Faceplate Procedure

0 - Setup - faceplate metal is unique to **each** unit / color / flavor
- bezel : **Saturn** bezel / **Atlas** bezel / **Mimas** line gets **no** bezel
- lens bracket : **Romulus / Pandora** get a special bracket. All others get regular bracket
- lens : **Mimas** lens / **Rom/Pan** lens / regular-signature-eclipse
- Clean up work area to avoid any accidents

1 - Lens/Bracket - Grab correct lens and bracket for unit
- ex: **Romulus** lens and black **Romulus** bracket
- ex: eclipse lens and silver regular bracket

2 - Lens/Bracket - Check bracket and clean lens
- There is a **smooth** and **rough** side of the bracket. Run fingers over to feel for the **smooth** side
- may need to use sandpaper to smooth out some imperfections or pointy parts of bracket
- smooth side will get the lens as it will touch the inside of the metal, keeping a clean interaction
- check for scratched lens, shine light to look for these defects; use **fiber cloth** to clean both sides of lens

3 - Lens/Bracket - Apply double-sided tape and tape lens with correct alignment
- with scissors, cut 4 pieces of around **¾ to 1 inch** of double-sided tape, length ~ _____
- one piece is stuck on all 4 short sides of the bracket, aligned in the **center**
- a second piece is stacked only on the rough/backside of the bracket - **1 front - 2 back**
- with 6 pieces correctly placed and aligned, next step is to align and add lens
- aligning the lens is very **important** thus needs high attention to detail and *perfection*
- the lens should be as centered as possible in all 4 directions - left, right, top and bottom
- carefully align and gently set lens on tape, for possible easy re-adjustment if needed
- carefully pop lens off with fingers if re-alignment is needed and clean lens again if needed
- with lens set in place, flip bracket to check for centering and evenness through out
- can shine light against lens to really see the alignment at top or bottom, align until *perfect*

4 - Faceplate metal - Check and clean faceplate metal for the correct unit and color
- look for any scratches, dents, marks, int spots, ink imperfections and check the hole cutouts, light pipes, logo, missing screw holes, or any sort of imperfection in the faceplate metal
- completely clean out button holes with fingers or small flathead screwdriver, scraping off any shards or leftover metal fragments. **do NOT** leave fragments on working area, keep work area clean from debris

5 - Installing Lens/Bracket - insert, align and secure lens to faceplate metal
- **Rom/Pan** get two small strips of electrical tape between bracket and insert in faceplate, top and bottom
- **Rom/Pan** bracket get a count of **4**, and regular brackets get a count of **2** for the **6-32 small pattern nut**
- make sure the bracket/lens is **flat**, not protruding out or in, allowing a snug fit and good alignment
- insert the bracket into faceplate with correct orientation and loosely tighten the nuts with **¼ in. nut driver**
- with wiggle room, flip faceplate over and now **center** the lens, aligning with the lens cutout.
- when lens is correctly aligned and centered, hold & **secure** in place, then flip over and slowly alternate tightening all the nuts to secure the bracket and lens in place. **do NOT** overtighten as screws can break
- shine light through to determine if it's properly aligned. continue adjusting until completely **centered**
- make sure lens is not scratching or rubbing against any part, as it should be completely **centered**

6 - Standoffs - insert, align and secure lens to faceplate metal
- count of **4 standoffs/shims** for **Atlas** display board
- count of **6 standoffs/shims** for **Mimas** display board

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- count of **8 standoffs/shims** for **Saturn** or **Rom/Pan** display board
- usually consistent by using one [size] shim for one **6-32 x ¼ in. standoff**
- this may need to be adjusted in later steps when testing button alignment and pressing
- tapping screw holes may be necessary. use tap fluid and the **flat 6-32 tapper**
- be careful when tapping to ensure there is no protrusions on front side of metal
- securely tighten all standoffs with **¼ in. nut driver**, **do NOT** overtighten. standoffs have and can break off in screw holes, ruining the faceplate; Be very gentle when tightening

7 - Buttons - insert and align good and correct color metal buttons

- grab as many matching color buttons **needed** for unit, from the stock of already checked metal buttons
- double check for any stuff inside button holes
- carefully insert buttons into all holes required of the faceplate. **do NOT** scratch them

8 - Faceplate display circuit board - align and screw in board to faceplate metal

- **Rhea, Calypso, Janus,[pandora?]** need black nail polish overtop of Input LED's
- **Atlas** FP board needs count of **4** screws | **Mimas** FP board needs **6** screws | all **others** need **8** screws
- grab count of **6-32 x 5/16 in. black screws**, align and screw board with standoffs, using **#2 screwdriver**
- first screw all screws in loose, then go around tightening them all
- make sure all the board switches align and fit with the metal buttons

9 - Test all button presses - make sure all buttons look and work great

- flip assembly over and press lens and buttons
- make sure lens **sounds** and **feels** good when pressed (and is still **center** aligned)
- press metal buttons in all directions (up, down, left, right, diagonal), to check for sounds, feeling, and to make sure there is no **stickiness** or **jammed** buttons when being pressed
- adjust or switch out buttons as needed until they all feel good and symmetrical
- use **thicker** shims or **no** shims to adjust for stuck or jammed up buttons, adjust until buttons feel good
- double check everything looks, sounds, and feels good for production faceplate

10 - Bezel and bracket - install and assemble bezel and bracket to complete faceplate (except **Mimas**)

- **Mimas** line does **NOT** get a bezel | **Atlas** gets **Atlas** bezel | all other units get **Saturn** bezel
- grab correct bezel, check it for any scratches or imperfections, etc
- align inset of bezel fitting over the back of faceplate metal
- **Atlas** gets **Atlas** bracket | **Romulus** gets **Romulus** bracket |all other units get **Saturn** bracket
- grab **2x of 5/16 spacers** for the bottom two screw holes for bracket and place them
- correctly align bracket with bezel and spacers, making sure all screw holes line up through to FP metal
- grab **2x 6-32 x ½ in.** zinc phillips screws for spacers | grab **4x 8-32 x ⅝ in.** black phillips screws for bezel
- grab **6x 8-32 x ⅝ in.** black phillips screws for **Atlas** bracket/bezel
- insert all screws and then squeeze and secure bezel, bracket, and faceplate metal together on one side
- screw and tighten this one side, then repeat on the other side, then finish screwing the rest
- double check the whole FP after full assembly; everything is aligned, buttons feel good, FP looks good

10.5 - Mimas bracket - install and assemble bracket to complete **Mimas** faceplate

- grab **8x 8-32 x ¼ in.** **Mimas** bracket screws; then align **Mimas** bracket and screw in all screws
- grab headphone jack and **2x 6-32 x ⅛ in.** screws for headphone jack
- align headphone jack, centered in hole, and securely screw in making sure jack is centered from front
- double check the whole FP after full assembly; everything is aligned, buttons feel good, FP looks good