ThunderEnlightening™

Classic Auto Supply Co., Inc.

Thunderbird Specialists CASCO SINCE 1969

A NEWSLETTER FOR THE CLASSIC THUNDERBIRD OWNER AND RESTORER

ISSUE NUMBER EIGHTEEN • NOVEMBER 2005

CASCO NEWS

The Thunderbird's 50th anniversary has been celebrated throughout the year. Classic Auto Supply has been around for the last 36 of those years. We have worked hard to not only become a good employer and community asset, but also a major contributor to the Thunderbird hobby. By reproducing many of the parts that were no longer available and developing improvements and vehicle modifications to improve the safety and comfort of the Thunderbird, we have become a major Classic T-bird parts manufacturer as well. One thing that makes us successful has been our communication with you, our customers. Please keep the comments and new product suggestions coming.

1955-1957 THUNDERBIRD REGISTRY

Long time T-Birder Dave Tulowitzky has taken on the Herculean task of compiling the data plate information from as many Classic Thunderbirds as possible. At the time of this writing, he has compiled data plate information of almost 12,000 T-Birds.

All information is welcome, even if the car has been totaled, parted out, or sold to a new owner. He uses the information collected to determine percentages of colors, interiors, districts, etc. and write articles for the *Early Bird*. Do not be concerned about privacy, in addition to the data plate information he only keeps track of the date he receives the data plate information and the state where the vehicle was last located. He does not record owner's names or addresses.

You can help Dave's effort by sending him the information from both lines of your data plate. Mail to: David Tulowitzky, 1159 Clearview Dr., Port Charlotte, FL 33953 or email to: tulobird@aol.com

PREVENTING LOOSE WHEEL COVERS

THE PROBLEM: Anyone have any idea why the right rear wheel cover on our '57 suddenly wants to work loose? It hasn't actually come off yet, but I have caught it a couple of times where it looks ready to come loose - and with very few miles between the times I've hammered it back into place. I'm going to try to swap it with the right front, and make sure that the pressure in my Coker radial tires is up to 35 PSI.

THE SOLUTION: We had a chronic problem with the right front wheel cover on our 57. Moving it to a different wheel didn't help. Final solution was to install it with a bead of silicon bathtub sealant at the wheel interface. Hasn't moved since, and can still be easily removed for maintenance.

Our problem, besides the cover loosening, was the cover would "walk" (rotate in the wheel) so that it was deforming the valve stem and possibly deflating the tire. I tried bending the tabs to get a better grip, but still had the rotation. This problem was occurring prior to putting radial tires on, but hasn't reoccurred since sealing. I just applied a single bead roughly at the interface with the cover prongs. Nothing very complicated about it. I have had the covers off to do a brake job, and they came back off easily.
Gerald Ostrom, Fall City, WA

HOLIDAY SPECIAL FROM CASCO

SPECIAL SAVINGS ON SHIPPING on all orders shipped from November 25 to December 31, 2005. During that time CASCO will charge a *maximum* shipping & handling of **$14.95** for all shipments made by standard UPS surface within the continental United States. This special excludes any items that are normally billed at actual shipping costs.

1955 LED TAIL LAMP SETS

We always liked the look of the LED (light emitting diode) tail lamps on new cars. The benefits of LED lights have been known for a while, they come on very fast, they draw very little current, and they seem to have a more intense light. We thought it would be great if we could offer the TBird hobby LED tail lamps. So we began to investigate what it would take to bring these to our customers. First we looked at the direct replacement led clusters that replace the filament bulbs. They weren't even as good as the filament bulbs. They just aren't as bright and they are situated behind the reflector. Next we bought some assemblies with 6 LEDs precariously mounted on an "open-air circuit board". There were multiple problems with this arrangement: It didn't plug into the original socket, the 6 LEDs don't have near enough output, and what came in the box left us asking, "Really we paid $80 for this?"

So we looked to some tail lamp manufacturers to come up with our own assembly. We had these simple criteria: The assembly must perform as good or better than the original configuration with a filament bulb. The unit must be easy to install and plug directly into the original bulb socket, and finally the assembly should look like it belongs on a classic car not on some kiddy ride at the local county fair.

We learned that the original lens employs optics on the back side of the lens that expects all of the light to be coming from a single point i.e. a single glowing filament. The optics are referred to as Fresnel (pronounced Fray-nell) optics. This technology was invented by Augustine Fresnel in 1822. Fast forward to 2005, the LEDs have their own focusing lens on the front of each LED. Since many LEDs are needed to be as bright as a filament bulb, the light can't come from a single source. When the LEDs are spread out in a large pattern, and a stock lens is used, the Fresnel optics spread the light out so much it is not useable. Simply plugging in an LED array and slapping the stock lens back on won't work and may actually be unsafe. So we had to plan on offering our assembly with no Fresnel optics.

In order to know if our LED assembly worked better than the original filament bulb, we had photometric tests done with a stock lens and filament bulb to learn where we were starting. We discovered the stock setup was probably sufficient for the safety standards in the 50's, but it fails *current* DOT safety requirements for stop lamp. This reinforced our desire to bring a safer, DOT compliant, LED assembly to the hobby. Here is the Reader's Digest version of the test results: The stock equipment passed side and parking but failed 8 of 19 points in stop resulting in failure in 3 of 5 zones specifically the three center zones.

Next we needed to overcome the challenges of 6 volt positive ground. We had to find a manufacturer of LED printed circuit boards willing to configure the LEDs to work not only with 6 volts but with 6 volt positive ground. LEDs being diodes only work when current is flowing in the correct direction. Also because the stock thermal flasher depends on certain amperage draw and LEDs draw very little current, the 6 volt LED did not draw enough to make the stock flasher work properly. And we found that using an LED assembly in the rear and a stock filament bulb in front caused enough voltage drop to make the flashing turn signal not as bright as the brake lights. We were able to overcome these challenges by begging the manufacturer to install the diodes backwards, using an electronic flasher which flashes independent of amperage draw, and using an LED assembly for the front parking/turn signal which eliminated the voltage drop in turn signal mode. These additional parts make the 6 volt kit a bit more expensive but the results are worth it.

At this point we knew we needed an assembly that is compliant with current DOT safety standards, uses plenty of LEDs, has a lens that looks original but has no Fresnel optics, is easy to install and in the case of 6v is compatible with 6 volt positive ground.

When we started this project we were interested because the LEDs looked neat. Now almost a year later, we are excited to finally have LED assemblies for the 1955 Fords both 12 volt and 6 volt that look neat but are also much safer than the original filament bulb counterparts. Our assemblies look very similar to the stock lens, use 24 LEDs, are DOT compliant, use a pigtail that plugs into the original bulb socket, and is also very attractive. The 12 volt version works with most 12 volt thermal flashers and ships with two rear LED assemblies. Part number: 13450ALED12. The 6 volt version includes rear LED assemblies, electronic flasher, and LED assemblies for the front parking/turn signal. Part number: 13450ALED6.
Jim Brown, Classic Auto Supply

We are sending our thanks and a $30 gift certificate to our TE contributors:Gerald Ostrom, Bill Abate, Barry Kives

THE PERFECT PAINT JOB

Our goal is to accomplish a paint job that with a strong foundation, with a maximum gloss that will last for many years. This type of painting is not practical for the everyday production shop but will serve you well when you do a restoration or a street rod job. We are going with the assumption that the metal, or fiberglass has been stripped of all paint.
Bare metal is always best cleaned with #700-1 water-borne wax and grease remover.
Mix enough #6600 series epoxy to spray two wet coats over the entire car. Spray one wet coat and let flash about 30 minutes, then apply a second wet coat. Let the epoxy set overnight and then apply body, or fiberglass filler and glazing putty over the epoxy. It is not necessary to sand the epoxy before applying the fillers, as they will bite into the epoxy, and feather great. When you have finished sanding all of the bodywork, you are likely to have some bare metal spots from sanding. Spray one wet coat of epoxy over all filler spots and over any bare metal spots. Let the vehicle set overnight.

Why the use of epoxy instead of acid etch primer over the bare metal? Acid etch is a single component product, yes there are two parts to mix together but the Plastic container contains a mild acid and reducer only (that's why it's in a plastic can). Acid etches have a salt spray cross hatch testing of about 30-75 hours at best, versus 400-1200 for most epoxies. Acid etch is normally a vinyl acetate and very weak as far as adhesion and stone chip adhesion for the final finish. Proper use of the epoxy will add a good 50%(very under stated) more durability to the total paint system.

To sum it up, I make an acid etch and its a big seller but I would never use it myself on a classic. Dealerships like it because the painter may have to paint 6-9 cars a day and if he has bare metal on a fender he can paint over the acid etch in five minutes versus 30-60 for epoxy. One other note, acid etch can sometimes do funky things over lead, both short term and long term, but after seven days the epoxy has great sealing and adhesion to lead.

The next day, you can start spraying the 2K primer over the epoxy. Once again, it is not necessary to scuff or sand the epoxy before applying primer. The most important thing to remember at this point, is spray one wet coat of primer, and let it set for 30 minutes before applying the second coat. Follow this procedure between coats of primer. This step, when abused, messes up more paint finishes than anything else! When all of the primer blocking and any necessary primer repairs have been done, it is always best to use the epoxy as a sealer. Mix up enough epoxy to go around the car with one wet coat, adding a double shot glass of SPI #885 urethane reducer, per quart. Let the epoxy set for 30 minutes. Stir one more time, and strain. Spray one full wet coat of epoxy over the entire car. The epoxy should set for 24 hours, then wet sand as needed, with 600-1500 grit paper and you are ready to base.

Next to rushing the 2K primer, rushing the basecoat is the second cause for the final gloss and depth of a paint job to look bad. It is very important use the slowest urethane reducer in your base that you can get away with, no matter what the outside temperature is. Just allow enough extra time for the basecoat to dry. The difference between a very slow grade and medium grade reducer will show up in the final gloss. The slower grade also has better solvency and will give you far better adhesion. Spray the first coat, and let it totally dry, before spraying the second coat. It is best to wait 45 minutes between coats. After two coats, the vehicle should set overnight, then do minor wet sanding with 1500 grit sandpaper to remove any orange peel or trash. Apply the next two coats with 45 minutes of flash time in between. Some colors require additional coats. If this is the case, again, wait 45 minutes between coats. Let the basecoat set overnight. Tack off the next day, apply a wet coat of SPI MS or SPI HS clear, and let the clear flash as needed. Let the first coat of clear set until you can lightly run you finger across it. Spray the second wet coat of clear, let it flash until stringy, or lightly dry to the touch, then spray the third coat of clear.

From two days to two weeks after the job has been completed, wet sand the clear with 600-1000 grit sandpaper, blocking out any orange peel or dirt. After wet sanding, let the car set in sun for a day then apply a wet coat of clear. Let the clear flash until it is dry to a light touch. Apply a second coat of clear, then immediately come back with a third coat.

Let the vehicle set two or three days in the sun to help to get all of the solvents out and settle the paint job. If any wet sanding is required before buffing, sand with 1500 grit sandpaper, then set the vehicle in sun for two to three hours. Bring the car back into the shop, and allow it to cool to room temperature, then buff.

If you follow these directions, you will have a durable paint job, with maximum depth and gloss over a solid foundation, which will last for years to come.
Barry Kives, Canton, GA

REMOVING RADIO FROM THE DASH

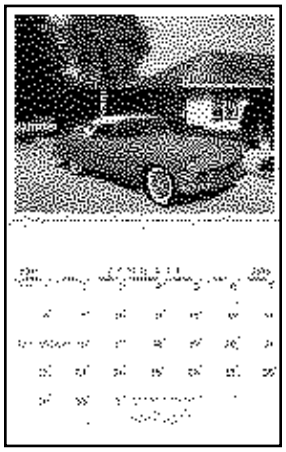
To remove the stock radio from the Tbirds is basically the same for all three years. There is one exception, the 57 tuning knob used a setscrew and all other knobs/years were push on/pull off. Note that there are a lot of 56 and 57 Tbirds with the wrong radio so don't try to pull off a knob without making sure it does not have a setscrew! Disconnect the fuse holder. Just follow the power lead back. Pull the dash light wire out of the double barrel connector that is above the glove box or close to it. Your radio may not have one after all these years. Just follow the other power lead back, if its there. Both of these two leads are on the left side of the radio. Next follow the speaker lead to the radio and pull that out. It's on the rear of the 55 and on the left side for the 56 and 57. Next pull out the antenna wire. Be careful not to pull the wire out of the plug. Grasp the connector close to the radio and give it a twist as you pull it out. That is all the wires unless you have the speed compensated volume control hooked up on your 57. That is right next to the speaker connector. It simply pulls out.

Remove the two 1/4-20 nuts that attach the radio to the hangers that are on either side of the speaker.

Now go to the front and remove the two nuts behind the knobs. Slide the radio toward the front of the car and lower it once the tuning shafts have cleared the dash. Do not damage the tuning shafts as one of my customers did. Very expensive to replace, if even you can find a parts radio.
Bill Abate, Roslyn, PA

2006 CLASSIC T-BIRD CALENDAR

Thunderbird owners, here is the calendar you've been waiting for! Now available is a Classic Thunderbird full color calendar featuring ONLY 1955, 1956, & 1957 Thunderbirds. Cars belonging to our customers, Thunderbird enthusiasts around the world, are featured in this 12-month memo style wall calendar.



This calendar was designed by and is available from Classic Auto Supply Co. (CASCO) for $13.50, postage included. Order your calendar now by calling CASCO toll-free at **800-374-0914** or visit our web site at **www.classictbird.com**.

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795 High Street, Coshocton, Ohio 43812

Betsy Brown - Editor
Phone: (740) 622-8561
Fax: (740) 622-5151
E-Mail: sales@classictbird.com

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