

HAMMERHEAD/BOMBHELL USE

Thank you for choosing TwentyTwo Designs telemark bindings. Your new bindings will bring your skiing to a new level, enjoy! If you have any questions or need service please contact us:
info@twentytwodesigns.com
(866) 733-0553 toll free or (208) 354-0553; fax: (208) 354-0554
See www.twentytwodesigns.com/tech for more information.

WARRANTY

The HammerHead and BombShell bindings, made by TwentyTwo Designs LLC, are warranted to be free from manufacturing defects for two years from the date of purchase. If a part fails during this period, contact us for a replacement at no charge. If a part fails after this period, contact us for a replacement at a reasonable charge. Normal wear and tear is not covered under warranty.

-Never apply anything that sprays from a can or contains solvents to your bindings; it could severely damage the plastic pieces of the binding. Never use Loctite® when mounting.

WARNING

Skiing is an inherently hazardous and dangerous sport. The user of TwentyTwo Designs LLC products is personally and solely responsible for learning proper skiing techniques and exercising good judgment. Use of TwentyTwo Designs LLC products is at your own risk. HammerHead/BombShell telemark bindings are not releasable. Injury and even death can occur while skiing from any number of causes, i.e. avalanches, snow conditions, unseen obstacles, equipment failures, weather, etc. If you ski long enough, you will eventually get hurt. Always ski in control to help protect yourself and others.

Our bindings are made in the USA.

TAIL THROW AND CLIMBING BAIL

The tail throw will fit all telemark boots in the cable groove. To snap into the bindings, position the orange or pink beaver tail under the heel of your boot, then lift up on the tail throw. The beaver tail will help lever the tail throw so it fits right into the boot's cable groove. For uphill travel, the spring loaded climbing bail on the HammerHead can be flipped up or down with the basket of your ski pole. Try flipping the tail throw upside-down to reduce spring pre-load while touring.

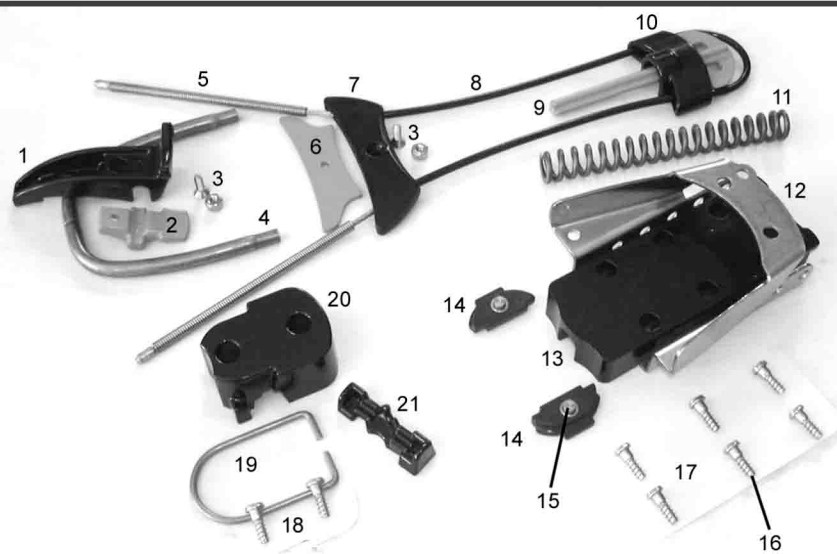


Use the beaver tail under your heel to position the tailpiece



Tail in optional touring position to position the tailpiece

BINDING ANATOMY

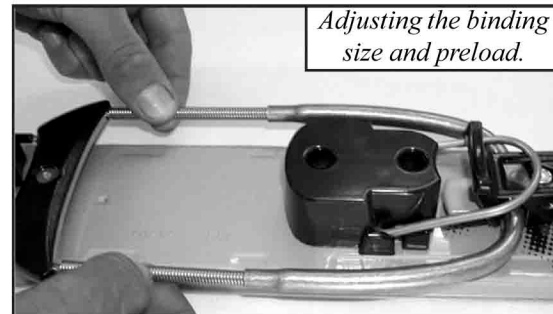


- | | | |
|---------------------|-----------------|--------------------------|
| 1- Tail Throw | 8- Cable | 15- Spring Button |
| 2- Beaver Tail | 9- Anchor | 16- Mounting Screw |
| 3- Screw and Nut | 10- Head | 17- Anti Ice Tape (shim) |
| 4- Heel Tube | 11- Main Spring | 18- Anti Ice Tape (heel) |
| 5- Adjustment Coil | 12- Toeplate | 19- Climbing Bail |
| 6- Inside Spreader | 13- Shim | 20- HammerHead Body |
| 7- Outside Spreader | 14- Cable Guide | 21- HammerHead Key |

BOOT SIZING

To adjust the binding for your boot size, spin the adjustment coils in or out of the U-shaped heel tube. Make sure that both coils have about the same length showing.

The bindings should be tight enough so that the tail throw snaps into place when flipped onto your boot (see tail throw panel). For a stiffer feel put more pre-load on the main spring by tightening the coils further.



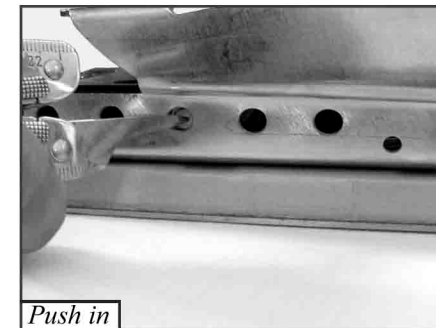
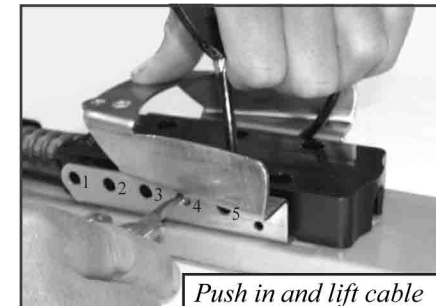
Note that the HammerHead Climbing Bail can be used to hold the tail throw down to keep it from flopping around when not in use.

CABLE GUIDE ADJUSTMENT

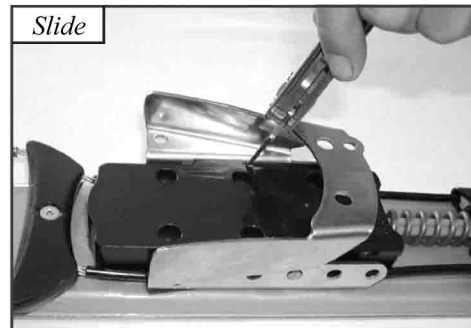
Adjustable cable guides are what make the HammerHead and BombShell so versatile. They slide forward and back on either side of the binding to any of the 5 holes, or can be removed from the front.

When depressing the spring button, use a pointed tool that fits in the dimple of the spring button. If the tracks have snow packed in them, clear them before sliding the cable guides. Position numbers are shown at left.

For a more neutral flex, move the cable guides forward. Depress the spring button while lifting up on the cable. The cable guide will be forced forward to the next hole. Then repeat on the other side. Keep the cable guides symmetrical.



For a more active flex, move the cable guides back. Depress the spring button and slide it toward the back of the binding by pushing against the dimple in the spring button. Once the button is past the hole, slide the cable guide back by pushing it from the notch in the top. Repeat until the cable guide is in the desired position.



PARTS & ACCESSORIES

Parts and accessories for your bindings are available from your local tele shop or direct from us. Parts rarely break but all are available for a reasonable price, or for free if under warranty. Accessories:

- **Stiffy Spring Kit** - for even more power
- **Ski Insert Adapter Kit** - mount using inserts
- **Extra Tall and Short** climbing bails
- **The Coil Leash and Tail Leash** shown to the left
- Schwag such as **T-shirts and Hoodies**:



SKIING THE BINDINGS

- HammerHeads and BombShells are extremely versatile bindings that can be adjusted for your skiing style and optimized for snow and terrain. They are the only bindings that have an adjustable pivot point for larger and smaller boots. When the cable guides are adjusted to the furthest rearward holes (position 5), the binding will flex very actively. In a telemark turn, an active flex will force your rear boot to flex at its bellows as you bend your knee. This will hold the ball of your foot down tight to the top of the binding and bring more weight to the back ski. With an active flex you get more control of the ski and it carves easier.
- For your first run, be sure to adjust the size so that the bindings are very tight on your boot. This will allow some room for the spring and cable to set fully into the binding.
- Try skiing your bindings for a few runs in position 5 (the rear-most holes) to feel the full effect of your bindings. Then experiment with different positions to see which ones you prefer.
- The smaller your boots are, the more active the binding will feel in each position.
- To make small changes in the feel of the bindings, tighten or loosen the adjustment coils to change the spring force on the cable. Screw the coils in for more resistance when you lift your heel, out for less.
- When ski touring with your bindings it is very beneficial to move the cable guides to the front hole (position 1) or remove them completely (position 0). This will reduce the binding's resistance to your stride as you travel.

MOUNTING INSTRUCTIONS

MOUNTING TOOLS



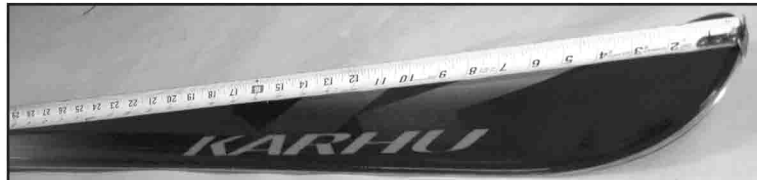
- Drill
- Hammer
- Tape Measure
- Adhesive Tape
- 9/64" or 5/32" drill bit (3.5 to 4.1mm)
- #3 Pozidrive Screwdriver
- Nail or Punch
- Marker
- Razor blade or Knife
- Ski Tap (only if your skis have a metal topsheet)

1 FIND MOUNTING LOCATION ON SKIS

Use the mounting location provided by the ski manufacturer, making sure the two skis match. Do not use any marks on alpine skis. You can call the manufacturer if you need a location on older skis. If you need to find your own location, our suggested method is below.

Finding your own mounting location

- Place your skis on a flat surface and measure from the ski tip back to the point where the rear of the ski leaves the surface. Divide this measurement in half.
- Measure from the tip of each ski, and mark the center.

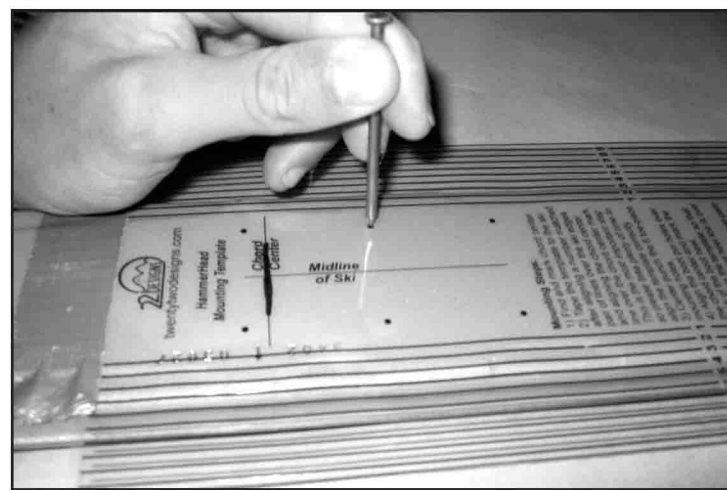


Measure from the tip back, then divide the number in half and mark

Note: Boot pinholes over chord center, or ski midpoint, is the traditional place to mount telemark bindings. However, mounting locations have been migrating forward in recent years. The method above will put you a bit forward of chord center. Forward mounts provide better turn initiation, and mounts further back provide better floatation in powder. Today's fatter skis provide plenty of floatation, that's why mounts are further forward. For in-depth discussion on this topic, search the forum at telemarktips.com. Please don't call us asking where to mount a specific ski; that's a question for the ski manufacturer.

2 MARK FRONT MOUNTING HOLES

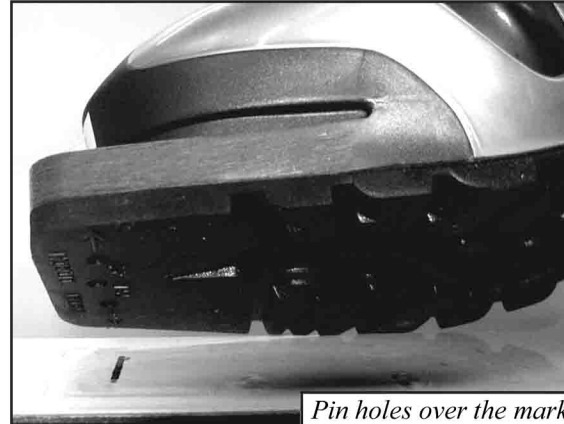
- Print a mounting template from our website at twentytwodesigns.com/template.html. Measure the dots on the printout to make sure the scale is exact. The holes should be 1.5" apart.
- Align the template side to side on the ski by using a matched set of parallel lines. Be sure that the template is well centered and straight.
- Tape the template to the ski.
- Position a nail or a center punch in the center of the each of the 6 dots on the forward part of the mounting template. Tap with a hammer to mark the locations. **Do not mark the two rear dots.**
- Repeat for the second ski.



Mark the mounting holes.

3 MARK BACK OF BOOT HEEL LOCATION

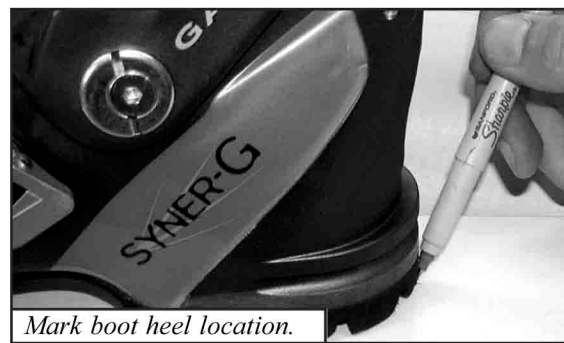
- Position the pin holes of your boot over the mounting mark on your ski.



Pin holes over the mark.

- Mark the location of the back of the boot heel on the ski.

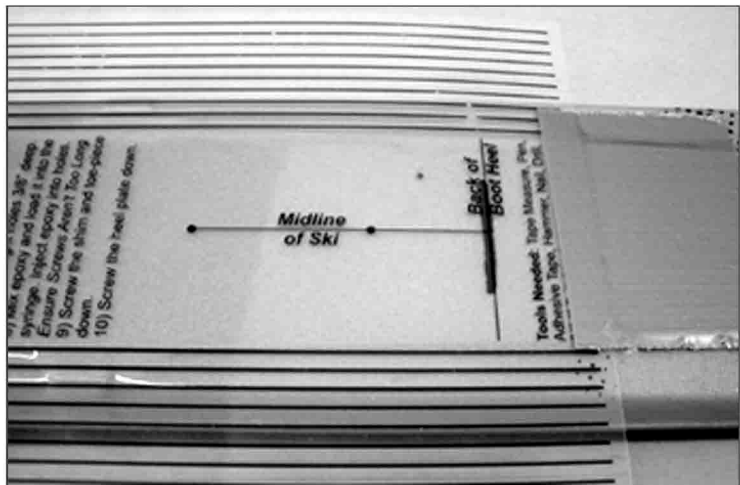
- Measure the distance from the tail of the ski to the boot heel mark, and mark the same distance on the other ski.



Mark boot heel location.

4 MARK HAMMERHEEL MOUNTING LOCATION

- Using the same mounting template align the 'Back of Boot Heel' line over the line that you just marked on your ski.
- Be sure that the template is centered on the ski by using a matched set of parallel lines as you did in step 2.
- Position a nail or center punch in the center of both of the 2 dots located on the rearward part of the mounting template. Tap them with a hammer to mark the locations.
- Repeat for the second ski.

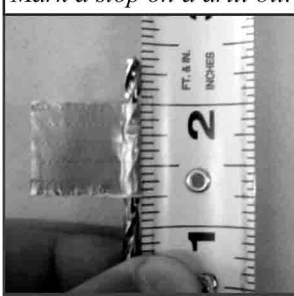


Two dots showing HammerHead mounting hole locations.

5 DRILL MOUNTING HOLES

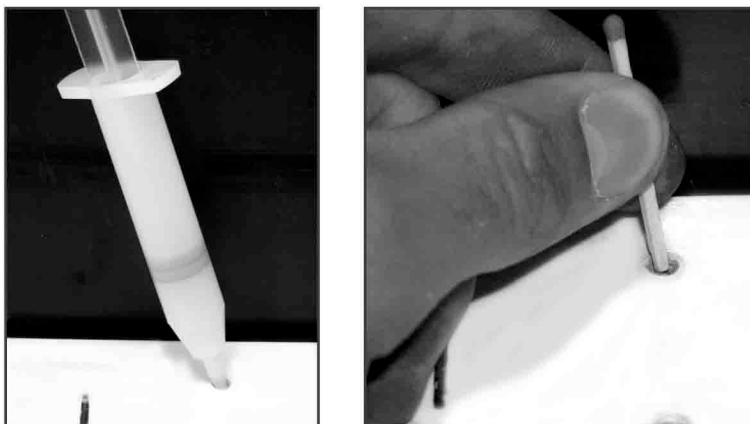
- Using the size of drill bit the ski manufacturer recommends (9/64" for 3.5mm or 5/32" for 4.1mm), measure back 3/8" (1 cm) from the tip and mark with a flap of duct tape. This will help keep you from drilling too far into your skis.
- Taking care to hold your drill vertical, drill holes into your skis. Be careful to stop at the duct tape. Drill holes in all of the locations that you punched.
- If there are any metal shavings in the sawdust you've made, then your ski has a metal topsheet and will need to be tapped. If screws are installed without tapping, they can lift the topsheet off of the rest of the ski. Use a special ski tap (available online at tognar.com) and tap only the topsheet, not the entire way down. Or take your skis to a ski shop where they can do it for you.
- Using a knife or razor blade, clean off any uplified material from around your mounting holes or old holes.
- Measure the thickness of your skis at the two rear holes where the HammerHead will be mounted. If they are not at least 7/16" thick, you'll need to grind down four mounting screws. If that's the case, check the area where the binding itself will be mounted. You may have to grind down all of the screws for a kids ski. Shorten the screws so that there is 1/8" from the end of the screws to the bottom of the ski. You can check by putting a screw into the HammerHead body and placing it on the ski. Slide it to one side so the screw comes down at the side of the ski.

Mark a stop on a drill bit.



6 GLUE MOUNTING HOLES

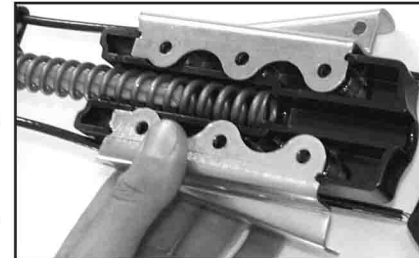
To hold your mounting screws in and to seal your ski cores from water, the holes in your skis must be filled with a waterproof adhesive before screwing down the bindings. Use an adhesive recommended by the ski manufacturer, such as slow curing epoxy or waterproof wood glue. Do not use Loctite®.



Use a plastic syringe or a match stick to completely fill mounting holes.

7 MOUNT THE BINDING

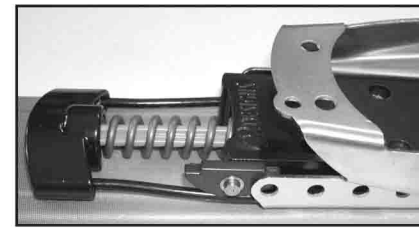
- Seat the shim inside the steel toeplate. Align the 6 holes between the parts, then make sure that the four notches mate with the shim.
- Set the binding on the ski so the binding's holes line up with the ski's drilled holes.
- Make sure the shim is still seated in the toeplate and the binding is flat on the ski.
- Set the screws in the holes in the shim. With a #3 pozidrive screwdriver, use considerable downward force to start the screws into the holes. Tighten all the screws gradually until tight and be careful not to strip out the holes in the ski.
- Install cable guides in the front of the binding with the cable underneath them, one on each side. Depress the spring buttons and slide them back into the track.



Position the toeplate.



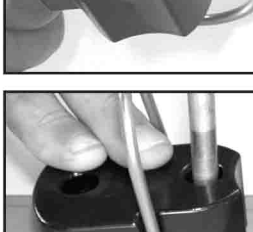
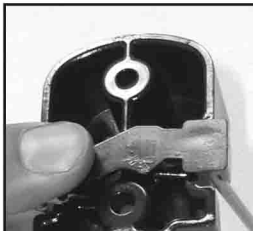
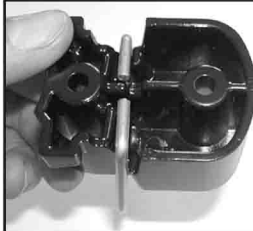
Screw down the binding.



Install the cable guides.

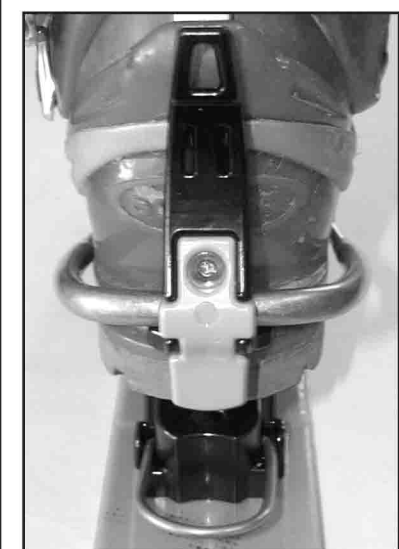
8 MOUNT THE HAMMERHEEL

- Find the HammerHead bodies, bails, and keys. The bails are lubricated with silicone, do not wipe it off.
- Turn the HammerHead body upside down and slide the bail over the smaller end of the body. Hold the bail vertically and seat it in the high groove as shown.
- Place the key over the bail and seat it into the body the best you can, as shown. The key is asymmetrical so that it will only seat one way. *It won't seat completely until the assembly is screwed down tight*, causing the climbing bail to be spring-loaded.
- Hold the key in place with the bail in the up position. Drop the screws into their holes. Position the HammerHead over the holes in the ski with the narrow end of the body toward the rear of the ski. It will take some patience to get the pieces aligned before you screw them down.
- Alternate tightening the mounting screws until the HammerHead is tight on the ski, making sure that the bail stays up.
- Check that the bail snaps up and down. If it doesn't, it may not be in the proper grooves.



9 CHECK BOOT ALIGNMENT

Put the correct boot in each binding (the third hole on the toeplate top marks the outside edge) and look from the back of the ski. Check to see that the boot heel is in line with the center of the ski. If it looks good, then turn the skis upside down overnight to let the glue dry around the screws.



If the binding needs to be realigned

Determine which way the binding needs to pivot. Remove the binding and reapply adhesive into the holes. Set the binding onto the ski. Tighten a screw into one of the two center holes. With your boot, align the binding straight down the ski and install a screw where the holes in the shim and ski line up the best. Tighten down both screws fully and recheck that the boot heel lines up. You may need to try several 2 hole combinations to get the binding lined up correctly. Next fully tighten a screw into the next hole which lines up the best, and finally install all of the screws and tighten.

10 APPLY ANTI-ICE TAPE (OPTIONAL)

The Anti-Ice Tape is used to prevent ice build-up on the tops of the shims. It is recommended for areas with wet, heavy snow. Replacements are available.

- Wipe off the tops of the main shim and the HammerHead body. You can use a small amount of rubbing alcohol if they are dirty or greasy.
- The Anti-Ice Tape over the two front holes on the shim has a tendency to break through. If this will bother you, cut 4 pieces of a 3/8" dowel at 1/2" lengths and drop them into the front holes before you apply the tape.
- Apply the tape and rub out any air bubbles; press hard.

MAINTENANCE

- Regular maintenance is not needed with our bindings.
- Never use anything sharp like a ski pole tip to remove ice from your bindings, you could scratch the plastic or anti-ice tape.
- If your boots get mud or dirt on them while hiking, try to clean them off in the snow before stepping into your bindings. You should also clean mud and dirt off of the bindings and out of the cable guide tracks after dirty spring skiing.

OTHER MOUNTING TIPS

- **Filling holes in previously mounted skis**
Use slow cure epoxy to fill old mounting holes in skis. If you have large holes to fill mix fine sawdust with the epoxy and press it into the holes. Let the epoxy cure and you can drill new mounting holes at least 1/4" away from the old holes.
- **If the binding doesn't sit flat on the ski**
Make sure that the screws are tight. If they are, and the binding is still not flat, remove the binding. Check to see if the areas around the mounting holes are "volcanoed" up. If they are, remove the uplified material with a file, knife, or chisel. Make sure that the shim is mated with the notches in the toeplate and remount.
- **Removing bindings mounted with epoxied screws**
If the screws won't turn, stop before you strip the screw head (be sure to use the proper driver for the screw head). Heating the screw will liquify the epoxy and break the bonds;
1) Put a 7/64" drill bit in a high speed dill backwards so that the flat end is sticking out.
2) Spin the drill at full speed and press down hard for 30 seconds to heat up the screw by friction. 3) Try and remove the screw, if it still won't turn then use the drill to heat the screw further.