



GENERAL INSTALLATION INSTRUCTIONS

4X Flare and ThineLine Flare

As you read these instructions, you will see **NOTES**, **CAUTIONS** and **WARNINGS**. Each message has a specific purpose. **NOTES** are additional information to help you complete a procedure. **CAUTIONS** are safety messages that indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. A **CAUTION** may also be used to alert against unsafe practice. **WARNINGS** are safety messages that indicate a potentially hazardous situation, which, if not avoided could result in serious injury. **CAUTIONS** and **WARNINGS** identify the hazard, indicate how to avoid the hazard, and advise of the probable consequence of not avoiding the hazard. **PLEASE WORK SAFELY!**

Required Tools and Materials

Required For Flare Installation:

Safety glasses
Electric drill
1/8" drill bit
3/16" drill bit
Rubbing alcohol or wax
remover
Masking tape or grease pencil
Spring clamps
Phillips screwdriver (short)
Silicone sealant (optional)

For Side Molding Trimming:

Utility knife or razor blade
Vise Grip™ type pliers
Blow dryer or heat gun
Putty knife
Cutting guard (a piece of thin
metal or plastic about 5"
square)

General Installation Overview

Warn 4X Flares and ThinLine Flares are designed to fit tight against the vehicle fenders. In most cases, the flares are attached to each fender lip with self-tapping screws provided by Warn. Two-sided, automotive tape is used as a sealing gasket between the flare and the fender. The tape also helps to protect the painted fender surface from possible damage caused by the edge of the flare. Warn 4X Flares and ThinLine Flares are molded from a special weather resistant material. They may be installed "as is", or they may be painted. Fender trim must be removed and side molding may need to be trimmed before installing Warn Flares.

IMPORTANT Installation Notes - read before installing

A. Warn Flares do not fit over factory installed flares.

- B. Removing the factory flares may damage the flares and may leave the mounting holes exposed in the sides of the fenders.
- C. Some models of Warn Flares do not completely cover these mounting holes. *Be sure to check your specific application before attempting to install Warn Flares.*
- D. The two-sided tape forms a seal between the flare and the fender, *but is not intended to “stick” a flare down against the fender if there are gaps.*

1. Confirm the Flare Fit

- A. Check the part number on the Warn Flare box. Be sure the part number applies to your make, model and year of truck. If necessary, check with a Warn Customer Service Representative to determine if the flares will fit with your specific trim and accessory options.
- B. Hold the flares in place on the vehicle and confirm the flares match the truck body contours.
- C. There are factors beyond Warn’s control which can prevent a satisfactory fit, such as:

Body damage: Sometimes damage is not discovered until the flares are being installed; you will need to fix the damage to get a good flare fit.

Variations in body details: The sheet metal contours can vary slightly on different vehicles made in different factories.

Interference with side moldings or other accessories (such as running boards, or mud flaps): Methods for dealing with these problems are discussed below, or in Special Instructions that are provided with some models of flares.

2. Paint the Flares

If you plan on painting the flares, do so before permanently installing them on the truck, *but not until you have verified the fit of each, as described in Step 1, Confirm the Flare Fit.*

Warn 4X Flares and ThinLine Flares accept paint well when prepared properly.

- A. Clean the flare surface with rubbing alcohol or a paint prep solvent specifically for plastics.
- B. Do not use acetone, lacquer thinner, enamel reducer or any solvent that attacks or softens plastic.
- C. Scuff the flare surface with a fine ScotchBright™ type abrasive pad for a superior paint bond.
- D. Warn Flares can be coated with any paint or primer suitable for ABS plastic.
- E. Warn recommends a flex agent in the paint for maximum durability.

CAUTION: High temperatures used for curing some paint systems can permanently deform the flares causing a poor fit. Check with a qualified paint shop for proper painting instructions.

3. Prepare the Flare for Tape (PHOTO 1)

- A. Use rubbing alcohol to remove any oil or wax that may be on the flare in the area to be taped.
- B. Do not use strong solvents, such as acetone or lacquer thinner, that may soften or attack the plastic.
- C. Clean the entire flare surface to be taped.
- D. Allow the surface to dry before you install the tape.
- E. The flare temperature should be at least 60° F for best tape adhesion.

4. Apply the Two-sided Tape (PHOTO 2, 3)

- A. Get the strongest tape bond possible by completing the above procedure before continuing.
- B. Separate the two strips of two-sided tape by cutting the paper backing in half.
- C. Peel about 2" of paper backing away from the tape to start.

DO NOT REMOVE THE RED PLASTIC BACKING FROM THE TAPE AT THIS TIME.

- D. Leave a tape "tail", about an inch long, on each end of the flare so the backing can be removed after the flares have been screwed in place.
- E. Apply the tape to the flare. Start at one end of the flare and work your way toward the other end; peel the paper backing away, a few inches at a time, as you go.
- F. For best results, hold the tape 1/32"

PHOTO 1.



PHOTO 2.

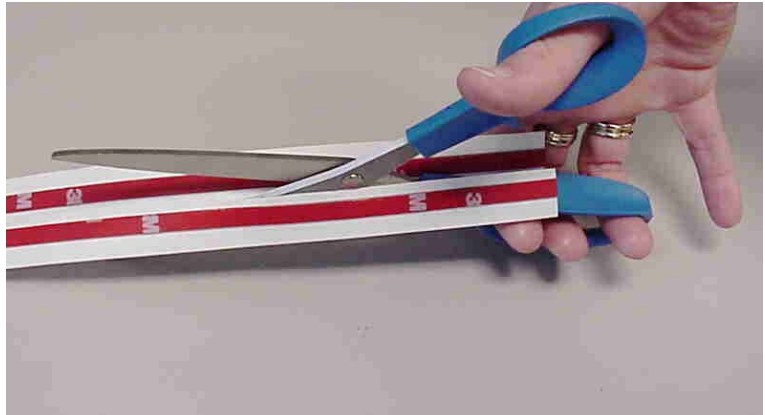


PHOTO 3.



to 1/16" back from the edge of the flare.

- G. The flare should be taped with one continuous piece of tape. Do not attempt to splice the tape.
- H. Do not stretch the tape while applying.
- I. Use a round object, such as the shaft of a screwdriver, over the red tape backing, to roll and/or press the tape tightly and uniformly onto the flare.

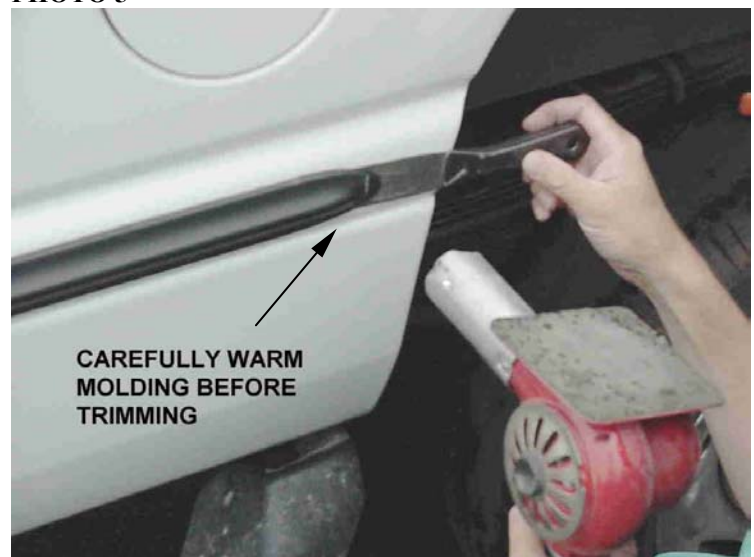
5. Trim the Body Side Molding (PHOTO 4, 5)

- A. Fender lip moldings must be removed. The moldings are usually fastened with screws that can be removed easily.
- B. Body side moldings need to be trimmed where they interfere with the flare.
- C. **DO NOT** trim the flare to fit around the molding; it is difficult to get a good fit and weather seal with this method.
- D. Mark the side molding where it will be trimmed. Hold the flare in place and mark across the side molding about 1/4" away from the edge of the flare. If the flare is carefully held in the correct position, this "cut line" will provide about a 1/4" gap between the flare and the molding. This gap is necessary for a proper flare fit.
- E. Use a blow dryer heat gun to warm the molding and soften the adhesive backing for easier removal. Do not over heat the molding or the paint.
- F. Lift the end of the molding enough to slide a cutting guard past the "cut line", between the molding and the fender. A putty knife can be used to pry the molding away; however, avoid damaging the paint. Some body side molding has a chrome foil strip which wrinkles easily, so do not pull the molding back at a severe angle. Cut out a wedge-shaped piece first. The use of a cutting guard is important to prevent

PHOTO 4.



PHOTO 5



damage to the painted fender surface.

Method A) Please read this entire section before proceeding.

Use a utility knife to carefully make the cut. Repeated cuts may be necessary to get through the side molding.

Method B) (PHOTO 6)

- A. Use a pair of Vice-Grip™ type locking pliers to hold a heavy-duty razor blade so the cutting edge of the blade can be pushed into the molding.
- B. Use a gentle rocking motion to push through the molding. Be carefull not to touch the painted fender with the razor blade.

PHOTO 6



6. Prep the Vehicle for Tape

- A. The tape bond strength will be the strongest if the truck fender is free of any waxes, oils or other foreign substances.
- B. Use rubbing alcohol or other wax remover on the areas of the fender where the flare tape will make contact. To determine where these areas are, hold the flare in place and use a grease pencil or masking tape to outline the flare contact areas.
- C. Remove the masking tape or wipe off the grease pencil marks when the area is clean.

7. Drill the Flare (PHOTO 7)

	<u>WARNING</u>
	Drilling operations can cause flying metal and plastic chips. WEAR SAFETY GOGGLES. Flying metal chips can cause eye injury.

- A. Drill a 3/16" hole through each of the dimples on the underside of the flare.
- B. Remove the burrs from the holes.

PHOTO 7



Position the Flare on the Vehicle (PHOTO 8)

- A. Hold the flare in position against the fender. Make sure the flare fits the body details on both sides of the wheel opening.
- B. Use spring clamps to temporarily hold the flare in position by clamping the flare to the fender lip. Make sure the flare fits in the detail areas of the fender.
- C. Work out any gaps between the flare and the fender by pushing the flare tighter against the truck, or by pulling the flare out slightly to reduce the amount of pressure against the truck. Adjusting the flare fit in one area is likely to change the fit in another area.
- D. Check the fit in the detail areas and adjust if necessary.

PHOTO 8



Trouble Shooting

- *Is the flare making contact with any side molding?* This can cause the flare to bulge out at the top or bottom. Remove enough additional molding to give a 1/8" to 1/4" gap between the molding and the flare.
- *Does the fender lip return at an up or down angle compared to the area of the flare where the screws will go?* This can pull the flare away from the fender (up angle) or force the flare to a higher position on the fender than intended (down angle). Grab the fender lip with an adjustable wrench or a pair of pliers and bend the sheet metal slightly, until the lip is level.
- *Is the flare making contact with running boards, mud flaps or other accessories?* Often times the flare can be trimmed to clear other hardware. It is important that the flare be trimmed with a curved or rounded line to avoid any sharp corners that will start a crack in the plastic.
- *Has the truck had any body damage?* Even repaired body damage may look okay until a flare is placed against it. Consider having this fixed before continuing with the flare installation.
- *Can the bottom of the rear fender be adjusted?* Some truck fenders have slotted struts at the lower ends. Loosen the screw and move the fender slightly. Tighten the screw.

Be patient! Reposition the clamps if necessary.

8. Drill the Fender and Install the Screws (PHOTO 9)

A. When you are satisfied with the fit, drill a 1/8" hole through a flare hole into the fender lip. Select a hole that is next to the body detail and be sure you are drilling close to the center of the lip.

B. If a hole in the flare does not line up with the center of the fender lip, use a drill to slot the hole in the flare in the direction necessary for alignment.

C. Install a screw.

D. Make sure the flare has not pulled away from the fender in the tape area due to screw installation.

E. If the flare has moved, remove the screw, hold the flare in position for a good fit and look at the alignment of the hole in the flare and the hole on the fender lip.

F. If the holes are no longer aligned, slot the hole in the flare to allow them to line up.

G. Reinstall the screw and check the fit of the entire flare.

H. If the fit is okay, move to a flare hole next to the opposite body detail or the opposite end of the flare and repeat this procedure.

I. Select another hole and repeat the procedure. Remember to check the flare fit after installing each screw.

J. *Optional:* Apply a small amount of silicone to the holes and around the screws before the screws are tightened.

K. Remove the clamps after all the screws have been installed.

NOTE: Warn flares are designed to make continuous contact with the truck in the taped area. There should not be any large gaps between the flare and the fender before the red tape backing is removed. The tape forms a seal between the flare and the fender, but is not intended to "stick" a flare down against the fender if there is a gap.

PHOTO 9



9. Remove the Tape Backing (PHOTO 10)

NOTE: The tape adheres best to surfaces that are at least 60°F.

- A. Start at one end of the flare and begin removing the red tape backing.
- B. In areas where the backing is pinched and will not pull easily, use a fingernail, a small screwdriver or knife blade to lift the edge of the flare and take some of the pressure off the tape as you remove the backing.
- C. If the backing does break, start again from the opposite end of the flare.
- D. Cut or pull the excess tape “tails” off the ends of the flare.
- E. Apply pressure to the taped areas of the flare against the fender to ensure the tape adhesive is making complete contact to flare and fender.

PHOTO 10

