



SPEEDGLASS RACING WINDSHIELDS®

TECHNICAL INFORMATION

INSTALLATION SHEET

Congratulations on your purchase of SPEEDGLASS RACING WINDSHIELDS®. This sheet will help you successfully install your SPEEDGLASS windows. Depending on your application, the SPEEDGLASS window you receive should be approximately 1” oversized in all directions. On OEM steel bodies, installation is usually very simple and straightforward. On OEM steel bodies it is recommended to remove original molding and not to plan on reusing any molding. However, in some cases this can be successfully done. In aftermarket fiberglass or composite bodies, sometimes there are many differences from one to another. For these reasons we are forced to oversize all SPEEDGLASS windows. Trimming is required!

Tools You May Need:

- Permanent Marker
- Grease Pencil
- Masking Tape (if using a template)
- Clear Tape (if not using a template)
- 3/8” Hand Drill
- Proper Size Drill Bits
- Counter Sink Tool
- Power Planer
- Hand Grinder
- Jig Saw or Band Saw
- 3m Super 88 Black tape (for blackout only)
- Handheld sandblaster (for blackout only)
- Razor knife (for blackout only)
- 180 grit sandpaper (for blackout only)

**** IMPORTANT NOTICE **** After receiving your SPEEDGLASS®, make sure the window(s) will fit properly prior to the removal of any masking. SPEEDGLASS may not be returned for any reason after the protective masking has been removed.

Special Note: to prevent windows from cracking due to uncontrollable conditions such as tire shake, extreme vibrations, etc. some vehicles may require a soft barrier (available in Percy's installation kits) between the window and the body.

Special Note: If you are installing a 1/8" front windshield you must use braces to support the windshield. If you choose to run the 1/8" windshield without braces; Percy's will not be responsible for any damage to the windshield.

STEP 1. WINDOW PREPARATION

Your SPEEDGLASS window was shipped with a poly-masking for protection. It is best to leave this masking in place during installation. Unfold the masking and **carefully** trim it back approximately 3" from the edge of the window on both sides. If you intend to make or use a template to trace a pattern onto the SPEEDGLASS®, you may want to use 2" or 3" wide masking tape (it is easy to mark on). If you will be marking the window as it needs to be trimmed with no template, clear tape 2" or 3" wide will allow you to see through the window. If you must mark directly on the SPEEDGLASS®, permanent marker **will not** work, a grease pencil will. **Important:** All SPEEDGLASS windows are manufactured with 2 holes drilled in small tabs. These holes are for manufacturing purposes only and are intended to be trimmed off. Before trimming and fitting your SPEEDGLASS®, be sure to consider these holes.

STEP 2. TRIMMING / FINAL FITTING

If at all possible, it is best to use a template of your window opening. This can be a template that you cut or even better, an existing window. This will allow you to trace around the template, onto the SPEEDGLASS®, and then cut on the line. You may want to stay on or outside the line to ensure that the cut piece is large enough, and then the window can be fit very closely. The best way to obtain a final fit, is the use of a power planer and a hand grinder on inside curves (sanding is not a very effective method). If you do not have, or cannot make a template of your window, you should be able to hold the window to its opening and see/mark where the window should be trimmed. After final fit is attained, it is recommended to sand the edges smooth with an orbital sander or sanding block.

STEP 3. BLACKING OUT (optional)

After final fitting, the window can be blacked out to apply adhesives or just for looks. The coating is so chemical resistant that you need to sand or blast off our SPEEDGLASS coating so that the paint can stick to the raw LEXAN (no paints or adhesives will stick to our coating.)

First you need to mask off the area you do not want to remove the coating. In order to make a perfect line you can use 3M Super 88 1.25" black tape as a mask. Peel back the poly-masking that came on your SPEEDGLASS just enough to run the tape inside of where you want your black out to be. Go ahead and do this all the way around your window. (Do not worry about rounding corners with tape.) Now you can take your razor and trim poly-masking so that it overlaps the black tape but does not cover where you want to sand. (You can use the rest of your black tape to keep the sheeting stuck to the black tape or to fill any voids you may have over cut.) Next take a razor blade and follow the outside edge, (This step will ensure a clean line when you sand it or blast it.) when you reach the corner you can cut through the tape intersection to make your desired radius on the corner. Now your window is masked and ready to remove coating. There are two ways of doing this. One way is by hand or pad sander using 180 grit sand paper. This process may take some time because you need to remove coating completely. (You can tell the coating is removed when the material is dull after you wipe it with a damp cloth and scratches easily) Another way to remove the coating is by using an economical hand held sandblaster. These are usually under \$40.00 and will save you a lot of time. You can follow the directions that came with your sandblaster to remove the coating. (We have found that granulated sugar works better than sand because it is a square granule that disintegrates easily.) Now your coating is removed and you can use any automotive grade paint to black out your window.

To use adhesives to install your SPEEDGLASS you need to apply an ESSEX brand U413 primer to your blacked out SPEEDGLASS and an ESSEX brand U400 HV urethane to glue your SPEEDGLASS in.

PERCY'S does not recommend using urethane alone.

Due to the high body torque and wind speeds common in racing you should still use fasteners to fasten windshields.

STEP 4. FASTENING

After final fitting, the window can be fastened in. First the window should be put in place and marked. The marks should be spaced a minimum of ½" from the edge of the SPEEDGLASS window. The frequency of fasteners is up to you. Percy's recommends every 4" on most applications. If rivets are used, only normal drilling is required. If bolts or screws are used, you may want to countersink the holes for best appearance. Fasten the window from the center out. Percy's has installation kits available, call to order. Percy's installation kits use countersunk flat-headed cap screws, and are highly recommended over rivets.

Important: If bolts are used, you must use a locking nut on the backside.

Note: *to prevent windows from cracking due to uncontrollable conditions such as tire shake, extreme vibrations, etc. some vehicles may require a soft barrier (available in Percy's installation kits) between the window and the body.*

If you are installing a 1/8" front windshield you must use braces to support the windshield. If you choose to run the 1/8" windshield without braces; Percy's will not be responsible for any damage to the windshield.

Do not: Over-tighten bolts, rely on the locking nut to hold the fastener tight.

Using these steps, you should have an excellent fit and appearance. If you have further questions, please call our toll free tech line at 888-737-2970 or E-mail us sales@percysph.com. Thank you again for using Percy's SPEEDGLASS®.

DISCLAIMER

Percy's High Performance, Inc. manufactures SPEEDGLASS Racing Windshields and Windows for racing and off road use only. This product is not yet DOT approved and is currently illegal for usage on U.S. Highways. Percy's High Performance, Inc. assumes no liability or responsibility of this product if used illegally.

RETURN POLICY

No returned SPEEDGLASS product will be accepted without prior authorization from Percy's High Performance. RGA # will be issued before customers may return any merchandise. No returned merchandise will be accepted if the protective masking has been removed or any type of installation has been attempted. All returns are subject to a 15% repackaging/restocking fee.

CLEANING

SPEEDGLASS care should be taken to wash all dirt, bugs, etc. off with water or regular windshield cleaner before any wiping take place. When wiping SPEEDGLASS clean take care not to allow dust, sand, etc. between cloth/sponge and the SPEEDGLASS.

TECHNICAL DATA

SPEEDGLASS is a new material manufactured by Percy's High Performance, Inc. for Racing, Off Road, Aerospace, and other leading edge, High Performance applications. SPEEDGLASS is composed of GE's LEXAN polycarbonate, proprietarily thermoformed and hard coated to give outstanding scratch and abrasion resistance. Therefore, SPEEDGLASS is unbreakable as well as capable of retaining excellent optical clarity even in the worst environments. Percy's is capable of manufacturing SPEEDGLASS for virtually any window application. Please call for any technical questions or application assistance.

Technical Highlights for SPEEDGLASS Racing Windshields & Windows

- SPEEDGLASS is 50% - 75% lighter than glass (depending on thickness).
- SPEEDGLASS is extremely shatterproof.
- SPEEDGLASS has excellent optical clarity.

- SPEEDGLASS windshields and windows are coated on both sides with a very scratch resistant coating.
- OEM windshields and windows are formed to factory curvature.
- OEM windows are approximately 5/8" oversized in all directions.

THICKNESS:

SPEEDGLASS is available in the following sizes:

.093"

.118" (1/8")

.177" (3/16")

.236" (1/4")

Other sizes available. Call Percy's toll free at 888-737-2970 for more information.

WEIGHT COMPARISON

The most valuable advantage of *SPEEDGLASS* for racers is the tremendous weight savings, not to mention being shatterproof and extremely scratch resistant. Following is an actual weight savings comparison for some popular race applications. Weight savings can vary depending on thickness of *SPEEDGLASS* windows used. The following comparisons are factory glass vs. a full set of 1/8" *SPEEDGLASS* windows, common for most race applications.

<u>Application</u>	<u>Factory Glass Weight</u>	<u><i>SPEEDGLASS</i> Weight</u>	<u>Weight Savings</u>
79 – 93 Mustang	71 lbs.	28 lbs.	43 lbs.
82 – 92 Camaro	108 lbs.	31 lbs.	77 lbs.
93 – 01 Camaro	96 lbs.	32 lbs.	64 lbs.
92 – 95 Civic	64 lbs.	29 lbs.	35 lbs.

SPEEDGLASS is the best weight savings per-dollar-spent for any steel-bodied racecar. Please contact Percy's High Performance, Inc. or your closest dealer for ordering information!

CLEANING:

Any window or glass cleaner can be used to clean SPEEDGLASS.

CHEMICAL RESISTANCE:

SPEEDGLASS has an extremely hard, non-porous surface that sheds water very well and is highly chemical resistant, including: completely unaffected by low and high molecular weight alcohols, glycol ethers, aliphatic and aromatic solvents, chlorinated hydrocarbons, weak alkali/alkaline earth solutions and mineral acids with the exception of hydrofluoric acid.

Speedglass Common Problems and Solutions

Q: “My Blackout Paint will not stick to the Speedglass.”

A: After masking off the blackout area. The installer must sand through the hard coating right to the edge of the masking. Great care should be taken when sanding near the edge of the masking. Blackout paint can then be applied to the sanded area.

Q. “How do I cut Speedglass?”

A. Speedglass cuts just like very soft metal. It will not crack or break. It is best to do rough trimming with a band saw or jig saw with a bi-metal or medium blade. Final fitting can be done with orbital sander or grinder.

Q. “Can I use my factory molding with Speedglass?”

A. This greatly depends on the application. We do not recommend using the factory molding but in many cases it can be done. Speedglass must be fastened in. In some cases it can be glued into place.

Q. “Can I use urethane to glue my window into place?”

A. Yes. We recommend fastening the window in with fasteners in any racing application. However, urethane can be used if the proper procedures are taken. After removal of the old window, the original bead of urethane must be trimmed down to 1/16” or less. The Speedglass should be sanded down through the coating to the bare Lexan. If you do not sand through the coating the urethane will not adhere to the window. It is up to the installer to determine the type of urethane he wants to use.

Percy’s High Performance makes no statements as to the performance of the installation method. No warranty is expressed or implied.

Q. “Can I tint Speedglass?”

A. Yes. Speedglass can be tinted with any regular polyester window tint film. Make sure and clean the Speedglass surface very well. Do not scrap on the window with any metal objects as it will scratch the window.

Q. “Can I use Speedglass in my factory side window regulators as a functional side window?”

A. We do not recommend making Speedglass side windows functional. However, molded

Speedglass sides have proven very functional in many applications. Percy's does not guarantee each side window application to install like the factory glass. Adaptors or brackets may have to be fabricated. If Speedglass sides are to be used functionally the user should make sure the wiper seals are very clean and free of dust and debris.