

Avanti Repair

THE UNKNOWN FACTS ABOUT THE 1963 TO 1983 AVANTI SAFETY DASH PAD

How to determine the condition of a 1963-1983 Avanti dash pad, that will probably need to be replaced.

To the best of my knowledge all original 1963 to 1985 Avanti dash pads and glove box door pads were manufactured with a special fawn vinyl, except for sometime in 1983 to 1985. Avanti Motors tried a medium blue vinyl. Whether they used the medium blue vinyl in production, I have no records or knowledge of that.

Studebaker started dying the fawn vinyl dash pads for the solid colored interiors after serial number 4892. Avanti Motors continued that process from 1965 to 1983 except for the 26 Anniversary Avantis. The aftermarket reproduction and the rebuilt dash pads are both made using a harder, black vinyl material. So if the dyed vinyl pad showed signs of originally being manufactured in black. Then it was not made by Avanti Motors or Studebaker and would be a reproduction or rebuilt dash pad.

Look for a dash pad that has been dyed or redyed this normally means there has been some kind of repairs performed to hide the cracks. If the dash pad is hard, and you want to determine if it is an original or a reproduction, remove the three screws that hold one of the dash end caps on and try one of the

following three steps. One, take some lacquer thinner on a rag to remove the paint from the vinyl. Two, take a razor blade and scrape off the paint from the vinyl. Three, unglue a small piece of vinyl and pull it back. If you see the vinyl is black it is definitely a reproduction or a rebuilt dash pad.

This picture, at top of next column, shows some of the areas that might have developed the first signs of the normal expected cracking that most 1963 to 1983 Avantis will develop over time. As the original vinyl dries out and becomes brittle. It can crack around the speaker grille area on the left corner towards the windshield, at the right side of the gun sight at the windshield and at the glove box door opening top corners. See my blue arrows in the picture. If any cracking has started. Its only a matter of time before it will get worse.

There is no way that I know of to properly repair a 41-to-61-year-old-dried out vinyl that will last. The blue arrows in the photo, top right this page, are some of the areas that are normally filled with some kind of repair material, before

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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.



the dashes are redyed. If you look closely, sometimes you can see the repair. It could be a little uneven or the texture is slightly different. If you push down on the suspected repairs it will most likely crack again at those repairs.

If you study the fit of the dash end caps illustration number 2113-2 part number 1350630 and illustration number 2113-3 part number 1350631 in the Studebaker Avanti parts book, you may notice that the end caps are not flush with the pad on the front curved corners, three photos at left column, bottom. This is because the dash pad ends are not formed correctly like the originals.

Sometimes the installer of the reproduction or rebuilt dash pads, will try to bend the end caps to cover up the larger than normal gap, or they will make up some kind of filler strip. If you take the three screws out of the end cap you can normally see that the formation is not flat. Look at the underside of the solid foam gun sight around the edge the gauge overlay. It should hug the edge of the formed opening.

If there is a gap between the outside overlay edge and the pad, or if it has something between them, like a filler strip made up to fill the gap. It is most likely a reproduction or rebuilt pad.

When Nostalgic's dash pad is being installed, you will notice some steps where the windshield weather seal, as its being wrapped around for gluing, pictures, top left, next page. You might think the dash pad is not made correctly. These steps are designed to be formed correctly as the dash pad is being manufactured, and will be completely formed when the installer is stretching the vinyl for gluing. I have had a few phone calls

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Nostalgic N.O.S. Dash Pad



Rebuilt dashpad



Reproduction Dash Pad



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

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Nostalgic N.O.S. Pad



Reproduction Dash Pad.



Rebuilt dash pad.

stating the Nostalgic dash pads are not made correctly, where it meets the windshield. That it should go straight down and not have those steps that are formed when the fawn vinyl is being pulled in place, which you can see through the windshield.

I told them that's incorrect, as all the over 6,000 Avanti original dash pads including Nostalgic's that have been made from the original Studebaker tooling will have those important steps in place.

They tell me the old pad doesn't have these steps as pronounced or the reproduction and rebuilt dash pads don't have any steps at all. I told them that's because the original dash pad has shrunk. The reproductions, and rebuilt dash pads may not have those steps. It is impossible to make an Avanti dash pad from the original Studebaker tooling without those steps. They will be properly formed when the pad is properly installed on an unmolested fiberglass dash buck.

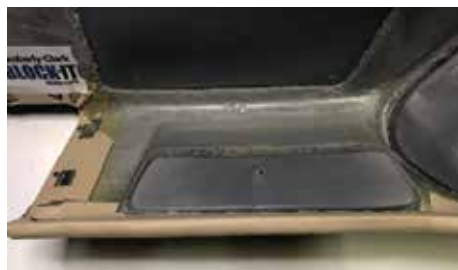
Those steps allow for easier windshield installation, and we're engineered into the original tooling, so when the windshield rubber is being pulled into the opening with the installers rope, the rope is being pulled at less of an angle. When the steps are not correctly made, it makes a very difficult job, almost an impossible job of roping the windshield into the opening.

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The radio bezel, illustration number 2112-20 part number 1358985x1 \$70, should fit the opening, *top photo next column*. There should not be any foam on the back side of the vinyl, where the radio is to be installed. If there is, it makes it almost impossible to install the radio without removing the foam, or crushing the foam. If the vinyl without foam is not totally flat against the fiberglass dash buck, it will probably crack and split open some time after it is installed.

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The top of the original Avanti dash pad, over the glove box, had two retaining studs (one on each end) which allowed the dash pad over time to raise up in the middle. Studebaker sometimes glued the pad down over top of a glove box



Nostalgic NOS Pad No Foam on the top of the vinyl, a perfect fit every time.

Reproduction Pad has foam on top of the vinyl.



This was one of my customer's creative way of crushing the foam, above and at right, so he could install the radio on his reproduction dash pad.



area. Sometime in very early Avanti Motors production about 1966 or 1967, their engineering department added the needed third center stud, *photo at bottom left, this page*.

There are ways to tell if the 1963 to 1983 Avanti dash pad will need to be replaced, or if it is one of the rebuilt or reproduction dash pads that are available. A simple and very effective way to determine the condition of the Avanti dash pad, simply squeeze and twist the area over the gun-sight. The gun-sight was originally soft and twistable when the dash pad was manufactured new by Studebaker and Avanti Motors. It stands to reason it should be soft and twistable as it is made from only foam and vinyl. The gun sight area, again does not have anything supporting this part of the dash pad. This is rather difficult to explain what is soft and twistable about the original dash pad. The only thing I can think of comparing it to, would be a roll of quality toilet tissue. If you squeeze the toilet tissue it will be softer than the dash pad. This squeeze test will give you some idea of what a original Avanti dash pad would have felt like when it was new.

The non-factory dash pads are certainly not squeezable or twistable, and are harder than an old dried out original. Some of the original 1963 through 1983 Avanti dash pads did somehow survive the extreme hardening of the vinyl and deterioration of the foam. If you squeeze one of these rare and original, some what soft dashes, don't twist it as it will want to resist the twist and may crack the vinyl. You need to look all Avanti dash pads over thoroughly, as they have a good chance of being repaired and redyed. some may continue to disagree with the facts I am presenting to you in this article, but don't have any written proof from Studebaker or Avanti Motors on some of their printed material. Stating the dash pads and glove box door pads were hard, like their memory recalls. I will try to enlighten you on

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a couple of ways you can prove how squeezable and twistable all original 1963 through 1983 Avanti dash pad were when they were new. Most of the original Avanti glove box door pads can help solve the mystery of how hard or soft the original dash pads were. I realize you don't have all four of these glove box door pads in front of you, but you really don't need to, if you have an original, just push in on the outside of a glove box door pad (next to the lock), you should notice that the vinyl has hardened from age but it will still push in without cracking, and it is not as hard as the cracked original dash pad.

The NOS Nostalgic glove box door pad pushed in and returned with the resistance you would expect from a safety pad that was made from new correct vinyl and foam. The 61-year-old 1963 Avanti glove box door pad, pushed in with a little more resistance than the Nostalgic NOS door pad, but it felt like the vinyl cover was a little stiff from age. The reproduction glove box door pad (that comes with the reproduction dash pad) doesn't push in at all, which means the vinyl and or the foam are way too hard. The rebuilt glove box door pad, that comes with the rebuilt dash pad, also doesn't push in at all, which means the vinyl and or the foam are way too hard.

If you want to take 15 to 20 minutes you can prove to yourself what the original Avanti dash pad felt like. You must remove the glove box door from the dash:

1. remove the screws holding the door check illustration number 2113-62 number 1350995 \$15 each NOS.
2. Mark the edges of the hinges illustration number 2113-61 part number 1358877 \$20 each NOS to the door illustration number 2113-58 part number 1350224 \$45 each NOS and remove the four screws.
3. remove the lock assembly.
4. remove the 11 special short screws.
5. separate the pad from the door.

The factory did not glue these together. To the best of my knowledge a test to check the hardness of some steel is called a "Rockwell test." The test to check rubber is called a "durometer test" The test for foam rubber is called a "short durometer test" which all require special testing devices. A simple test you can do is called a "identification forced deflection test," which means you can simply push on the different samples and feel the resistance and the return time of the foam rubber.

Now for the test that you won't believe on your original glove box door pad that's been on your Avanti for 41 to 61 years, the foam on the back of the glove box door pad should feel similar to a soft roll of premium toilet tissue, except the foam will return back to the starting point faster than the toilet tissue does. On the back foam side take your finger and simply push down to feel how soft your 41-61 year old foam is. Most original glove box door pads, the foam is still as soft as it was when it was manufactured. You should notice it's still very, very soft to the touch. This door pad was made at the same time as the dash pad with the same materials, but it has not hardened like the dash pad. I'd guess that the original material used in the construction of the dash and door pads did not have UV protection. This may be reason the glove box door pad escaped some of the hardening



These three pictures are from the reproduction Avanti dash pad, that a customer Installed on his Avanti dash buck. If the vinyl and/or foam are harder than what the original dashes were when new, this likely can create other problems when you have to wrestle, tug, pull and stretch, just to get the reproduction pad to fit to the buck. This is what can happen.

of the vinyl cover and deterioration of the foam. I performed the "identification forced deflection test" on five different glove box doors:

1. Nostalgic NOS door pad the foam is nice and soft.
2. 61 Year Old Door pad the foam is nice and soft.
3. Blue Door pad (1983-1985) the foam is nice and soft.
4. Reproduction door pad. The foam is very hard. Not even close to what Studebaker and Avanti Motors used on their pads.
5. Rebuilt door pad still had the original soft, but not as soft as the 61 year old door pad. That may be caused by the over spray of paint that was used to change color of the hard black vinyl to the fawn colored vinyl.



I think the expression "the proof is in the pudding" best describes this test. The "Identification forced deflection test" should prove to you what the original Avanti dash pads were like when they were newly manufactured, which is not what the memories and the manufacturers of the reproduction and rebuilt dash pads are representing. I find it puzzling and unfortunate that some memories and the reproduction dash pads are harder inside and out than a 41 to 61-year-old original glove box door pad

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If Studebaker intended the dash pad to be hard, like some memories and the reproduction and rebuilt dash pads. Why didn't Studebaker make it as a one piece dash assembly instead of two pieces? The two piece dash buck and dash pad assembly, that Studebaker chose, required some very expensive tooling.

The dash buck illustration number 2113-1 part number 1351183 as you can see from the picture, *next page*, is not very attractive. It was made from expensive match steel molds, like the rest of the fiberglass body panels on the Avanti. Then we have the multi-piece tooling that makes the soft dash pads, which was and is, very expensive to make all the special needed tooling for those soft dash pads. Labor and materials cost would be a lot higher for their chosen two piece method, instead of a one-piece dash assembly. The one piece dash assembly could have been made like some boats, and other fiberglass products

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are made. They could have made inexpensive female molds, which would have allowed them to hand lay the fiberglass dash assembly as a one piece, with the texture of the grained vinyl built into that mold. The gel coat could of had the sheen and colors, of their choice, to match the interior colors. The finished product would have looked the same as their chosen two piece method, but it wouldn't have felt the same. Obviously it would not be soft and twistable as originally planned. The problem with the less expensive one piece method would be it would no longer be called a safety pad, as it's hard like the reproduction and rebuilt dash pads.

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What is correct and not correct about a 1963 through 1985 Avanti dash pad? For the last three years this has been one of my most requested articles for "Nostalgic Motor Cars unlocks the history and mystery of the 1963 through 1985 Avantis." When I write an article for the *Avanti Magazine*, I recall the facts from my memory and then back those facts with a paper trail from Studebaker and/or Avanti Motors. The information in this article, for a correctly manufactured 1963 through 1983 Avanti dash pad, is backed up by the original Studebaker Avanti blueprints and tooling, and original samples. The original blueprints will show every possible detail needed to manufacture a correct Studebaker Avanti dash pad. I have been working on this article since 2021. What has taken me so long is, I needed two things: number one, a reproduction dash pad that is still being manufactured and sold by others.

Number two, a rebuilt dash pad that was still attached to the fiberglass buck. Those companies remove the old vinyl cover, then they glue on some new foam over the old foam. The foam is ground to the shape, and form, that resembles an Avanti dash pad. These rebuilt dash pad will vary in their appearance, from one to another, as they are not made from a mold. The finished shape has a hard black vinyl cover, formed over the foam.

There is no correct printed information on what an Avanti dash pad should feel or look like, until now. There is no Avanti dash pad information in the Avanti authenticity manual or their addendum, as a guide, that is just one reason I am writing the article.

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Picture number one, middle next column, is from a 1963 Avanti that I just purchased. The original 61-year-old dash pad was in almost perfect condition, but I knew I had to sacrifice this still very flexible original dash pad for this article. As the picture shows, I jammed a screwdriver between the windshield

rubber weather seal and the dash pad. The end result was the dash pad flexed and returned to its original shape, like it did originally when new. The vinyl cover did crack all over, which I expected.

If you stop and think about it, this area of the dash pad gun-sight should be flexible as it is only foam and vinyl without any structural support underneath. Information on what qualities an original Avanti dash pad had when new, are nonexistent. What you might be able to find will be the memories of some of the experts. If these Avanti experts recall the Avanti original dash pad as being very firm or hard, their memories are faded and totally incorrect. I challenge them to prove me wrong, with original paperwork from Studebaker and/or Avanti Motors, showing that the original Avanti dash pads were very firm or hard like the reproductions, and rebuilt dash pads.

Picture number two above, is of my wife, Betty pushing down a Nostalgic dash pad with a rubber tip walking cane. This is a perfect example of what all the misinformation is about. First of all, I do not read the Avanti forums, as there is a lot of misinformed contributors with incorrect information that comment on it. I was emailed this one from a customer that wanted, and did purchase Nostalgic's new original stock dash pad. Back in 2018 when I first introduced the first new correct Avanti dash pad since 1983 from the restored original Studebaker Avanti tooling and blueprints. They were, and still are very well received.

I showed a picture of my wife Betty pushing down as hard as she could with a cane. She kept telling me she was going to ruin this new dash pad as I was snapping the picture. The pad was not damaged in any way and it returned to its original shape. The pictures showed just how flexible the Avanti dash pads were, when they were new. This forum discussion was comparing my NOS Avanti dash pad to a reproduction pad. The reproduction



Picture 1



Picture 2

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dash pad is not soft and twistable in any way shape or form, but hard and has other issues including trying to install it on a fiberglass dash buck. An Avanti expert commented that the original pad was not soft and squishy, like the Nostalgic dash pad, yet he never touched or saw my new dash pad, in person. He apparently made his judgment from that picture of Betty with the cane. He must have not had the experience of pushing on an Avanti dash, when they were new in 1963 through 1983.

When they were new they flexed just like picture number one with the screw driver (which is 61-years-old) and picture number two the Nostalgic pad with the walking cane. The Nostalgic dash pads are not soft and squishy, but are flexible and twistable. He apparently installs the hard reproduction dash pads, on his customers cars. He made a comment that you have to be a professional to install an Avanti dash pad. You may have to be a professional, as he claims, or as some who have tried to install the reproduction dash pad, a magician. You didn't and don't have to be a professional to install a Avanti dash pad that was made by Studebaker or Avanti Motors from 1963 through 1983. Nostalgic took all the problems that Studebaker and Avanti Motors had regarding the Avanti dash pad and totally eliminated them. The end results are an Avanti dash pad that fits like a custom pair of gloves. No hassle, no wrestling with the pad to make it fit. If Studebaker thought you would have to be a professional to install the Avanti dash pad, why didn't they include instructions in the Avanti Service Manual? Because it's simply was not needed for a properly manufactured dash pad made from their blueprints and tooling.

They did write instructions on how to remove a complete dash assembly, and gauges, in their Studebaker Avanti Service Manual. Almost all the Nostalgic dash pads, I have sold, were and are installed by the Avanti owners, that have never installed a Avanti dash pad before! If you read my instructions, in the *Avanti Magazine*, issue 189, winter/summer 2020, or you go to the web site NostalgicMotorCars.net, click on tech articles up to the top and then click the second time on tech articles. You will see I have written about 55 articles for the *Avanti Magazine* and you will find my instructions. Look for "Dash Installation Instructions." You will also find a second article on how to install new Avanti gauges in magazine number 190 or again on my web site.

If you have any questions on how to install a Nostalgic new original stock dash pad just call me and I will answer any questions you may still have after you have read my articles (248) 349-4884, Dan Booth.

Some very interesting original written Studebaker dash pad information, can be found in the original Studebaker Avanti Parts and Chassis Parts Manual, such as illustration number 2113-40 part number 1350520 cover, safety pad (includes pad) and glove box door illustration number 2113-60 part number 1350523 cover' compartment door safety pad (include pad).

If the original Studebaker Avanti dash pads and glove box door pads were hard, as some claim, like the reproductions or the rebuilt dashes, why would Studebaker call them a safety pad cover? If you look at illustration number 2160-120 part number

1350181 "shell, rear seat back". the hard fiberglass panel over top of the gas tank, which is vinyl covered without any padding and the vinyl color matches the dash pad color. Since the words "safety pad" are not in the description of the hard shelf rear seat back, you would normally assume that the phrase safety pad means soft not hard.

The inside windshield pillars, windshield header, console sides, door panel tops and etc had about a quarter inch of foam underneath the vinyl cover. No mention by Studebaker of safety pad, but these parts are 39 to 61 years old and are still softer than the rebuilt and reproduction dash pads The first three items listed on a original Studebaker Avanti window sticker, just below the base list price of \$4,445 are: Number one safety padded instrument panel, no charge. Number two electric windshield wipers, no charge. Number 3, 15 inch wheels, no charge.

I don't think Studebaker would have listed "safety pad instrument panel" if the dash pad was hard and not flexible or twistable. I think Studebaker would have chosen different words to describe a dash pad that is hard.

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Nostalgic Motor Cars is the oldest Avanti dealer ship in the world over 44 years and still counting. I do have some knowledge of the value and resale of the 1963 through 1985 Avantis. Since 2017, when I first introduced the only correctly made 1963 through 1983 Avanti dash pads, since about June of 1983. It was, and still is, a very well received and needed improvement.

Nostalgic's New Original Stock Avanti dash pads are always on back order as I am trying to keep up with the waiting list. The quality and originality are second to none. As the Avanti owners who purchased Nostalgic's dash pads, are slowly educating other Avanti owners, of what is correct and not correct before they purchase a reproduction, rebuilt or Nostalgic's Avanti dash pad. Nostalgic's amazing dash pads are setting the bar for what the 1963 through 83 Avanti dash pad did look like and feel like when the car was new. The Avanti's that have the correct Nostalgic dash pad installed, have increased in value by about \$5,000 over the last two years.

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A reproduction and rebuilt Avanti dash pad, along with an original 61 year old survivor dash pad, and a Nostalgic NOS dash pad, will be on display at the international Avanti meet in September for you to compare them to one another.

I have a two-hour session on how to Install an Avanti dash pad on Thursday September 19 from 1 p.m. to 3 p.m. I will also have the manufacturer of the Nostalgic NOS dash pads from the original Studebaker tooling in attendance. He is also the toolmaker that restored the original dash pad tooling from the original Studebaker blueprints.

He and I will answer any questions you have on how the Avanti dash pads are made, or installed, so make a point to come to the Detroit show. The Detroit show may be the only time, in person, when you will ever have the opportunity to compare all four dashes at the same time. //

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**1983: \$920; 2024 MONEY:
\$2850 FOR EQUIVALENT
COST TODAY.
NOSTALGIC NOS COST IN
2024: \$2,000**”