original lenses	17
6.6	Position the new lenses	18
6.7	Apply spacers to trim rings	18
6.8	Reassemble trim ring	18
6.9	Reassemble the back cover.....	19
6.10	Restore gauge to the steering column.....	19
Chapter 7. 2 nd Gen. Standard Tachometer		20
7.1	Unfasten the gauge from the steering column	20
7.2	Remove the back cover of the gauge.....	20
7.3	Remove the front trim ring	20
7.4	Remove the original lens	21
7.5	Position the new lens	22
7.6	Apply spacers to trim ring.....	22
7.7	Reassemble trim ring	22
7.8	Reassemble the back cover.....	23
7.9	Restore gauge to the steering column	23
Chapter 8. Contact Information		24
Chapter 9. Acknowledgement.....		25

CHAPTER 1. WELCOME

Thank you for your purchase of the InvisiLens Anti-Reflective Gauge Face Kit! This guide includes installation instructions for both 1st (Models R50, R52 and R53) and 2nd (models R55, R56 and R57) generation new Minis.

For the **1st Generation New Mini**, the instructions are grouped as follows:

- Standard Speedometer.
- Center Mounted Speedometer or Chrono Pack.
- Dual Speedometer/Tachometer Gauge Cluster.

For the **2nd Generation New Mini**, there are instructions for

- Standard Tachometer.

The 2nd Generation Standard Speedometer and Openometer lenses are under development.

CHAPTER 2. DISCLAIMER

DISCLAIMER

USE AT YOUR OWN RISK

Do not use this product until you have carefully read the following agreement. This sets forth the terms and conditions for the use of this product. The installation of this product indicates the BUYER has read and understands this agreement and accepts its terms and conditions. This agreement takes precedence.

DISCLAIMER OF LIABILITY

FES, LLC (hereafter SELLER) shall in no way be responsible for the product's proper use and service. **THE BUYER HEREBY WAIVES ALL LIABILITY CLAIMS.**

The BUYER acknowledges that he/she is not relying on the SELLER's skill or judgment to select or furnish goods suitable for any particular purpose and that there are no liabilities which extend beyond the description on the face hereof and the BUYER hereby waives all remedies or liabilities, expressed or implied, arising by law or otherwise, (including without any obligations of the SELLER with respect to fitness, merchantability, and consequential damages) or whether or not occasioned by the SELLER's negligence.

The SELLER disclaims any warranty and expressly disclaims any liability for personal injury or damages. The BUYER acknowledges and agrees that the disclaimer of any liability for person injury is a material term for this agreement and the BUYER agrees to indemnify the SELLER and to hold the SELLER harmless from any claim related to the item of the equipment purchased. Under no circumstances will the SELLER be liable for damages or expenses by reason of use or sale of any such equipment.

The SELLER assumes no liability regarding the improper installation or misapplication of its products. It is the installer's responsibility to check for proper installation and if in doubt, contact the manufacturer.

LIMITATION OF WARRANTY

FES, LLC (hereafter "SELLER") gives Limited Warranty as to description, quality, merchantability, fitness for any product's purpose, productiveness, or any other matter of SELLER's product sold herewith. The SELLER shall be in no way responsible for the product's open use and service and the BUYER hereby waives all rights other than those expressly written herein. This Warranty shall not be extended or varied except by written instrument signed by SELLER and BUYER.

The Warranty is Limited to one (1) year from the date of sale and limited solely to the parts contained in within the product's kit. All products that are in question of Warranty must be returned shipping prepaid to the SELLER and must be accompanied by a dated proof of purchase receipt. All Warranty claims are subject to approval by FES, LLC.

Under no circumstances shall the SELLER be liable for any labor charged or travel time incurred in diagnosis for defects, removal or reinstallation of this product, or any other contingent expenses.

If the BUYER sends back a failed unit that is out of warranty and chooses to buy a refurbished unit, the refurbished unit will only carry a 60 day warranty. If the BUYER purchases a new unit at a predetermined discounted rate, it will have the standard 1 year warranty.

Under no circumstances will the SELLER be liable for any damage or expenses insured by reason of the use or sale of any such equipment.

IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS AGREEMENT: THE BUYER MAY PROMPTLY RETURN THIS PRODUCT. IN A NEW AND UNUSED CONDITION, WITH A DATED PROOF OF PURCHASE, TO THE PLACE OF PURCHASE FOR A FULL REFUND.

THE INSTALLATION OF THIS PRODUCT INDICATES THAT THE BUYER HAS READ AND UNDERSTANDS THIS AGREEMENT AND ACCEPTS ITS TERMS AND CONDITION

CHAPTER 3. HANDLING AND CLEANING

- Handle lenses by edges to avoid fingerprints.
- Both sides of the lens are the same (no front and back).
- Use an ammonia-free glass cleaner to clean the anti-reflective lens.
- First apply cleaner to a microfiber or lint-free cotton cloth, then wipe. (Alcohol based cleaners work well, including computer monitor wipes.)
- Do not use regular plastic or acrylic cleaners, or ammonia based cleaners. They leave a film on the surface that interferes with the anti-reflective quality.

CHAPTER 4. 1ST GEN. TACHOMETER

4.1. UNFASTEN THE GAUGE FROM THE STEERING COLUMN

Tilt the steering column to lowest position for easier access remove the two screws (Torx T25) that attach the gauge to the steering column.



Pull the gauge straight back away from the dash. The gauge will become free (but still attached to the wiring harness).

4.2 UNPLUG THE GAUGE FROM THE WIRING HARNESS

Tilt the gauge back to expose the green connector.

Pull off the connector while pressing the tab.



4.3 REMOVE THE GAUGE BACK COVER

Undo 2 screws (Phillips#2) at the back of the gauge



Unclip the back cover's bottom tab. If the tab is covered by a label, cut or remove it to expose the tab.

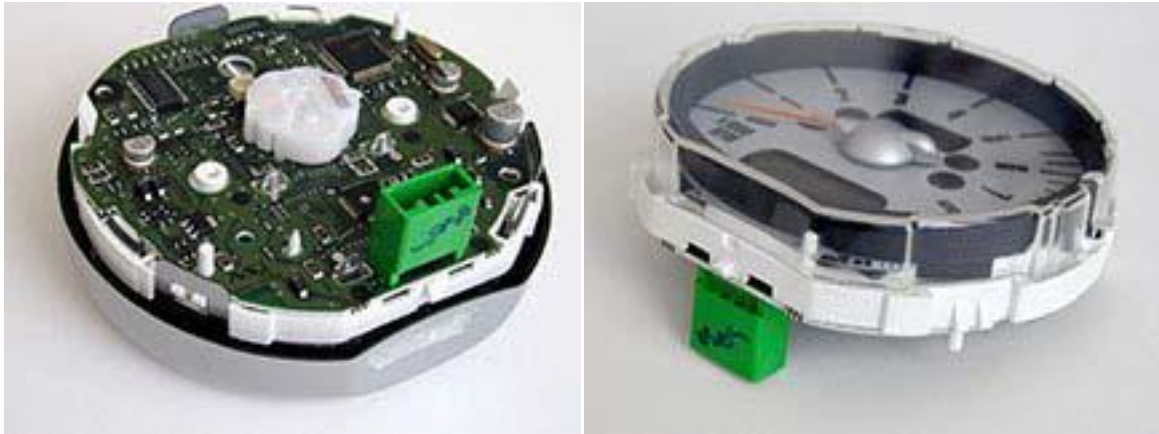


Release the tab by lifting the black tab over the white tab, while pulling the back cover away from the gauge. Separate the back cover from the gauge.



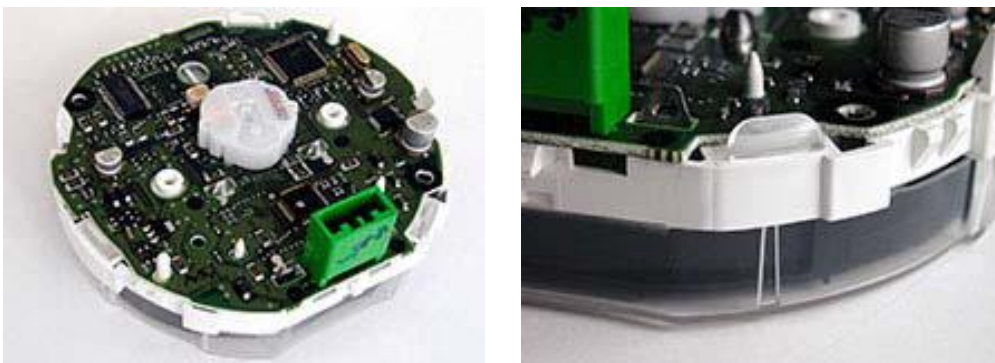
4.4 REMOVE THE FRONT TRIM RING

Release the 3 tabs that hold the trim ring, and remove the trim.



4.5 REMOVE THE ORIGINAL LENS

Release the 3 clear tabs that hold the lens.



4.6 POSITION THE NEW LENS

Set the gauge face up, and prop up the back to make it level



Place the new lens on top of the black ring, with the cutout at bottom.



4.7 APPLY SPACERS TO TRIM RING

The kit includes 3 pieces of adhesive backed 3/16" thick foam rubber. Remove the protective backing and stick the pieces into the bottom of the groove inside the trim ring, as shown.



4.8 REASSEMBLE TRIM RING

Observing the tabs, line up the trim ring over the gauge.



Snap the trim ring onto the gauge, and ensure that all 3 tabs engage completely.

4.9 REASSEMBLE THE BACK COVER

Snap the back cover on and restore the 2 screws. Make sure that the pieces are lined up and fit completely together.

4.10 RESTORE GAUGE TO THE STEERING COLUMN

Reconnect wiring harness to the gauge. Fasten the gauge with the 2 Torx screws. Important: It is easy to cross thread these screws. Check carefully during this step

CHAPTER 5. 1ST GEN CENTER SPEEDO/CHRONO PACK

5.1 REMOVE THE TRIM RING

The silver/chrome/anthracite trim ring surrounding the gauge simply pops off, but it may be very stubborn and the shape makes it difficult to grip. Try to pull it off while pinching in the ring at various points around the perimeter (try 10, 12, and 2 o'clock positions). If the ring is firmly stuck, you may need to pry it up by slipping a blade or screwdriver under the edge.

5.2 REMOVE THE ORIGINAL LENS

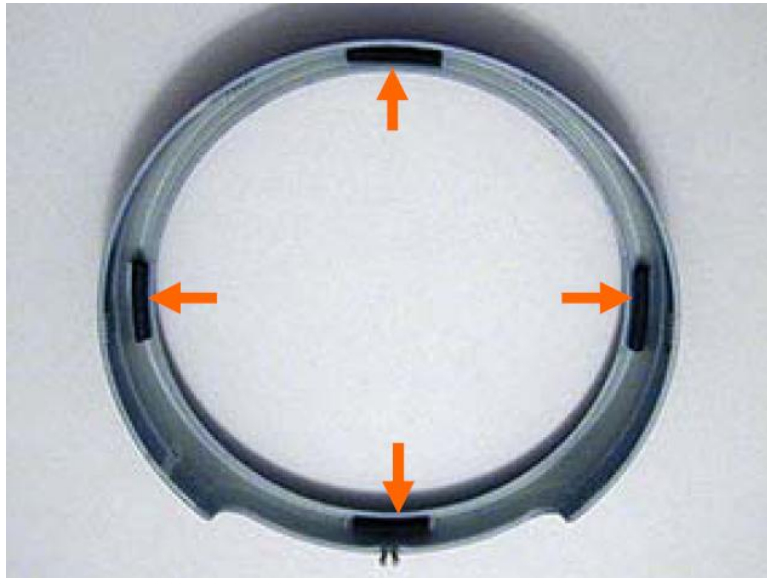
Unclip the lens by pressing inward at the 5 tab locations shown. (It is not necessary to remove the gauge from the dash.)



The lens does not pop off easily unless you press at least 3 of the points simultaneously. We suggest using thumb and forefinger of both hands to press in simultaneously at the upper 4 points.

5.3 APPLY SPACERS TO TRIM RINGS

The kit includes 4 pieces of adhesive backed ¼" thick foam rubber. Remove the protective backing and stick the pieces into the bottom of the groove inside the trim ring, as shown.



5.4 PLACE THE NEW LENS INSIDE THE TRIM RING

Make sure to center the lens inside the trim ring.

5.5 REMOUNT THE TRIM RING (WITH THE NEW LENS)

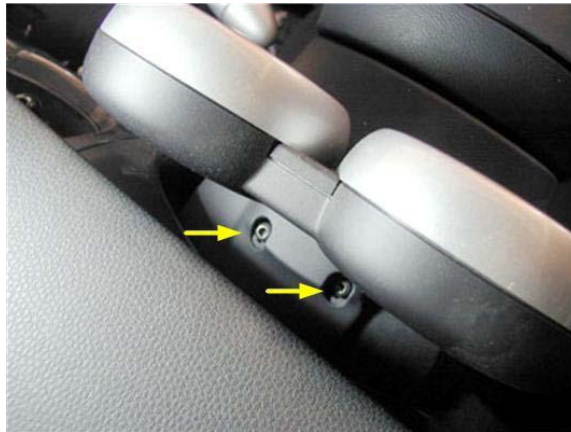
With the new lens inside the trim ring, press the ring back in place.

For the speedometer, insert the odometer reset button through the lens hole. Before fully pressing in the trim ring, verify that the reset button can move freely, and adjust the lens hole to align accurately with the button.

CHAPTER 6. 1ST GEN. DUAL SPEED & RPM CLUSTER

6.1 UNFASTEN THE GAUGE FROM THE STEERING COLUMN

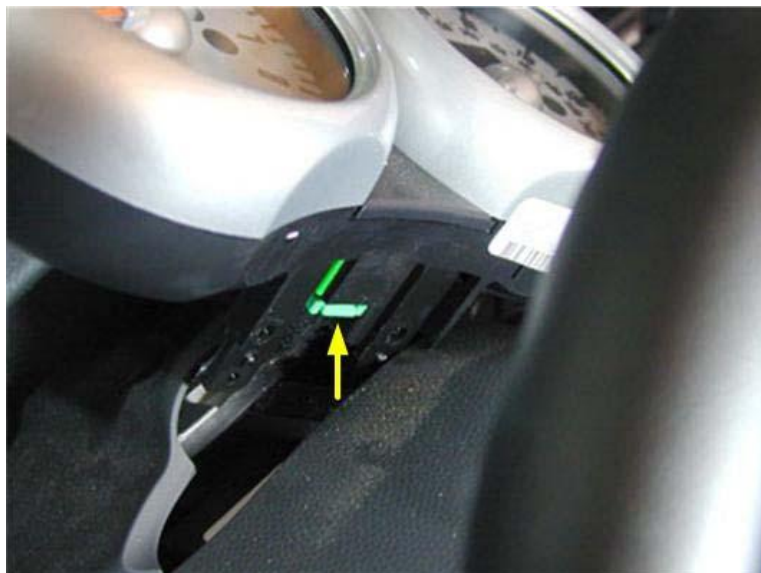
Tilt the steering column to lowest position for easier access. Remove the 2 screws (Torx T25) that attach the gauge to the steering column.



Pull the gauge straight back away from the dash. The gauge will become free (but still attached to the wiring harness).

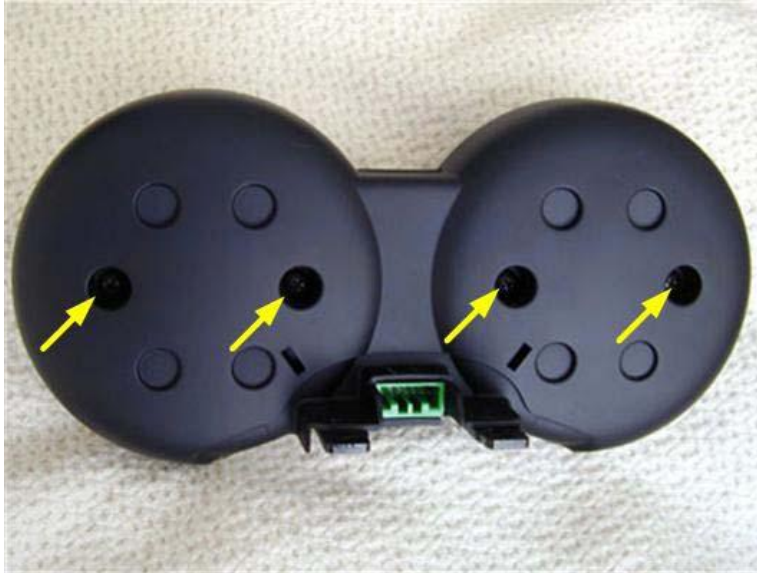
6.2 UNPLUG THE GAUGE FROM THE WIRING HARNESS

Tilt the gauge back to expose the green connector. Pull off the connector while pressing the tab.



6.3 REMOVE THE GAUGE BACK COVER

Undo 4 screws (Phillips#2) at the back of the gauge



Unclip the two bottom tabs of the back cover. If one of the tabs is covered by a label, cut or remove it to expose the tab.

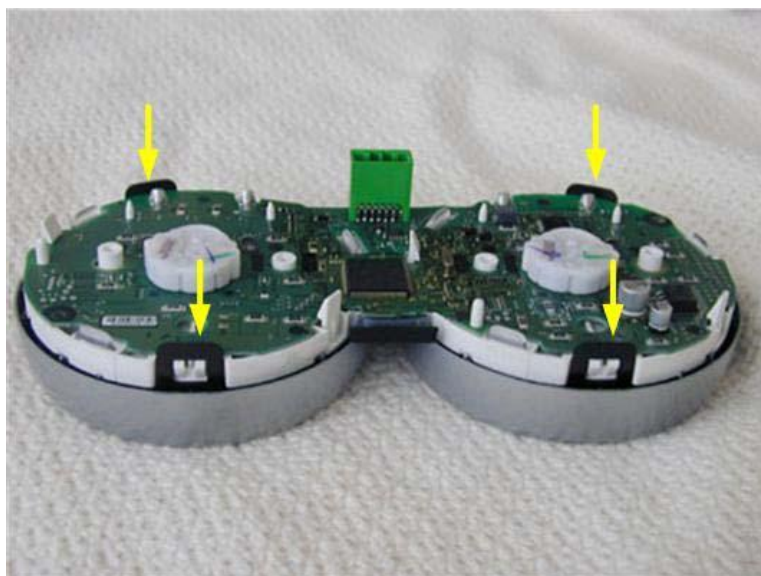


Release the tabs by lifting the black tab over the white tab, while pulling the back cover away from the gauge. Separate the back cover from the gauge.



6.4 REMOVE THE FRONT TRIM RINGS

Release the 4 black tabs that hold the trim rings.

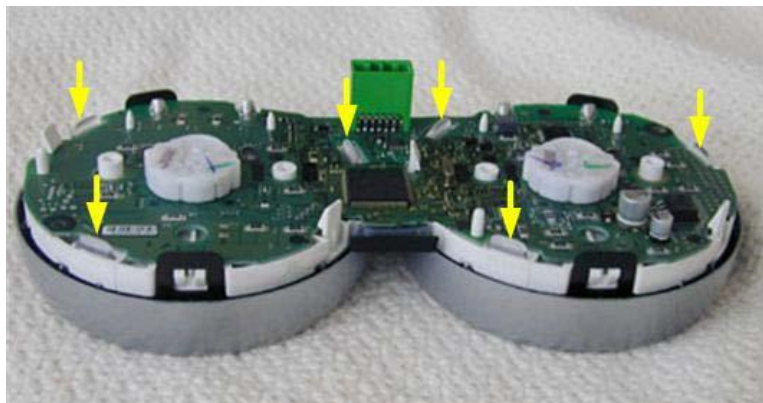


Remove the front trim. Note: If you have chrome rings, there may be double stick foam tape under the black middle trim piece between the rings. If there is tape in the center, you'll need to pull the pieces far enough apart that you can insert something to pry or cut the double stick tape. Dental floss works well. Shown with trim rings removed:



6.5 REMOVE THE ORIGINAL LENSES

Unclip the 6 clear tabs that hold the lenses.



Close up of a lens tab:



6.6 POSITION THE NEW LENSES

Set the gauge face up, and prop up the back to make it level. Place the new lenses on top of the dials.



6.7 APPLY SPACERS TO TRIM RINGS

The kit includes 4 pieces of adhesive backed 3/16" thick foam rubber. Remove the protective backing and stick the pieces into the bottom of the groove inside the trim ring, at 3 and 9 o'clock positions.



6.8 REASSEMBLE TRIM RING

Place the trim ring over the gauge and line up the black tabs. Align the hole in the speedometer lens with the odometer reset button. Snap the trim ring onto the gauge, and ensure that all 4 tabs engage completely. Verify that the odometer reset button moves freely when pressed; if not, readjust alignment of the speedometer lens.



6.9 REASSEMBLE THE BACK COVER

Snap the back cover on and attach with the 4 screws. Make sure that all pieces are lined up and fit completely together.

6.10 RESTORE GAUGE TO THE STEERING COLUMN

Reconnect wiring harness to the gauge. Fasten the gauge with the 2 Torx screws. Important: It is easy to cross thread these screws. Check carefully during this step.

CHAPTER 7. 2ND GEN. STANDARD TACHOMETER

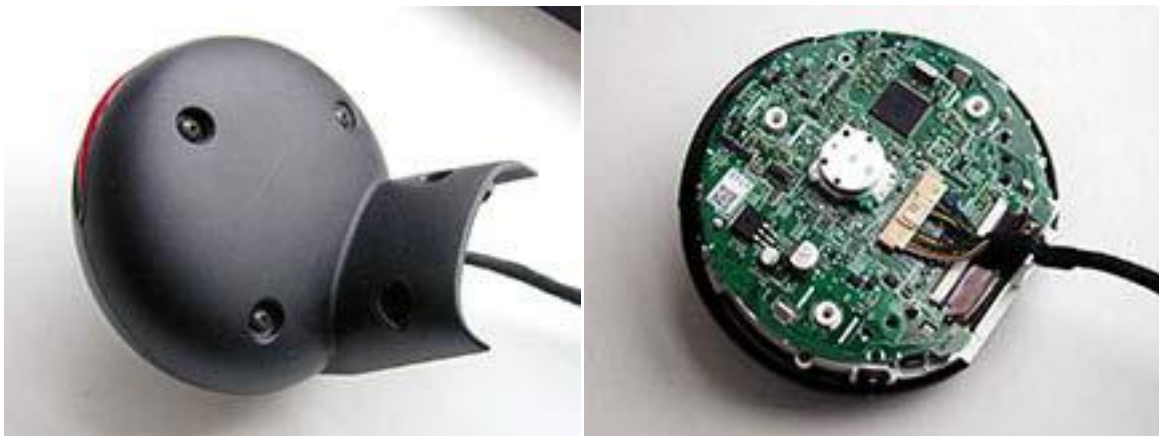
7.1 UNFASTEN THE GAUGE FROM THE STEERING COLUMN

Before starting, extend the steering column to maximum length and tilt to lowest position for easiest access.

Remove the 2 Torx screws (T25-T30) that attach the gauge to the steering column. The gauge will be loose except for the wiring harness.

7.2 REMOVE THE BACK COVER OF THE GAUGE

Remove 3 screws (Phillips#2) at the back of the gauge. The back cover can be simply pulled off.



7.3 REMOVE THE FRONT TRIM RING

Release the 4 black clips that attach the trim ring.





7.4 REMOVE THE ORIGINAL LENS

Release the 4 clips holding the lens



Lens removed:



7.5 POSITION THE NEW LENS

Place the new lens on top of the dial. Insert buttons through the lens holes.



7.6 APPLY SPACERS TO TRIM RING

The kit includes 2 pieces of adhesive backed ¼" thick foam rubber. Remove the protective backing and stick the pieces into the bottom of the groove inside the trim ring, at 3 and 9 o'clock positions.



7.7 REASSEMBLE TRIM RING

Place the trim ring over the gauge and align the tabs. Snap the trim ring onto the gauge, and ensure that all 4 tabs engage completely.



7.8 REASSEMBLE THE BACK COVER

Snap the back cover on and attach with the 3 screws. Make sure that all pieces are lined up and fit completely together.

7.9 RESTORE GAUGE TO THE STEERING COLUMN

Fasten the gauge with the 2 Torx screws. Important: It is easy to cross thread these screws. Check carefully during this step.

CHAPTER 8. CONTACT INFORMATION

Support can be obtained by contacting us via:

Phone: (650) 241-1161

E-Mail: support@fes-auto.com

Web: www.fes-auto.com/support

CHAPTER 9. ACKNOWLEDGEMENT

This product was conceived, prototyped and is produced by Richard Woo. Richard is Mini enthusiast and a full time programmer in Palo Alto CA and asked FES to help bring this to the wider Mini community. Without Richard, this wouldn't exist. Good job Richard!