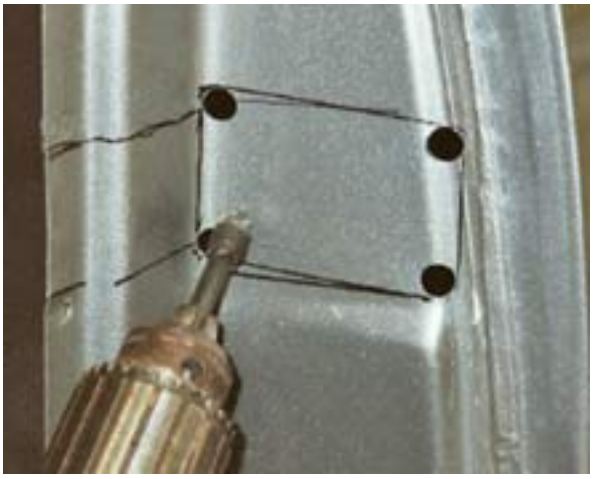
2000 S10 Suicide Door Installation Details

1. What you see here is the seatbelt bracket that is welded in place. It is in the way of the new hinges that will be installed. Since this is a suicide mission, I feel that leaving the seatbelt out for good kind of goes with the flow. Screw the seatbelt laws!

2. Removal of this bracket is done by drilling out the 8 spot welds that hold it in place. The back 4 spot welds are welded to a re- enforcement lip that will have to be notched for clearance of the new hinges. The use of a spot weld removal bit comes in very handy for this. It is up to you if you want to make a new bracket to mount the seatbelt to. I chose not to, but remember… safety first!



3. You want the hinges to be spaced as far apart from each other as possible. I was able to space them 13-7/8” from outside edge to outside edge. The further you can space them the sturdier your door will be. Alignment of the hinges is very important. If they are not inline perfectly with each other they will bind and cause pre-mature wear of the hinge bushings. To get them aligned a piece of 5/16” rod was slid into the hinge pivot points and the proper spacing was measured out. To keep the spacing exact, a piece of 1" angle was welded to the backside of the hinge pockets. NOTE: In the picture the piece of angle is welded on the front side of the pockets. That is a boo boo! I wasn’t thinking straight when I welded it on and had to remove it. Then relocate it to the backside of the pockets. Nobody’s perfect.

4. You want to position the hinge pockets so that the pivot point on the backside of the pocket is as close to the outside body skin as possible without touching it. About a 1/8” away is good. This will allow the door to swing out away from the cab. You don’t want the door to come into contact with the cab when it’s open. That will be bad! To get the cab marked for cutting I held the hinge pockets in position and traced them with a Sharpie marker. Because the hinge pockets have round edges, a spot weld drill bit was used to cut the corners out. You want the hinge pockets to fit snugly in the opening so you can get a good weld. If you cut them straight without rounding the corners there will be a big gap you have to weld shut. Welding up a sheet metal hole is not fun, so take the time to do it this way.

5. To cut the hole I used an air grinder with a cut off wheel. This makes it pretty easy. Make sure to wear safety glasses. There is a lot of debris that will fly in your eye. I like to cut the opening a little small and then file it out by hand to get an exact fit for the hinge pocket. When you are welding 1/8” tubing to sheet metal you don’t want a gap. It will want to burn through pretty easy.

6. After the holes are cut and filed to a very precise fit, the hinge pockets are then slid into place for a clearance check. The piece of 1” angle that was welded to the back of the pockets is holding them in place and will not be removed. It will help stiffen the pockets and keep them from flexing. Notice the front of the hinge pockets sticking out? Also notice the cut outs on the side of the hinge pockets? Those notches are a mark to show you where the hinge will bottom out at a perfect 90 degrees. The back of that notch needs to be flush with the outside skin of the cab. The rest of the pocket that is sticking out will be cut off and ground down to almost flush with the cab skin. The reason that this extra metal is there is so that the hinge kit will fit many different shaped door jambs. That’s what I love about this kit. It is really universal.

7. With the hinge pockets sitting in place, the hinges and hinge pins were installed. A piece of stock was clamped into place to check that the hinges swung smooth and free without binding. With the hinges on and in the open position, a level was used to make sure the hinges were straight up and down. When you are satisfied of the hinge pocket location you can then use the Sharpie marker to trace around the pocket to mark the cut off points. Because I cut the hole for the hinge pockets to fit snug, they will stay where you put them. It makes the job easier in more ways than one when you cut the holes accurately.

8. I have learned that removing paint with a sanding disk mounted on a hand grinder is not always the best way. Especially when you are working in curved and tight areas like this. Also, it is very easy to grind away sheet metal that you will be welding to. You need the metal to stay as thick as possible to prevent burn through. In situations like this I now use Airplane strength paint remover. This remover will really remove the paint quickly. You have to be careful when using this stuff because if you get it anywhere you don't want it, it's too late. It would be wise to mask off the area you don't want any paint stripper to reach. I failed to do this because I thought I had it under control. I was wrong. I had that stuff dripping all over the place and it was removing paint blotches on my rocker panels. OOPS! You have to be careful with that stuff.

9. With the paint stripper cleaned off and the hinge pockets cut down it is time to get them welded into place. When welding these 1/8" thick pockets to the sheet metal jamb, I choose to use .023 mig wire. It is a good size wire that will allow you to use low enough heat that will penetrate the hinge pocket, and will let you flow the puddle into the sheet metal. You have to do it quickly enough so you won't burn through the skin. You might want to practice on some scrap metal first to get the technique down.

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After the hinge pockets are welded into the cab it is time to install the swinging

part of the hinge. When the swinging part of the hinge is installed, bolt the door pockets to the hinge and get them centered as much as possible.

Close the new hinges and shut the door as much as it will go, because the new hinges get in the way, the door will not close all the way. With the door still swinging on the factory hinge, it makes it easy to draw a line around the hinge-door pocket.

You will then cut out the part of the inner-door skin for the pocket to fit into. I used the same air grinder with a cut off disk to make these holes.

Remember to cut the hole to an exact fit for the pocket. You don't want hardly any gap around these pieces. The inner door skin is not that thick, and getting burn through is easy and needs to be avoided of course.

It is extremely important that the door-hinge pockets get welded in place with the door closed all the way and in factory position. This is not hard to do. Keep the hinge-door pockets bolted to the hinges. This assures you that they are in their future exact location. With the door closed all the way and flush with the cab you can now tack weld the pockets in place.

When you have the door pockets tack welded really well (like in 10 good places) you can unbolt the new hinges from the door and remove the old factory hinge pins. Do not remove the factory hinges from the cab or door yet. You will need these to act as a door prop when you bolt the door back on. It is now time to bolt the door back onto the new suicide hinges and take it for a test swing.

You will notice that the door sagged a little bit when it slid off the factory hinge. It did this because the inner door skin is flexing outward due to the weight of the door. Do not worry, we will brace the door skin to stiffen it up later.

10. In this picture you see the new strike and strike plate installed. You will install this after you have installed the new latch in the front of the door. To determine the location of the strike pin, I crawl inside the cab and close the door. With a marker I draw a line on the cab jamb that's perfectly even with the front of the latch. Then measure the latch with the new strike pin locked in place. You want to measure from the front of the latch to the center of the strike pin.

Since the strike pin is locked in its exact location, you will be able to get a really good idea where it needs to be by taking that measurement and measuring back towards the outside of the cab from the line you drew. This might sound complicated but you will know what I'm talking about when you get to this point. After you figure this out you trim down the strike plate, cut a hole in the cab jamb, and tack weld it into place. To cut this hole I used the same air grinder with the cut off disk.

On the newer S10 trucks there are 2 layers of metal in the front of the cab where the strike plate gets welded. After the first layer was cut out I had to use a saws all to remove the second layer. This was a little tricky and time consuming. Remember, don't cut the hole too big!

11. Here is the new latch and latch plate installed into the door. The use of the latch plate makes things really easy and will save you a great deal of time. I like to locate the plate around the center of the door between the 2 factory hinges. To mark the door I just lay the new plate in position and draw a line around it with the Sharpie marker. To cut away the metal I used the same air grinder. That tool is a dandy! The front of the door is also made up of 2 layers of sheet metal. The second layer is also tricky, and I had to use the saws all to get it all trimmed out. Remember not to cut away too much metal. You want a semi-snug fit. When you are happy with how the plate fits, remove the surrounding paint with some paint stripper and weld the plate in place. On the left side of the picture you see a little tab sticking out. This is the latch release that will open the door. You can attach your electric door popper to this, or come up with a way to route new handle rods from your existing door handle to open it.

12. After the hinges, latch, and strike are in place it is time to stiffen up the door so that it won't sag down when you open it. The inner skin is pretty thin and flexes quite a bit. This flexing outward is what causes the door to sag down. In this picture you see a piece of 1/8" plate that is tack welded to the inner skin. The tack welds are about 1 inch apart from each other. You do not need to weld it all the way around. Just make sure the tacks are good and solid.

Behind the 1/8 plate there is a big hole. The lack of metal in the skin is also what makes it so weak. Behind the door skin at the rear of the bottom hinge pocket I welded in a piece of 1" angle that was about 8" long. I welded the angle to the back of the hinge pocket, and also to the door skin. To weld it to the door skin the plug weld method was used. To do this you need to drill some 3/16" holes in the door skin right where the angle will be located. Then start your puddle on the angle and flow it into the door skin. By welding in the angle it will stiffen up that area quite a bit. I would've really liked to do this to the top hinge pocket, but there was not enough room for the angle. The only tricky part about plate bracing the inner door skin is cutting the big plate. I used a piece of poster board to make a

13. Do you see the burn marks between the hinge pockets welded into the cab? That is from a 2" wide 1/8" thick, piece of metal that is welded to the backside of the door jams, and also welded to both of the hinge pockets. This will strengthen the pockets and keep them from flexing up when the door is opened. Another thing that makes this kit so wonderful is the backing plate attached to the hinge pockets in the door float around so that you can fine tune any uneven gap you might have around the outside of the door.

template, then transferred that to the metal plate. I cut it out with a plasma cutter and trimmed it to fit with a hand grinder. The reason you see a number of holes in the 1/8”plate, is because I held it in place and pulled it down tight against the door skin with self tapping sheet metal screws. After the plate was welded in place I removed the screws. The door stiffening is now complete.

14. We can now remove the old hinges. On a S10, the jackasses at GM like to weld the hinges on. I don’t know what the other auto manufactures do, but drilling out the spot welds to remove the hinge is a big pain in the ass. Since the spot welds are pretty much invisible, I used paint stripper to get rid of the paint so I could see the burn marks left by the welder. First I drilled a pilot hole through the weld. Then I used a ½ inch bit to drill it out the rest of the way. After all 4 welds are drilled out you will need to get a big hammer to break it loose and knock it off. Removal of the old hinge will wear you out and frustrate you to the max! Just be patient. Once the hinges are off you can then weld up the holes where you drilled out the welds. It’s getting close to bondo time!

15. In this picture you see the new strike plate welded in and ground smooth. There is also a hole that the wiring for the speakers came through. I had manual locks and windows, so the only wire I had to deal with was for the door speaker. I will deal with getting that hooked back up in the future.

To make a template for the old speaker wire hole, I took a piece of paper and taped it over the hole. Then took a pencil and shaded around the edge of the hole. This method works great for making door handle filler plates as well. After I cut out the template, I transferred it to a piece of 16ga sheet metal and cut it out with some shears. I had to grind down the edges to get a perfect fit. It’s about time to weld it in place.

16. To make sure you don't drop the filler plate down into the hole, I tack welded a piece of metal to it so I could hold it in place to get it tacked in. Then I just broke off the handle and ground the tack weld off.

17. When you are done welding on the front jam and everything is ground down, I removed all the paint with paint stripper. Then I roughed up the whole surface area with a 24 grit sanding disk. Doing this will make the bondo bite into the metal.

18. When you are happy with your weld job on the cab pockets, it is time to grind down the welds. To remove the welds in the tight curved areas I used an air dremel with a round nose bit. That really simplified the removal of the welds. You want to leave a little bit of the weld sticking up away from the skin of the jamb. The more you leave the stronger that area will be. You will be able to blend the welds in with the bondo. If you do a good job, it will be totally invisible.

You can also see that I shaved the old strike holes and ground them down. I then removed all the paint with paint stripper, and roughed up the whole area with a 24 grit sanding disk before the bondo was applied.

19. After smoothing out the filler and getting it to the point that I was happy, I masked off the door and a thick coat of Dura-Build primer was sprayed over the worked area. I even took the time to shave the spot welds smooth that were on the front of the inside skin that is visible. When the primer dried I sanded all of it down to smoothen it out. Then I gave it another coat.

You can see I left the old hole that the speaker wire went through. I needed that opening to put my fingers in to bolt the new latch in place. I could of cut a hole in the door skin to do this, and I might in the future. I would like to see this hole eventually disappear.

20. Here is the door jam where the new hinge pockets are located. The same method was used to smooth everything out. Looks pretty good huh?

21. This is the front jam where the new strike pin goes. You can't tell that hinges were ever there.

22. Here you see the door pockets after they have been molded in. The only welds you will need to smoothen out is what's not covered by the door panel. You still want to leave a small amount of weld sticking up in the rear of the pocket so it won't crack. You can hide this weld with the filler when you mold it in. It's practically invisible in the end.

Also notice the old latch and bolt holes were shaved clean.

23. Make sure to take the time and mask off the whole area. You don't need primer over spray all over the inside of your cab and the outside of your truck.

24. Finally the truck is back together and you look cool when you step out at the gas station. People look at you and I know they are wondering, “What the fizzuck is up with that”! You can either smile and say, “Howdy”, or yell, “What the hell are you looking at”. It’s up to you.

25. The hinges in this kit allow you to open your doors a full 90 degrees. If you don’t want them to, a threaded stop is included so you can set how far you want them to open. The total install time for one door took me 4 days, a total of 55 hours. To me it was worth every minute. Just look what you have when you are done, a door that opens backwards. To do this install for somebody, the labor charge alone would be around $1200.00 per door. To do both doors it would run about $2900.00 and that includes the hinge kit pictured in this how-to. Don’t be scared to do this on your own. It only takes a few days and the proper tools.