BODYGUARD®
COMPOSITES

MI-LIN1500 BODYGUARD SHIELD INSTALLATION GUIDE

BODYGUARD®
COMPOSITES

On behalf of Bodyguard and Malley Industries, congratulations and thank you for purchasing our interior van products.

Malley Industries is one of North America's premiere manufacturers of ambulances, patient transfer units and mobility vehicles. Bodyguard composite interiors are in all of these vans because they are rugged, safe, and easy-to-clean.

Bodyguard Composites products follow Malley's strict manufacturing process controls. With tens of thousands of our products in commercial and emergency vehicles throughout North America, Bodyguard's noise-reducing, lightweight interior products will provide years of protection while improving the fuel efficiency of your van.

Terry Malley

President & CEO

BODYGUARD® COMPOSITES

MI-LIN1500 INCLUDES:		
	QTY	DESCRIPTION
		LEFT & RIGHT WING PANELS
		LEFT & RIGHT UPPER PANELS
		LEFT & RIGHT UPPER LEXAN PANELS
		CENTER PANEL WITH WINDOW
		CENTER CEILING PANEL
A	16	1/4”-20 SERRATED FLANGE NUT
B	16	1/4”-20 X 3/4” HEX SERRATED FLANGE BOLT
C	16	#8 X 0.438” FLAT WASHER
D	8	#10-24 X 1” SQUARE DRIVE ROUND HEAD ZINC MACHINE SCREW
E	8	#10-24 STEEL NYLON INSERT LOCK NUT
F	6	#8-18 X 3/4” HEX HEAD SELF-DRILLING SCREW
G	10	PUSH PINS FOR PARTITION WINDOW
		VELCRO (ADHESIVE HOOK & LOOP)
		ALCOHOL WIPES
		LEXAN WINDOW
		BULB SEAL
		LEXAN DIVIDER & BRACKETS (IF ORDERED)

SUGGESTED TOOLS:

- JIG SAW
- SANDPAPER OR DEBURRING TOOL
- CORDLESS DRILL
- 1/4” DRILL BIT
- 23/64” DRILL BIT
- 7/16” WRENCH
- 3/8” WRENCH
- SCISSORS
- MARKER

A (37337) FLANGE NUT

B (1119903) FLANGE BOLT

C (1133072) FLAT WASHER

D (29872) ROUND HEAD SCREW

E (1137014) LOCK NUT

F (31945) SELF-DRILLING SCREW

D (29872) ROUND HEAD SCREW

Ensure you have all required hardware and equipment prior to beginning installation.

WARNING: PRIOR TO DRILLING INTO THE VEHICLE, CHECK BEHIND DRILLING LOCATIONS FOR ELECTRICAL WIRES, FUEL/BRAKE LINES, AND OTHER CRITICAL COMPONENTS. ADJUST THE DRILLING LOCATIONS TO ENSURE THAT YOU AVOID CONTACT WITH THESE COMPONENTS. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH, AND CAUSE SEVERE DAMAGE TO THE VEHICLE’S FUNCTIONALITY.

DISCLAIMER: THE BODYGUARD SHIELD WAS DESIGNED TO BE INSTALLED IN A VARIETY OF VEHICLES AND AS SUCH THESE INSTALLATION INSTRUCTIONS ARE PROVIDED AS A GUIDE. EACH VEHICLE, AS WELL AS DIFFERENT TRIM PACKAGES FOR THE SAME MODELS HAVE DIFFERENT MATERIALS, OPTIONS, AND SAFETY FEATURES (EX. AIR BAGS); AND AS SUCH IT IS THE INSTALLER'S RESPONSIBILITY TO ENSURE THE OEM'S DESIGN AND SAFETY FEATURES ARE NOT IMPEDED BY THE INSTALLATION OF THE SHIELD.

Move the front seats forward to provide more working room.

If the vehicle has rear grab handles, remove them if easily removed.

Note: The grab handles can remain in place but will need left and right panels to be trimmed to fit later. (See step 27).

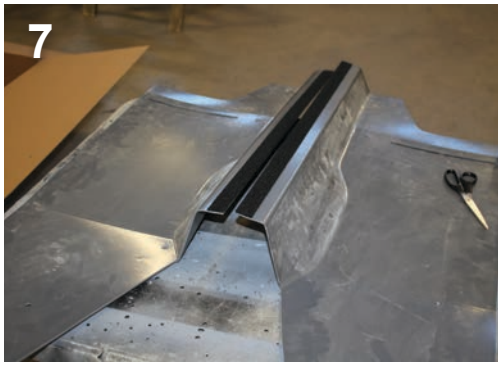
Place wing panel against the inside edge of the OEM weatherstripping and mark the point where the B-pillar starts to curve inward. Square a line to flat face. At the top, mark the inside edge where it meets with the vehicle's weatherstripping. Repeat step with second wing panel on the other side of the vehicle.

Join the mark at the top of the weatherstripping with squared line to flat face and cut the wing panel with a jig saw. Repeat with second wing panel.

Note: Medium-coarse blades work best for cutting the plastic.

Clean the cut edges of the wing panels with a deburring tool or sandpaper.

Wipe the flat edges of the wing panels with an alcohol wipe.



Cut 2 strips of loop adhesive velcro and apply to the outer edge of the wing panels. Cut 2 strips of hook velcro and apply it on the previously applied loop velcro. **DO NOT** remove the plastic covering the adhesive on the hook velcro.

Pull off the weatherstripping and wipe the edge of the B-pillars with an alcohol wipe.

Push the weatherstripping back on and slide wing panel under the inner flap of the weatherstripping.

Rotate the wing panel enough to reach in and remove the plastic covering off the velcro adhesive. Push the wing panel firmly into place. Repeat steps 9-10 with second the wing panel.

Note: The texture of some OEM plastics may limit the velcro's effectiveness. Applying 3 evenly spaced screws (provided in kit) on both wing panels will ensure the partition stays in place.

With the textured-plastic side facing up, trace the shape of one of the upper panels onto cardboard and cut out.

Trim the cardboard so it fits tightly against the vehicle's headliner.

Transfer the lines from the cardboard template onto the upper panel and cut with jig saw. Flip the cardboard template over so it faces the opposite direction and cut the second upper panel with jig saw.

Note: The non-textured side of the upper panels should be inside the cab.

Temporarily bolt the upper panels to the wing panels using nuts, bolts and washers.

Make sure that the upper panels are tight up against the headliner.

Measure the distance between the two upper panels at the headliner.

Mark the center of the center ceiling panel and mark the distance between the two upper panels.

Remove the upper panels from the vehicle. Line the upper panels up with the holes and marks on the center ceiling panel at the proper distance. Trace the shape of the upper panels onto the center panel and cut with jig saw.

Drill a second hole close to the end of the slot on the center ceiling panel and temporarily bolt both wing panels to the center ceiling panel using nuts, bolts and washers.

Measure the flange part of the rubber bulb seal (7/16”-1/2”) and mark the center ceiling panel where there is a double layer of plastic. The bulb seal will not fit over two layers of plastic so the overlapping area will need to be cut off in the next step.

Remove the upper panels from the center ceiling panel. Cut along the marked lines on the center ceiling panel with jig saw to create a relief for the bulb seal. Reattach the upper panels to the center ceiling panel.

Shown here: The bulb seal relief has been cut out from the center ceiling panel as directed in the previous step. The upper panels have been reattached to the center ceiling panel.

Install the bulb seal where the plastic will make contact with the headliner.

With one person on each side of the vehicle, install the upper section to the wing panels. Push up on upper panels firmly to compress the bulb seal against the headliner. Tighten the bolts while pushing up.

Measure the height of the middle opening from the bottom of the wing panel (below the slot) to the bottom of the center ceiling panel.

Depending on your application, cut any excess plastic off the top of the center panel.

Insert the center panel from inside the cab and center with the bottom slots on the wing panels. Drill six 1/4” holes and bolt the center panel in place using nuts, bolts and washers.

Cut the radius in the top of the left and right upper lexan panels to line up with the headliner and install bulb seal.

Note: If the grab handles were not removed in step 2, these pieces will have to be trimmed to accommodate the grab handles.

Drill 2 holes in each upper lexan panel and bolt into place using nuts, bolts and washers.

Drill ten 23/64” holes through the lexan window and center plastic panel and install the lexan window with push pins.

Note: Having someone in the front seat to push while drilling from the back seat will stop partition movement.

Partition installation is complete.

OPTIONAL LEXAN DIVIDER INSTALLATION

If the rear lexan divider was ordered, install by attaching lexan to two aluminum brackets (one placed above and one below the partition window) with screws.

A velcro loop is to be attached around the center headrest to hold the lexan panel in place between the seats.

Installation is complete.