

This was my experience installing blinking mirrors on my 1999 E320. Mileage may vary, batteries not included, irritation, nausea or other side effects may occur...blah blah...depending on your model year.

There are two spare, unused wires leading from inside the mirror, and into the kick panel. Use these to power your blinking mirror LEDs, thus saving you the headache and labor of pulling off the door panel.

#1 - HOW TO FIND THESE SPARE MIRROR LEADS

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- pop off mirror cover. fold back mirror and, using flat blade, slide the ends of the wire retainer free from the plastic nubs. (video available from MBUSA info CD - email me)

- BE CAREFUL NOT TO PRESS USING THE MIRROR. now....fold the mirror w/o touching the adjustable portion of the mirror itself. it is fragile.

- remove bottom philips screw first...the bottom one furthest from the headlight. you'll be pressing against the strong mirror spring with one hand, and removing the fastener with the other hand

- now remove the other bottom phillips fastener, followed by the top phillips fastener

- there are two connectors inside the power mirrors. 1) flat wafer, 5 pin connector, 2) oval shaped, 6 pin connector

- unplug both flat and oval connectors. with mirror screws unfastened, and electrical connectors removed, the mirror can now be detached from the door

- the oval connector is the one which contains the spare leads. Pin 5 and Pin 6 (GREEN and YELLOW, respectively). if you examine both male and female ends, you'll see that pins #1-4 are mated to connectors, whereas #5 and 6 are left open. ie there are no mating contacts for #5 and 6.

- the wires from both flat and oval connectors enter the door wrapped in black mesh fabric. carefully, take razor and clear away 2" of mesh, exposing the wire bundle. use Goof Off to clean gummy adhesive.

- snake blinking mirror's LED leads into the bowels of the power mirror, being mindful to route so that they don't pinch or bind. snake them along the other, rubber spaghetti harness is a good idea

- i used fine nose hemostat to pull the LED blinker twin leads through the oval connector grommet...the same route take by the oval connector leads

- locate the spare leads exiting the oval connector (remember, YELLOW and GREEN). clip with diagonal cutter and separate them from the oval connector.

#2 - MOVE TO INSIDE PAX COMPARTMENT

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- now go inside and remove kick panel beneath dash. there is a flush mounted, oval plug covering a phillips screw. remove plug....then the screw.

- remove kick panel to reveal misc wiring ...one harness will contain the other end of the spare leads (remember, GREEN and YELLOW). you'll easily find a big, electrical, locking block connector. once you unplug, you'll see that the GREEN and YELLOW leads do not mate between the male block and the female connecting blockconfirming that GRN and YEL are spares.

- but wait.....measure twice, cut once, right? take a DVM and test continuity for each wire. connect one DVM lead to GREEN at block connector, and the other to GREEN at the mirror. BEEP/deflect, right? good. now do same for YELLOW. this confirms that you have the proper wires at each end.

- use diagonal cutter and clip YELLOW and GREEN from block connector. remove 3/4" insulation from tips.

#3 - BACK UP TO MIRROR

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-- I connected LED array's RED lead to the unused YELLOW wire from the oval connector

-- I took LED array's BLACK lead, and connected to unused GREEN from the oval connector

- bare the tips, slide in heat shrink tubing, spiral wind ends, and connect your blinker wires to them. solder. heat the shrink tubing to finish the connection.

- yes, you can use bullet connectors but i didn't have any and I also thought it would take up too much space in that small recess behind the mirror hinge plate. so I crossed my fingers and said whattheheck

#4 - BACK DOWN TO KICK PANEL

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- cut off 30" length of 18 ga strand wire. bare 1 tip, twist, and spiral connect to end of YELLOW lead in the kick panel. solder and cover with heat shrink tubing. we'll call this our HOT lead, as it was RED at the LED mirror end. we'll leave the other, unfinished end dangling for now

- cut off 20" of 18 ga strand wire. bare 1 tip, twist and spiral connect to GREEN lead in the kick panel. solder and cover with heat shrink tubing. this will be our GROUND lead as it was the BLACK wire from the LED array. we'll leave the other, unfinished end dangling for now

#5 - WHERE ARE YOU? WHAT HAVE YOU DONE?

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- You've connected the blinker/LED leads to the spare leads from the oval connector
- You've located the other ends of the spare leads as they enter the passenger compartment
- You've prepped kick panel leads for connection to power and ground

#6 - LOCATE POWER AND GROUND POINTS

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- pull door sill plate. slide finger beneath edge at one end. pull straight up towards the sky. invoke Bruce Lee cat yell if needed...you might anyway as you break a nail
- carefully pry up edge of carpet. be careful, the edges have holes which mate to plastic nubs to help hold them in place
- beneath the rug edge are plastic covers which open to reveal wiring looms. the plastic cover lid lock with tabs. there are several lids. a small flat blade should expedite their opening

#7 - OKAY, WHAT WIRE AM I LOOKING FOR?

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- open trunk, open tail light flap, unplug taillight connector. it is male plug with 5 connectors
- activate 4 way flasher (or turn signal for that side). you will be using DVM to determine which of the 5 contacts is the 'blinker' wire
- I clipped DVM black lead to GROUND. I connected the DVM red lead to each of the taillight contacts until the meter deflects in cadance to the flashing
 - on my 99 E320 it was #3/middle/BLACK-GREEN lead for the RIGHT taillight.
 - it was #3/middle/BLACK-WHITE lead for the LEFT taillight.
- okay, I go back to the door sill and look for the BLACK-GREEN wire, as my first mod was for the RIGHT blinking mirror. to confirm, I connected DVM black lead to ground. I clipped sewing needle to the end of the DVM red lead and pushed it through the insulation of the BLACK-GREEN wire which I suspect is the blinker wire from the taillight.
- remember, the flasher is still going. if this is the proper wire, the DVM will deflect in cadance with the flashing. great.

#8 - CONNECTING THE POWER LEAD AND GROUND

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- take unfinished end of the kick panel YELLOW lead. remember? this was

our HOT lead which is the RED lead at the LED array

- using appropriately sized solderless, inline crimp connector, connect the kick panel YELLOW HOT lead to the tail light blinker lead. again, in my case, it was the BLACK-GREEN lead from the tail light. crimp connect.

- the other kick panel lead is GREEN and is our GROUND. locate suitable ground and temporarily connect. hit 4-way flasher button. blinking mirror LEDs should flash in cadance. cool. trim off any excess cable and complete the connection to ground. you're done with that side.

- replace kick panel, stuff wiring into sill, close flaps, replace carpeting, and reattach door sill

#9 - BUT WAIT.....THAT'S JUST ONE SIDE

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- you'll now go to the other side of the vehicle. repeat #1 - 8

- nearly all is the same BUT (!) the wire to the opposite side tail light is of different color. in my 99 E320, whereas the right side taillight hot lead was BLACK-GREEN..... the left side taillight hot lead was BLACK-WHITE.

- guess what?....beneath the sill, with the other wires, there were several BLACK-WHITE leads. first one was constantly hot and was not blinker controlled. second one was constantly hot and not blinker controlled. but the third one was. this is where it helped greatly to use the DVM-push pin trick. this saves your having to find out that it was the wrong one after you've performed the crimp/squeezed on the connector

TAKE YOUR TIME

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- you're not racing against the clock

- use your DVM to test continuity, voltage, blinking function before soldering your connection

- it took me almost more time to type this up, proofread, and post than it will actually take

MISC

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Q: why are there spare/unused leads in the mirror harness?

A: from Jimmythegreek, he said that these are used for power folding mirrors or other unused mirror features. power folders will use up these spare leads.

Q: is it possible that I do not have unused, spare mirror leads?

A: yes, and if that is the case, you'll need snake through new twin leads from the mirror, through the door jamb duct, and out the kick panel. so pray for unused leads which could save you an hr or so, each door

Q: why the hell didn't you take photos?

A: i dunno, i go into these things somewhat blind and never really think that they're correct to where I would take the corresponding photo. it detracts from my AADD concentration, I suppose.

A: if it helps, Jimmythegreek did give me some of his photos, but I didn't use them. his application was for some model/year which apparently didn't have unused/spare leads from his mirror harness. photos he provided reflect snaking new wires through the door...which I didn't need. mine was a piece of cake, by comparison.

- i found that spatula helped to remove and pry open panels, where a screwdriver or such might be overkill and scratch. you're looking for wide tool similar to what you see in the MBUSA info CD...in effect a thin, sturdy, nylon or plastic pry bar

- the first mirror took me couple of hours. then, it wouldn't light up when I activated the 4-ways. after scratching my head, quietly cursing and wire tracing, I discovered that the hot lead from the LED array had somehow been pinched and severed when I reattached the new mirror shell. I think I had routed the wires such that they were vulnerable when manipulating the mirror as I folded it. once repaired (and much to my relief it was such an easy fix) it flashed as expected.

























