ARCI NEWS

www.antique-radios.org

THE ANTIQUE RADIO CLUB OF ILLINOIS

Affiliated AWA
Antique Wireless Association

Volume 34, Issue 6
December 2015

BEST WISHES
TO YOU AND YOUR FAMILIES
FOR THE HOLIDAYS!

YouTube Video -- A Ham's Night Before Christmas by Gary Pearce, KN4AQ
https://www.youtube.com/watch?v=ailFghtEKsc
(Cover Art from QST, December 1930)

UPCOMING INDOOR MEET
DECEMBER 6, 2015

AMERICAN LEGION HALL
570 South Gary Avenue, Carol Stream, IL

DECEMBER 6, 2015 ~ 7AM – 11AM
Peoples' Choice Contest:
Awards For 1st, 2nd, 3rd Place
Donation Auction
BUSINESS MEETING

Boy Scout Pancake Breakfast / Free Coffee, Juice & Cookies
50/50 Cash Drawing Raffle

2016 ARCI MEET SCHEDULE

February 7, 2016	**7AM-9:30AM Indoor Swap Meet People's Choice Contest, Officers' Meeting 9AM**	**American Legion Hall Carol Stream, IL (See Map)**
April 24, 2016	**7AM-11AM Outdoor Swap Meet Inside Business Meeting 9:30AM**	**American Legion Hall Carol Stream, IL (See Map)**
June 19, 2016	**Outdoor - Gates Open 7AM Combined Meet With 6-Meter Club of Chicago**	**DuPage County Fairgrounds Wheaton, IL (See Advance Ticket Form & Map)**
July 29-31, 2016	***RADIOFEST***	**Location To Be Announced**
October 2, 2016	**7AM-11AM Outdoor Swap Meet Business Mtg./Officer Election 10AM**	**American Legion Hall Carol Stream, IL (See Map)**
December 11, 2016	**7AM-11AM Indoor Swap Meet Business Meeting 10AM**	**American Legion Hall Carol Stream, IL (See Map)**

ARCI
MEMBERSHIP RENEWALS

PLEASE CIRCLE YOUR MEMBERSHIP:

Membership Option	***Dues***	***Benefits***
Annual Membership	$ 20	Full benefits: ARCI News subscription, Fee Discounts At Events, Seller Privileges at ARCI Events.
Spousal Annual Membership	$ 10	Discounts at Events.
Student Annual Membership	$ 5	Must Be 18 or Under, Full Benefits.
Lifetime Membership	$340	Full Membership Benefits For Life (non-transferable).

MAKE YOUR CHECK PAYABLE TO ARCI AND SEND TO:

Antique Radio Club of Illinois
P.O. Box 1139
LaGrange Park, Illinois 60526

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Name: _____

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Home Phone:_____Application Date:_____

Email: _____

Emergency Contact Name:_____Phone:_____

PRESIDENT'S MESSAGE

It is hard to believe that the trees are almost bare, and that Christmas is well within sight! It seems like only yesterday that we were gathered together in Burr Ridge, enjoying the warm summer weather and having a great time at *Radiofest 2015*; but here we are, and in the intervening months, yet another great October regional meet has also come and gone.

The October meet was an active one; especially when you consider that *Radiofest* had taken place just two months earlier, and October meets have historically been somewhat more lightly attended than those in other months. We registered a total of 29 seller's spaces; an excellent participation level and well above the average for an October meet. But the meet was also special because of the generous donation of items for auction by the Kirschner family of Northbrook. The family home was being sold and many of the donated items came from a lifetime collection of radios belonging to a deceased family member. For those who did not attend, the auction included tube testers, tubes, HRO 50 coils and box, a very clean Hallicrafters radio, and tons of parts. By the end of the auction, almost nothing remained to be recycled, and over $1,000 had been added to the club's coffers. Our thanks go to the Kirschner family for their generous donation. Special thanks also go out to Art Bilski for coordinating the donation and transporting the items, and to Tom Kleinschmidt for his great job as auctioneer. As always, Dan Schoo was there to document all the meet festivities in great photos, so do take a look at these both here and on the web.

Next, here is some preliminary information about *Radiofest 2016*. We are already well into the planning phase for our next great *Radiofest* event. Many details are still in flux, but here is what I can tell you so far. Our dates for *Radiofest 2016* will be Friday-Sunday, July 29-31. We will maintain the same schedule as last year: opening with the auction on Friday evening; holding the outdoor swap meet on Saturday through mid afternoon and on Sunday morning; the speaker programs, display, and contest setup will take place during the day on Saturday; and, the banquet will be on Saturday night. There will be the usual donation auction on Sunday morning to close the event. We will <u>not</u> be returning to the Quality Inn in Burr Ridge. This hotel, much like the previous Willowbrook location, has been purchased by an investment group, and will be undergoing a complete renovation followed by a new franchise name. As of this writing, we are in the process negotiating a contract with a new *Radiofest* venue, which we believe will represent a considerable improvement in almost all aspects compared with the Quality Inn. It is located in the western Chicago suburbs, with easy access to a major interstate highway. It will have an ample, well-maintained selling area with plenty of nearby parking for buyers, a clean, modern hotel at good room prices, and excellent facilities for our auction, banquet, and presentations. If all goes well, we will be telling you much more about this exciting new venue (including the name), and many additional details about *Radiofest 2016*, in the next issue of the *ARCI NEWS.*

I hope to see all of you at our next meet on December 6th! This will be our second annual Janet LaVelle Holiday Party, and it promises to be great fun. Our December meets have historically seen excellent attendance, with lots of interesting items for sale. So, come on out to Carol Stream and buy yourself a nice holiday gift! And don't forget about our business meeting following the meet. Because of the large donation auction, the October business meeting was postponed. We will therefore be holding the votes for our roster of 2016 club officers at the December meet.

Finally, let me close this President's Message by wishing each of you all the best for a happy and healthy Holiday Season!

See You At The Next Meet,
John Stone
ARCI PRESIDENT

ARCI UPDATE

The President's Column — All The News That's Fit To Print

OFFICERS FOR 2016

ARCI will hold its annual business meeting and officer elections at the December meet. The following people are nominated to serve another year:

Board of Directors	*Officers*
Dr. Barry Janov, Chairman	John Stone, President
Jeff Aulik	Jim Novak, Vice President
David Bart	Keith Schreiter, Secretary/Membership
Art Bilski	Rudy Hecker, Treasurer
Harry Blesy	
Ed Huether	
Tom Kleinschmidt	
Steve Muchow, Advisor	
Robert Piekarz	
Olin Shuler	

VOLUNTEERS FOR 2016

ARCI has been fortunate to have a great team of volunteers over the years who have faithfully and generously served the club. They deserve your thanks and recognition for all the support they provided. Remember, ARCI is your club and we need your help too! As we all pitch-in, the club will continue to improve for everyone's benefit. Please talk with one of the officers, Board Members or current volunteers for more information on how you can lend a hand. ARCI looks forward to working with the following during the upcoming year.

Greg Hunolt, *Radiofest* Auction Coordinator
Jim Novak, KC9IPB Ham Radio Station
Ed & Judy Huether, *Radiofest* Coordinators
Rudy Hecker, Signage, People's Choice Contest
Art Bilski, Public Relations
Julia Bart, Registration & *ARCI Newsletter* Editor
Elaine Hecker, Registration
Jim Sargent, *Radiofest* Auctioneer
Tom Kleinschmidt, Donation Auction
Olin Shuler and Jack Lavelle, Hospitality
Jim Rajkovac, Webmaster
Cindy Fudge, ARCI Newsletter Publisher
Karl Johnson & Pete Nauseda, Parking & Information
Nicholas Tillich, *Radiofest* Auction Registration

YEAR END 2015 ANNUAL REPORT
By John Stone, ARCI President

2015 ANNUAL REPORT

I am happy to report that the fiscal status of ARCI remained healthy and stable throughout 2015. Our club is on solid ground with respect to membership, activities, and finances. Here are some additional details about each of these areas:

Membership: ARCI's paid membership has remained quite stable over the past few years. This is good news for us, as many other clubs have experienced considerable membership attrition during the same period. Due to our year round membership renewal schedule, there will be considerable short-term variation in the number of paid members. Right now, we are hovering around the 270-280 member range, about the same as this period last year. We had over 110 membership renewals at *Radiofest* alone, and we anticipate somewhere between 20 and 30 additional renewals in December. If your membership has expired, please help your club by remembering to renew at the next meet or by mail. Your membership dues are critical to the health of our club and we cannot continue without your financial support! Thanks to all of you in their support of ARCI over these many years.

Activities: Our meets, including regional meets and *Radiofest,* remain very popular and well attended events. Buyers and sellers from 20 different states plus Canada registered for and participated in *Radiofest 2015,* and it was considered by many as one of the best *Radiofests* in recent memory. Our regional meets in Carol Stream have an average of 25 seller spaces per meet and about 75-85 in attendance. Our most recent *Radiofest* had over 125 separate selling spaces with more than 500 estimated in attendance. These numbers are all very consistent year over year the past few years, and demonstrate the continued health and stability of our club.

Finances: One of the most important tasks for any ARCI president is to ensure the financial health and stability of the club. I am happy to report that we have made very good progress on this front. In the past year, we have taken steps to increase the club's operating funds. We instituted a small increase in dues and seller tables at regional meets, adjusted the fees for the *Radiofest* auction to better cover our expenses, and we reduced overall costs associated with *Radiofest* with the goal of changing it from an event partially subsidized by club funds, to one that is largely financially self-supporting. Finally, we have been blessed with some very generous contributions of radio and electronic items to our donation auctions. All of these steps have helped us reverse a drop in our cash balance last year that occurred as a consequence of substantial and unavoidable cost increases at *Radiofest 2014.*

RADIOZONE

An Occasional Column About Topics Of Interest

By Dan Schoo

MAKING PLASTIC DIAL COVERS AT HOME
A NARRATIVE FROM A BEGINNER'S POINT OF VIEW

Anyone who collects old radios knows the problem of shrunken plastic dial covers. A dial cover is the transparent plastic window that covers a radio tuning dial. Transparent plastics from years ago could not hold their shape over time. Aging causes the dials to become yellow, distort, and often split or tear. No matter how much work you put into getting the radio in working order or restoring the cabinet a dial disaster mars the appearance.

Replacement Dial Covers

There are several individuals who make replacement plastic dial covers to order. They provide a nice new cover at a reasonable price. Unless the dial is an unusual shape, for example the one used in the Crosley model 63TA "Victory Model" with a large window area that curves inward 90 degrees at the top, it is fairly easy to get a new cover by simply tracing the outline of the dial opening onto a piece of heavy paper or cardboard and sending the tracing out to someone who does this work. Often the people who do a lot of these have a number of molds already in stock and can make a cover for you from just the make and model information.

I became interested in dial cover fabrication when I started a restoration project on a radio with a shrunken split dial cover. In the past I have ordered custom dial covers but I never gave much thought to making one myself. Besides finding the right plastic material, I always thought it would require special equipment and talent. Then I saw an advertisement for www.dialcover.com. They advertised kits of the materials you need to make your own dial covers at home. The price of a kit was the same as a single professionally produced dial cover and there was enough material in there to make several of them. There were two sizes of kits offered, a small size with six and one half inch square sheets of plastic and a large size with eleven inch square sheets. That sounded interesting and cost effective so I ordered a large kit.

The kit had three sheets of plastic and three pieces of eleven inch square one quarter inch thick five ply plywood to make the molds. There was a page of instructions included but for someone who is doing their first dial cover the instructions were a little vague. The basic idea is not complicated so I managed to figure it out. Once you have successfully made one and see how everything works you don't need instructions.

After I had made my first cover I decided to do some further research and share with others what I had learned. A little web searching along with some practical experiments filled in some vital details which I will share.

Recommendations

For optimal results you need a transparent plastic that can be easily softened by heat and conformed to a mold, a process called thermoforming. An easily formable thermoplastic material such as PVC (Polyvinyl Chloride) or Vivak® PETG (Polyethylene

Terephthalate Glycol) works very well. PVC is used extensively in blister and clamshell packaging and is identified by the recycled plastics code number 3. PETG is less popular in the packaging industry but it has the advantage of being easily available in very small quantities in the .020 inch thickness used for making dial covers. It is soft and rather easy to scratch so it is sold with a protective film on each side that you peel off. PVC does not come with a protective film and therefore can be scratched or hazed in shipment.

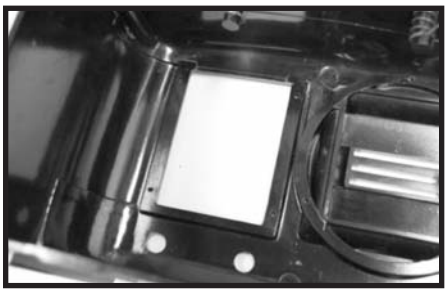
The mold material should be something that can stand moderate heat, is capable of producing a smooth splinter free cut edge and can be easily shaped when it is sawed. I have heard about people using materials such as corrugated cardboard for molds and this does work but it is difficult to shape in other than a plain square edged block and it isn't very firm. A better material is something like plywood or Masonite. For consistently good results plywood called Baltic Birch 5 ply is recommended. Baltic Birch plywood has a fine grain, no voids and many plies for stability and quality of the cut edges.

You can use common plywood with fewer plies especially for the outer part of the mold that is not so critical but it won't cut as smoothly and can splinter more easily at the edges. Dial cover molds typically use one quarter inch thick plywood but you can vary this depending on the depth of the cover that you make. The outer mold should be one quarter inch or thicker plywood. It is important that the mold and the base under it be absolutely flat and sturdy. Warped or flimsy molds will not produce good results.

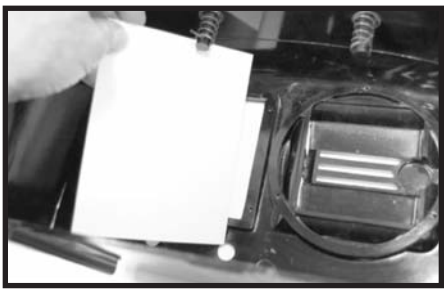
Demonstrating The Process

For my presentation I'm using two examples; a Templetone model BP2-A5 military "morale" radio and a typical little Emerson Bakelite set. After the pattern is marked the making of the dial cover is exactly the same for both of them so I will show only the Templetone dial cover in process because it's bigger and easier to illustrate.

To begin I removed the old dial cover and cleaned out the dial opening of any remaining cover pieces or dirt. You need to make a transfer pattern of the dial opening in order to make a mold. The finished mold consists of two parts, an inner solid sheet the size, shape and depth of the dial cover and an outer sheet with a hole matching the inner mold. The two halves need enough space for the plastic to slip in between them comfortably. A little more space won't make a lot of difference but too little will bind and damage the soft plastic.



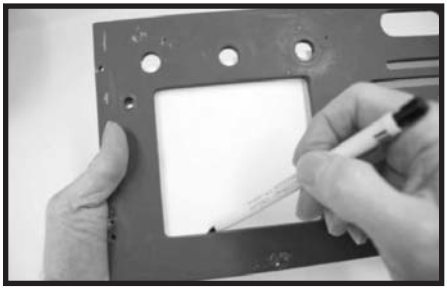
1 - Dial opening inside a small Emerson Bakelite radio.



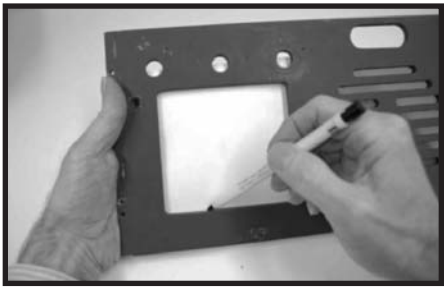
2 - Placing a piece of heavy paper inside the cabinet of a small Emerson Bakelite radio.

3 - Drawing the outline of the dial opening in a small Emerson Bakelite radio.

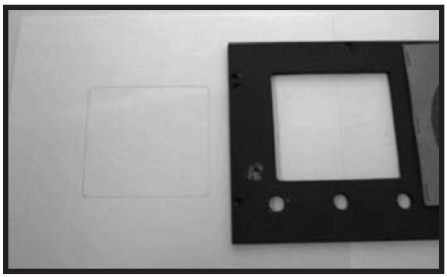
Take a piece of cardboard or heavy stock paper such as a file folder and trace an outline of the inside of the dial opening onto the cardboard. To get a pattern from a radio like the Emerson place a sheet of cardboard inside the cabinet. Hold it tightly against the front and trace the outline of the opening onto the cardboard. Some radios like the Zenith model 6D029 “Boomerang” have a separate metal trim piece around the dial that holds the dial cover. You can remove the trim piece from the cabinet for better access when you trace it.



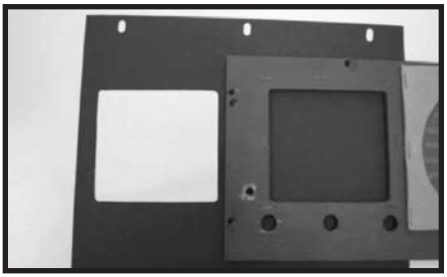
4 - Drawing the outline of the dial opening in a Templetone military radio.



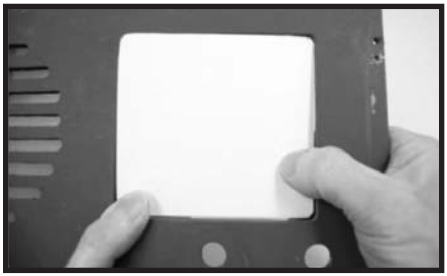
5 - Drawing the outline of the dial opening in a Templetone military radio.



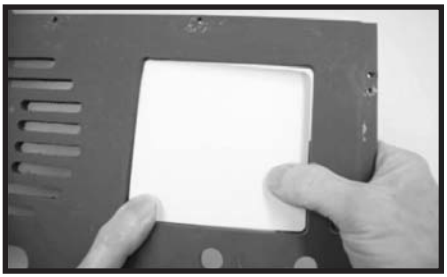
6 - Dial outline drawn on a piece of heavy paper shown next to the Templetone radio dial opening that it was traced from.



7 - Paper pattern cut out matching the dial opening for a Templetone military radio.



8 - Checking the paper pattern for size in the dial opening of a Templetone military radio.

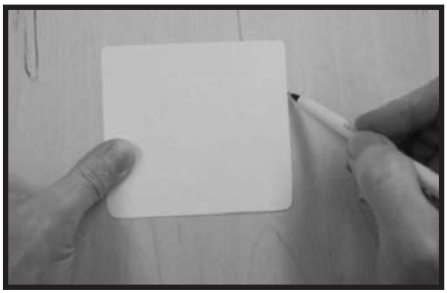


9 - Checking the paper pattern for size in the dial opening of a Templetone military radio.

For the inner part of the mold, use a sheet of material a little larger than your dial opening and of the same thickness that you want for the depth of the dial cover. Some professionals use one-quarter inch thick plywood but for my Templetone, I used a scrap of one eighth inch thick Masonite because the original cover was about one eighth of an inch in depth and I wanted to match it. If you want a one quarter inch depth, use one quarter inch thick material.

The instructions included with the www.dialcover.com kit direct you to cut the mold with a jig saw (a term that some people use when referring to what is now more commonly called a scroll saw) using a .018 inch thick saw blade to cut out both halves of the mold in one operation saving both the hole and the surrounding sheet. You have to start at the outside edge of the plywood sheet and cut into the center hole leaving a narrow slot in the outside mold. If you do that it would make the two halves match very well with just enough space between them for molding the plastic material. This would use less plywood and take less time than cutting two separate pieces which is important for people who make a lot of these. Since I don't have a scroll saw I found it easier to use two separate pieces and cut each half of the mold separately using a saber saw (AKA a jig saw). This is also necessary if you are using two different mold thicknesses as I did.

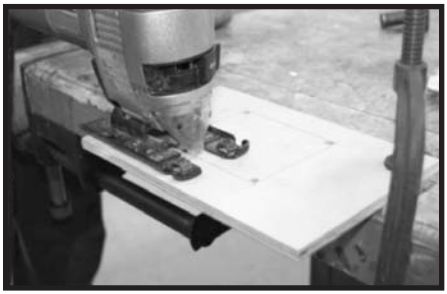
Place the pattern in the center of the inner mold sheet and draw a line around the outside of it. Remove the pattern and carefully cut the sheet along the center of the line. You can use any convenient method such as a saber saw, scroll saw or band saw with a fine tooth blade. If you absolutely have to you can also cut it by hand with a hacksaw blade, coping saw or keyhole saw but it's really hard to hold a straight true line cutting with hand tools.



10 - Tracing the pattern onto a sheet of plywood to make a mold.

11 - Tracing the pattern onto a sheet of plywood to make a mold.

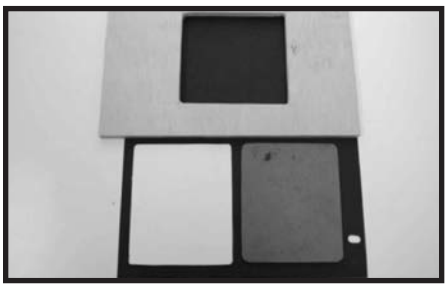
After you cut out the inner mold, lightly sand the edges on a flat surface to smooth out and straighten any rough areas or splintering and round the edges a little. The inner mold should be sanded as smooth and clean of any particles or splinters as possible. The finished dial will closely match the shape and surface texture of this inner mold much like stretching a balloon over a book. If the dial cover should have a smooth rounded edge then smooth out the edges of the mold to the desired shape matching the original cover.



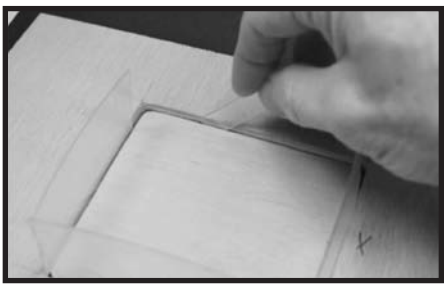
12 - Cutting out the mold with a saber saw.

For the outer part of the mold start with a sheet of one quarter inch thick plywood several inches larger all around than the cover. Place the pattern in the center and draw a line around it. This time, cut a hole in the plywood along the center of the tracing line and remove the part inside the hole. Sand the rough surfaces smooth but don't round off the edges. After making the outer mold, verify that the hole is not larger than the actual dial opening. The size of the hole will depend on the width of the saw blade that you used and how closely you followed the pattern line. If the hole is too large the new dial cover may be too big to fit easily into the opening in the radio. Put the cardboard pattern in the outer mold and check that the hole is no more than a pencil line's width bigger on all sides. If it is you probably should start over and make a new outer mold. It might be a good idea to try making precision cuts on scrap plywood if you don't have experience. Otherwise you may experience making scrap plywood trying to cut with precision. (Excuse me; I just couldn't resist planting that prose in this garden of doggerel.)

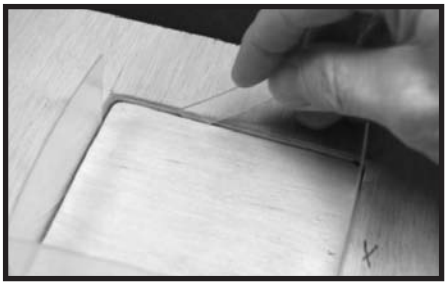
Now that you have the two halves you should fit them together and make sure that you have enough clearance between them for the plastic to fit between the gap. PVC is .020 inches thick and PETG is about .023 inches thick with the protective film on both sides. You will need at least this much space all around the perimeter between the two halves of the mold in order for it to fit together with the plastic between them. An easy way to verify this is to fit the two mold halves together and put some small strips of the plastic material that you are using into the gap between them. One strip on each side takes up just the amount of space necessary in each axis of the mold. The strips should fit between the two halves of the mold without becoming stuck anywhere along the length of the side. Test all sides of the mold for proper fit and sand any areas of the inner mold that are too tight. Don't sand the outer mold or you risk making it too big. It is always better that the cover be a little smaller than too big.



13 - Both halves of the mold shown with the paper pattern.



14 - Checking the mold halves for adequate clearance. (Extra large plastic pieces shown for clarity.)



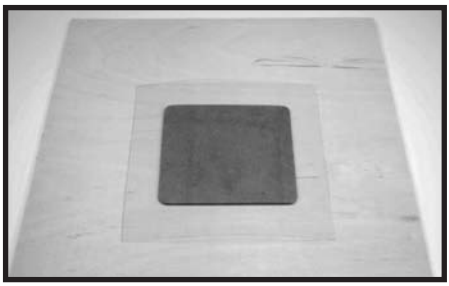
15 - Checking the mold halves for adequate clearance. (Extra large plastic pieces shown for clarity.)

When the mold is done you are ready to make your dial cover. Cut out a piece of the plastic at least an inch larger on all sides than the old dial cover. You can trim it to size later after it has been molded. The dialcover.com instructions direct you to leave the protective film on the plastic for molding. The PETG data sheet implies that the protective film be removed before molding and I found that the results were better when I did.

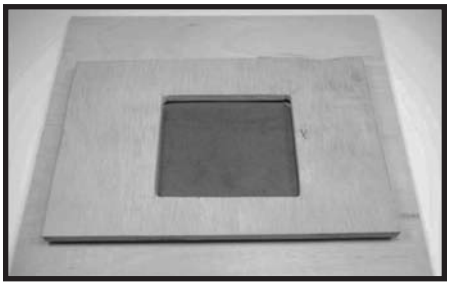
Make sure that the inner mold is clean, smooth and free of particles. The process of stretching the plastic in the mold can transfer the outline of particles, dirt and even the wood grain and surface texture to the dial cover. For the first try I stacked the parts on a plywood base a little bigger than the mold parts. First the inner mold went in the center of the base then I centered the plastic on top of it. The outer mold went on top of the plastic sheet centering the hole over the inner mold below.

16 - The inner Masonite mold piece positioned on the base.

Initially for molding PETG I followed the instructions and preheated the oven to 250°F. If you mold PVC a setting about 50°F higher works better. When the oven was hot I put the mold stack in and allowed it to heat for 8 to 10 minutes. After it was heated I removed the stack from the oven using heat resistant gloves for protection. I put the mold on a sturdy flat surface and pressed down on the outer mold forcing the plastic film down over the inner mold until the outer mold was flat against the base. I held it there securely until it was cool. When the plastic gets hot it becomes soft and rubbery. When you press the mold together it has a tendency to push apart slightly because of this. It is important to clamp the mold tightly on all sides while the plastic is cooling. If you don't, the edges can buckle and the plastic can shrink.

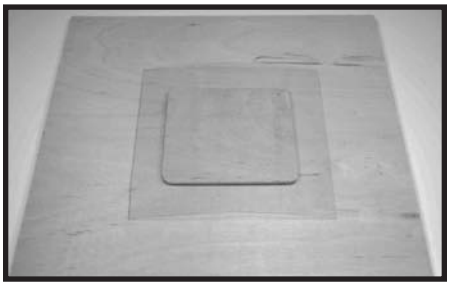


17 - The plastic centered on top of the inner mold.

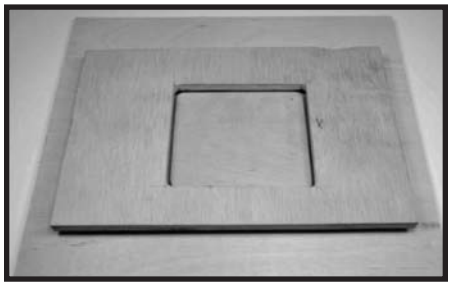


18 - The outer mold centered on top of the plastic and inner mold.

19 - The inner plywood mold piece positioned on the base.



20 - The plastic centered on top of the inner mold.



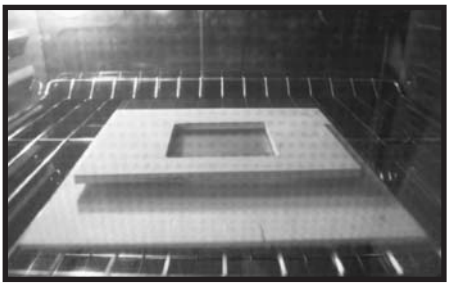
21 - The outer mold centered on top of the plastic and inner mold.

Here is where things got interesting for me. The instructions with the kit have you leave the protective film on the PETG. When I left the film on I ended up with patterns molded into the surface that looked something like water marks. When I removed the film before I molded the PETG that eliminated the marks but other things happened.

One thing that caused big trouble was moisture. About a minute after removing the mold from the oven, condensation formed on the inside surface of the dial cover. If left there it would permanently haze either type of plastic material. To prevent this from happening I held the mold together as long as there was no haze forming. As soon as I saw a haze start to form, I quickly took the mold apart and let the plastic continue to cool in air. That completely eliminated the hazing and made the clearest cover that I had seen so far but it wasn't easy. The plastic was not quite cool enough and it stuck to the mold. Also the edges were still soft and they would buckle a little especially when molding PETG.

To solve the moisture problem I tried a couple of things to prevent condensation. First I covered the inner mold with aluminum foil to seal in any moisture. That did prevent condensation but unless I applied the foil absolutely flat and perfectly smooth it produced a surface pattern in the plastic. Preheating the mold in the oven for about twenty minutes to drive out moisture was a much better solution. After the preheat I placed the plastic in the mold and let it heat up for another three minutes. That solved the condensation problem but I still wasn't getting consistently good results. The plastic would droop and stick to the inner mold ruining the surface of the plastic.

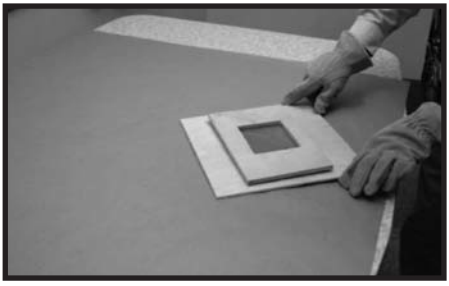
I finally concluded that setting the temperature to 250°F for PETG was too hot. The plastic should be soft and rubbery enough to mold but not so hot that it gets limp and droopy. Lowering the oven temperature to 225 °F made all the difference. At the lower temperature the results were excellent and consistent. Every dial cover came out with a beautiful clear surface and molded well. To sum up, I preheat the mold for twenty minutes at 225°F to expel moisture. Then I put the plastic in the mold and heat it up for another three minutes. When the plastic has heated I remove the mold stack from the oven and press the mold together tightly until it cools. It takes about five minutes for the plastic to harden sufficiently enough to remove it from the mold but don't be in a hurry.



22 - Heating the mold in the oven.

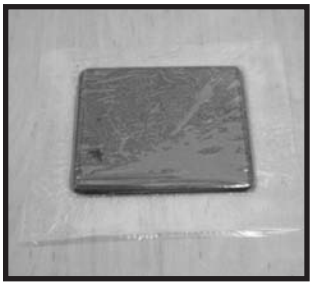
After the plastic is cool remove it from the mold and trim the edges of the dial cover so that it will fit inside the radio leaving enough around the outside to attach it to the case. Comparing the size to the old cover will help with this but remember the old cover has shrunk so allow for that. Place the cover in the dial opening and secure it with whatever means the radio manufacturer used. Often for wood radio cabinets they simply tack stapled them in. For Bakelite they might have used small metal press-in 'trimounts' or small screws. For radios with metal trim around the dial you may have to cut small slots or holes in the dial cover to fit over metal twist tabs on the trim. The dialcover.com instructions actually work quite well if you don't mind a little watermarking of the cover. You get fairly repeatable results and the instructions are uncomplicated. The protective film watermarking may be less severe at the lower temperature setting but I did not try it.

I have used both PVC and PETG in tests and both produce acceptable results. PVC holds its size well while PETG sometimes has a tendency to shrink a little. I left extra around the outside of the mold to make up for this and to be sure I had enough to attach to the radio. PETG conforms to the shape of the mold a little better, flattens well and has a very good surface quality due to the protecting films. This is probably why the professional dial cover makers prefer it. PVC gives more consistent results but may not have as nice a surface finish as the PETG. Many of these problems could just be due to my inexperience at molding plastic and you may have the same situation.



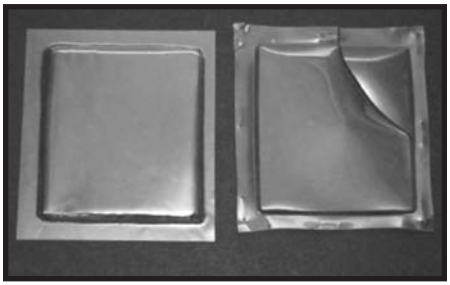
23 - Hot mold removed from the oven.

24 - Pressing the mold to form the plastic.

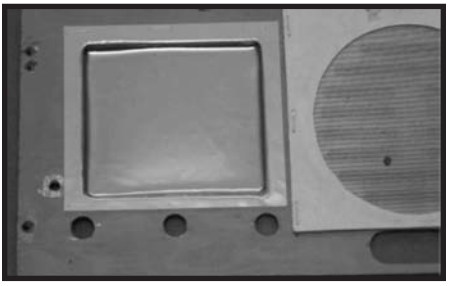


25 - The cooled plastic formed on the inner mold.

The ultimate stiffness of the plastic changes significantly depending on your oven temperature. Domestic kitchen ovens can vary by more than 50 degrees from the setting depending on the accuracy of the heat control and the placement of the mold in the oven. As little as 25 °F too high can make all the difference between a perfect cover and a hazed reject. Once you know what setting works for your oven the results are fairly repeatable. Certainly an amount of practice and experimentation is necessary to learn what works better and what doesn't in your oven.



26 - The new cover on the left shown with the old cover on the right.



27 - The new cover in the Templetone military radio dial opening.

If you regularly do restorations or simply like to do your own work you can make your own dial covers at home. You don't need a lot of special equipment or tooling. If you can cut a square hole in plywood you can probably make a dial cover and save a few dollars. Making your own cover also allows you to do some customizing and matching such as odd shapes, depths or curvature. After you have some practice at making the mold parts you can probably skip some of the steps that check for proper size but for the first several tries I'd rather be sure before I make scrap out of plastic film. Most covers do not have to be made with great precision so some inaccuracy here and there won't matter. As long as the cover fits in the hole and looks reasonably close to the original you are successful.

Vivak® PETG plastic film is a registered trademark of Sheffield Plastics Inc.

28 - Templetone military radio with original dial cover.

29 - Templetone military radio with new dial cover.

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3. Vivak® Fabricating, Forming, Finishing Guide, Vivak FabGuide 12/04, Sheffield Plastics Inc., http://www.sheffieldplastics.com/web_docs/BRO009_VIBro.pdf
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NEWS FROM THE HAMSHACK

By Jim Novak, WA9FIH

TWO INTERESTING PHILCO RADIOS

Flea market and garage sale addict that I am, I occasionally run into a radio that kind of stands out and catches my eye. Such was the case recently when within a couple of weeks I ended up with two Philco table radios made in 1949 and the early 1950s that I thought were rather unusual and quite affordable as well!

Philco Tropic Radio.

My first purchase, at the Kane County Flea Market, was a rather uncommon ivory painted plastic Philco Tropic Model A3601 from 1954 or 1955. Philco used the "Tropic" name beginning in 1939 and continuing into the early 1950s for a line of "ruggedized" radios that were given special treatments to withstand heat, humidity and other effects of harsh climates found in "tropical" areas of the world. The radios also had shortwave coverage in addition to the standard AM broadcast band (mine has dial markings of 65 to 17 Meters as well as 550 to 1600 kc/s), and could operate on either an AC or DC,

115 or 230 Volt power source. Philco Tropics were made in the U.S., Argentina, Canada and England, and you can find a wealth of information about them on Ron Ramirez' excellent web site, www.PhilcoRadio.com. My A3601 appears to have been made in England. The tube line up consists of a 6BJ6, 12AT6, 12BE6, 35L6GT and 35W4.

The lady who sold me the A3601 said that it must have needed a tube, because the radio was completely dead, nothing lit up. It was nice to run into someone who still understands vacuum tube technology, unlike another recent seller who insisted that the "All American Five" radio with power cord cut off that he was selling must have needed new batteries! Well, she was right – one new tube made the difference, although I did also need to replace the electrolytic filter capacitor to get rid of some HUMMM! My Tropic works just fine now, nice and sensitive on the AM Broadcast Band and shortwave reception is good too when a length of hookup wire was strung out to serve as an antenna. By the way, Philco seems to have used cabinets from their standard BC band line for these radios, as the "AM-SW" switch is on the back of the chassis!

Philco Secretary Radio.

My second "special" Philco came home with me following our October ARCI meet, which featured a truly amazing donation auction. I could not resist bidding on and subsequently winning another ivory painted plastic Philco, a 1949 vintage Model 49-901 "Secretary" radio. Upon first glance, this Philco looks more like an intercom than a radio. The tube line-up is typical of an "All-American Five," but this set has a novel "no knobs" feature. Six AM-BC band stations can be preset through holes in the bottom of the cabinet. The front of the radio has a speaker on the left, and a large serrated roller on the right. Rotating the roller turns the radio on and adjusts volume; depressing it changes the station. The radio's pilot light has a color wheel that changes color when different stations are tuned in. This radio needed a new AC line cord, some recapping, and application of contact cleaner to get it working as it should. A little cosmetic work left it looking like new and not at all like its 66 year age.

AMECO'S LINE OF HAM TRANSMITTERS

AMECO – American Electronics Company – located on Long Island, New York, began selling ham equipment back in the 1950s and is still in business today with a modest line of accessories. Over the years they sold a very popular line of VHF converters for 50, 144 and 220 MHz, Nuvistor preamps for 6 and 2 Meters, several tunable preamps for HF (3-30 MHz) and a number of other products. This article will focus on the transmitters they produced.

Ameco 50, 144 and 220 MC VFO Model VFO-621.

AMECO's first transmitter was the AC-1, a simple two tube 40 and 80 Meter CW (Morse code) only kit intended for the Novice operator. The built in AC power supply used a 6X5GT rectifier tube, and the oscillator was a 6V6GT running about 12 to 15 Watts input and putting perhaps 5 to 7 Watts of RF into the antenna feedline. Band switching was by means of changing plug-in coils. Exact transmitting frequency was determined by a quartz crystal. There was no cabinet, just open chassis construction, and the operator needed a separate antenna for transmit and receive as there was no provision for an antenna relay. Sound crude by today's standards? Perhaps, but this was an inexpensive way to get on the air – the kit sold for less than $20, and could have been considered something akin to a science fair project.

Ameco Transmitter Model AC-1 Transmitter.

Forward a few years into the early 1960s. AMECO's next transmitter was much more sophisticated. Called the TX-86, it was a compact 80 through 6 Meter bandswitching unit with built in modulator for AM phone transmission and could be used on CW as well. The 110 Volt AC PS-3 power supply was a separate unit; the transmitter could also be used mobile with an appropriate DC supply such as a military surplus dynamotor. The TX-86 employed constant carrier screen modulation, using a 6BQ5 to modulate the screen grid of a 6883 (12 Volt version of the 6146). Although not as efficient as plate modulation, the TX-86 had great sounding audio providing a good quality microphone was used. This rig was also crystal controlled, although an external VFO could be used, and it also had provision for controlling an external coaxial relay such as a Dow-Key DK-60 to switch one's antenna from receiver to transmitter.

Ameco Model TX-62 Transmitter.

Having gotten "hooked" on the Six Meter (50 MHz) band early in my ham career, my second rig for that band was a TX-86, which I still own. It puts out about 25 or 30 Watts of RF on 6. Back in the AM days I managed to contact all of the 48 contiguous states, several Canadian provinces and Mexico, just using a small three element Yagi beam antenna. I did use it with a few crystals, and also had a National VFO-62 hooked up to snag those stations that were "in between" my crystal frequencies. Receiving was via another AMECO product, their model CB-6 converter which used a 6ES8 RF amplifier, and converted the six meter signals down to the 20 Meter (14 MHz) range on my good old Hallicrafters S-85 receiver. By the way, my PS-3 power supply did "double duty" as I also used it to power my HF (80-10 Meter) transmitter, a Heathkit Cheyenne MT-1 which was compatible with power requirements as it also used a 6146 final tube.

Ameco Model TX-86 Transmitter and Power Supply Model PS-3.

AMECO's final transmitter was the TX-62, a nice looking 6 and 2 Meter AM and CW transmitter which also used constant carrier screen modulation, and used a rather unusual tube as the final amplilfier – a GE 7984, which was similar to a 6146 in function but was "single ended" with the plate lead coming out the bottom, into a Compactron base. The TX-62 was quite popular with VHF AM operators before Single Sideband took over. AMECO also marketed a matching VFO, the VFO-621, a solid state design which also had provision for 220 MHz operation although the company never offered a rig for that band. I operated a TX-62 and VFO-621 on two meters for several years, using it with a "homebrew" W2AZL design converter using a pair of 417A tubes, into the twenty meter band on a Hallicrafters SX-111 receiver. Back then I was only using a small three element beam inside the attic for two meters, but even with this simple set up I did manage to make contacts into Indiana, Michigan, Wisconsin and, when band conditions permitted, even across the Mississippi River into Iowa!

NEWS FROM THE MUSEUM OF BROADCASTING COMMUNICATIONS

By David Bart

NATIONAL RADIO HALL OF FAME INDUCTION OF THE CLASS OF 2015

The Museum of Broadcast Communications (MBC) celebrated the 2015 induction of new members into the National Radio Hall of Fame on Thursday, Nov. 5. The sold out black-tie ceremony was hosted by Blair Garner, host of America's Morning Show. Jim Bohannon of Westwood One reprised his role as the broadcast's announcer. Other presenters included: Neal Boortz, former nationally syndicated talk show personality; Mickey Luckoff, former KGO President/GM; Tom Poleman, National Programming and iHeardMedia/New York, SVP/Programming/Marketing; Dan Mason Jr., Operations Manager for HOT 101.5, 97X, 102.5 The Bone; William "Fuzzy" West and Jason Ryan, two long-time producers of Real 92.3 KRRL-FM Los Angeles; Chris Wheat, former GM of WFBQ-FM 94.7 Indianapolis and Rick Green, current Market President/Indianapolis; and Norm Winer, Program Director of WXRT-FM 93.1 Chicago.

The newly-inducted NRHOF Class of 2015 includes, by category:

Active Local/Regional (10 years or more)
Big Boy (Kurt Alexander), Los Angeles

Longstanding Local/Regional (20 years or more)
Ronn Owens, San Francisco

Networks/Syndication (10 years or more)
Dave Ramsey, Nashville

Longstanding Network/Syndication (20 years or more)
Bob Kevoian & Tom Griswold ("The Bob & Tom Show"), Indianapolis

Music Format On-Air Personality
Elvis Duran, New York

Spoken Word On-Air Personality
Clark Howard, Atlanta

For Contributions to the Radio Industry
Dan Mason, longtime CBS Radio President/CEO

Scott Muni, legendary DJ for WABC-AM and WNEW-FM in New York (posthumous)

NRHOF Chairman Kraig T. Kitchin said, "This highly esteemed 2015 class of inductees represents the hard work, drive and unique talent that makes radio great. On behalf of the National Radio Hall of Fame, I want to thank all those who took the time to thoughtfully cast their votes." Additional information can be found at the Radio Hall of Fame website http://www.radiohof.org/.

THE OCTOBER MEET

THE OCTOBER MEET

BUSINESS CARD ADS

We invite all of our members to scan and send in your business card to be included in *ARCI News.* For $80 your card will appear in the next 6 issues! Your card will be seen by approximately 400 people per issue and up to 1,000 people at *Radiofest* where we make additional copies of ARCI News available at no charge. If interested, please scan your card and send it to jbart1964@gmail.com and mail a check for $80 to Rudy Hecker, ARCI Treasurer, 127 Weymouth Court, Schaumburg, IL 60193. Thank you all for your continued support of ARCI!!!

THE OCTOBER MEET

THE OCTOBER MEET

CLUBING AROUND

ANTIQUE WIRELESS ASSOCIATION

The Antique Wireless Association will have its next meeting in May 2016 at the AWA Museum in Bloomfield, New York. The AWA, our national affiliate, publishes the AWA Journal, the AWA Review and The AWA Gateway. The latest edition of The AWA Gateway is available for free at http://www.antiquewireless.org/awa-gateway.html. Dues are $35 per year. Information can be found at http://www.antiquewireless.org/.

WISCONSIN ANTIQUE RADIO CLUB, INC.

The next WARCI meeting will take place in mid January 2016. For information about the club, please contact President Greg Hunolt at ghunolt@excel.net or see the web site at www.warci.org.

NORTHLAND ANTIQUE RADIO CLUB

The Minnesota Club has its next event is scheduled for February, 2016, a workshop and outdoor mini-swap meet. Radio Daze, the Upper Midwest's ultimate vintage radio collecting event, will be held May 20-21, 2016. For more information and the date which will be announced, please see http://www.northlandantiqueradioclub.com/index.shtml.

MICHIGAN ANTIQUE RADIO CLUB

MARC's next meet is scheduled for Jan. 16, 2016 at the Costick Center in Farmington Hills, Michigan. Details will be announced. Please see the MARC web site for more information at http://michiganantiqueradio.org/.

INDIANA HISTORICAL RADIO SOCIETY

IHRS Winter Meet will be held mid-Feb. 2016 at the Lawrence Park Community Center, City of Lawrence, 5301 N. Franklin Road (north east Indianapolis). For information please see http://www.indianahistoricalradio.org/ihrsched.htm.

THE OCTOBER MEET

ARCI NEWS

Antique Radio Club of Illinois
PO Box 1139
LaGrange Park, IL 60562