

- 1.) Loosen 2 set screws from underneath the mech shelf using 5/32" allen key. DO NOT USE ALLEN WITH BALL END!
- 2.) Loosen and remove retaining collar on back of hand shaft, with 3/16" Allen Key.
- 3.) Pull handle crank handle and shaft assembly out from the front of the unit.
- 4.) Loosen cap screw on the 2 retaining collars on the penny drop and quarter drop tubes under Mech shelf. Slide quarter Tube down and completely out of the mech.
- 5.) Remove 4 – 1/4" x 20 nuts and carriage bolts holding the mech Shelf to the encasement sides.
- 6.) Slide entire mech and shelf to rear of encasement, when clear pull Penny drop tube completely out of mech assembly. Remove mech and shelf from encasement.
- 7.) Loosen knurled thumb screw and remove roll right cover.
- 8.) Remove 2 cap screws with 3/16" allen Key from the e-meter bracket, and remove.
- 9.) Remove 2 cap screws with 3/16" allen key from roll right and remove.
- 10.) Loosen button head screws on front and rear of the master roll assembly, with 5/32" allen. DO NOT USE BALL END ALLEN KEY, AND BE CAREFUL TO ENSURE THAT KEY IS SQUARE INTO SCREW HEAD WHILE LOOSENING AS THESE CAN STRIP VERY EASILY.
- 11.) Remove 4 cap screws with 3/8" Allen key from retaining plates on top of mech, and remove retaining plates.
- 12.) Remove master roll assembly from mech.
- 13.) Remove loosened button head screw from front of master roll assembly, and remove retaining cap, and art wheel, from die shaft.
- 14.) Slide front large gear, 1/4" x "key from shaft, "Teflon washer, bearing block, "Teflon washer from die shaft. (Keep these parts together).
- 15.) Remove button head screw and retaining cap, from rear of master roll assembly, and remove gear, " x "square key, " Teflon washer, bearing block, and " Teflon washer from die shaft.
- 16.) Take 3m pad and WD40 and thoroughly clean entire mech and all removed parts, except for die roll.
- 17.) If the art wheel has a clear cover remove from art wheel and clean. Clean existing art wheel with denatured alcohol. Remove backing from new art wheel and adhere over the old art wheel. Trim excess from edge with a new sharp exacto or razor knife.
- 18.) Take clean bearing blocks and pack bearings with grease.
- 19.) Hold new die roll in hand with penny catch facing to the right, place the "Teflon washer onto the rear of the die shaft. Now slide bearing block onto shaft with the "land area facing to the right. (most dies will have a round witness mark on the rear of the block where the pressure adjustment stop makes contact, this mark should be facing the left). Now slide on the "Teflon washer, then the "square key into the keyway. Now align the "rear gear with the key and slide onto the shaft. Be sure that the outer washer is properly seated onto the ledge in front of the gear. Place medium strength lock tite on to 5/32" button head screw, and assemble retaining cap onto rear of die shaft with the screw.
- 20.) Hold new die with the penny catch to the right, slide "Teflon washer onto the front of the die shaft, slide on the bearing block with the "land area to the right, (witness mark to the left). Slide on the "Teflon washer making certain that the washer is properly seated on the ledge. Insert "square key into keyway, slide " front gear wheel onto shaft. Slide art wheel and clear cove (if applicable) onto die shaft. Place medium strength lock- tite onto 5/32" button head screw and assemble retaining cap onto the art wheel and shaft. Before tightening you must

time the art on the wheel with the images on the die. Turn die so that an image is at 12 o'clock. Match up art wheel with the image, and then rotate the art wheel clockwise so that the image on the art wheel is now at 3 o'clock and the next image on the art wheel is aligned with the image that you have at 12 o'clock. Now tighten front retaining cap screw.

- 21.) Carefully set the die roll assembly into the bearing block pockets.
- 22.) Place small amount of grease on top of bearing blocks, and place the 2 " x " long retaining plates on the top of the mech and bearing blocks. Place medium strength lock tite onto 4 " cap screws and install the retaining plates.
- 23.) Rotate die so that you can lay a 3/16" allen key in between the die roll and slave roll and just touch the catch notch on the engraved image.
- 24.) Rotate the small gears on the roll right assembly until the bottom timing pin is fully retracted. Now carefully place the roll right assembly onto the retaining plates, being careful to align nylon gears and not to change the position of the die roll or roll right timing pins. Align rear edge of roll right assembly with the rear edge of the mech assembly and install 2 1/4" cap screws.
- 25.) Align rear edge of e-meter bracket with the rear edge of mech assembly and install 2 1/4" cap screws and washers.
- 26.) Install roll right cover and tighten thumb screw.
- 27.) Slide crank handle shaft into the front of the mech assembly engaging the ratchet.
- 28.) Align image with arrow and place penny into the roll right assembly. Crank out image.
- 29.) First check to make sure that the image selected is the image produced, and then check to ensure that entire image is being pressed and that the penny is being pressed to the proper length.
- 30.) Repeat step 29 for each image on the die.
- 31.) If the image being pressed does not match the art wheel image being selected go back to step 20. If the pressed pennies are too short or too long go to step 32. If everything looks good go to step 33.
- 32.) If the length of the penny is incorrect, take a pencil and make a witness mark on each of the knurled pressure knobs on the left hand side of the mech assembly, at 12 o'clock. Loosen the locking nuts in front of the pressure knobs with a " or adjustable wrench. To lengthen pressed penny turn the pressure knobs clockwise so that your marks have advance clockwise from 12 o'clock. If the pressed penny is too long turn the knobs counter clockwise. The adjustment is very sensitive and should only need to be adjusted a small amount 1/8" or so. Hand tighten locking nuts without moving the adjustment knobs and crank out samples of each image. Repeat this process until all images and lengths are correct. Place small marks on mech that align with the witness marks you put on the knobs and tighten the locking nuts with the " or adjustable wrench, be sure that your marks stay aligned. Roll out four more samples to ensure that nothing has moved, changing the length.
- 33.) If everything looks good place 4 pennies into roll right assembly and crank out all four. Again check to ensure that the entire images are being pressed and that the length is good on all four designs. Make any adjustments necessary and then proceed to step 34.
- 34.) While mech assembly is out of encasement, use Novus to thoroughly clean the encasement inside and out.
- 35.) If you need to change any panels do so now.
- 36.) If you need to change the image decals on the display panel, you should take a straight razor blade or scraper, and VERY carefully so not to scratch plastic, peel the existing decal

image from the panel. Most times the paper backing and the adhesive will remain on the panel. Wet down the paper and adhesive residue with WD40 and let sit for approximately 5 minutes.

- 37.) Take straight edge razor or scraper and VERY carefully remove paper residue. Adhesive residue may remain, wet down with WD40 again and rub off with clean soft cloth. Once all residue has been removed, wipe down panel with denatured alcohol. If the display panel is teal in color with the decals adhered to the rear, be careful not to get the WD40 or the alcohol onto the printed area.
- 38.) Carefully cut out the decals from the backing if necessary, and remove the adhesive covering and apply to the front of the display panel.
- 39.) Using scotchbrite pad and WD40 clean penny and quarter drop tubes.
- 40.) Remove crank handle from mech assembly and slide into back of encasement.
- 41.) Pull mech assembly out of encasement just far enough to get penny drop tube into the bottom of the mech.
- 42.) Push penny drop tube all the way up into the mech and then slide entire mech assembly all the way into the encasement.
- 43.) Align holes in mech shelf with encasement brackets and insert 4 ¼” carriage bolts, and hand tighten lock washers and nuts to each.
- 44.) Align arrow in center of one image on the art wheel, take crank handle shaft and be sure that the notch in the nylon and metal washers in front of the gear are aligned with the pin on the retaining cap of the crank shaft. Then start to insert crank handle shaft assembly thru case into mech, the flat on the shaft must be at 6 o’clock. Reaching around with right hand, underneath mech shelf, lift the ratchet up so that the handle shaft assembly can be fully inserted into the mech. The handle should be at 6 o’clock. Be sure that ratchet is engaged properly so that the handle cannot turn counter clockwise.
- 45.) Place locking collar on the handle shaft at the rear of the mech, then push on the front of the crank shaft depressing the spring assembly as far as you can, hold there with left hand while tightening the locking collar on the rear of the shaft.
- 46.) Tighten the 2 locking set screws onto the shaft underneath the mech shelf, using a non ball end 5/32” Allen. Remember these are upside down, so you need to turn counter clockwise to tighten.
- 47.) Insert quarter drop tube into locking collar on bottom of the mech shelf, once the tubes are in place; tighten locking collars with ¼” Allen.
- 48.) Check meter reading, go to the front of the machine insert 2 quarters and a penny, select an image and try machine. Do this for all 4 designs. Check to ensure that images are pressing properly. Adjust if necessary. Check to ensure that the meter has advanced properly.
- 49.) Wipe down encasement and back door with Novus and a clean cloth.
- 50.) Close and lock unit up.