

NOSTALGIC MOTOR CARS UNLOCKS THE HISTORY & MYSTERIES OF THE 1963-1985 AVANTIS

1963-'64 Studebaker Avantis Should NOT Leak Water!

By Dan Booth
Nostalgic Motor Cars

Dan Booth has over 47 years of exclusive, hands on Avanti sales, service, collision and parts, not Studebaker cars or trucks, just 1963-1985 Avantis.

It's no secret, that the Avanti, by Studebaker, had a reputation for water leaks, in the interior and trunk. Obviously this accounts for a very short life to the interior carpeting, upholstery, dash pad and etc. The trunk spare tire well would hold water, like a swimming pool and you never knew your scissors jack and handle were rusting away. That's why the jacks and handles are very, very rare!

This was such a problem, that Avanti Motors had a water test booth, located inside their building, just outside of the office area. This was very visible to all that visited Avanti Motors. It looked like an automotive paint spray booth, without any ends. It was elevated about 3'-4' and lit up for all to see. It had a very large sign on it, that read; "water test". A visitor would quite

often see an Avanti in there being sprayed with water, as I had many times. They wanted to assure a potential customer, that their Avanti did not leaked water, and they didn't.

As an authorized Avanti Service Center,

and later as a authorized new Avanti Dealership, I never had to correct a water leak problem, under the Altman ownership Avanti Warranty Program. I did have to correct problems that were created by others. Wind noise is also a minimum, when the proper weather seals have been installed properly to Avanti specs.

As I have stated before, I am a journeyman toolmaker, it's very difficult to make a part correctly, without the needed original designers and engineers requirements that are specified on the original blue prints. The after market that reproduces parts, from parts, do not know those original specifications and must guess at what they may be.

As I stated earlier, the Altmans corrected the Avanti water leak problems, with proper installation and adjustments with most of the original designed weather seals. But this was on a new car. When it comes to a 60 to 38 year old Avanti, that every Tom, Dick and Harry have worked on, plus other parts that

have been replaced with reproduction parts or the original parts are out of tolerance, or just wore out. This makes replacing the weather seals more difficult.

I will give you my thoughts on one weather seal at a time. If you purchase any of the N.O.S. weather seals, from me, I will talk you through the proper installation, so you don't have to wait for the future articles.

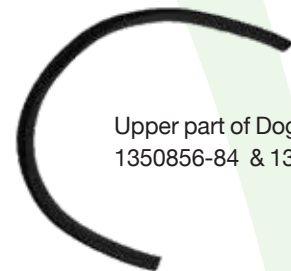
This article is about Illust# 2116-24 P# 1350856 and 1350857, which is the B pillar weather seal, AKA dog leg weather seal. They were installed from 1963-1983½ (about).



N.O.S. Dog Leg part number 1350856 or 1350857, \$55 each. Sold in Pairs Only



Studebaker designed the Dog leg molding, at left, Illustration # 2116-24 weather seal as a glued together, two piece seal, for good reasons.



Upper part of Dog Leg Weather Seal for 1984 - 85 1350856-84 & 1350857-84 \$20 each.

The N.O.S. bottom dog leg part has the original part numbers formed on the inside edge, that faces the interior. The dog leg part is made of a very firm, or hard rubber, with two holes for the screws. There is a flat brass washer that's placed in the mold at each screw hole, before forming the dog leg. The very hard rubber is needed as a properly adjusted door has to slide snugly against the door's back edge and the dog leg to keep water out. This part of the weather seal does not have to be compressed, so it needs to be very firm. If the weather seal dog leg is not made with the proper blue print durometer rubber and correct dimension, it will not stay glued and wants to pull away as the door is closing and opening, which in turn, seals out nothing.

Studebaker chose more like a sponge type rubber, which has to be some what comprehensible, but still hold it's shape against the stainless door glass frame. Their sponge choice was a wise one, compared to regular rubber as it worked very well. The sponge part of the N.O.S. are longer than needed. You simply cut to length after it's glued and the end is pushed into the preformed hole in the upper weather seal, Illustration #2116-22.



Reproduction one-piece Dog Leg Weather Seal.

Many dog leg rubber reproduction weather seals using the original part number 1350356 and 1350357 are made of a very soft rubber and are a one piece design, not two pieces like the originals. As the pictures shows, the one piece soft rubber doesn't seem to hold it's shape and stay glued to the B-pillar, so obviously it doesn't seal very well.

In Stephen Blake's attempt, to supposedly build a better Avanti than the Altman Avantis of 1965-1982, he made many changes that weren't warranted or necessary. I will bring other foolish changes he made in future articles for the *Avanti Magazine* readers.



The dog leg weather seals illustration numbers 2116-24 and part numbers #1350856 and 1350857 were changed about half way through the 1983 Avanti model run.



The changes made to the two piece seal was the upper part was no longer a sponge type rubber.



The upper sponge type weather seal, (Part # 1350856-84 1350857-84 \$20.00 each) was installed and ended at the bottom edge of the stainless B pillar trim, Illust#2124-64 P#1350880 and 1350881

It now was a V-shape hard rubber. The V faced, touched the stainless door glass frame. It was not compressible in any way shape or form. Its ability to seal out water and wind noise, was questionable. This proved in a very short time, to not be a well thought out change and was again, changed for the 1984 (about) model run.

The hard rubber lower dog leg was now eliminated but the foam upper part was now back and the V-shape was now gone. The original dog leg weather seals, that worked very well for 20 some years, were now discarded for another new, unproven idea.



This too, proved to be not well thought out, as a second change was made. It was now a little longer, going down into the painted door jamb about one-inch, and a screw was put through the top of the rubber at the very bottom of the sponge strip.

How to install the N.O.S. dog leg weather seals on a 1963-1983-1/2 (about) Avantis



Above is a V-shaped upper dog leg weather seal.

The dog leg part of the original two piece seal was replaced. This was an idea, that looked good, but didn't work very well. They simply cut and glued a short piece of the door surround weather seal, Illustration number 2116-25, part numbers 1350764 and 1350765 to itself, then to the back side of the painted door. They also glued a thinner piece of rubber to the top of the extension that was in turn glued to the door Behind the door panel. As I stated, it looked real nice, but was very questionable on it's ability to seal out water.

These are just a couple of the many changes that were made, under the Steve Blake ownership, that were not well thought out. This particular change didn't improve the sealing, it actually did the opposite.



Stainless and Recess for Dog Leg Weather Seal

Remove the old weather seal and most of the old glue, from the painted door jamb and the stainless B pillar cover.



If you look at the painted door jamb, just below the bottom of the stainless cover, you will see a step in the fiberglass, where the dog leg will be located.

Once you feel the weather seal is in the correct location, put a scratch awl in each hole in the dog leg. If the scratch awls don't go into the two existing holes, in the door jamb, the holes might have been drill in the wrong location, for whatever reason or it could have had a reproduction weather seal that was not made from the original blue prints installed.

I know the N.O.S. weather seals that I make and sell were manufactured from the original tooling, which I purchased from Avanti Motors, on September 9, 1989. If you have any questions, on the correct location of these two holes, just call me, Dan Booth 248-349-4884.



Mask off and mark door jambs.

With two scratch awls in the pre formed holes in the dog leg. Take a magic marker and trace around the edge of the dog leg. Mask off the area to be glued, clean this area and the weather seal.

Avanti Motors used Yellow contact cement. The glue that is in a tube, doesn't seem to hold as well as the yellow contact cement. This glue comes n a can like Weld Wood contact cement. Most automotive trim shop suppliers sell this adhesive or Home Depot.

Brush glue in the taped off area and the back side of the dog leg. Let it flash off. Then use the two scratch awls to locate the weather seal holes for the holes in the door jamb. Once the dog leg is in place, put the two screw in their holes.



Upper Dog Leg Weather Seal

If you study the upper sponge part of the weather seal, you will see it has a step on the back side. The step fits into the channel on the stainless pillar cover. It must lay totally flat in the channel, and glues over the three screw heads.

You will notice, as you place the upper part of the dog leg weather seal in place, that it is too long.



Upper Door Weather Seal Hole Location at the Top Back

You must poke this weather seal up into the preformed hole that's in the upper door weather seal illustration #2116-22 part numbers 1351334 and 1351335. Shorten the weather seal, until when it pokes up into the hole, it will be flat and straight.

Mask off the stainless, so you can brush glue in the channel. Then brush glue on the back side of the sponge seal. After the glue has flashed, place the seal in the channel, then poke the end into the hole in the upper weather seal.

If the door drags too hard on the dog leg weather seal, you will have to adjust the door. Just call me and I will talk you through how to adjust your door.

An article on How to adjust an Avanti door, properly, for 1963-1985 will be in a future article, for "Nostalgic Motor Cars Unlocks the History & Mysteries of the 1963-1985 Avantis."