



First Generation Firebird™

FirstGenFirebird.org (1967, 1968, 1969)

You are here: First Generation Firebird > F.A.Q.s > Interior F.A.Q. Index > Dash and Instruments

INTERIOR F.A.Q.S - DASH AND INSTRUMENTS

Find answers to Frequently Asked Questions for First Generation Firebirds that have been asked on First Generation Firebird-L mailing list. Special thanks needs to be given to all the Firebird-L owners that took the time to respond to other subscribers questions. These pages are continuously updated as new information is posted on the mailing list.

Disclaimer applies and is found at the bottom of this page

Q: Bird Emblem on Glove Box

What determined if a 68 got the bird on the glove box door? Mine has the bird glass, but not the glove box door.

A: Good question. According to the option packages, the 'Bird' on the Glovebox was included with the Custom Trim option and 'available' ? on all Firebird models. I'm assuming that 'available' meant as part of the Custom Trim Option since there was no specific UPC Sales Code for 'just' the Glovebox Emblem. All '67 Firebirds had this emblem and I've seen many Standard Trim '68 Firebirds with this emblem (early builds). Could be that a few early '68's had this emblem installed. So far, no definite 'rule' on why some Standard Trim cars got it though. As for the 'Bird' Glass, this one is still a mystery since no factory documentation has surfaced explaining the criteria for the 'Bird' Glass. We have proven that it was not directly linked to Custom Trim, Conv, "400's", Power Windows, Tinted Glass, A/C, etc. It does seem to only apply to early build '68s though the cut-off date has not yet been established.

Q: Glove Box Door

Any idea if the 67/8 Glove Box Door is the same as the 69

A: Well, externally they are the same but on the inside they are different. The latch is different as well. The 67 (probably 68 also) uses a little hook for the latch and the 69 uses a cylinder with a small latch that pops in and out. Also the 69 has 3 circles (like cup bases) on the inside where the 67 has 2.

Q: Glovebox Door Problem

I can not get my glovebox door open. It appears the lock is jammed but I can not pry it open and do not want to scrape or break it. Anyone have a suggestion?

A: Forget metal objects use ID cards, anything laminated or flexible plastic (look in your wallet). My glove box does this all the time.

Q: '69 350 w/hood tach

What were the restrictions on ordering the hood tach in 69. I can't find any reference to this at all in any of my literature. So, were they offered on the entire line of Firebirds, or could you only get them on 400s and 350 HO's. Were they included in a package or were they an orderable line item. Any info will help.

A: According to my order sheet:

UPC Code = U85

COL = 471

"Tachometer, Hood Mounted - N.A. w/322"

322 = Trans Am Pkg.

Looks like it could be had with anything but that Trans Am...seems odd.

A: After I got your reply I looked in Thomas DeMauro's "Firebird Decoding Guide 1967 - 1981" and found it immediately. He has it listed as UPC code UB5. Perhaps a misprint in either of the documents. Also he has no mention of the T/A restriction, but it makes sense considering the hood design.

A: The above answer says the option was N/A for the T/A. That's usually because that particular equipment was included in the T/A package, in other words, when you ordered the T/A option, you got that equipment and didn't have to order it separately.

Q: Hood Tach Placement

I just bought an aftermarket hood tach for my Firebird. Now, where do I put it?

A: I'll give it a try... here goes....All references are as though you are sitting in the driver's seat; therefore "right" means closest to the center of the hood, "front" means closest to the bumper, etc. Aussies, you're on your own! ;-)

1. From the left rear corner of the tach to the left edge of the hood is 4.75"
2. From the left rear corner of the tach to the rear edge of the hood is 3.75"
3. From the right rear corner of the tach to the rear edge of the hood is 2 13/16" (two and thirteen sixteenths inches)

Ultimately, I would fudge these numbers a little bit in order to get the tach face square to the axis of the car.

Hole size required in the hood is 3.75". It is not drilled directly in the middle of the tach space, but is offset in one direction to accommodate the tach housing and wires below. I had a paper detailing this hole as well, but I've misplaced it. You're on your own with that. If I find it, I'll let the group know...

Q: Hood Tach Placement Variation

Did the hood tachs get placed in the same spot over the years.

A: There is a difference between the hole size, mounting holes and location between '67 (tall style) and '68-'69 (short style).

Q: Hood Tach Information

What is the story on the hood tach.

A: Just a little background....

The Hood Tach was not exclusively a Dealer Installed Option; Most were factory installed though, I'm sure many dealers did install them as have many enthusiasts over the years. The factory would not have cut a hole just anywhere; there was likely a punch operation for factory hood tachs (an assembly line does not allow for a cutting operation). Sure, you can install one wherever it looks good but if you want it to be correct; get the dim's from a factory hood with the tach. Also, the factory and dealers used rivets in addition to the nuts (for security).

A: The repro Hood Tach has gone through many revisions since it first came out in the mid-80's. The most significant thing about the one you can buy today is its functionality. It is much better than the original GM Hood Tach (better circuits, lighting) however, as good as it works and looks, it has one obvious thing that distinguishes it from an original GM tach; the face is plastic and has a sort of 'fuzzy' look to it. Not really a big deal unless you're picky (like me). Those who must have 'perfection' can send theirs off (or buy one) from a number of Tach Restorers around the country who offer silk-screening in addition to rebuilding. I'm sure others on the list can elaborate more on the repro tach since all I've ever used is original, used, rebuilt or NOS Tachs.

A: The Hood Tach first became available sometime in Feb/Mar of '67 on all Pontiac Models. The first style was the "TALL" style which refers to the height of the case. Also, the first style used only a single light bulb and there were variations with the face colors and redlines depending on carline and engine. 1967 Firebird (and very early '68 Firebirds) used the Tall Style. Face background was Black with Green characters while the GTO and Full-Size had Steel Blue Backgrounds with White characters. After supplies of the 'Tall' Style Hood Tach were exhausted, the 2nd style came into production. This was a 'shorter' case (by an inch or so) and now had (2) bulbs instead of the previous (1). This new style was released into production on April 20th 1967 (even though early '68 Firebirds continued using the Tall Style). The face on this first 'short' style was of a circular pattern. On June 29th 1967, this face

was changed to an 'oval' pattern. Face background was steel blue with white characters. The final major design change came with the '69 model. The face background was changed to black with white characters. The Hood Tach lasted through '72 production. From '67 - '72, there were many Redline variations for different engines/models including the OHC-6 cars and Ram Air engines. The '67 OHC-6 Firebird had a 6500 redline. This was later changed to 5500. RA II used the OHC-6 5500 redline. All other applications used a 5100 redline. The rarest would be the 'supposed' Hood Tach released for the RAV engine. Back in the 80's, "Purely PMD" from NM built a '69 Judge with a complete RAV engine and found what was described as the only known RAV Hood Tach that had a lights for 'shifting' built into the face.

Anyhow, there's my 'long-winded' reply on Hood Tachs. As with any information, there will always be exceptions to the rule and other variations. I welcome any constructive criticism provided there is some inkling of supporting evidence. What I've shared is from various PMD Parts Books, GTO/Firebird restoration guides, articles, and Service Bulletins.

Q: Hood Tach Servicing

Does anyone know a good place I can send my hood tach to be rebuilt?

A:Randy Watson

The Tach Shop
2201 Surry Rd
Jeffersonville, IN 47130
812-284-2555

....Rebuilds, Restores Hood Tachs. *Not sure if he uses silk screening or decals for the Face.

"The Tach Man"
(South Carolina)
www.tachman.com

*Approx. \$175 to rebuild/restore including silk screening 800-327-8716

NOTE: The repro Hood Tach that is currently on the market has been 'refined' over the years but still differs (slightly) in appearance to an original. This difference is in the face (plastic, fuzzy) and the Face Trim. The functionality and lighting is superior to an original Tach. Both Randy Watson and "The Tach Man" can rebuild/restore to appear original but use updated components/circuitry.

A:I agree, Randy is very good at what he does and very knowledgeable about Tach Restoration techniques. I had a price schedule of his services somewhere but I can't seem to locate it at the moment. From what I remember, these are the basic elements to a restoration.....

- CASE...
(repair or replace case, face trim, base)

- FACE...
(restore, silkscreen, replace faded, rusted faces) *NOTE: there were some repro 'adhesive' faces being sold awhile back. Certainly a cheap alternative to silk screening though, not as 'concours'.

- CIRCUITS...
(repair or replace Printed Circuit and/or components of it) *By the way, for all you elect. types, these pieces can be purchased cheap at most Electronic supply shops.

- HEAD (or movement)...
This is the where the 'needle' resides and may require repair or recalibration.

- WIRING...
The correct 'rubber' Bulb Sockets were also used on certain year taillights. Duplicating a correct harness is not that difficult and much cheaper than buying a repro harness (if you have the correct sockets, connectors which are all easy to find in a junk yard).

Now, if all you want is a Hood Tach and you don't want to spend over \$200, you might be better off with a repro Hood Tach. Internals, Lighting is better than originals and the only major difference is that repro's have a somewhat 'translucent' Plastic Face (letters/numbers seem 'fuzzy'). Those who must have 100% original/correct appearance.. contact Randy.

Q: Hood Tach Accuracy

I think the hood tachs look great, but are they very factual? Can you read them clearly. Could you very a shift point from 5200 rpm to 5000 rpm? Can you read them that accurately?

A:I'm going to create some more waves and say that I never liked the hood tach for "function ability". It is not that accurate, hard to read(at least for my poor eyes) and doesn't have dampener circuitry that most good tachs have.

I have always used the Sun Super tach which I upgraded to a Sun Super tach II in mid 70s when they came out with that. I mount it on the steering column with a band clamp wrapped with rubber tubing to prevent scratching of the steering column. For those of you that are worried about originality the tach has a plug at back to disconnect the wiring harness, which can be tucked up under the dash, while showing the car.

Q: Printed Circuit Boards Repair

Is there a way to repair the printed circuit board? I don't think it would hold up to any type of heat and it is just a small break in one of the circuits causing the malfunction....

A:I have successfully repaired several printed circuit boards by soldering a small piece of bare stranded copper wire across the break. Use very small rosin core solder and a small tip on a low wattage iron. Remember to clean and tin the wire ends and foil before mating together.

Q: Tempature Gauge Problem with Rally Gauges

I'm having some problems with my Temp gauge. The rally gauges were redone at some point before I got the car by a reputable shop. But the Temp gauge jumps as I start the car but then goes to the cold side and stays there when running. I haven't tested or changed the sending unit yet... Other than that, any suggestions?

A:I experienced this very problem when I installed my rally gauges. There's a wire that goes to the ignition that was used to test the idiot light for temp when you started the car. I didn't disconnect it at first, and it caused my needle to peg when starting the car. It eventually got stuck. After I removed the wire, the problem was gone. Cutting this wire is mentioned in the FAQs for rally gauge install; I don't remember the color (maybe green) but its the only connection on the harness that had two wires going to one point. I'll dig into my notes at home if you're still stumped. Sounds like maybe the shop didn't know this little detail.

A:I got under there last night and double checked all the connections and found something similar. My needle would peg on start up.. anyway checked everything and it seemed like the sending unit was part of the problem as mentioned in the FAQ's... After leaning all the contacts for all the wiring and replacing the sending unit with another unit for a gauge, it works! YESSS!

And stays about 190-200 even under hard throttle this morning! But this afternoon will be the test... even up here in Seattle it will be about 75-80 today... Gotta love that and a convertible too! Life is good! Now if I can get my Hood Tach figured out I'm golden!

Q: Stock Cluster to a Rally Gauge Cluster

Converting a Stock Cluster to a Rally Gauge Cluster on 1967 Firebirds.

By Tony and converted by Al

A:Introduction

For those who wish to convert their stock, (idiot lights) speedo cluster to a Rally Gauge Cluster, on their 1967 Firebirds, here is the background information you will need to accomplish this task. This information has been verified using two bone-stock 1967 Firebirds, one with a stock cluster, and one with a Rally Gauge Cluster.

Quick Facts

First, the Rally gauge cluster is NOT a drop in replacement for the idiot light cluster. The pin-out of the cluster connector is completely different between the two clusters.

Second, the Rally Gauge cluster uses two additional wires, (heavier gauge BLACK and WHITE wires), that are NOT in the standard idiot light cluster wiring harness. Therefore a simple re-pinning of the cluster connector and replacement of engine sending units will allow all BUT the voltage gauge to work.

Third, to make the generator gauge functional without replacing both the instrument panel harness and forward headlamp wiring harness, you will need to add two additional wires.

Stock Cluster Information

Let's start out by looking at how the stock cluster works.

The stock cluster connects to the Firebird's electrical system via a 12-pin connector. This connector has the pin numbers molded into the connector itself. The following diagram illustrates the pin-out of the connector for a stock cluster:

Connector pin ordering:

1----- 6

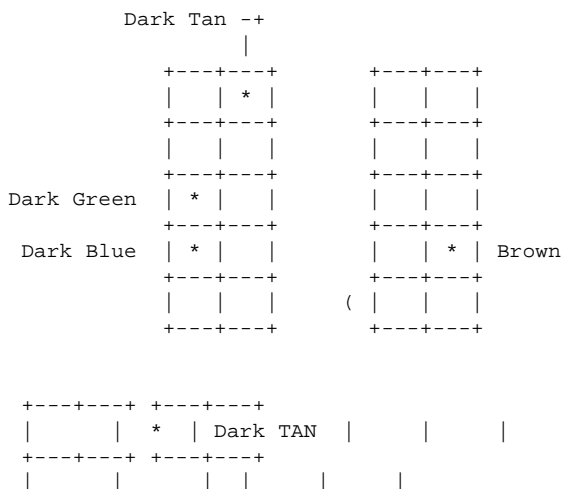
12 ----- 7

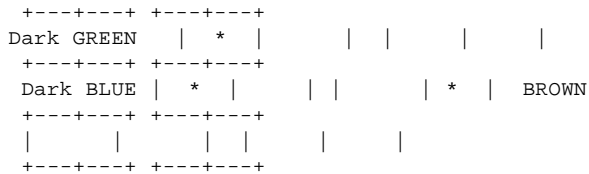
Idiot Lights (Stock Cluster)

Pin #	Wire Color	Usage
1	Light TAN	Fuel Gauge
2	GREEN (2 wires)	Water Temp Light
3	GRAY	Illumination Lights
4	N/A	
5	N/A	
6	N/A	
7	PINK (2 wires)	Ground
8	BLUE/WHITE	Stripe Oil Pressure Light
9	Light BLUE	Left Turn Light
10	Dark TAN	Brake Light
11	Brown	Generator Light
12	Medium BLUE	Right Turn Light

The TEMP, OIL, GEN, and BRAKE indicators in the stock cluster are used to notify the driver of a possible trouble condition under the hood of the car. The wires associated with those indicators on the stock cluster connector will get connected to wires located in either the "engine harness" or "forward lamp harness" under the hood of the car. These connections are made through two connectors on the firewall of the car.

Under the hood of a 1967 Firebird, on the firewall just below and to the right of the brake master cylinder, you will find two 10-pin connectors, with two wiring harnesses attached to them. When standing in front of the car facing the firewall, the connector on the left is the "Engine Harness" connector, and the connector on the right is the "forward Lamp Harness" connector. The following diagram shows the connector positions and wire colors associated with indicators on the stock cluster:





The Dark TAN wire connects to a pressure sensitive switch on the brake master cylinder. This wire gets connected to the Dark TAN wire of the Cluster connector and is used to turn on the BRAKE light if the line pressure in the master cylinder drops below a safe level, (indicating loss of fluid, internal seal failure, or open brake line.)

The Dark GREEN wire is connected to the coolant temperature switch located on the engine. This wire gets connected to one of the two GREEN wires of the Cluster connector and is used to turn on the TEMP light if the coolant temperature raises above 210 degrees, (indicating a possible overheating condition), (the second GREEN wire is connected to the ignition switch and I'll explain why at the end of this section.)

The Dark BLUE wire is connected to the oil pressure switch located on the engine. This wire gets connected to the "BLUE with WHITE stripe" wire on the Cluster connector, and is used to turn on the OIL light if the oil pressure in the engine drops below a certain level.

The Brown wire is connected to the voltage regulator. This wire gets connected to the Brown wire of the Cluster connector and is used to turn on the GEN light if the output voltage of the alternator drops below a certain level indicating a possible alternator failure.

Earlier I mentioned that pin 2 of the stock cluster connector had two GREEN wires connected to it, one which went to the coolant temperature switch, and one which went to the ignition switch. The reason for the second GREEN wire to the TEMP light has to do with a courtesy that GM built into the stock cluster that most people do not realize. On all GM cars of that era, when you turn the ignition key to the "RUN" position, before starting the car, your OIL, and GEN indicators are supposed to illuminate so that you can verify that these indication circuits are functioning correctly. Without the engine running, the oil pressure should be at zero and hence the OIL indicator should illuminate. Without the engine running, the alternator is not turning, so the GEN indicator should illuminate. Under this condition, (ignition key in the RUN position and engine not running), you are able to verify that all the components of the GEN and OIL indication circuits are functional. However, the TEMP circuit is entirely different. Under normal conditions, the engine should never be in an overheated condition, so GM had to provide a "cheat". When you turn the ignition key to the "START" position, the ignition switch illuminates the TEMP indicator to allow the driver to verify that the TEMP indicator bulb in the stock cluster is functional. However, it does NOT verify that the coolant temperature switch, or the wires connecting that switch to the stock cluster are functional, hence the "cheat" and the reason pin 2 of the cluster connector has two GREEN wires.

RALLY Gauge Cluster Information

The Rally Gauge cluster connects to the Firebird's electrical system via a 12-pin connector. This connector is the same form factor as the stock Cluster and also has the pin numbers molded into the connector itself. Although it uses the same connector as the stock cluster, the Rally Gauge cluster has a different pin-out.

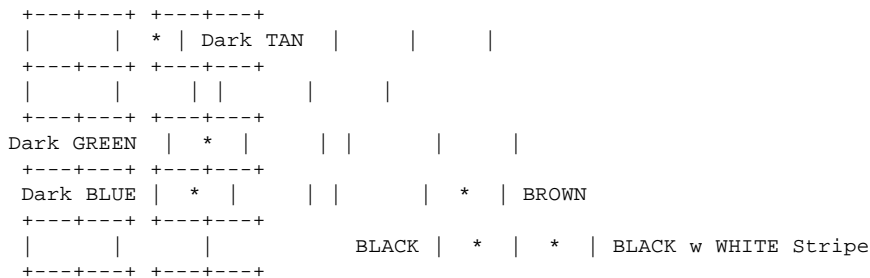
The following diagram illustrates the pin-out of the connector for a Rally Gauge cluster:

Gauges (Rally Cluster)

Pin #	Wire Color	Usage
1	BLUE/WHITE Stripe	Oil Pressure Gauge
2	GREEN	Water Temp Gauge
3	Light TAN	Fuel Gauge
4	GRAY	Illumination Lights
5	N/A	
6	GRAY	Illumination Lights
7	Light BLUE	Left Turn Light
8	Dark TAN	Brake Light
9	Medium BLUE	Right Turn Light
10	PINK (2 wires)	GROUND (see note below: +12VDC)
11	WHITE	Volt Gauge
12	BLACK	Volt Gauge

The TEMP, OIL, and ALT gauges, as well as the BRAKE indicator in the Rally Cluster are used to notify the driver of a possible trouble condition under the hood of the car. The wires associated with these gauges and indicator on the Rally Cluster connector will get connected to wires located in either the "engine harness" or "forward lamp harness" under the hood of the car. These connections are made through two connectors on the firewall of the car.

Under the hood of a 1967 Firebird, on the firewall just below and to the right of the brake master cylinder, you will find two 10-pin connectors, with two wiring harnesses attached to them. When standing in front of the car facing the firewall, the connector on the left is the "Engine Harness" connector, and the connector on the right is the "forward Lamp Harness" connector. The following diagram shows the connector positions and wire colors associated with indicators on the stock cluster:



The Dark TAN wire connects to a pressure sensitive switch on the brake master cylinder. This wire gets connected to the Dark TAN wire of the cluster connector and is used to turn on the BRAKE light if the line pressure in the master cylinder drops below a safe level, (indicating loss of fluid, internal seal failure, or open brake line.)

The Dark GREEN wire is connected to the coolant temperature sending unit located on the engine. This wire gets connected to one of the GREEN wire of the cluster connector and is used to send the voltage signal from the sending unit on the engine to the TEMP gauge on the Rally Cluster.

The Dark BLUE wire is connected to the oil pressure sending unit located on the engine. This wire gets connected to the "BLUE with WHITE stripe" wire on the cluster connector, and is used to send the voltage signal from the sending unit on the engine to the OIL gauge on the Rally Cluster.

The BLACK and "BLACK with WHITE Stripe" wires are used for the ALT gauge. These two wires are of a heavier gauge than most of the wires in the forward lamp harness because they have the potential to carry higher current levels than either the TEMP sending unit or OIL sending unit wires. The "BLACK with WHITE Stripe" wire is connected to a one end of a "fuse link" near the voltage regulator. The other end of that same "fuse link" is connected into the "power distribution splice" via an even heavier gauge red wire. The power distribution splice is a group of four very heavy gauge red wires, (contained within the forward lamp wire harness"), which are soldered together very near the voltage regulator. This splice distributes the output of the alternator to the horn relay, voltage regulator, charging junction block near the battery, AND one side of the ALT gauge on the Rally Cluster. A "fuse link" is a wire, which is designed to "open up" should too much current pass through it. (Consider it a fuse in the form of a wire, which is easily identified by rubber-like insulators at both ends.) The BLACK wire is connected to one end of a "fuse link" near the junction block by the battery. The other end of the same "fuse link" is connected to junction block itself via a heavy gauge red wire. The "BLACK with WHITE Stripe" wire of the forward lamp harness gets connected to the WHITE wire of the Rally Gauge cluster connector, (pin 11). The BLACK wire of the forward lamp harness gets connected to the BLACK wire of the Rally Gauge connector, (pin 12).

Steps to Convert from Stock Cluster to Rally Gauge Cluster

A first timer should expect the process take an entire weekend.

After studying the above diagram, you should have noticed that the Rally Gauge cluster has three additional wires that the stock cluster does not: 1) a BLACK wire, 2) a WHITE wire, and 3) a SECOND GRAY wire. You should also have noticed the BROWN (generator light) wire is missing. The Rally Gauge cluster does not use the BROWN wire.

Wire Harness Upgrade Options

You essentially have two options for converting your stock cluster to a Rally cluster car. Of course, both options start with obtaining a functioning Rally Gauge cluster, oil pressure sending unit, and coolant temperature sending unit. The two conversion options are differentiated by how you will "wire up" the new cluster.

Sending Unit GM p/n, Cost	Classic Ind., Cost	Niehoff n Borg Warner, Cost
Water Temp	12334869, \$17.43	G1872, \$17.68
Oil Pressure	14039612, \$57.00	DR135T, \$17.22
		DR134A, \$5.33

Option I - Replace wiring harnesses

For those with unlimited budgets, and a fear of messing with wiring harnesses, this is the way to go. Classic Industries and Year One both sell replacement wiring harnesses. You will need to replace both the "Front Lamp Harness" as well as the "Instrument Panel (Dashboard) Harness". Be sure you order the version of these harness which specifically say "for cars with Rally Gauge cluster". The forward lamp harness currently lists for \$199.00, and the instrument panel harness lists for \$399.00.

The appeal of this option is that no rewiring is necessary, just the times to remove your old harnesses and replace them with the new harnesses.

Option II - Modifying existing harnesses

For most of use, the cost of replacing the wiring harnesses in our cars is prohibitive. Here is a way to make do with your existing harnesses.

1 Copy Connector Wiring and Disconnect the Battery

The first step is to prepare for the "under the dash re-wiring" by printing off, or drawing out the cluster connector diagrams for both the standard cluster and Rally Gauge cluster. This will make re-pinning the cluster connector much easier. This is also a good time to remove the battery from the car!!!! This is also the time you will want to replace all the bulbs in the Rally cluster since they are easily accessible.

2 & 3 Remove the Original Cluster and Remove Connector Wires

Once the stock cluster has been removed, step three is to remove all the wires from the cluster connector itself. This is a simple process once you know the trick. At the end of each wire is a metal "pin" which is held into the plastic body of the connector by a "tab" on the pin. Using a very narrow flat-blade screwdriver, (I used an eyeglass-screw screwdriver), insert the blade of the screwdriver below each wire, (the screwdriver is in between the wire and the center of the connector), until it bottoms out on the front of the connector. You should now be able to gently remove the wire with its attached pin from the connector. Do this for all the wires in the connector. Once you have completed step three, and all the wires are free from the connector, you are ready to begin altering the instrument panel wiring harness.

4 Tape Off Unused GREEN Wire

Step four is to remove one of the two GREEN wires - the one which goes to the ignition switch. This wire was used to light the TEMP light when the key was in the "START position", and is not needed. (I recommend you just clip this wire and tape off the ends - you may want to restore the car to its stock configuration some day.)

5 Splice Brown Wire onto GRAY Wire

Step five is removing the BROWN wire and using it to splice into the GRAY wire. If you study the Rally Gauge cluster connector pin-out, you will see that the Rally gauge needs two GRAY wires to supply voltage for the illumination lights. Since the BROWN wire is not needed, you can use it, and its connector pin to splice into the existing GRAY wire and supply the as the "second" GRAY wire. Make sure you leave yourself plenty of wire so clip the wire at least six inches down from the pin.

6 Reconnect Wires into Connector

Step six is to reinsert the wires you now have back into the connector, according to the Rally Gauge pin-out diagram. Remember, your BROWN wire is now one of the two GRAY wires. (It doesn't matter which one.)

Wiring the Volt Gauge Circuit

By completing steps one through six, you now have successfully re-pinned your cluster connector to work with a Rally Gauge with

By completing steps one through six, you now have successfully repaired your cluster connector to work with a rally gauge with the exception that the volt gauge will be inoperative if you stop at this point. To get the volt gauge operative, you will need to add two additional wires. Since the metal pins for the cluster connector are hard to come by, the following steps illustrate how to connect the volt gauge wire to the cluster, without going through the cluster connector. I recommend going to your local hardware store or home improvement store and picking up 20 feet of exterior grade, insulated, two conductor extension cord. This is the type of wire that is typically used in exterior grade extension cords. The covering is usually BLACK rubber and the conductors inside are BLACK and WHITE. Since this type of wire is designed to carry 120V, it is of sufficient gauge to handle the current flows of the Firebird's voltage gauge. Another bonus of using this type of wire is that the covering is NOT likely to rub off and cause a short. (The stock voltage gauge wires are heavy duty as well). You will also need to pick up a package of "round eyelet" type wire ends. You will need three. (You will use two of these to attach the wires to the back of the gauge cluster, and to attach one of the wire to the power junction block near the battery.) Also pick up a package of rubber grommets that have the interior diameter to match the wire. You will want to use a grommet where the wire goes through the firewall. On you way home from the hardware store, stop by your favorite auto parts store and pick up a couple of "orange" fuse links as well. Fuse links are rated by their color, and that is why I specified "orange".

7 Terminating Volt Meter Circuit Wires at the Cluster

Step seven is where you want to attach the round wire ends to the BLACK and WHITE wires at one end of the extension cord. I recommend removing three inches of the exterior insulation. You can either solder or crimp these connectors on to the wires. Now looking at the back of the cluster, you will see two screws where the flexible circuit board attaches to the voltage gauge. Attach the WHITE wire to the left screw and the BLACK wire to the right screw. (This is where the round wire ends come in handy since there is no way the wire can come off unless the nut falls off. This makes a good solid connection.

8 Preparing the Firewall for the Volt Gauge Wires

Step eight is to find a suitable place, and drill a hole through the firewall for your new "wire harness". I recommend just above the fuse block. The size of the hole will be dictated by the "hole diameter" specification of the grommets you will use. Drill the hole, use a round file to smooth out the edges, and then install a grommet in the hole.

At this point, it is a good idea to reinstall the cluster in the dash. That way you will be able to see the best way to route the new wire from its permanent resting spot on the back of the cluster to the hole in the firewall.

9 Installing Volt Gauge Wires in Firewall

Step nine is to fish the wire through the opening in the firewall, and then up along the inside of the left front fender, preferably along side of the forward lamp harness. A trick here, (and no comments from the peanut gallery), is to use KY Jelly on the wire before fishing it through the grommet. Since the outer covering of the cord is rubberized, and the grommet is more than likely rubber also, the KY Jelly allows you to slip the wire through the grommet with easy, and since it is water soluble, it cleans right off with a damp rag. I just taped the cord to the existing forward lamp harness. Once you have the cord fished to the front of the fender, you will come out by the voltage regulator. Very carefully strip off the outer covering, exposing the BLACK and WHITE wires contained within. (You should have about ten feet of each hanging there.)

10 Terminating Volt Gauge Wire at Voltage Regulator

Step Ten is to connect the WHITE wire to the "power distribution splice" near the voltage regulator, via one of the two fusible links you bought. The "power distribution splice" is a group of three very heavy gauge red wires located in the forward lamp harness very near the voltage regulator, which are soldered together. You will have to open up the forward lamp harness to find it. I highly recommend you solder the fuse link to the WHITE wire and then solder it into the "power distribution splice" as well.

11 Routing Volt Gauge Wire to Battery Power Junction

Step Eleven is to take the BLACK wire and route it over to the power junction block by the battery tray. The best way to do this is to tape the wire into the forward lamp harness which runs along the top of the radiator support. The wire is held onto the radiator support via nylon clips which are taped into the wire harness. You can remove the harness from the radiator support by pinching the tabs of the clips with a pliers and push the tabs back through the hole. The clips will be reusable to reattach the harness to the radiator support.

12 Terminating Volt Gauge Wire at Battery Power Junction

Step twelve is to connect the BLACK wire to the power distribution block via the second orange fuse link you bought. Solder one end of the fuse link to the BLACK wire. Attach a round eyelet connector to the other end of the fuse link. Now attach the fuse link

to the power junction block.

13 Reconnect Battery and Test

Step thirteen is to reinstall the battery, then test out the gauges.

A: I used the above procedure on doing the swap. It was very helpful and I recommend anyone doing this to follow it. I did notice a couple of errors:

1. The pink wire that plugs into plug location #10 on the rally cluster connector is +12VDC, not Ground as stated in the procedure. The cluster gets it ground through the shield of the speedo cable. I added a ground wire to the speedo cluster by terminating one side to a screw on the speedo housing, and the other side to metal location on the steering column.

2. The unused "Generator" lamp (Brown wire on stock cluster) does not need to be cut. As stated in the procedure, there is a second Grey (connects to plug location #6 on rally cluster) wire required for the rally cluster's dash illumination, not supplied on the stock cluster wiring. The rally cluster's circuit card has a built in jumper between plug location #4 and #6, so an extra wired connection is not needed. Just tape off the unused Brown Generator wire in case you return the cluster to stock later.

A: I would recommend buying a Lyle connector pin remover instead of using a screwdriver to remove the pins from the connector. You greatly reduce the risk of damaging the connector and the pins. It cost about \$10.

I would also recommend not cutting off any unused connector pins. Just use heat shrink around the pin and tape the unused wire down to the harness.

A: 68 rally gauge pin location is: 8-illumination, 14-left signal, 15-right signal, 30-fuel sender, 31 -oil press, 33-brake warn. indicator, 35- water temp, 39-ign(batt), 105-ammeter(batt), 106 ammeter(gen) or alternator. These are the GM "circuit #s and are pretty much universal as far as the colors and the useage with corresponding #. I cant draw a diagram like above so here is pin 8 has a jumper that ties pin 1,3 - 30 is pin4- 35 is pin5 -31 is pin6-14 is pin 7-33 is pin8-15 is pin9-39 is pin 10-105 is pin 11-106 is pin 12. And I will restate this again for everyone that all 3 wiring harnessses must be changed to make this conversion work. NO SHORTCUTS. You CANNOT just change pin location. (68 Rally gauge circuit board Diagram from the 68 Diagnostics service manual.)

Q: Rally Gauge Conversion

I was able to acquire a rallye gauge package recently. I would like to install it, but am unaware to the mods to the connector that will be necessary. Any help with the new/old pinout on the connector would be great!

A: There are several posts on the 67-8 gauge conversions and one thing keeps coming up. You cannot just change the pin out and get these to work. At best youll have is water temp and oil pressure(see my latest post regarding gauge inaccuracies)but nothing for the ammeter. This circuit is completely different from the beginning to end.To successfully change out the idiot lights you need the following. Main wiring harness under the dash with bulkhead connector forward lamp harness that mates to main harness at bulkhead sending units for oil and water specific for gauges of that era

Q: Inaccurate Rallye Gauges

I recently acquired a set of temp/volt/oil gauges to my 69 350 and am now curious as to what normal operating temperatures I should be shooting for (now that I can actually see a numerical reading rather than just an idiot light). I keep getting readings that are all over the place. Is this indicating something is wrong with my cooling system or my new gauges?

A: Good luck on your gauge conversion, hope you changed the sending units to the GM ones. 69 are easier than 67 or 68 no need to redo your complete wiring harness like the earlier years,they finally wised up. Given the inaccuracies of stock senders, youll be lucky to tell what the temp is. I recently took about 6 GM oil pressure senders and pressurized all to the same. None were even close to each other. Static pressure readings are even way off. This was pretty much the norm for factory gauges. If you want to accurately read temp then use a good mechanical gauge along with your factory one and compare. If the two are close then remove the mechanical one. If not then note the differences and use the true readings of the mechanical one . You can test the operation of your thermostat by heating in a pan of water along with an accurate thermometer it should fully open within a few degrees of advertised or spec ed. Your car should run a few degrees within the thermostat with everything in proper order. Check past posts for cooling tips

Q: Gauge conversion 67 to 68

Did the 1967 firebird ever come with a 160 speedo gauge cluster like the 1968? I know that the 68's have two chrome rings on the bezels, while the 67's had only one. I would appreciate any leads.

A:No, the 1967 Firebirds only came with 120 MPH speedos. Even the optional Rally Gauge Cluster was 120 MPH.

A:The 67 used 120 speedo 68-9 used 160. The 67 and 68 bezels were identical, both had 2 chrome rings. The bezel lens was different, 67 was deeper than 68 on the cone height. Currently only 67 is available in reproduction. In answer to other 68 gauge setup conversion I am currently restoring the speedo and gauge sets to look like new for 68-9. As for the conversion I do have the parts and heres what it takes. Dash harness with fuse box, gauge setup with speedo (speedo is different than idiot lights),engine harness, forward lamp harness, both of these are unique to V-8 or OHC-6. Alot of work but worth it. You cannot cut corners on this conversion and get everything to work.

Q: Clearing a Foggy Lens

What do you recommend using to clear up the plastic lens to the gauges? I took mine off and what a difference. I'm almost tempted to leave it off because it looks so much better.

A:Since they are available you could replace them.. OR... I had really foggy gauges on my '63 Grand Prix,so here's what I did:

Get some very fine grit sandpaper - like 1500-2000 grit, the higher the better. Use some warm soapy water on the paper and sand the lenses lightly. They will look really bad, but here's the catch. You'll also need some plastic polish or lense polish - Mother's makes some I believe- I got it at Auto Zone. Once you've sanded them lightly, use the polish. It will make them clear like new again. It worked REALLY well on my grand prix, and since I could not find replacements anywhere I was grateful!! I repeated this procedure a few times on each lens and they turned out great.

Q: Gas Gauge Problem

ok guys I have one I can't figure out my gas gauge reads empty when I still have about 8 gallons left in the tank but my main gripe is when I turn on my lights the gas gauge swings over to empty even with a full tank but when I turn the lights off it will swing back to where it is suppose to be at can anyone help me on this thanks

A:Check the ground wire and connection. One end is connected at the sender(on tank) which you will have to drop tank to see it. The other is near the filler neck attached to the trunk floor pan with a large sheetmetal screw. Bad ground will give the sender all kinda different readings. You can test it to see if the sender or wire or gauge is the problem. Use a VOM to check for voltage and disconnect the sender(positive) wire and ground it. You should see it move the gauge full scale. When that circuit is open it will swing the gauge the other way. Set the VOM on to Ohm scale to read the sender. GM used 0-99 Ohm for the sender values. Half way should mean 1/2 tank.

A:The sending unit is comprised of rheostat and wiper arm. The rheostat is a resistive wire wound along a shaft in a progressive spacing. The wiper arm, which is attached to the float, moves along the windings and changes the resistance value of the rheostat. What tends to happen over the years is the windings become worn, then thin and begin to move on the shaft. This effect turns into dead spots along the rheostat where the wiper should make contact. These dead spots will result in a no reading on the fuel gauge or a non uniform reading. Eventually, the windings break and no fuel gauge operation is the result.

Recommendation. You're going to have to pull the sending unit anyway to inspect it. Replace it with a new unit. Not worth trying to fix the old one.

A:Sounds like a bad dash ground. Save some time and just rig a jumper from a good ground then, reach under the dash and touch the metal housing of your gauge cluster. If the ground was bad, you'll notice your problems will go away. Once you've confirmed that the ground IS t

Q: Fuel Gauge Problem

I am having a Fuel guage problem. It always reads empty.

A: You can test the guage by grounding the brown wire, it should go to empty. Do this by grounding the female portion of the connector located in your trunk.. (its the dark brown wire) You may also test the sending unit with a multimeter (Ohms) from the connector in the trunk... The connector, I believe, has a dark brown wire, and a tan wire. The tan being your license plate light, and the dark brown being the sending unit. Place the red on your multimeter to the brow wire (male connector) leading to your sending unit (not the female back to the guage) and the black wire of your multimeter to a good ground on the body. Bump the car a few times to see the Ohms go up and down. If the tank is full there should be around 90 Ohms. If it is empty it should only be around 1 if I remember (somebody correct me if I'm wrong)

The sending unit float over time turns to "rock" but I don't think it will effect its function. What I had seen on my sending unit, was that the coils inside were broken causing the unit to fail most of the time. (Many years of service eats up these coils which look like a bic pen spring around a thin piece of cardboard)

The sending unit turns out to be an expensive item. I had spent 70 + on my replacement, though it was for a 350 without the vapor return. This was a good deal, but the alternative would be to have Year One rebuild the faulty unit for over \$100. The ohms should range around 90-100 when the tank is full. So with your sending unit acting as a "Variable Resistor", and the guage acts as an Ohms meter (the higher the Ohms the fuller the tank.)

Q: Nervous Speedo Needle

Does anyone of you guys know how to fix my nervous speedo dial? Driving slow or fast doesn't matter I can't get a steady reading.

A: When I was into Corvairs, they would sometimes have the nervous speedo problem too. On the 'vair the cable went to the front left wheel. If it would jam or stick in any way, the cable would "load up" and then release. On them, the best thing to do was lube with the cable with graphite. We found you could pull the cable out of the casing by disconnecting it at one end. Then we would coat the cable and sleeve with graphite and reinstall it. The sleeve would guide you, so it wasn't that bad of a job. I don't know if that will work on the birds, but the cause is probably the same. You could just replace it, but it might be worth the .99 of graphite and a little time to give it a try.

Q: Speedo Calibration

My speedometer is off by about 5 to 10 mph. How do I correct this?

A: There are three ways to calibrate your speedo. do this.

For the first one, find out exactly how far off it is... try using the odometer to check how many miles you read when traveling 10 miles according to mile markers. You might get a ratio like 1.4:1 (for example) Next, pull the speedo gear and housing out of the trans. Count the number of teeth on the gear (driven gear). Also, count the number of teeth on the gear it mates to on the output shaft of the trans (drive gear). Take the number of teeth on the driven gear and divide by the number on the drive gear. Lets say you get $35/19=1.84$, now multiply by how far off your speedo is (like 1.4) and you get 2.58 (in this example). This is what the final driven gear to drive gear ratio needs to be. You may not be able to get this ratio by just changing the driven gear since they are only made from something like 35 to 45 teeth. Also, if you change the driven gear by too much, you will also need to change the driven gear housing since they only house ranges of gears like 36-39, 40-43, etc. Since the housings cost about \$25 and gears are only \$7 or so, you may want to find a combination that keeps your driven gear in the same housing range that you have today.

The second way to do this is to use one of these formulas. Drive Gear = $(.0495835 * \text{Tire Dia} * \text{Driven Gear}) / \text{Gear Ratio}$ OR
Driven Gear = $(20.168 * \text{Gear Ratio} * \text{Drive Gear}) / \text{Tire Dia}$.

And here's a third way, call Ronnie Redd at Jerry Brown Chevrolet in Buford, GA 770-945-4981. He'll want to know Gear Ratio, Tire Size, type of Trans and then he can give you GM part numbers for the gears and housing you need.

When I had to do it, I actually used the first method to figure out what I needed, the second method as a sanity check, and the third method to get the GM part numbers so I could order them from my local dealer. Ronnie Redd was very nice and helpful, even though he knew I wasn't local and wasn't going to buy the parts from him.

BTW - Here are some of the GM Part Numbers

Drive Gears

17 tooth 1246221

Driven Gears

36 white 1359270

37 red 1359271

38 blue 1359272

39 brown 1359273

40 black 1342048

41 yellow 1362195

42 green 1362049

43 purple 1362196

44 gray 9780470

45 Lt Blue 9775187

Housings

40-43 tooth 25512339

Q: Safeguard Speedo (442) with Rally Gauges (444)

I have a line on a speed warning set up for my Bird. Mine was missing when I got the car, and PHS listed it as being installed on my Bird. Needless to say, I'd like to have it back. I just recently installed rally gauge's in my car, and the speed warning is standard style. I called a speedo shop (in Hemmings) and asked if I could "combine" the two unit's into one. The gentleman said no problem, \$65, an hour labor. It seems to me I only need to change the face of the speedo from non rally to rally style. Do you all agree ? Can this be done ? If not, then I'll keep holding out for what I want. I remember asking about changing a `67 to a `68 face, and I was told no way. But these are both `68 speedo's.

A: If I recall correctly (memory check needed), in the years of our beloved Firebirds the option books stated that Rally Gauges and Speed Minder were not available as a combined option. Check the option lists elsewhere on the First Gen Firebird site, or wait until tonight so I can dig out my 1968 Accessories and Options brochure - I'll look it up for you.

A: I checked the order sheet for 68 and it says nothing about availability of speed minder with Rally gauges. I also checked the Pontiac Accessory Group catalog and it does list a separate option for both but no footnotes stating this not available with that etc.

It is group 44 and option codes are:

Safeguard Speedo 442

Rally gauges 444

so if you had both, the group 44 # would be 446

I have heard of speedminder rally gauge sets for sale but they are very hard to find. I did see a 68 Firebird at a local show years ago that had the speedminder, rally gauges and headrest buckets.

Q: Speedominder

Recently, I bought my second 67 with a 400/400. The options on the car are PS/PB/tilt/cruise/AC/160 speedo/gauge cluster/power windows. On the speedo, there is a needle for the mph, and a white needle for ??? and has a cable with knurled knob under dash/steering column to reset back to zero. I have never seen this option listed anywhere, nor have I seen another with this. (only looked at 30 or so 67-69's) I have owned #1 bird for less than a year, and the other for 3 months, and am not familiar with the options offered.

A: I'll address one of the questions. The little knob with the white needle is kinda like a crude cruise control. It basically will buzz when you go past the set speed (on mine the lights have to be on for it to buzz). I have the option code stashed somewhere so if I find it I'll send it out.

A: You have a pretty rare option there, it was called Speedminder, and you set the maximum speed you wanted to drive at and when the speedo needle hit the speedminder needle, this cheezy buzzing would emanate from the dash. According to most literature I've

... seen, you could not get it with any other gauge option, although I have seen a 69 with Rallye gauges and Speedminder, with the PHS invoice stating it was built that way!

Q: Speed-minder

A: The speed-minder was an option. I have it on my 67 326 but it has a 160 MPH speedo. Is the tach part of this assembly?? As far as I know none of the first gen f bodies had a tach available as part of the dash gauge cluster. The Rallye gauges gave you water temp and oil pressure but I don't think they had a tach (I could be wrong since I have only seen one of these and it was a while back).

A: you've got a 68 speedminder set up... 67s had 120 speedo 68-9 used 160 check to see if your speedo is blackface with a chrome ring in middle, should be same on the gauge set as well. 68 changed to a greenish gray face and off white lettering /fonts.

Q: '69 Burlwood Dash

Question on dash and console burlwood: Would the console be burlwood and dash not, or would they both be the same i.e both burl or both black.

A: OK guys, the Burlwood trim is used on all consoles in 68 and 69, and all 68 dash center plates, and on the 69 Custom trimmed dash ONLY. That means if your 69 car came with Standard trim and a console, the console is burlwood, but the dash is not. The 69 sales brochure referred to the dash as "camera-case grain", and is black within the chromed finish border, and matches the interior color outside the border. The consoles you may have seen with a black grained finish are from 67 Firebirds or Camaros, and if you take the burlwood applique off your console, you will see what that looks like. In 67, the dash center plate had a straight grained wood-like finish, no wood on the console.

Q: '68 Dash Paint

Hi folks - In the process of rebuilding my 68 dash w/ new wiring and prepping for paint. I have two questions, hopefully someone can answer.

The metal dash is currently black, though the interior is brown. This car has been repainted by the original owner. Was the dash painted to match the interior, or was it painted the color of the car, such as the old Mercedes and Jaguars were done?

A: The instrument panel was painted according to the interior color for '68 Firebirds. You will want to look on your body tag for the appropriate color from the information below.

Upper Instrument Panel - (0 degrees Gloss)

Velvet Black: 253-272-259-269-260-275-262-273

Aleutian Blue: 250-255

Laguna Turquoise: 261-256

Burgundy: 252-258

(Note: 251-257 are missing from chart above along with the April Gold row. I am assuming it should be April Gold since every number in the color bracket is missing from the chart.)

Interior - (30 degrees Gloss):

Starlight Black: 253-272-259-269-260-275-262-273

Aleutian Blue: 250-255

Laguna Turquoise: 261-256

April Gold: 251-257

Regimental Red: 252-258

Source: Pontiac Service Craftsman News, No. 1 - 1968, pg. 8.

I have the company paint codes on this chart if you need them for mixing. One of these days I will get it up on the web so the whole chart is available instead of small portions.

I finally have these codes available as an Acrobat PDF file at: <http://FirstGenFirebird.org/dtb/docs/68-I-12.pdf>

Q: Dashpad Removal

Hi folks - In the process of rebuilding my 68 dash w/ new wiring and prepping for paint. I have two questions, hopefully someone can answer.

The dash pad appears to be fixed with something other than the 8 screws I removed. I have taken off the pillar molds but can't find anything holding it in place. Is there a fastener that I have overlooked?

A: There are several nuts in the middle of the dash pad you have to remove too they are under the dash pad get to them by going in through your radio hole and on the outside runners there are 2 push-in studs one on each side that just push in with a spring clip sort of like the Christmas tree fasteners we have today hope this helps

A: When replacing the dashboard on a 68 bird most suppliers will tell you that all you need to do to remove the old one is simply remove the screws attached around the dashboard. That is a bull answer. There are nuts attached on studs molded into the original dashboard that need to be removed under the dash. You will need to take some accessories off before doing so.

A: The attachment for dash pad at the lower ears is a spring steel clip and a peg that is attached to the pad. These are tough as hell to remove and not destroy the pad.

Q: Dash Panel Replacement

How hard is it to replace the dashboard? Does it involve welding and if so how hard is it? How much would the labor probably cost? Is it possible to remove the rust and repaint the section while still on the car? I plan on doing this when I replace the windshield glass (soon) and any tips are appreciated.

A: I've done this a couple of times and as far as panel replacement goes, it's about as easy as it gets (none of the seams show)... if the windshield AND front clip are off. I just replaced the dash panel on my 69. I already had the windshield out but not the front clip. What I did there was to pull the steering column, remove the subframe bolts, unbolt the fenders at the top and bottom, and loosen the exhaust pipes (either front or back will work), unbolt the brake lines from the subframe (not the master cylinder), and loosen the rubber fuel and return line. This allowed me to slide the front clip away from the body about 3-4 inches while leaving all the heater hoses, A/C hoses, and brake lines in place and expose the dash panel seams.

On the inside, you have to remove the dash pad and cut the dash panel loose from the dash at the top edge, under the pad. On the firewall side, drill out the spot and tack welds. You also have a tack weld on the front columns.

The old dash panel will come right off now. Now is the time to assess the damage that was under the dash panel and repair as needed. Be sure to transfer your VIN number plate to the new panel

To re-install, I used some caulk where the original foam seal was and sheet metal screws to fasten it down. Once the caulk dries, I went back and tack welded the panel into place. Caulk all the exposed seams and prime and paint. Re-assemble as required.

A: Regarding rust repair under the windshield:

I had a body shop weld a patch into one corner under my windshield. At the time I did not have access to a welder, but I removed the nearby fender to make room for the welding head. They did a nice job, but they thought that the region forward of the angled bend (where the windshield seals, near the VIN in my case) would be invisible and did not do as nice a finish in that region. I was in a hurry and did not ask them to repaint it, but if you look hard at the right angle you can tell there was a repair done in that tiny spot (nobody but a concourse judge would likely notice this). Nevertheless, I suggest you make sure they know that about one inch forward of that angle needs to be a clean finish as well.

A: I'm on my third dash panel replacement so maybe I can help. Of all the panel replacements, this is one of the most simple if there isn't too much underlying damage. To remove the old panel, you first have to either remove the front fenders or remove the bolts

from the chassis, the four subframe bolts, remove the clamps holding the fuel and brake lines and remove the steering column. This will allow you to gently move the front clip approximately four inches forward and allow complete access to the dash panel.

Next, drill out all the spot welds across the cowl and upper dash (or you can just cut it off above the dash), grind out the welds in the corner and cut the tab that are welded to the windshield pillar posts (cut them flush to the panel and leave them attached to the pillars to use later). Once completed, you can assess the damage and get back to use if you need more advice. _____

Q: Dash Panel Replacement

My dash panel is rusted out where it meets the windshield. How do I replace this section of sheet metal.

A: The dash panel replacement isn't too bad if there isn't too much rust. The old panel is spot welded under the dash pad and along the front under cowl. It's also welded at the front corners and with a small weld on the "A" pillar.

I usually start with a wire wheel or sand blaster under the cowl area to remove the excess rust. This will show you how much metal you'll have to replace besides the dash panel.

Assuming there is minimal rust through into the vent area below the dash pad, it's pretty simple to install a new unit. If you haven't already done so, you'll need to either: remove the fenders or separate the front subframe and front clip to expose the area under the back of the fenders and, of course, remove the windshield. Once you do this you'll see it's pretty straight forward.

After you've wire brushed the excess rust away: drill out the remaining spot welds in the cowl area, Grind out the brazed welds in the corners, Cut the welds loose from the "A" pillars, Drill out the spot welds under the dash pad (as an option, you can just cut along the top of the overlapped seam). Remember to remove your VIN number plate since it has to stay with the car.

To install:

Repair any hole under the dash panel in the cowl area,

Prime and paint the new panel (optional)

Pre-drill your spot weld holes,

Reinstall your VIN plate,

Use self tapping screws to temporarily secure the new panel and weld.

Touch-up the burnt paint areas and caulk the cowl seam.

You'll have to drill new holes when you reinstall your bottom chrome and remember to caulk the hole to prevent them from leaking.

As far as the order, I always do the areas that don't show first like the floorboards, trunk, cowl, etc., then start work on the outside. This way I don't cry too bad if I drop something and scratch the paint.

Q: '67/68 Ignition Switch Removal

Somebody know how to get the switch and lock cylinder apart without too much trouble? I guess the small hole close to the key slot is involved in some way.

A: Can't remember the exact way but I have done it. straighten out a paper clip and stick it in the hole, insert the key, turn it and pull. play around with this and you will get it out. with any luck somebody else on the list will have the exact way to do it, good luck.

A: He has it right. Insert the paper clip or similar stiff wire into the hole. This will align a series of keys or pins that will allow you to then separate rotate and unscrew the bezel which holds the switch to the dash. You may have to jiggle this around a bit to get full engagement, but it does indeed work. This applies only to 67-68 cars, as the 69 has the switch in the steering column.

A: Turn it counterclockwise to "accessory". Insert something in the hole (I use my torch tip cleaners). Turn farther counterclockwise and presto!

A: Hey you guys are forgetting the most important thing... turn the switch to the accessory position before you push the paper clip in and use the key to pull the cylinder out. Re insert the cylinder without the paper clip in the same accessory position using key to then turn to off position. Gary

Q: Ignition Lock Cylinder Removal

I have a 67 convertible and I am having a hard time removing the ignition switch. I have the cover unscrewed, but it doesn't fit over the face of the key insert... is there a special way to get it off???

A: It is really easy to get out if you have a key. All you have to do is put in the old key put a needle into the pinhole and turn counter clockwise after you are in the aux position.

I did not have this luxury since the previous owner lost the keys in the 7+ years the car was out of service.

There is a very easy way of removing the cylinder without the key, but it can cost you up to \$25 to replace the tumbler. I am always a paranoid skitz on this one, but here goes....

(Everyone has my permission to mame or kill anyone who tries to steal a bird or any classic GM with this information:)

Take a "TiN" coated drill bit (Titanium Nitrate) about 3/8" diameter in your trusty hand drill. Coat the tip of it with lard, I used crisco shortening. You can use regular or butter flavored, which ever you prefer. Solid bacon grease works too, but I don't need the colesterol. The crisco will keep the bit cool as it cuts through the steel face plate on the tumbler, it acts as a cooling/cutting oil.

Next I will tell you where you have to drill. On the face of the tumbler with the key slot vertical you want to place the bit around the outer perimeter. You should drill at (10 "O"Clock) not in the morning or night you see < --- art art art, but if you were to look at the cylinder as if it were the face of a clock you would put that bit right through 9:48.

Do not let the bit walk even a 1/16th of an inch out of the edge in fact stay in a 16th from the edge. Try your best. It might even be beneficial to measure offset an use a pilot bit to start the hole before you use the 3/8" bit. Now make sure you stay straight!!! Make sure that you are drilling purpendicular with the face of the tumbler!!! Other wise you get to buy a new ignition switch.. Got it..?

Only go in about 3/4 inch, and that might even be too much. I would keep looking into your bore with a pen light moving only an 1/8" at a time till you see a spring popping out. Only the face of the switch is steel. The rest of it is soft aluminum, so watch you feed rate when your drilling.

Now there's more. Tap the tumbler with a screw driver handle tonock out the locking mechanism. What you have just done, is removed the back of the locking block and the spring behind it. The switch will now operate as if it had a key in it. Put a standard tip screw driver into the slot and turn it to the left till it is in aux position. This is easy cause it will go no further to the left. Insert a paper clip into the little hole. You are now going to push a spring loaded button inside the hole with the paperclip while you turn the tumbler to the left with your standard tip screwdriver till it popps out like magic.

The replacement tumbler will go back in with the key inserted into it, and the top of the briggs and stratton facing 7:00 or so. Then you just turn it to the right and it clicks into place. Make sure you clean any runaway lard off though before you put it back in.

Mine only took me all of 15 min to remove and replace. Not really, I am lying because I drilled through the tumbler into the switch. Had I not done that though I would have had the new tumbler back in, in 15 min, and that's no lie.

Good luck, and don't forget to have your door lock tumblers brought into the locksmith to match your ignition key. Other wise you will be carying 3,4, or maybe even 5 keys to your Firebird. 2 is enough in my opinion. Costed me 18 bucks to have the glovebox, and trunk keys matched, as well as the door tumblers matched to the ignition key.

Q: Cigarette Lighter Removal

For a 68 'Bird, how do you remove the cigar(ette) lighter? I can get my hand up there (barely) but can't figure out how to get it out. Is it clipped in or does it screw in? The wire won't come off either. Something so simple and it has to give me a hard time.

A: Remove the wire (it just snaps on) and unscrew the housing from the backside.

Q: Remote Trunk Release Button

My button was broken and hanging. Where is your button mounted to?

A: There's a perforation in the cardboard that will locate the trunk release button in proper spot inside the glovebox. Good repros will have this feature also.

Q: Keys

Am I suppose to have two keys for my Firebird. One is round while the other is square.

A: Hey guys, let me take you back in time a bit. The older cars had a key for the trunk and glovebox (the round one) and a key for the ignition and door locks. (Roy, your trunk lock has been re-keyed to match the ignition.) I suppose the idea was the convenience of having the ignition key already in your hand after opening the door meant not fumbling with them. However, engineers don't think like criminals, and they learned through complaints how car thieves worked. They would walk up to a car with a dent puller, screw it into the right side door lock, and pull out the lock assembly. They would then make a key from nearby, and afterwards would walk up to the drivers side like they owned the car, turn the key in the drivers lock, open the door and get in, start the car and DRIVE AWAY! Prior to this time frame (around 69 or 70), ignition switches were in the dash (67 and 68 owners) and it was easy to reach the switch from behind and hotwire the car. From the 69 models, the switch became more difficult to access, with the so-called "locking steering column and shifter" but the thieves kept getting smarter than the engineers could keep up with! I believe the 72 models of GM cars were the ones that went to the round key unlocking the door, and the ignition key being exclusive.

This file last modified Sunday, 29-Jun-2008 11:44:39 PDT

Copyright © 1996-2010 Geoff Martin. All rights reserved.
Pontiac and Firebird are Registered ® Trademarks with General Motors
All trademarks are the property of their respective owners.
All Rights Reserved.

[Our Privacy Policy](#)

Use for Entertainment Purposes only
<http://FirstGenFirebird.org>