

DYI

M6 Illuminated Door Sill Mod

Before



After



How to:

First, remove the trim that covers the inner part of the sill using plastic trim removal tools. The clips will not break if you use two tools for leverage as shown. These are the same clips that hold the door panel.



Work your removal tools across the trim from left (front of car) to the right (rear of car)



The trim removed



Once the trim is set aside you can spread the carpeting on the split in order to access the electrical connector



You will need to disconnect the electrical connector that leads to the OEM light tape which is affixed to the illuminated sill. The best way to unplug the connector is to cut the electrical tape holding the connector to a wiring harness behind the carpet area, near the floor just below where you removed the inner trim.



Lift the rubber seal in order to allow the connector to pass under the seal. It has a sealant that you can cut or scrape away.



Now carefully work right (rear) to left (front) and raise the illuminated sill assy. Do not use the pry portion of the trim tool. Use a flat side carefully lifting as you move left. I did not break any fasteners using the flat side of the trim tool



This is the illuminated sill assy removed. If you look closely you will see 3 fasteners. There are spaces for 6, but for some reason there were only three on the car. (I added the additional 3

upon installation for a more secure fit. The part number and a picture of the fasteners is further along.



Here's a closer look at the underside of the removed illuminated light assy



The left (front) view



The right (rear) view



This is the clip that holds the illuminated sill assy in place. It is not the same clip as the trim. It is suggested you have extras on hand. They are inexpensive.



This is the part number for the clip



This is the assy removed form the car



Now you must separate the inner silver portion of the illuminated light assy from its plastic frame. Carefully slide a flat edge trim removal tool along the length of the inner silver insert. You are sliding the trim removal tool to break two sided tape which hold the light tape inner piece to the plastic. Do not lift or you may bend the inner piece. Just slide, breaking the tape as you move along. It will separate once all the adhesive has been cut through with the trim removal tool



The actual light tape can now be separated from the assy. This light tape is specifically made to fit the M Series. It is oddly shaped and has two black areas which are lighted once powered. I point this out as the light tape you will purchase commercially has equally spaced illuminating sections. There is a slight white line separating these sections. I mention this as there is a white separator line that is going to be visible in the center of the 'M6' lettering. You cannot see it in

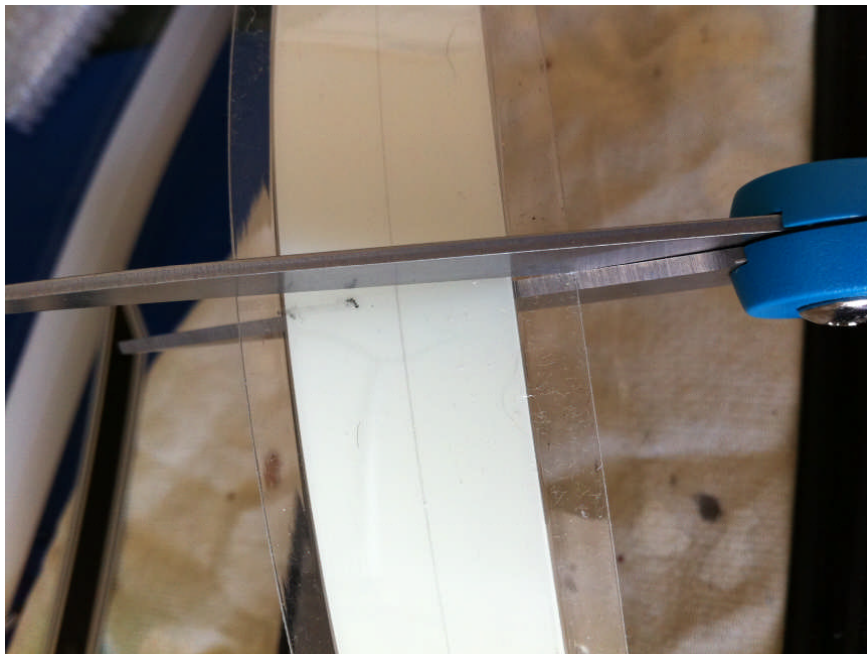
these pictures but it is slightly noticable. I am being picky pointing this out. It is not visible anywhere else.

This is the OEM light tape removed from the rear. It is held on w 2 sided tape



Now you are ready to prepare the new light tape. There is a general DYI on cutting and sealing edges after you cut the tape. You must install a moisture barrier tape (looks light scotch tape) wherever you cut. View lighttapes website for detail on cutting and sealing the tape where you cut it

http://lighttape.com/select_install_light_tape.asp?ContentId=584



Using the OEM lighttape as a guide, measure the replacement light tape as follows:

- On the left (front of car) end, cut the tape to the same length and shape as the OEM – On the right side (rear of car) cut the lighttape longer than the OEM to allow room for the crimp electrical connectors which will power the strip. The OEM had a proprietary electrical connection in the center of the OEM strip. The replacements require electrical crimp connectors at the ends.



After the replacement lighttape is cut to shape, fit it on the silver inner illuminated sill assy for fit. Once satisfied you can crimp the electrical connectors. It will remain wider than the OEM lighttape. That is OK as the replacement lighttape has a border of protective sealing. It will fit perfectly inside the silver inner trim assy.



The connectors come ready for an application that has end caps to protect the connection. There is not enough room to use these caps. I cut away the strain relief leaving only the soldered crimp connectors. The positioning of the connectors as shown below is the optimal position for wire routing. View the method of crimping on the lighttape.com website. Its basically a pair of needle nose pliers crimping the connectors with the prong side of the

connector penetrating the back of the lighttape. (The back is the white side contrary to thinking the white side is the illuminated side. The colored side is the illuminated side)





Adequately tape both ends that have been cut paying particular attention to the electrical connector side to insure a barrier is created. The tape is also used to hold the connector tightly in place.



I cut a $\frac{1}{4}$ " hole in the right (rear of car) end of the plastic trim that the lighttape mounts on. It will allow the wiring to route towards the center of the trim where the OEM wiring originally

was. Make the hole as large as necessary to assure a flat fit of the crimped end of the light tape. It will not be seen once reassembled



In order to affix the lighttape to the trim, the choice was to meticulously cut two sided tape to affix it, crazy glue, or, I chose clear silicon sealant. Below is the sealant prepared to accept the lighttape and silver mount. The light tape can affix to the silver trim (not shown), by removing what appears to be a protective plastic film. Much like a fim that protects a handheld or computer screen before its first use. Once removed the new lighttape will self adhere to the silver inner trim as it remains sticky. That hold it in place until you set the lighttape assy on the silicon prepared plastic trim.



Once affixed I put pressure across the assy until it set. I gave it an hour. Excuse the items I chose for weight. Its what I had available. The assy setting on a drop cloth is pictured below





While the trim assy with lighttape attached is setting, you can mount the power supply. Lighttape.com sells various sizes dependent upon length being used. The total length on the sum of the drivers and passengers side will be about 48 sq" (24 sq" each side). Since this was on the threshold of 50 sq", I opted for the Power Supply below which is rated 50-100 sq".



I mounted it under the drivers seat. This picture is looking front to rear under the drivers seat. I found a series of holes in a crossmember bracket. I used a short self tapping aluminum phillips head screw to affix it. There are holes on both ends of the power supply for mounting. I used one hole and one screw





At this point it's a good idea to test the light. After setting for an hour I loosely placed the assy in the spot it will remount on connecting the OEM 12v input wiring (that's the harness left in the car that supplied power to the OEM light). Blue is 12v, Brown is ground. I used inline taps adding an additional length of wire from the red and black wires of the power supply. Red from new power supply to blue tap of OEM power. White from power supply to brown of OEM power.



Once satisfied it lights properly, you can reassemble the illuminated strip. Again, I added 3 additional clips and securely popped them all in place.

Tidy up the wiring, routing the new wires from the new lighttape under the rubber molding. Replace rubber molding to its original position

Replace the carpeting covering the wires

Replace the inner sill trim snapping in place

Repeat for passenger side routing the wires of the passenger side lighttape to the power supply under the drivers seat. (the two white wires. Polarity is not important on the output, white wire side). You do not need the power from the OEM power source on the passenger side. The power supply powers both illuminated strips. Just tape the passenger side OEM connector and leave it under the carpet.

Final tidy; I used split wire loom to make the wiring under the drivers seat look OEM. It moves with seat movement and protects the wires.

That's it!



Additional info:

Lighttape.com is the vendor I chose to use. They were very knowledgeable and helpful. My rep was Lauren, who is excellent.

They make the tape in a variety of colors. I purchased white and a natural blue. I tried both as a test and liked the white better. The blue was as bright, but I found the white has a blue hue to it, so I used the white

Here are the parts I ordered. I blanked or underlined the items you do not need.

REP		P.O. #	Shipping Date	Ship Via	Tracking #	Telephone #	
LDV			12/15/2010	UPS Ground		310,261,9749	
Qty	U/M	Part Number		Description		Rate (\$)	Amount (\$)
5	ft	100 EXT, Natural Blue		Exterior, Natural Blue, 1 Pieces, 1 in., 54 in., Field Seal		9.60	48.00T
5	ft	100 EXT, Classic Color		Exterior, Classic Media White, 1 Piece, 1 in., 54 in., Field Seal		10.56	52.80T
2	ea	C-LT, Strip Preparation		Custom Light Tape Strip Preparation for measuring lengths		10.00	20.00T
1	ea	Seal-End Seal Tape 1.0 in.		End Seal Tape, 1 in., 5 ft.		4.89	4.89T
4	pr	C-Nic, Connector		4 Pairs (pair = 4 nics)		0.20	0.80T
4	ea	C-LT, Connector (Low Profile)		Connector for Interior Usage, Clear Low Profile Caps		4.00	16.00T
1	ea	PS-DC100P		with 3 ft. Lead Drive Light Tape® lamps from 50 sq. in. to 100 sq. in. with 12V DC input. Built in Built in reverse polarity protection, no-load protection, short circuit protection and mounting platform attached to unit.		36.24	36.24T
Shipping				Shipping Charges		10.00	10.00

And some CF wrapping items to add to my CF passion. The aguge rings are my new adds





The pedals were purchased.

Happy Modding!



Oh yeah, and the cigar blank cover and key fob



The End