

HOW TO: MOD YOUR SKX007

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CHAPTER 1: GENERAL OVERVIEW (ANATOMY)

First off, welcome to the Seiko Modding community! This community is full of incredible individuals that are passionate about modding. We appreciate you taking the time to educate yourself on how to mod an SKX007 and can't wait to see the builds that come of this. We hope you enjoy this PDF as much as we enjoyed putting it together for you. Happy Modding!

Disclaimer: Seiko Modding can be highly contagious and may lead to over excitement resulting in sharing your builds with everyone.

We are kicking off this educational series with a general overview of what makes up the SKX007. Below you'll find a list of parts that you'll need to complete a full SKX007 build, and a visual breakdown of what these parts look like.

- Case Body The case body is what houses all of the components seen below.
 There are many different styles of case body's in the aftermarket space to choose from. The case body is generally offered with a crown position at 3 o'clock, or 4 o'clock.
- 2. Case Back The case back is what seals off the underside of the case body. On the SKX007 this is called a screw down case back. There are many different styles available on the market today including solid case backs (no see through window), and display case backs (with see through window). Case backs generally come with a case back gasket, and plays a vital role in water resistance.
- 3. **Movement** The movement is the engine of the watch. The machine that tells time, displays the day and date depending on what dial you use. The standard movement that comes with an SKX007 is a 7s26 movement. Whilst the 7s26 is the standard, or Original Equipment Manufacturer "OEM", a very popular

- modification is to upgrade to a NH35 (Date Only) or NH36 movement (Day and Date).
- 4. Dial The dial is the face of your mod. It's primary function is to tell time. There are many different styles of dials on the market today, and generally have day & date window, date only window, or no window at all. On the dials you will find a wide variety of applied indices and markers that are used to tell time. The dial lays over the top of the movement, and generally comes with 2 sets of feet on the bottom so you can adjust it for 3 o'clock and 4 o'clock crown positions based on the case body type.
- 5. **Crown** The crown is how you set the watches time, day, and date. There are many styles on the market today, but the main function is to switch the gears of the engine (movement). Crowns today generally have 2-3 gaskets pre-installed to keep the internals of your watch safe from water, adding to the water resistance of the build.
- Hand Set The hand set consist of an hour, minute, and seconds hand that are controlled by the movement, and regulated by the crown. The hand sets get pressed on over the top of the dial. There are many different styles of hand sets on the market today.
- 7. **Chapter Ring** The chapter ring is an aesthetic use of space between the dial face and the underside of the crystal. There are chapter rings that are sterile (no markers), and chapter rings with markers that can be paired up with your dial face.
- 8. Crystal The crystal is not only a seal for the top side of the case body, but can play a role in reducing reflections and be resistant to scratches. The SKX007 generally comes with a hardlex crystal. One of the biggest mods that can be done is going from hardlex to sapphire crystal. Sapphire Crystal is a 9 on the MOH's scale of hardness, so it is very scratch resistant, and popular amongst modders.
- 9. **Crystal Gasket** The crystal gasket plays a large role in the water resistance of your build. The crystal gasket goes into the case body, and then the crystal is pressed into it to create a water resistant seal.
- 10. **Bezel** The standard rotating bezel houses the bezel insert, and is generally uni-directional (rotates one way). The bezel also houses a bezel gasket that aides in the water resistance and action of the bezel.
- 11. **Bezel Insert** The bezel insert goes into the bezel. There are many different styles on the market today that serve different functions around time, and there are some that serve no function around time and are strictly for aesthetics.
- 12. **Bezel Click Springs** The bezel click spring is what gets laid under the bezel to aid in the rotation of the bezel. The "click" spring refers to the noise it makes when the bezel rotates and the fingers of the spring go across the notches on the underside of the bezel.
- 13. **Springbars** The springbars hold your strap or bracelet in place. Some are straight across, and some are curved based on the strap/bracelet you are using.

14. **Strap/Bracelet** – The strap/bracelet is what holds that awesome build you are about to do on your wrist! It finishes off your build.

Visual Overview



CHAPTER 2: RECOMMENDED TOOLS

1.) Purchase one of the basic cheap tool sets widely available in the market. This imho is the best way to start, you will find out quickly if this is a hobby you are capable of, interested in or not. Some will drop out at this stage, so I don't want you to unnecessarily waste money on what can be pretty expensive tools. If you find it's for you then can gradually purchase much better tools over a period of a few months/years. It's a great hobby/pastime and I hope you can experience the pleasure and joy I have. The majority of my top modding associates started in this basic way, they went on to become pretty much expert in what they do with a top spec workbench.



2.) You will need a Crystal Press and Blower. Again the basic ones will do at this stage.



- 3.) Start with some basic jobs first to build your confidence. Changing a strap or bracelet, opening the case back, adjusting a bracelet. Then progressing steadily to jobs like bezel replacement/removal, bezel insert change, crystal/glass change. Rushing leads to problems and potential damage to your watch so take your time do research and check the many very helpful videos online.
- 4.) Crystal, Hands, Dial and Chapter Ring replacement will require removal of the watch mechanism/movement this personally was an area I struggled with in my noob days when videos were not around. Removing the crown/stem was a testing experience but nowadays this info is widely available literally in seconds.

Again do your research check the many vids available. Additional tools are required for hands removal and setting.



5.) When you progress to day/date wheel replacement and movement repair that's a good moment to buy a good screwdriver set and good set of tweezers. Such sets will stand you in good stead for many years to come.



CHAPTER 3: ORDER OF OPERATIONS (TAKING APART & BUILDING UP THE SKX007)

1. Taking Apart:

- a. Remove Strap/Bracelet
- b. Remove Case Back
- c. Remove Case Back Gasket
- d. Remove Stem/Crown Assembly
- e. Remove Movement

- f. Press out Crystal
- g. Remove Crystal Gasket
- h. Remove Chapter Ring
- i. Remove Bezel/Bezel Insert

2. Building Up

- a. Place Crystal Gasket in crystal gasket slot
- b. Place Chapter Ring in slot
- c. Press in Crystal
- d. Press on Bezel
- e. Adhere Dial to Movement
- f. Press Hands on Movement Pin
- g. Place Movement in Case
- h. Cut and Fit Stem to Crown
- i. Insert Crown/Stem Assembly into case
- j. Place Case Back Gasket in slot
- k. Screw Down Case Back
- I. Apply Bezel Insert to Bezel
- m. Put on Strap/Bracelet

CHAPTER 4: DIMENSION VOCABULARY

- **Bezel Insert Outside Diameter (38mm):** The distance from the outside of the bezel insert on one side to the other.
- **Bezel Insert Inside Diameter (31.5mm):** The distance from the inside of the bezel insert on one side to the other.
- Lug Width (22mm): The distance between two lugs on top or bottom.
- Lug-to-lug Length (46mm): The distance from the tip of one lug on top to the tip of lug on bottom.
- Watch Case Diameter (Approx. 41mm): Distance from one side of the case body to the other.
- Thickness "Height" (14mm): Distance from underside of case to the top of the case.

CHAPTER 5: SELECTING THE MOVEMENT & SWAPPING DAY/DATE WHEELS

1.) Dial Selection:

No Date Dial - NH35 or NH36 can be used

Date and Day/Date* Dial - NH35 or NH36 can be used

2.) Case Selection:

- 3 o'clock crown case NH35 NH35 fully compatible
- 4 o'clock crown case, NH35 and NH36 can be used. However these are crown at 3 movements.

*If you are using the NH36 day/date movement the DAY wheel will unfortunately be misaligned when using your standard SKX007 Dial. The NH35 NH36 DATE wheel is fine. Only the DAY wheel from the NH36 will be misaligned.

*To resolve this day wheel issue, you'll have to acquire a day wheel from a crown at 4 SKX007 7S26 movement and the black movement holder. The black movement holder will allow you to use your original SKX007 dial with crown at 4 feet positioning should you wish.

3.) Swapping Day/Date Wheels:

Learn <u>how to change the day/date wheels on your movement</u> by watching this video tutorial by Darak Watches.

This is a common mod that needs to be performed when using an NH36 movement at the 4 o'clock crown position. The Day wheel from the NH36 movement needs to be swapped out for a day wheel on the 7S26 movement to do this movement upgrade.

Swapping the day/date wheels for different colors such as black is another common modification that is done, so having a well rounded understanding of how to do this on the NH movements will give you the confidence needed to execute this mod every time.

CHAPTER 6: CUTTING & FITTING THE STEM / CROWN ASSEMBLY

Tools:

- 1. Pin Vise or Tweezers
- 2. Flat end blunt nose pliers for cutting stem
- 3. File
- 4. Calipers
- 5. Loctite threadlocker
- 6. Thin sharpie for marking stem

Installation Steps:

- 1. Screw in uncut stem to the crown with pin vise or tweezers
- 2. Place movement inside case
- 3. Insert the stem and crown into the movement to test that the stem is properly inserting into the movement, and the positions for day/date change
- 4. With the stem and crown still in the movement and stem is fully down in to the movement, measure the distance between the end of the crown tube and base of the crown head with your calipers (this is the amount we need to remove from the stem write this down).
- 5. Remove the crown and stem from the movement, and remove the stem from the crown.
- 6. Measure the total length of the stem with the caliper, zero it out, and subtract the amount from Step 4. Mark the stem where you need to cut it at based on the removal amount in Step 4.
- 7. Once you have the cut stem, you need to de-bur the end of the cut section so the threads will screw in smoothly to the crown head. Use the file to smooth it out.
- 8. Screw in the stem to the crown, and insert it into the movement to check the length (based on preference, the crown base should be slightly above the top of the crown tube).
- 9. Remove the stem/crown from the movement, and remove the stem from crown. Apply a small amount of Loctite threadlocker to the stem, and then screw it into the crown head. Tighten the stem into the crown with tweezers or pin vise. Let the Loctite settle for at least a few hours before using in your final build.
- 10. All set! Cheers and happy modding!

Looking to watch this process? Here is a good video resource for this <u>Screw Down</u> <u>Crown Installation Tutorial</u> method.

CHAPTER 7: CHANGING THE BEZEL & BEZEL INSERT

Learn <u>how to change the Bezel and Bezel Insert</u> by watching this video tutorial by LumeShot.

This is one of the most common mods that you can do on a SKX or SRP model. Changing these two items can completely transform your watch into something truly unique.

Bezel Insert Size: Outside Diameter – 38mm Inside Diameter – 31.5mm

What you'll need

There are a few specialized tools you'll need when customizing your watch, and it is important to have them on hand even before you begin. These tools are:

- A watch case knife. This is a tool used to pry snapped-on casebacks. It has a thin edge and a handle with which to apply pressure. They are relatively cheap and not hard to find, but any edge thin enough to fit between the bezel and the case should do so long as it's strong enough to pry the bezel off.
- **The bezel**. The bezel is the outer part of the turntable ring. Different bezels come in different styles, such as the coin edge and knurled edge. They also come in varying thicknesses.
- **The bezel insert.** The insert is the colored part of the bezel. Most bezel inserts offer different choices in terms of colors, but some specialized bezels, like a dual time bezel, can help tell you additional time information.
- Adhesive. This is optional, but using adhesive on the insert as it is applied to the bezel can help hold it in place. Most bezel inserts come with dedicated adhesive tapes. If adhesive tape wasn't provided, double-sided tape may work in its place.
- Crystal Press.
- Bezel Click Spring. For rotating bezels.

How to change the bezel and bezel insert

The procedure for modifying your bezels is as follows:

1. Remove the old bezel

Some bezels are secured onto the case in different ways. Some use screws, while others rely on the case's construction. For most watches, the bezel is just snapped on, so it should be easy enough to pry it off.

Slide your watch case knife into the gap between the bezel and the case. If the watch is new, it will take considerable force to snap off. For dive watches, there are notches at the 12 o'clock mark to make this step easier. Make sure to push the knife in all the way, then slowly pry the bezel off.

2. Install the new bezel

To avoid damaging your workspace, try to place a protective layer between the watch and the crystal press surface.

After you've placed your protective layer, put the case flat on it. Put the bezel click spring into the case body where the click spring feet holes are, and then place the bezel evenly over the top. Make sure the bezel gasket is fully seated into the bezel so that it doesn't get pinched when the bezel is pressed on. In one solid downward motion press the bezel on to the case. You should hear a snap sound when the bezel is pressed on. If applied correctly, it should be possible to rotate it freely. If it is unidirectional, it should also turn in just one direction.

3. Apply the new bezel insert

Peel off the back of the adhesive tape then align the 12 o'clock mark of the insert with the chapter ring. Insert it into the bezel, and then work it to make sure it has been applied firmly.

4. Troubleshooting

- What happens if the bezel action is too tight or too loose? Most of the time this has to do with the thickness of the bezel gasket. If it is too loose, try a thicker gasket. If it is too tight, try a thinner gasket.
- The action of my bezel is not so great; how do I improve it? If the action of your bezel isn't so good, try applying some silicone grease to the tips of the bezel click spring, and on the bezel gasket. Another common issue is the bezel gasket getting pinched when the bezel is pressed on to the case. Ensure the bezel gasket is fully seated in the bezel gasket ring before pressing the bezel on. If you need some high quality silicone grease we have it in our shop "CT905".

CHAPTER 8: REMOVING & INSTALLING A CRYSTAL (FLAT & DOMED)

Tools Needed:

- 1. Crystal Press
- 2. Case back opener
- 3. Bezel Remover

Choosing the Right Crystal:

It is important to understand what crystals match up with certain types of bezel inserts. Flat bezel inserts use certain crystals, and sloping bezel inserts use certain crystals. An example of this is our CT037 Double Dome crystal which in large is the most used sapphire crystal on the market having sold over 20,000 units. The standard CT037 and CT037F is for use with flat bezel inserts, whereas the CT037CIS is for sloping inserts. Be sure to take time to match the crystal up with the bezel insert style to make sure they flow together.

REMOVING.

- 1) First have your new crystal ready and confirm it's suitable for your watch model finding it is not once you have removed your existing crystal is painful.
- 2) Remove the existing crystal after removing the movement and push it out from the back with a crystal press on some models you may need to remove the bezel (e.g. SKX007 SKX013) or you risk deforming the bezel insert. On the majority of the later seiko divers it is not necessary to remove the bezel (e.g. SRP Turtle, Monster, Seiko 5s, Samurai, Sea Urchin).

FITTING YOUR NEW CRYSTAL

- 1) A new crystal gasket is recommended.
- 2) Ensure the Crystal Gasket is fully located and the Chapter Ring correctly seated if appropriate to your model.
- 3) If you have a crystal with underside AR take care not to put a fingermark on the AR it can be difficult to clean it off risking Mark's on the AR.
- 4) Run your finger around the outside of the crystal to apply the faintest touch of human grease with tight Divers Crystals this can help.
- 5) Use a Blower to remove any dust that may be present on the underside.
- 6) Using a crystal press once the crystal is sitting perfectly level and central press the crystal in using 1 stroke is best. Use a mandrel that goes right out close to the crystal edge.
- 7) Examine the crystal in the case to see its perfectly level.

TROUBLESHOOTING

- 1) If the Chapter Ring was not located with the underside pip aligned to the case depression the crystal may not be fully down or level.
- 2) If the crystal is not level (at an angle) you will need to remove it and try again. Take care not to touch the underside and use a cloth to protect the AR when pushing out with the crystal press.
- 3) If the crystal gasket has been nipped you will need to replace it.

HOT TIPS

- So you can see what the fitted crystal will be like in relation to Bezel and Bezel Insert put in the crystal with no gasket that will show the fully seated down condition - if all good go ahead and fit.
- 2) Above all take your time don't rush, have good lighting and a blower to help with the dreaded dust.
- 3) Thin sapphires (e.g. SNK809, Seiko 5 Dress Watches) require extra care they are 1mm thick and as sapphire is very brittle they can crack in a heartbeat. Ensure they are dead level before applying pressure and that the small introduction radius on the bottom edge of the crystal is just sitting inside the crystal gasket.

CHAPTER 9: SAFELY & PROPERLY OPENING YOUR CASE BACK

Step #1: Get all the right tools together

You'll want to have your case back opener, a cloth or protective material, and a case holder.

Step #2: Opening & Closing

Opening: Place the case inside the case holder and make sure it is in there tight. We like to put a cloth in the case holder if you are using the cheaper plastic molding case holder. Once the case is tightly secured inside the case holder, adjust and get the case back opener tool to correct opening for the case back notches. Tighten down the case back opener tool to the notches, and twist the case back until it comes off.

Closing: We recommend applying a small amount of silicone grease to the case back gasket before installing the case back to ensure a tight fit. Once the grease is applied to the case back gasket, lay the case back gasket into the case back gasket groove. Once the case back gasket is in the groove, carefully lay the case back into position ready to be screwed down. Take your case back opener and synch it down into the case back notches. Screw down the case back as tight as you can. Clean up and grease or marks left from the installation process and then you are all set!

CHAPTER 10: WATCH HANDS REMOVAL & INSTALLATION

Hand Installation

- a. Watch this tutorial to learn how to install watch hands on to the movement (LumeShot):
 - https://www.youtube.com/watch?v=0AQKIuD8oIk&list=PLIJRTYnWe_4qh FS3iDXn2UKfAffrFwSC6&index=10
- b. Watch this tutorial to learn how to remove watch hands from the movement (LumeShot):
 https://www.youtube.com/watch?y=ETrou04IH8w&list=PLLIPTYnWe
 - https://www.youtube.com/watch?v=ETrou04IH8w&list=PLIJRTYnWe_4qhF S3jDXn2UKfAffrFwSC6&index=6

CHAPTER 11: REPLACING A BRACELET & STRAP

 Watch this video by LumeShot to learn how to properly change the strap on your watch: https://youtu.be/qHvexm1Bt38

CLOSING STATEMENT:

In closing, you are now armed and ready to take on your SKX007 mods from start to finish! Thank you to everyone in this community for providing incredible assets for this tutorial on how to Mod the SKX007. If you have any questions along the way feel free to reach out to us at any time!

- Alex & Jeff