This is my 50-GENK51A Gentex mirror kit and instructions.

Remove one screw from the overhead sunglass console (rear compartment). Then carefully pull down on the front console to release the two clips holding that to the roof. The console will drop down in front and then can be released in the back with the supporting clips (clips are attached to the console).
Unplug the two connectors for lights and microphone and move the console to a safe area.

Find the vehicle harness on the top of the headliner and remove the protective plug cap.

Remove the two side grab post décor caps.
Using a Phillips screwdriver or 10mm hex socket (below) remove the hand grip.

Remove the “A” pillar décor cover and put in a safe area.
I removed the driver sunvisor to make it easier to feed the wires for the temperature sensor.

Using a T20 torx bit, remove the old mirror. It will slide up when free. The screw does not have to be totally removed to release the mirror.

I chose to use the supplied wire cover for my mirror. You made need to cut to length for your preference. Some are using aftermarket mirror brackets to raise the mirror in the cab. I raise the
mirror on its leg and then tilt the mirror head down, which now places it about 1” below the headliner. This is ample room to see below the mirror in the “blindspot”.

Install the Gentex mirror. I used a piece of wire to pull my wires over the headliner.

Plug the new mirror harness into the chassis connector and pull the “blue” protective tape cover off to use the sticky side to help secure the wires from the mirror. Secure the chassis plug back onto the sticky tape as shown.
Route your temperature sensor wires. I put them under the harness and used the sticky tape to help secure them from bouncing around later on.

Wires shown at the top of the “A” pillar. They will be sent down along the harness to the under dash part of the kick panel.
I wanted more room to work so I took off the foot rest, panel cover and E-brake assembly. This is in a AT powered truck and the E-brake is on the left side. A clutch setup will not have this.

Remove the side door cover by prying up.

This is why you need to remove the side cover first. It has a clip that attaches to the kick panel cover.
Remove the kick panel by pulling back.

Side kick panel area with cover removed. There are three nuts that hold the E-brake to the floor. Use a 13mm deep socket on the two lower ones and a box wrench on the top one. You’ll need to remove the warning light plug from the mechanism. Remove the cable by taking off the two nuts on the cable with a 10mm wrench, then pull the cable from the mechanism and place it in a safe place.
I pulled the radiator cover and the front grill back to make access easier.

I placed the temperature sensor on the upright bracket in the middle of the grill area in front of the AC condenser. There was already some holes there so I utilized on the attach the sensor to with a 10-32 screw, washers and a ny-lock nut.

Zip tied the harness to the existing truck harness.
I chose to use a blank plug instead of trying to push the wires through the large bulkhead wire harness. This one comes out just about my E-brake mechanism.

From the inside I pulled back the carpet a little from the floor and routed the wires between the carpet and body and brought them out above the top of the carpet in the side panel area.
I cut the wires to preference and crimped then solder then used heat shrink to protect them.

After testing the circuit I secured all the wiring and the ones under the dash were tied up high out of the way with a tie strap. Replace all your trim, brackets and E-brake in reverse order.

Testing the compass and temperature readings.
Setting the homelink to my garage door opener.