



Install Instructions for GT Factory's Universal Diablo Conversion

For step by step install pictures go to the following internet link

http://www.gofastr.com/industryspotlight/article.php?article_id=28&offset=0&limit=10&searchterms=

1. Remove fender and wheel well liner. You may have to remove the headlights and bumper if they cover the fasteners for the fenders. If your fender has been smoothed into the side skirt because of previous custom bodywork it must be cut.
2. Remove the door panel and lower dash panels to loosen the wires going through the door jam by cutting ties that keep the wires bunched up and pull extra slack towards door jam. Pull the stock rubber boot out of the door and door jam.
3. Open the door and disconnect the door stop from the door jam.
4. With door closed remove the factory top door hinge.
5. Test the placement of the Diablo mechanism by holding it against the chassis. You will want to find the highest mounting point available without the mechanism hitting the fender when it swings out. This will give maximum swing arm to fender clearance when the door is up. If you mount it too high though it will limit the open outward angle of the door. Each application has it's happy medium which you can find by test fitting the fender.
6. Open the mechanism out and extend the swing arm up and test the placement against the chassis again. Have someone slide the fender in place while you hold the swing arm to test fender clearance when the door will be up. Observe anything that may prevent the base plate and door plate from sitting flush then grind or hammer any extrusions that may hinder the base plates from sitting flat. You may also grind and cut the base plate and door plate as needed.
6B In cars with small spaces between the chassis surface and the fender there will not be sufficient room to swing the door horizontally before it goes up. In this situation you must draw a line around the base plate when it is in the proper position, and then cut along the perimeter to allow the base plate to slide below the surface.
7. Estimate how far the horizontal swing will be and adjust the safety arch accordingly. Cut a slot in the chassis to accommodate the arch, and if the base plate is below the chassis surface for your application make additional space for adjustments with a hex key.
8. Next you should cover the Diablo mechanism in masking tape and or welding deflection paper with the exception of the surface that will touch the car and get welded. This will protect the nice finish during installation.
9. While holding the Diablo mechanism in place tack weld spots around the perimeter of the base plate and door plate. When you feel the welds are sturdy enough, you may test the doors motion by swinging it out and up manually. It is through your observation of the doors action that you will be able to mount the lifting arms, roll the inside of the fender, and make adjustments at the door sag screws, outward motion screws, safety set screw and door height screws.

10. Hold the fender in place to observe where the swing arm will interfere. Cut or roll the inner lip to provide clearance for the swing arm. Test door motion again with fender properly cut.
11. Once you are satisfied with the operation and placement of the hinge make a strong weld around the entire perimeter of the base-plate and door-plate.
12. Grind the welds and scuff the surrounding area. Mask the Diablo mechanism and other parts you do not want covered in undercoat. Undercoat, paint, or silicone the welds to prevent rust.
13. Lube the moving surfaces of the Diablo Mechanism with heavy waterproof grease while the door is still off of the car. Replace the door on the car by sliding the Diablo mechanism together and tap in the vertical pin.
14. Secure lengthened wires to the underside of the swing arm with zip ties.
15. To mount the gas charged lift supports, screw two ball joints into the swing arm using a half inch socket. Next measure where the bottom arm will go by holding it so that the arm is over the bottom ball joint and the body is back enough to clear the end fitting if it was fully compressed. Then with the body just above the wheel well liner, mark the spot where the ball joint will get mounted on the chassis. Now with the top motion screw out and the hood closed, swing door up to its maximum vertical point. Click in the fitting for the top lifting arm to the top ball joint on the swing arm and mark opposite side on chassis about 1.5 inches above the bottom arms ball joint mark. Click in the bottom arm to the swing arm. Have a helper swing the door out then up while you hold the arms parallel near the chassis. Test the motion. Notice the arms stay parallel as your helper lifts the door up and down. Make sure the lifting arms do not hit each other or the hinge in the course of the doors motion.
16. Put the door down for now and weld in a piece of flat stock steel on to the chassis to reinforce it where you marked the ball joint spots. Drill and tap the metal for the ball joints or drill and weld them in place. Mask the ball joint tips, and spray undercoat. Now lift the door all the way up and pop the lifting arms into the ball joints.
17. The door will stay put now when up. Test the doors motion again and plan your adjustments. Add loc-tite to all adjustments.
18. With the door closed, tighten up the door sag screw. Test the door's horizontal motion until the door is aligned with the latch and closes perfectly. Adjust the safety arch until the Diablo mechanism no longer interferes with the fender when the door out all the way horizontally. Then set the horizontal motion screws to correspond with the angle that the safety arch rubs the inside of the lifting arm when up. The closer you make these two adjustments, the more sturdy the door will feel going up and resting in the vertical position. Set the vertical height limiter adjustment as high as you wish provided that the door does not hit the fender or hood when propped up.
19. If the door panel and or door metal hits the fender or comes too close to the fender on the way up it must be cut. If the door panel must be cut first mark a line that will allow clearance. Then peel back the upholstery, make the cut and wrap the upholstery over the new edge with spray adhesive.
20. Mount the fender (lights, bumper and side skirts).

Adjustments,

Adjust the bottom stop screw so that the door closes into the latch when resting on it.

Adjust the horizontal limiter screws to user preference and to prevent the middle block from hitting the fender when the door is opened horizontally.

Adjust the top height to your personal preference.

Instructions for the arch plate fine adjustment,

1. Measure how far the arch must protrude from the base plate
2. Sand the area that protrudes from the base plate and comes into contact with the arm when the door is opened to prepare for the welding.
3. Weld on plenty of new metal.
4. Grind the weld to the arch shape and test fit with the arm
5. Continue grinding little by little until the arm rests perfectly against the arch so that it will align with the latch every time the door is open and closed.
6. Once you are satisfied with the performance of the arch adjustment in harmony with the other adjustments, you can tack weld the arch to the base plate to secure its position permanently in case the two cap head screws were to ever get loose.
7. Use plenty of waterproof grease on the parts that contact each other.

When everything is done correctly, the door will close perfectly every time because it will be sandwiched between the door sag/bottom stop and the arch plate.

Any technical questions please feel free to contact GT Factory at 858-566-6969