COMPASS W-27 SERIES LAMINATOR

ASSEMBLY PROCEDURES

UPDATED MAY 2013

COMPASS W-27 400 SERIES ADJUSTMENTS

1) BEGINNING DECEMBER 12, 2010 THE EXTENSIVE ADJUSTMENTS TO THE XYTECH COMPASS WERE REDUCED DUE TO IMPROVEMENTS ABROAD. THE FOLLOWING ASSEMBLY AND ADJUSTMENTS REMAIN BEFORE RESHIPPING THE COMPASS. ASSEMBLY PROCEDURES FOLLOW.

2) OPEN THE XYTECH BOX AND REMOVE THE COMPASS, PLACING IT ON A WORKTABLE. FOR SAFETY PURPOSES ALWAYS USE TWO STRONG PEOPLE TO LIFT THE COMPASS. A PERSON SHOULD STAND BY EACH HOUSING END, RAISING THE COMPASS WITH THE (2) "LIFTING STRAPS" AROUND COMPASS CHASSIS. RETAIN ALL SHIPPING MATERIAL.

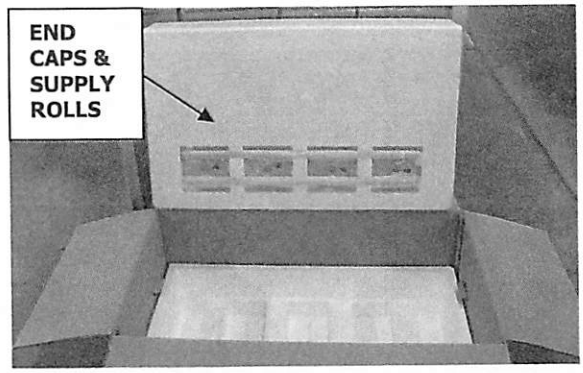
3) THE COMPASS WILL BE RESHIPPED IN THE ORIGINAL CHINA BOX. THE (4) SUPPLY ROLL END CAPS AND (2) SUPPLY ROLL MANDRELS ARE LOCATED IN UPPER COMPASS CUSHIONING.

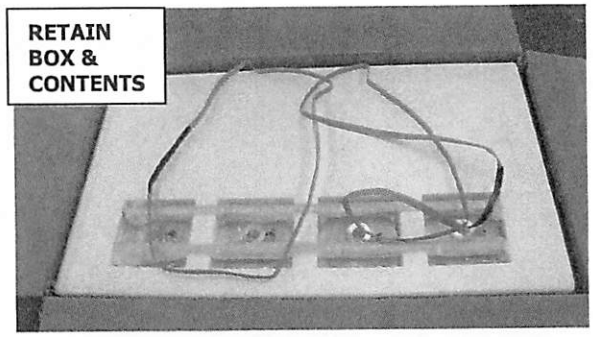
4) DISCARD LAMINATED TEST PAPERWORK FROM CHINA LOCATED ON FEEDTABLE.

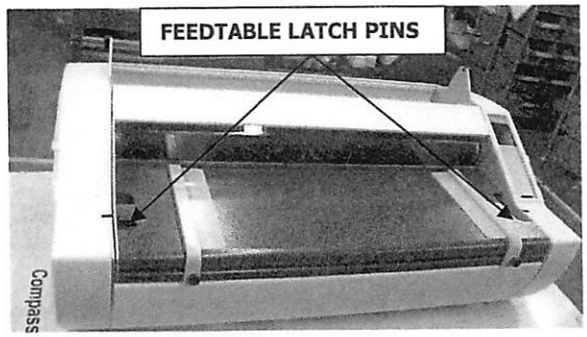
5) DEPRESS RIGHT AND LEFT FEEDTABLE LATCH PINS LOCATED IN FEEDTABLE HAND HOLDS. *VERY CAREFULLY* REMOVE THE FEEDTABLE BY LIFTING SLIGHTLY *UPWARD* AND HORIZONTALLY OUTWARD TO AVOID SCRATHING LOWER IDLER TUBE ON SUPPLY ROLL GAUGE BLOCK. SET FEEDTABLE ASIDE, *UPSIDE DOWN*, TO AVOID SCRATCHING.

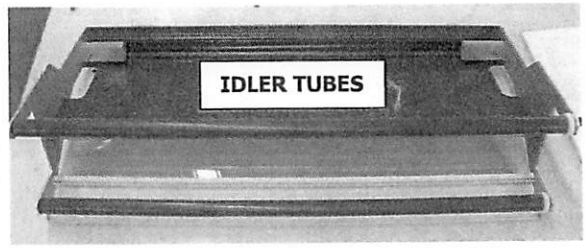
6) CHECK THE TENSION ON THE FEEDTABLE IDLER TUBES. THEY SHOULD BE A LITTLE STIFF BUT MOVEABLE. ROTATE BOTH IDLER TUBES TO LOOSEN THEM.

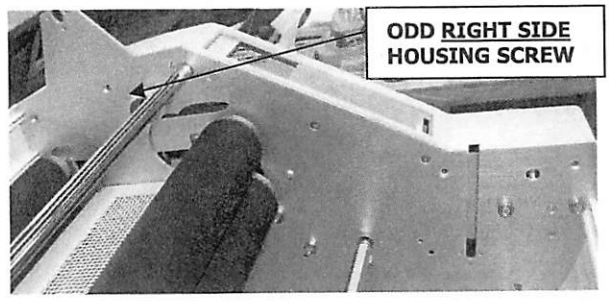
7) REMOVE RIGHT HOUSING WHICH IS HELD ONTO THE RIGHT SIDE PANEL WITH (7) M4 X12 SCREWS. LEAVE FEET SCREW ON. REMOVE LEFT HOUSING ON THE LEFT SIDE PANEL WITH (7) SCREWS. THE LOCATION OF THE SCREWS ON THE RIGHT AND LEFT HOUSINGS ARE THE





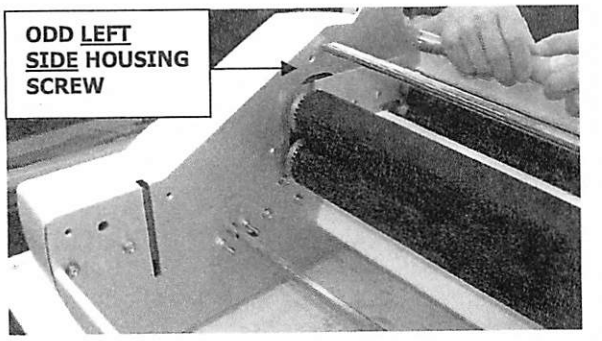




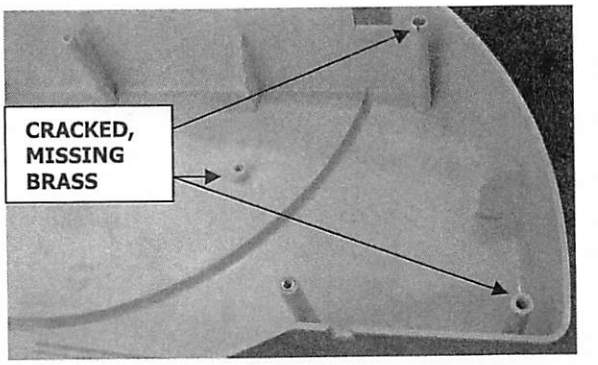


SAME *EXCEPT* FOR (1) ON EACH SIDE, AS FOLLOWS:

8) ON THE RIGHT HOUSING UNTHREAD THE SCREW UNDER THE TOP SUPPLY ROLL. ON THE LEFT HOUSING UNTHREAD THE SCREW IN FRONT OF THE TOP IDLER. EACH SIDE PANEL HAS (1) SCREW UNDER THE REAR MOTOR COVER. RETAIN SCREWS, REMOVE HOUSINGS.

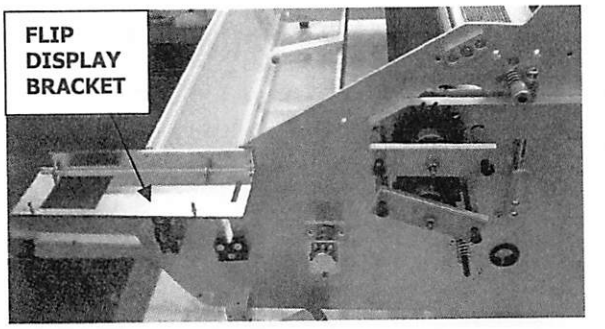


9) IT IS NOT UNCOMMON THAT THE HOUSING STANDOFFS ARE CRACKED OR MISSING THE BRASS THREADING, THROUGH DAMAGE IN SHIPMENT. IF THIS IS THE CASE, REPLACE ENTIRE HOUSING AND DISCARD BROKEN ONE.



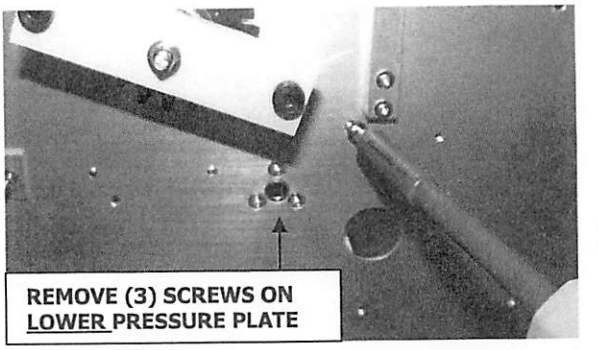
10) REMOVE THE UPPER (2) M4 X12 FH SCREWS IN THE RIGHT SIDE DISPLAY BRACKET AND *LOOSEN* THE LOWER SCREW, THIS ALLOWS THE BRACKET TO BE ROTATED FORWARD FOR ASSEMBLY.

11) UNTHREAD BOTH RIGHT SIDE IDLER TENSIONING KNOBS AND REMOVE SPACERS AND SPRINGS. RETAIN KNOBS, SPRINGS AND SET SPACERS ASIDE.

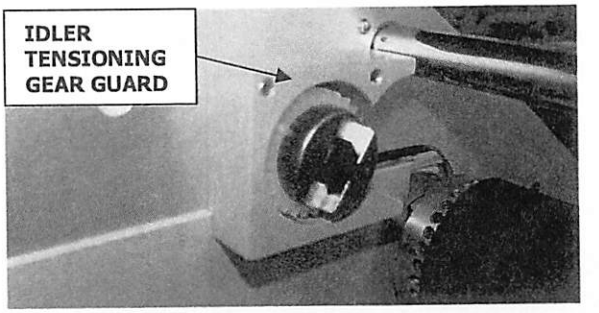


12) TAP OUT BLACK HEXHEAD AND REMOVE THE (3) SCREWS ON THE *BOTTOM* IDLER TENSIONING INSIDE PRESSURE PLATE. NOTE KEYWAY MUST BE IN THE UPWARD POSITION WHEN REPLACING. *THE UPPER IDLER TENSIONING PRESSURE PLATE IS NOT REMOVED.*

13) REMOVE AND RETAIN THE (2) SCREWS ON THE IDLER TENSIONING GEAR GUARD LOCATED OVER THE INNER, GEAR AND UPPER IDLER TENSIONING PLATE.



14) *VERY CAREFULLY* REMOVE THE INNER IDLER TENSIONING GEAR ASSEMBLIES ON THE INNER RIGHT SIDE PANEL. THERE IS A *SMALL KEY* THAT FITS INTO THE INNER IDLER TENSION PRESSURE PLATE KEYWAY. DO NOT LOSE THE KEY WHEN REMOVING, SAND KEY *SLIGHTLY*.



15) ONE PIECE OF EACH IDLER TENSIONING ASSEMBLY REQUIRES MACHINE SHOP REWORK. THE (2) IDLER TENSIONING BOLTS (W27 008.4), BOTH NEED A SNAP

RING GROOVE ADDED, INWARD OF THE KEY LOCATION. THE SNAP RING GROOVE WILL BE ON THE OUTER SIDE PANEL. THE REPLACEMENT PARTS ARE IN RACK 4. STORE THE UNWORKED PIECES UNTIL YOUR WORKED STOCK IS LOW. TAKE COLLECTED SUPPLY OF BOLTS TO THE MACHINE SHOP WHEN MORE REWORKED PIECES ARE NEEDED.

16) REPLACE THE HEX HEAD IDLER TENSIONING BOLT WITH A WORKED HEX HEAD BOLT FROM RACK 4. INSERT HEX HEAD BOLT INTO IDLER TENSIONING PRESSURE PLATE CHANNEL. SLIDE THE TOOTHED GEAR ONTO THE HEX HEAD BOLT. SAND WOODRUFF KEY AND INSERT INTO KEYWAY ON THE HEX HEAD BOLT.

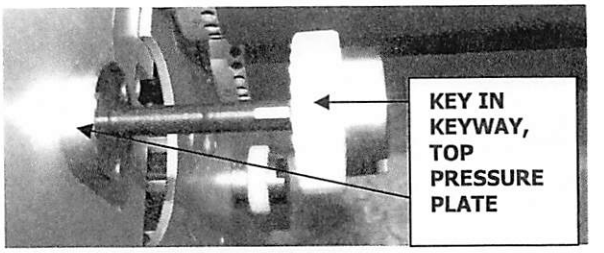
17) HOLD THE KEY UPWARD IN THE TENSIONING BOLT ASSEMBLY AND INSERT THE BOLT INTO THE UPPER INSIDE PRESSURE PLATE WHICH IS SECURED TO THE SIDE PANEL, FITTING THE KEY INTO THE INSIDE PRESSURE PLATE KEYWAY, AND THROUGH THE SIDE PANEL. SNUG THE WHITE GEAR TO THE INSIDE PRESSURE PLATE. ON THE LOWER ASSEMBLY, ADD THE INSIDE PRESSURE PLATE AND INSERT. HOLD ASSEMBLY IN PLACE WHILE YOU REPLACE THE (3) SCREWS ON OUTER HOUSING.

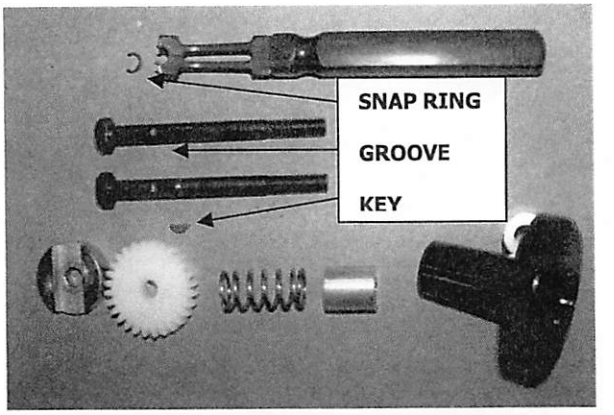
18) ON THE OUTER SIDE PANEL SECURE THE HEX HEAD BOLT BY INSERTING A ROTOR CRESCENT CLIP (PRC300) RACK 4 INTO THE WORKED CHANNEL ON THE BOLT. USE A ROTOR CLIP TOOL.

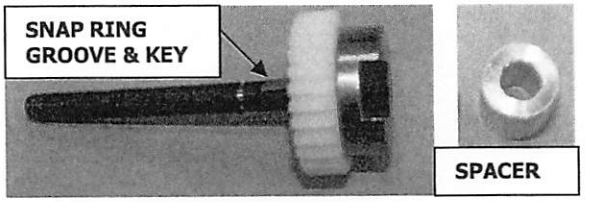
19) SLIDE THE IDLER TENSIONING SPRING ONTO THE HEX HEAD BOLT, FLUSH WITH THE OUTER SIDE PANEL AND FITTING OVER THE ROTOR CRESCENT CLIP.

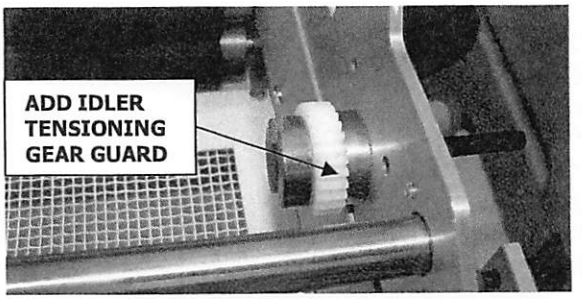
20) ADD THE ORIGINAL SPACER ONTO THE HEX HEAD BOLT.

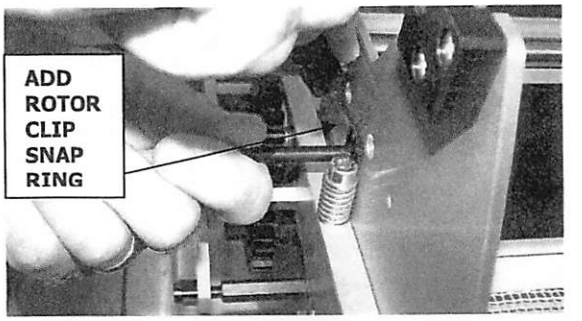
21) THREAD THE BLACK TENSIONING KNOB ONTO BOLT. CONTINUE THREADING THE KNOB UNTIL IDLER TENSIONING SPRING IS HELD IN PLACE, BUT STILL EASILY MOVES. ***DON'T PINCH THE ROTOR CLIP***. FINAL TENSIONING WILL COME LATER.

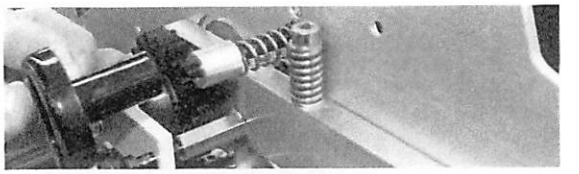




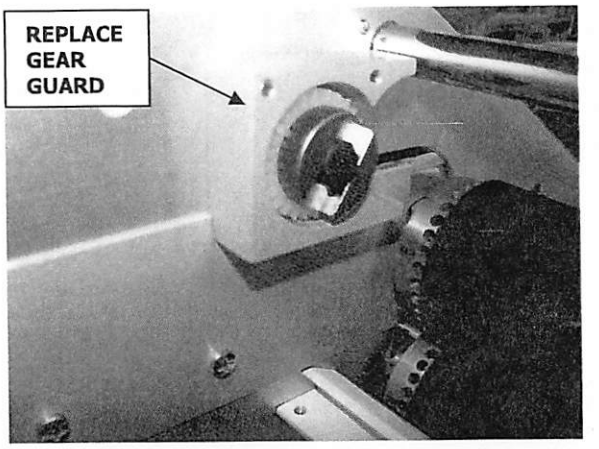




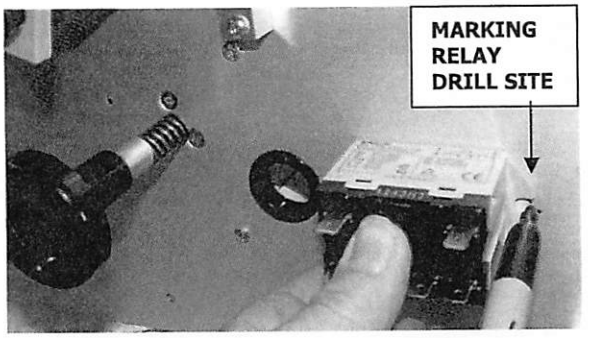




22) SECURE THE IDLER TENSIONING GEAR GUARD OVER RIGHT SIDE INNER TOP IDLER TENSIONING GEAR. ALIGN THE IDLER TENSIONING GEAR GUARD WITH THE OPEN PORTION FORWARD, FITTING OVER THE SIDE PANEL HOLE GUARD. FROM THE OUTER SIDE PANEL SECURE WITH ORIGINAL SCREWS. SECURE THE IDLER TENTIONING GEAR GUARD WITH THE SAME (2) SCREWS.

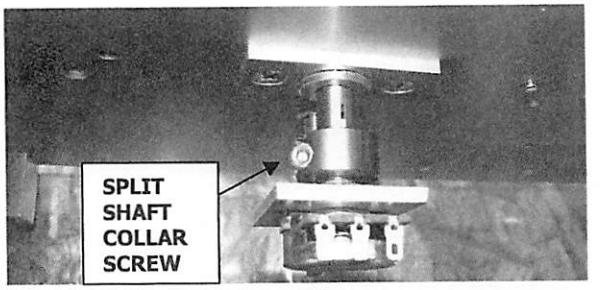


23) MARK (2) DRILL SITES ON OUTER RIGHT SIDE PANEL, LOCATED BEHIND SNAP BUSHING FOR A 110 VOLT RELAY (PRR150) RACK 12. HOLD THE RELAY IN PLACE AND MARK SITE WITH FELT PEN. REMOVE RELAY, STAKE DRILL SITES. USE A #29 DRILL TO OPEN SIDE PANEL FOR 8-32 RELAY SCREWS. TAP SITE WITH AN 8-32 OR USE A #30 DRILL FOR M4.7 TAP.

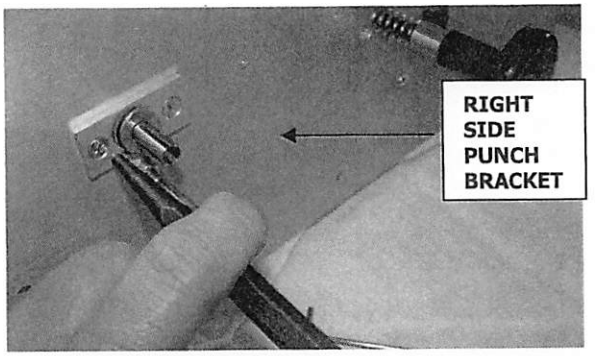


24) PLACE LOCTITE ON (2) 8-32 X ¼ ROUNDHEAD OR M4.7 THREADS AND SECURE THE 110V RELAY TO THE SIDE PANEL, ORIENTED WITH DOUBLE TERMINAL POSTS FACING *UPWARD*.

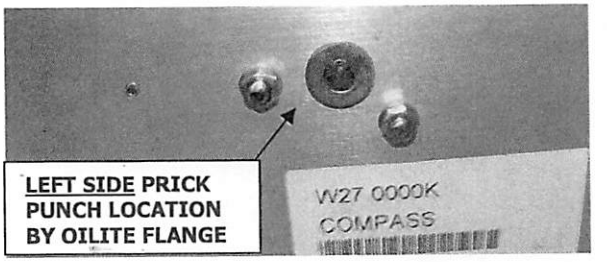
25) A 10-32 TRUSSHEAD IS ADDED TO THE OUTER RIGHT AND LEFT SIDE PANEL TO SUPPORT THE OILITE BUSHING FLANGE THAT IS HOLDING THE BOTTOM SUPPLY ROLL GAUGE SHAFT. FIRST, REMOVE THE RIGHT SIDE POTENTIOMETER BY LOOSENING THE 2.5MM SCREW ON THE SPLIT SHAFT COLLAR, LOCATED BEHIND THE POTENTIOMETER ON THE SUPPLY ROLL GAUGE SHAFT. SLIDE THE POTENTIOMETER STEM OUTWARD FROM SUPPLY ROLL GAUGE SHAFT. SET SPLIT COLLAR AND POTENTIOMETER ASIDE.



26) PLACE A PRICK PUNCH ON THE <u>RIGHT SIDE SUPPLY ROLL GAUGE SHAFT BRACKET</u> SO TRUSSHEAD WILL COVER THE OILITE FLANGE AND PRICK PUNCH AN INDENTATION FOR DRILLING.



27) ON THE <u>LEFT SIDE</u> PRICK PUNCH THE SIDE PANEL BETWEEN THE LOWER OILITE BUSHING FOR SUPPLY ROLL GAUGE SHAFT AND THE REAR HEX NUT.



28) USE A #21 DRILL WITH OIL ON THE TIP TO OPEN BOTH PUNCHED SITES. ON THE RIGHT SIDE DRILL THROUGH THE BRACKET AND SIDE PANEL BOTH. THREAD BOTH SITES WITH A 10-32 TAP.

29) LOCTITE THE THREADS OF A 10-32 X 3/8 TRUSSHEAD AND ***LOOSELY*** THREAD IN TO SUPPORT THE OILITE FLANGE ON RIGHT SIDE BOTTOM SUPPLY ROLL BRACKET. ***IF TRUSSHEAD SCREW IS TOO TIGHT THE SHAFT WILL NOT MOVE SMOOTHLY.***

30) LOCTITE THE THREADS ON A 10-32 X ¼ TRUSSHEAD AND ***LOOSELY*** SUPPORT THE OILITE FLANGE ON THE LEFT SIDE PANEL. TEST SUPPLY ROLL GAUGE SHAFT UP AND DOWN FOR SMOOTH MOVEMENT AFTER BOTH TRUSSHEAD SCREWS ARE IN THE SIDE PANELS.

31) HOLD THE POTENTIOMETER WITH STEM FACING AWAY FROM YOU AND THE TERMINAL POSTS FACING UPWARD.

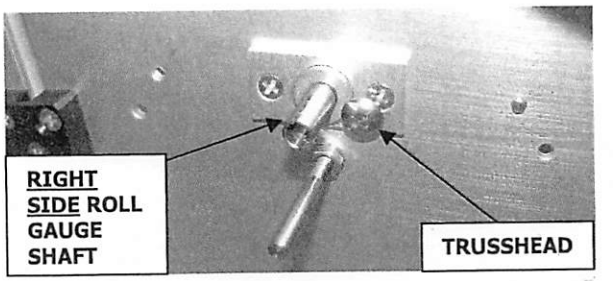
32) SECURE (2) ALLIGATOR CLAMPS, WITH THE BLACK CLAMP ON THE CENTER TERMINAL POST AND THE RED CLAMP ON THE RIGHT TERMINAL POST.

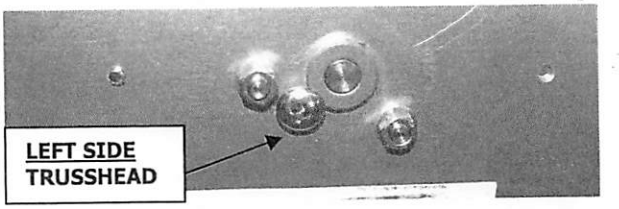
33) SECURE THE OPPOSITE END OF THE ALLIGATOR CLAMPS TO MATCHING COLOR TEST LEADS ON A MULTIMETER. SET MULTIMETER ON "OHMS." THE OPTIMUM COMPASS READING 1.000 KOHMS (1K). CHECK METER SETTING.

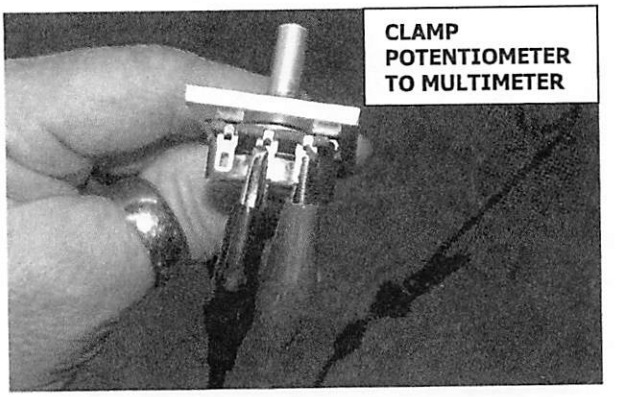
34) ADJUST THE POTENTIOMETER STEM SO THE READING ON THE MULTIMETER IS AS CLOSE TO 1.000 KOHMS AS POSSIBLE. 1.030 KOHMS IS AN ACCEPTABLE STARTING POINT.

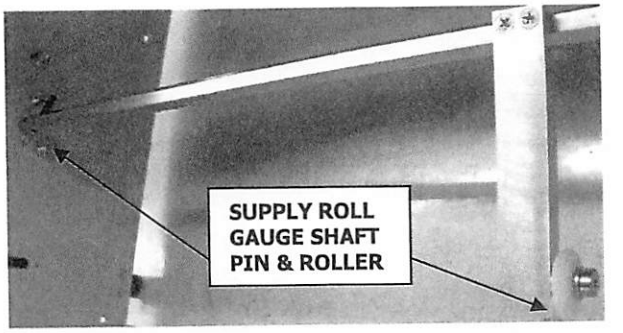
35) PLACE THE SUPPLY ROLL GAUGE SHAFT PIN, LOCATED ON THE LEFT SIDE OF THE SHAFT, DOWNWARD AGAINST THE *REAR CATCH*. THE WHITE GAUGE ROLLER MUST BE FACING *FORWARD*. REPLACE SPLIT SHAFT COLLAR OVER SPLIT SHAFT, ALIGNING BOTH SPLITS, SNUG AT END.

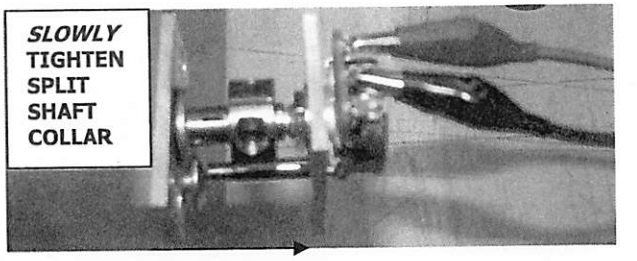
36) SLIDE THE POTENTIOMETER STEM INTO THE OPEN END OF THE SPLIT GAUGE SHAFT, TERMINAL POSTS UPWARD AND

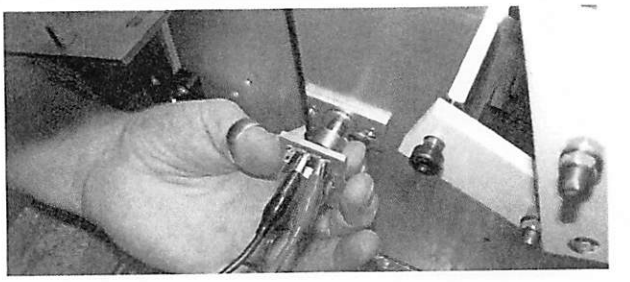




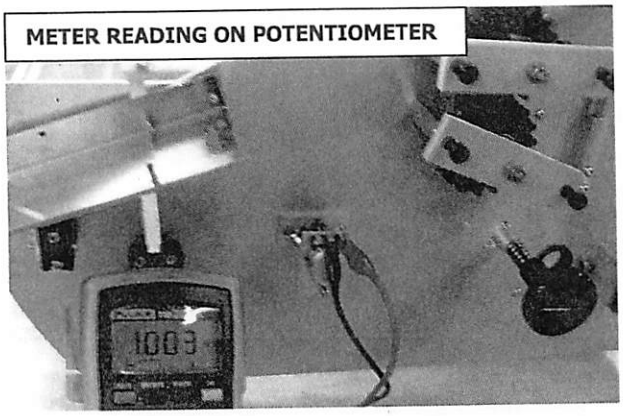






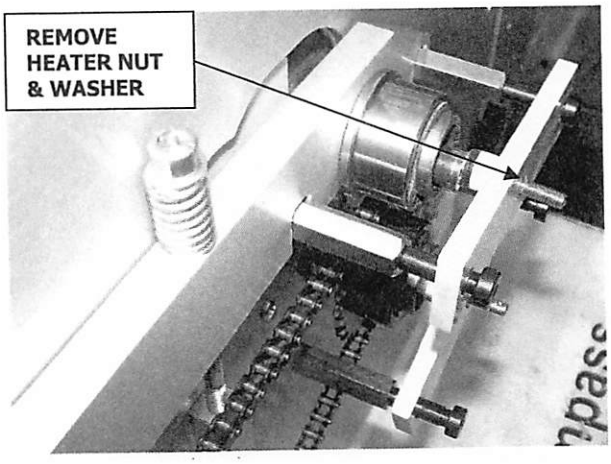


LOWER NOTCH IN POTENTIOMETER BRACKET FITTING OVER THE OUTER STANDOFF. ALIGN SPLIT SHAFT COLLAR OVER POTENTIOMETER STEM IN SPLIT GAUGE SHAFT. ***SLOWLY*** TIGHTEN THE SHCS ON THE SPLIT SHAFT COLLAR. CHECK READING AS YOU TIGHTEN.

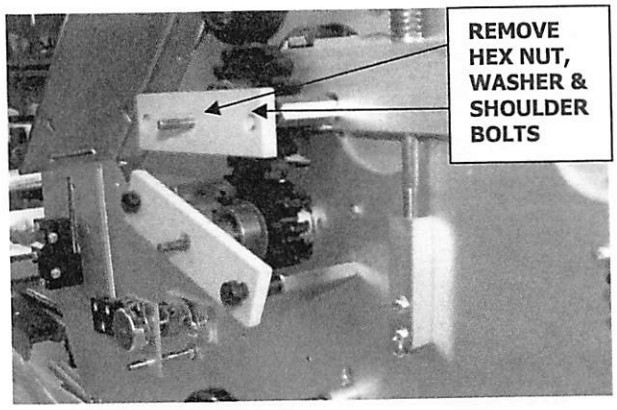


37) RETEST THE KOHM READING. THE KOHM READING WILL CHANGE AS THE SHAFT COLLAR TIGHTENS ON THE STEM OF THE POTENTIOMETER. REMOVE AND ADJUST STEM AS NECESSARY TO REACH THE FINAL ACCEPTABLE READING.

38) THE ORIGINAL (PRH210) HEATER CARTRIDGES THAT ARE ALREADY IN THE COMPASS MUST BE REMOVED, DISCARDED AND <u>REPLACED WITH IMPROVED HEATERS (PRH120)</u> AS14.

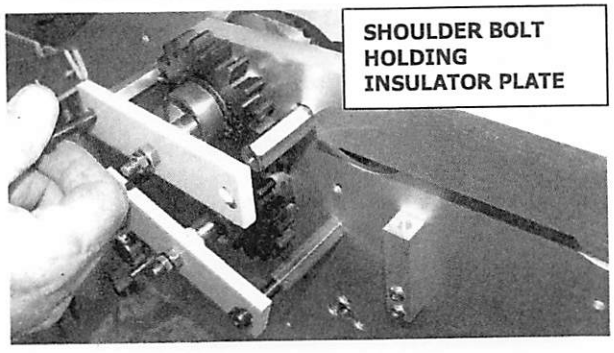


39) TO REPLACE HEATERS, UNTHREAD THE RIGHT SIDE SHOULDER BOLTS ON THE ***<u>TOP</u>*** AND ***<u>BOTTOM</u>*** RIGHT PHENOLIC HEAT CARTRIDGE MOUNTING BARS. IF SHOULDER BOLT IS VERY TIGHT, HOLD THE HEX SPACER WITH AN ADJUSTABLE WRENCH AND REMOVE OUTER NUT AND WASHER WITH NUT DRIVER. SLIDE THE PHENOLIC INSULATOR PLATE MOUNTING BARS OFF THE END OF THE RIGHT SIDE TOP AND BOTTOM HEAT CARTRIDGES.



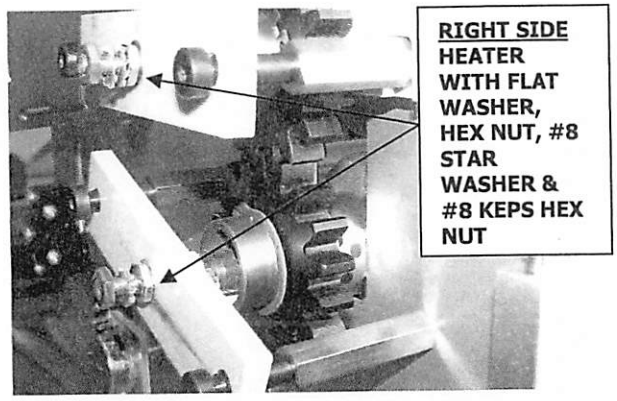
40) REMOVE LEFT SIDE OUTER HEATER CARTRIDGE NUT AND WASHER. FROM THE RIGHT SIDE, PULL OUT THE HEATER CARTRIDGES AND DISCARD THE (PRH210) HEATER.

41) REMOVE THE HEX NUTS ON BOTH ENDS OF THE (PRH120) TOP AND BOTTOM HEATER CARTRIDGES. SNUG NUT BY CERAMIC. SLIDE THE HEATERS INTO THE ROLLERS FROM THE RIGHT SIDE WITH <u>ONE WASHER ON EACH OF THE THREADS</u>.



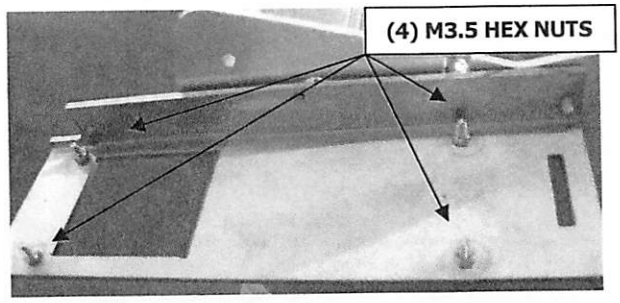
42) MOUNT THE LEFT SIDE HEATER ENDS INTO INSULATOR PLATES WITH (1) FLAT WASHER AND HEX NUT ON THE OUTER INSULATOR PLATE. <u>TIGHTEN</u> WITH NUT DRIVE. ADD A #8 STAR WASHER AND LOOSE #8 HEX KEPS NUT.

43) MOUNT THE RIGHT SIDE WITH A FLAT WASHER, INSULATOR PLATE, FLAT WASHER AND HEX NUT. TIGHTEN SNUG. *LOOSLEY* ADD (2) MORE #8 OR #10 HEX NUTS, DEPENDING ON HEATER THREADS.

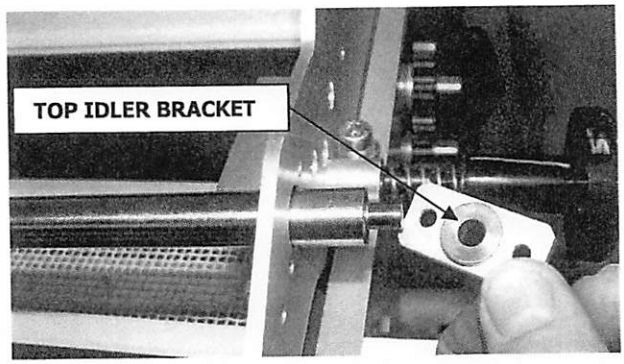


44) REPLACE THE SHOULDER BOLTS INTO THE TOP AND BOTTOM INSULATOR PLATE ENDS. THREAD THE SHOULDER BOLTS INTO HEX SPACERS. THE PLATES SHOULD MOVE ON THE EXCESS BOLT.

45) FLIP THE DISPLAY BOARD BRACKET FORWARD, UP SIDE DOWN, ON THE SIDE PANEL, SO THE SPACER STUDS ON THE UNDERSIDE ARE FACING UPWARD. THREAD (4) M3.5-06 HEX NUTS ONTO THE SPACER STUDS. THE HEX NUTS ACT AS SPACERS FOR THE DISPLAY BOARD. TIGHTEN HEX NUTS WITH A WRENCH.

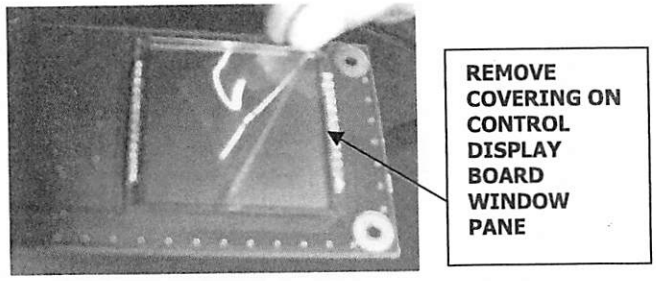


46) WHILE DISPLAY BRACKET IS FORWARD, TEST TOP IDLER FOR MOVEMENT. IF IT IS TIGHT, REMOVE RIGHT SIDE IDLER BRACKET, TAP OUT IDLER SHAFT AND ARBOR PRESS OILITE BEARING FLUSH INTO BRACKET. REPLACE BRACKET AND TIGHTEN SCREWS. TEST IDLER MOVEMENT AGAIN.

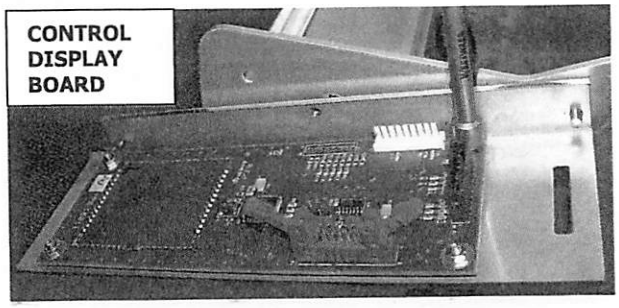


47) PEEL OFF AND DISCARD THE CLEAR COVERING ON THE INNER WINDOW PANE OF THE CONTROL DISPLAY BOARD (PRC11093) RACK 4.

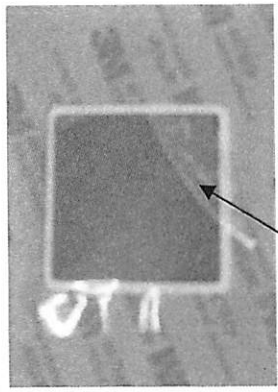
48) PLACE THE CONTROL DISPLAY BOARD ON THE DISPLAY BOARD BRACKET STUDS WITH HEX NUTS, FITTING THE DISPLAY WINDOW PANE IN THE OPEN SECTION OF THE DISPLAY BRACKET.



49) PLACE AN M3.5 OR M4.5 FW (FLAT WASHER) ON EACH OF THE SPACER STUDS THAT HOLD THE CONTROL DISPLAY BOARD. SECURE THE CONTROL DISPLAY BOARD TO DISPLAY BOARD BRACKET USING (4) CORRECT HEX NUTS, WRENCH TIGHTEN HEX NUTS TO THE WASHERS. DO NOT *OVER TIGHTEN* AND CRACK THE DISPLAY BOARD.



50) REMOVE AND DISCARD THE *INNER CLEAR COVERING* ON THE *INWARD* WINDOW PANE OF THE OVERLAY WITH SWITCH (PRC11090) RACK 4. ***DO NOT*** REMOVE THE ***OUTER CLEAR COVERING*** ON THE *OUTER* OVERLAY SWITCH WINDOW PANE.

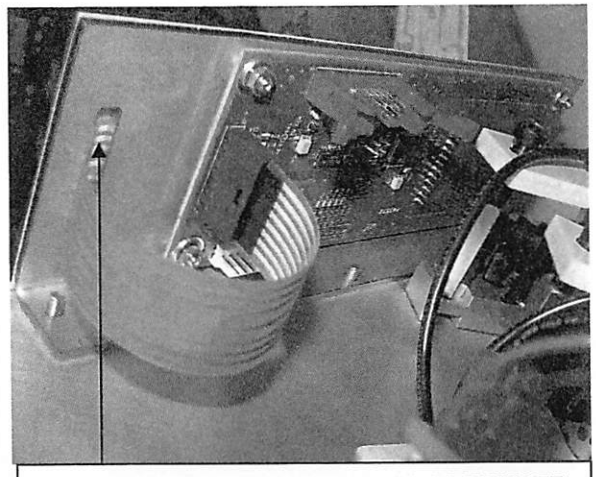


REMOVE *ALL* TAN OVERLAY COVERING PIECES ON OVERLAY WITH SWITCH

51) ON THE UNDERSIDE OF THE OVERLAY, REMOVE THE 2-PART TAN PROTECTIVE ADHESIVE COVERING. THERE IS A SMALL SECTION OF TAN PROTECTIVE COVERING UNDER THE RIBBON WIRE THAT MUST BE REMOVED.

52) RETURN THE CONTROL DISPLAY BOARD BRACKET TO THE UPRIGHT POSITION.

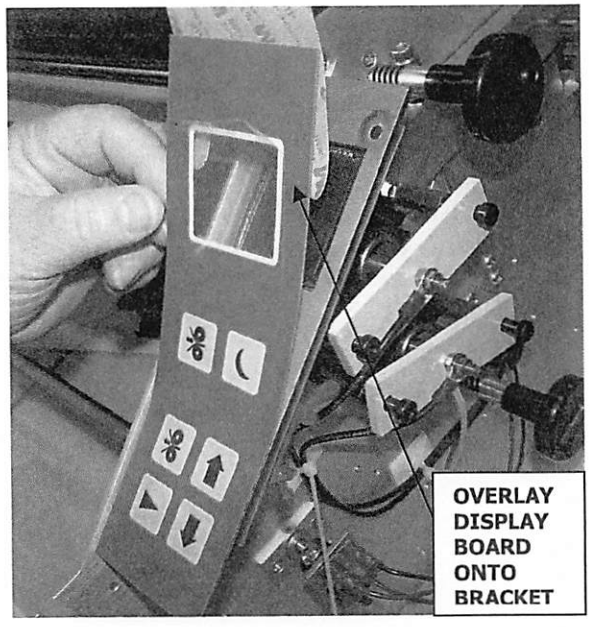
53) FIRST, INSERT THE OVERLAY RIBBON WIRE INTO THE LOWER CONTROL DISPLAY BOARD BRACKET SLOT. THEN, CAREFULLY ALIGN AND ADHERE THE OVERLAY ONTO THE CONTROL BOARD BRACKET.



OVERLAY RIBBON THROUGH CONTROL BRACKET

54) TURN THE CONTROL DISPLAY BOARD BRACKET UPSIDE DOWN AND PLUG THE OVERLAY RIBBON WIRE INTO THE JACK ON THE CLOSEST END OF THE CONTROL DISPLAY BOARD BRACKET.

55) TURN THE CONTROL DISPLAY BOARD BRACKET BACK INTO THE UPRIGHT POSITION. SECURE THE CONTROL DISPLAY BOARD BRACKET TO THE SIDE PANEL USING (3) M4 X 12 FH ON THE INNER SIDE PANEL.



OVERLAY DISPLAY BOARD ONTO BRACKET

TIGHTEN (3) UPRIGHT DISPLAY BOARD SCREWS

COMPASS W-27 400 SERIES WIRING

1) PLACE THE COMPASS LAMINATOR ON ITS BACK. CHECK TIGHTNESS OF THE FEET AND TIGHTEN, IF NECESSARY.

2) UNTHREAD THE (8) PANHEAD SCREWS. LOWER THE BOTTOM COVER. THE STANDOFFS FOR THE CONTROLLER BOARD ARE TO THE RIGHT. RETAIN ALL SCREWS.

3) UNTHREAD THE (2) USB COVER PLATE SCREWS AND RETAIN BOTH.

4) UNTHREAD (2) SCREWS ON THE SENSOR MOUNTING BAR AND REMOVE.

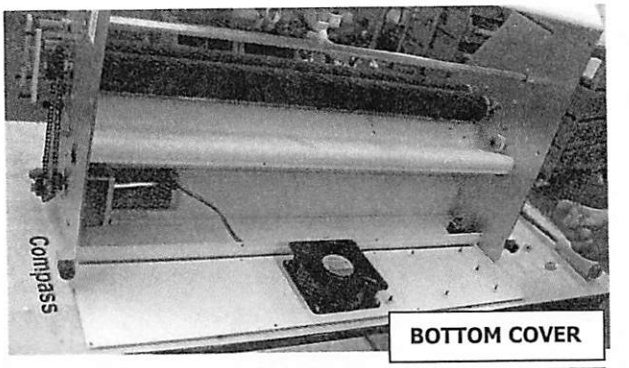
5) PLACE (3) DROPS OF LOCTITE 380 BLACK ADHESIVE AROUND THE MIDDLE OF THE BARREL ON AN INFRA RED SENSOR (PRC300S) AS07. TERMINATE WIRES WITH FEMALE (PRT8310).

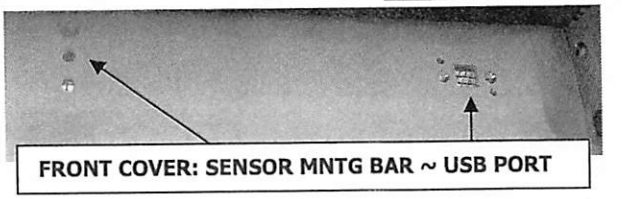
6) ADHERE THE SENSOR TO THE SENSOR MOUNTING BAR, A ¼" DRILL OPENS BAR. INSERT SENSOR WITH LOCTITE ON BARREL INTO SENSOR MOUNTING BAR, WITH EYE FACING BAR END. ADJUST DEPTH SHOWING ON OUTER MOUNTING BAR TO ABOUT 1/8". THE UPPER PORTION OF SENSOR EYE SHOULD BE FLUSH WITH OUTER FRONT COVER. LET THE LOCTITE ADHESIVE FIRM UP.

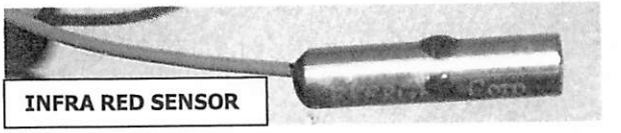
7) REPLACE SENSOR AND SENSOR BAR IN FRONT COVER AND SECURE WITH ORIGINAL SCREWS.

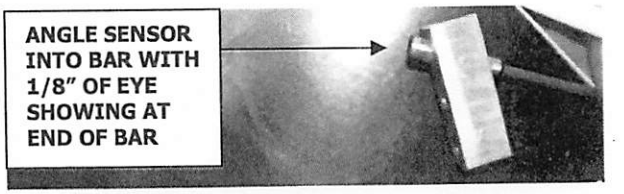
8) ADHERE A PRESS CLIPS ONTO THE UPPER MOTOR COVER, GOING FROM THE SENSOR TO THE RIGHT SIDE WHERE THE WIRES WILL SECURE TO THE CONTROLLER BOARD. TO REDUCE INTERFERENCE, THE SENSOR WIRE IS HELD SEPARATELY FROM THE OTHER HARNESS WIRES. GENTLY CABLE TIE.

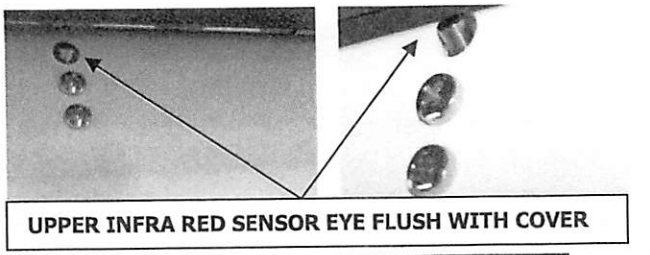
9) REMOVE AND DISCARD THE (2) ROUNDHEAD SCREWS IN THE USB CABLE (PRC11094) RACK 3. SECURE THE USB

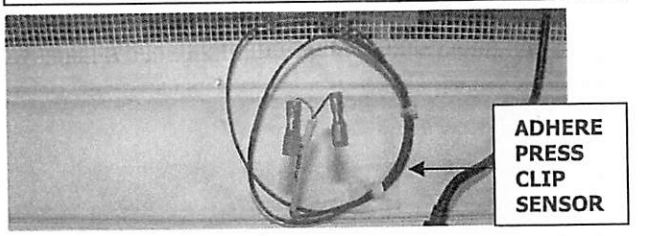


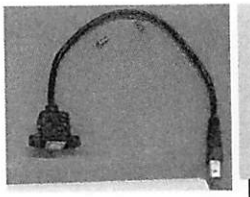


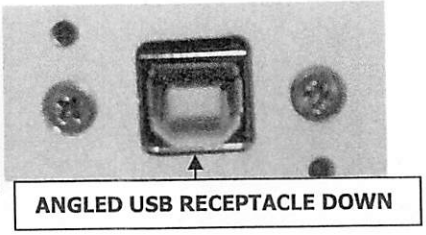




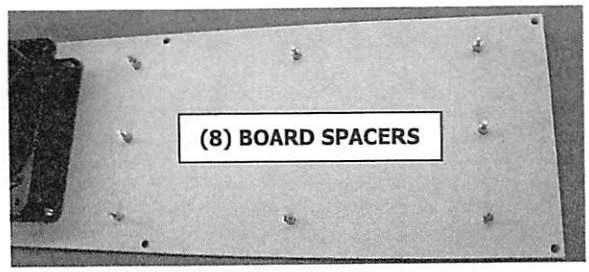




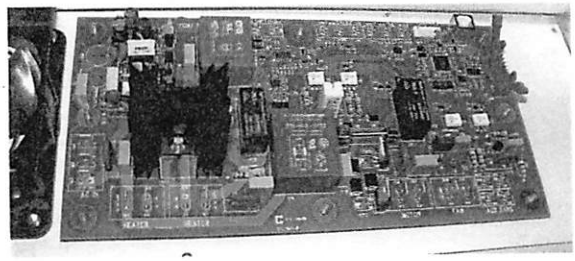




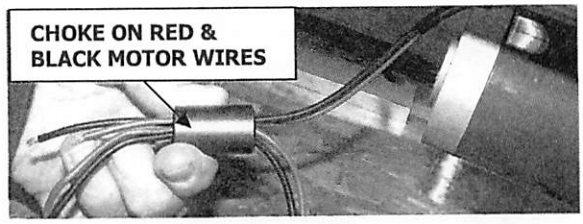
CABLE TO THE COUNTERSUNK HOLES IN THE UPPER, FRONT MOTOR COVER. ORIENT THE USB RECEPTACLE'S ANGLED CORNERS *DOWNWARD* IN THE FRONT COVER. SECURE USB BOARD WITH (2) 4-40 X 3/8 FHMS. NO LABELS SHOULD BE ON THE USB CORD.



10) PLACE THE MAIN CONTROLLER BOARD (PRC11089) RACK 3 OVER THE BOTTOM COVER SPACERS, ORIENTED WITH THE *CONTROL PANEL JACK* TOWARD THE RIGHT SIDE PANEL AND THE *AC IN JACK* FACING INWARD BY FAN.

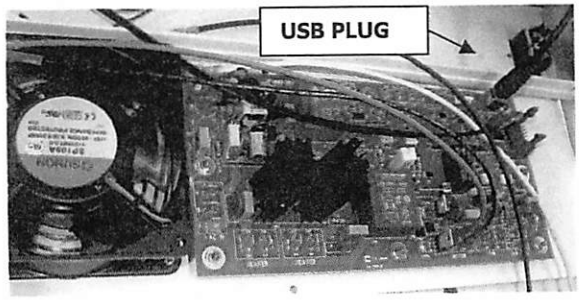


11) SECURE CONTROLLER BOARD TO BOTTOM COVER SPACERS WITH (8) #6 FLAT WASHERS AND (8) M3.56 HEX NUTS RACK 4. USE RED ENDED DRIVER.

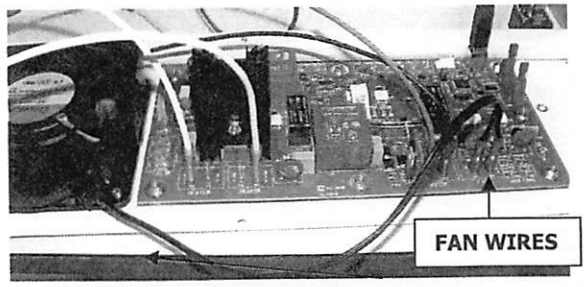


12) CONNECT THE USB PLUG TO THE USB PORT ON THE CONTROLLER BOARD.

13) PLACE THE RED AND BLACK, 18 GAUGE MOTOR WIRES THROUGH A MOTOR CHOKE (PRC216) LD03. SLIDE THE MOTOR CHOKE UP THE WIRES ABOUT 3" FROM MOTOR. RUN THE WIRES THROUGH THE MOTOR CHOKE A SECOND TIME. SNUG THE WIRES ON THE CHOKE.

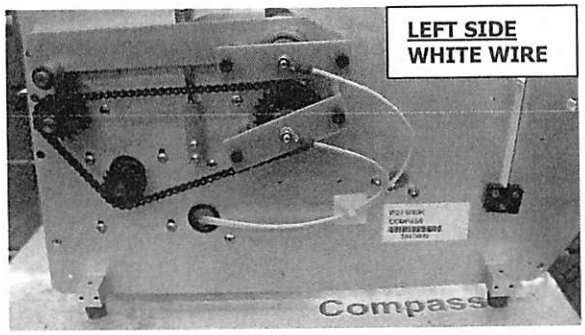


14) SEPARATE COMPASS HARNESS WIRES (PRW367A) RACK 4. CRIMP THE RED AND BLACK HARNESS WIRES WITH RED BUTT SPLICE CONNECTORS ONTO THE LIKE COLOR MOTOR WIRES. CONNECT THE FEMALE ENDS OF THIS CONNECTION TO THE CONTROLLER BOARD: RED WIRES TO QC8 AND BLACK WIRE TO QC9.



15) THE FAN CORD (PRF116) IN THE HARNESS BAG CONNECTS THE (2) FAN TERMINALS WITH THE CONTROLLER BOARD, SPLITTING THE WIRE AND CONNECTING TO BOARD QC10 AND QC11.

16) ON LEFT SIDE, RUN THE (2) LONG WHITE, 14 GAUGE HEATER WIRES WITH RING CONNECTORS THROUGH SNAP BUSHING. CONNECT ONE OF THE WHITE WIRES TO THE TOP HEATER WITH INSULATOR, FLAT WASHER, #8 HEX NUT, THEN THE WIRE RING CONNECTOR, #8 HEX NUT AND



AND ***TIGHTEN WITH NUT DRIVER***.
CONTINUE TOP HEATER WIRE TO CONTROLLER BOARD QC5. CONNECT BOTTOM HEATER WIRE THE SAME WAY. CONTINUE BOTTOM WIRE TO CONTROLLER BOARD QC7.

17) ON OUTER LEFT SIDE PANEL ADHERE PRESS CLIP BEHIND LABEL AND TIE WHITE HEATER WIRES.

18) CONNECT THE (3) MAIN POWER WIRES. CONNECT THE SMALLER FEMALE ON THE BLACK 14 GAUGE WIRE TO THE OUTER, BACK RECEPTACLE POST. THE SMALLER FEMALE ON THE WHITE 14 GAUGE WIRE TO THE FRONT POST, CLOSEST TO THE GROUND TERMINAL POST.

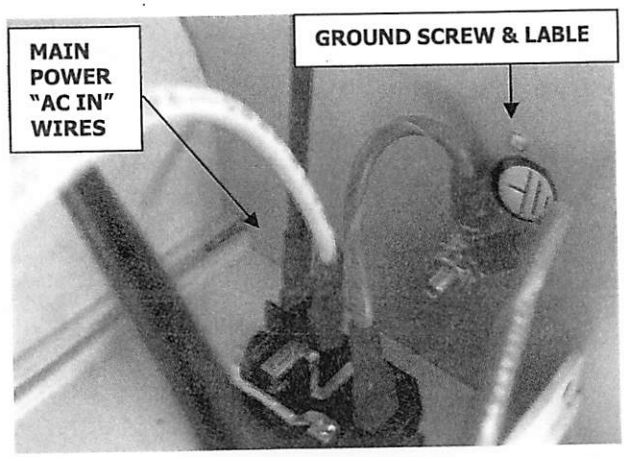
19) LOCATE POSITION AND PLACE A #8 STAR WASHER ON AN M4 X 0.7 X 20 FHMS AND INSERT THROUGH OUTER RIGHT SIDE PANEL. ADD A #8 STAR WASHER TO THE INNER SCREW THREADS AND THE SHORT, MAIN POWER GREEN GROUND WIRE. SECURE WITH AN M4 HEX NUT. ADD A #8 STAR WASHER, THE LONGER "AC IN" GREEN GROUND WIRE, AND ANOTHER #8 STAR WASHER. TIGHTEN WITH M4 HEX NUT AND ORANGE END DRIVER.

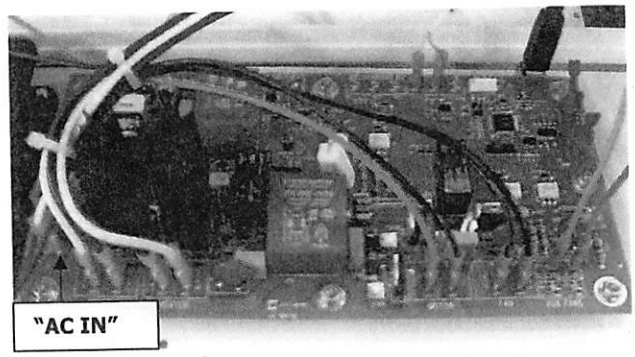
20) ADHERE AN INTERNATIONAL GROUND LABEL (LAB06) WB09 BY GROUND WIRES ON INNER PANEL.

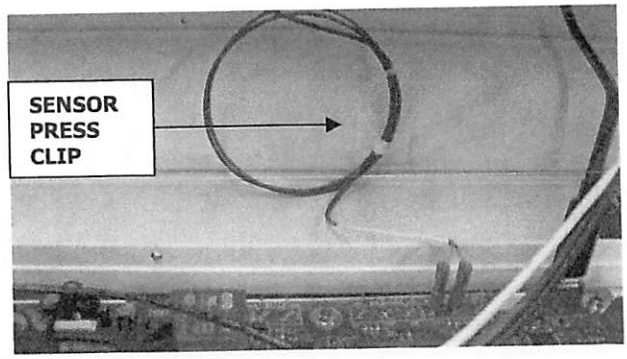
21) CONTINUE THE MAIN POWER WIRES TO CONTROLLER BOARD "AC IN." THE BLACK WIRE CONNECTS TO QC1. THE LONGER GREEN WIRE FROM THE GROUND SCREW GOES TO QC2. MAIN POWER WHITE WIRE CONNECTS TO QC3.

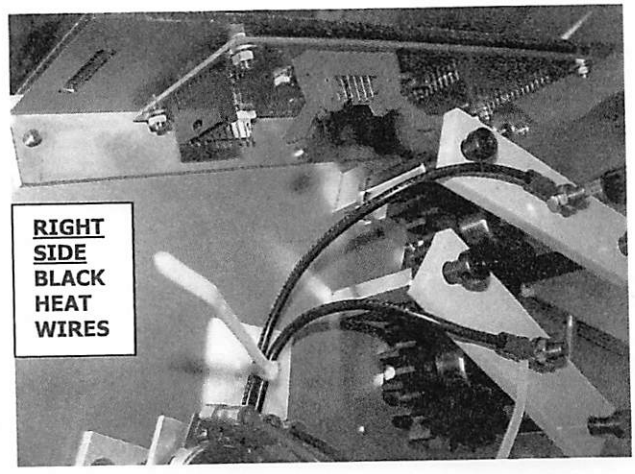
22) LEAVE THE LOOP ON THE SENSOR WIRE TIED AS IT COMES IN PACKAGE. ADHERE A PRESS CLIP TO BACK COVER AND TERMINATE THE SENSOR WIRES ON THE CONTROLLER BOARD: RED TO QC22 AND CLEAR/YELLOW WIRE TO QC21.

23) ON THE RIGHT SIDE THE BLACK 14 GAUGE WIRES WITH RING CONNECTORS TERMINATE ON THE HEATER CARTRIDGES. USE THE SAME SEQUENCE

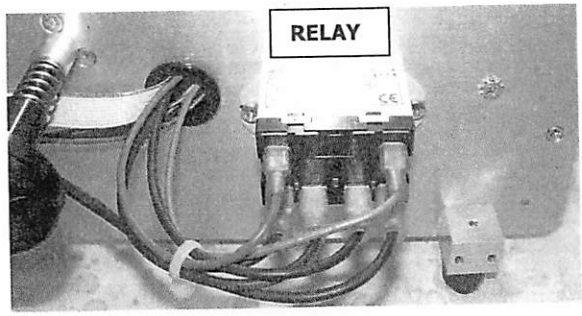




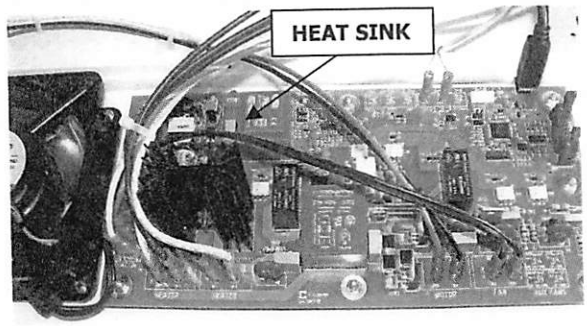




AS ON THE WHITE WIRES. CONNECT THE LONGER, BLACK HEATER WIRE TO THE TOP HEATER. CONTINUE TOP HEATER WIRE TO RELAY #8. THE SHORTER BLACK RING WIRE CONNECTS TO BOTTOM HEATER AND CONTINUES TO RELAY #2.



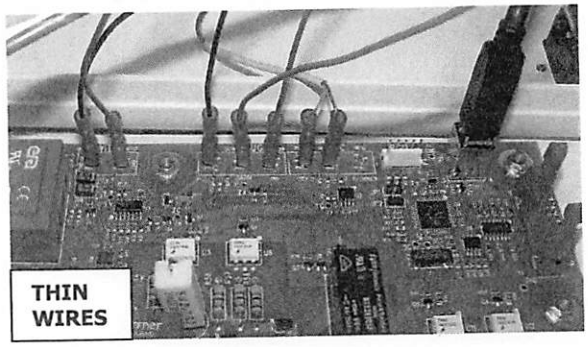
24) SECURE (2) BLACK 14 GAUGE WIRES WITH FEMALE CONNECTORS ON BOTH ENDS. TERMININATE ONE OF THE BLACK WIRES BETWEEN RELAY #6 AND CONTROLLER BOARD QC4. CONNECT REMAINING BLACK WIRE BETWEEN RELAY #4 AND CONTROLLER BOARD QC6. BUNDLE POWER, HEATER AND FAN WIRES TOGETHER. ***DO NOT LET WIRES TOUCH THE BLACK TOWER HEAT SINK.***



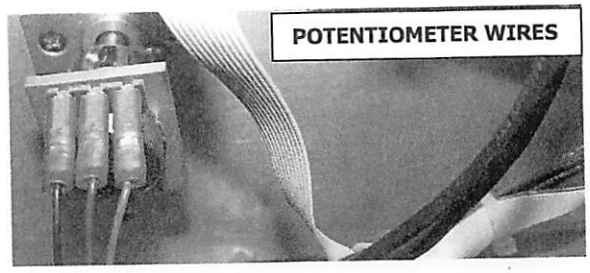
25) CONNECT THE LARGER FEMALE END ON THE ORANGE WIRE TO RELAY #1, RUN ORANGE WIRE THROUGH BUSHING AND TERMINATE ON CONTROLLER BOARD QC13. CONNECT THE LARGER FEMALE END ON THE BLUE WIRE TO RELAY #0, RUN THROUGH SNAP BUSHING AND TERMINATE ON BOARD QC12.

26) RUN THE LONGER RED (ORANGE) AND BLACK WIRES WITH A RING CONNECTOR ON ONE END THROUGH THE RIGHT SIDE SNAP BUSHING. TERMINATE THE BLACK WIRE FEMALE END ON CONTROLLER BOARD QC16. TERMINATE THE RED (ORANGE) WIRE FEMALE END ON QC17.

27) THE RING CONNECTING ENDS ON THE LONGER RED (ORANGE) AND BLACK WIRES TERMINATE ON THE MICROSWITCH LOCATED ON THE OUTER, FRONT RIGHT SIDE PANEL. SECURE THE BLACK RINGED WIRE TO THE LOWER MICROSWITCH SCREW "COM 1". SECURE THE RED (ORANGE) RINGED WIRE TO THE MIDDLE SCREW "NO 3".



28) RUN RED (ORANGE), BLACK AND BLUE WIRES BETWEEN THE CONTROLLER BOARD AND THE OUTER RIGHT SIDE POTENTIOMETER.



29) ON THE CONTROLLER BOARD CONNECT THE BLACK WIRE TO QC18. CONNECT

THE BLUE WIRE TO QC19. CONNECT THE RED (ORANGE) WIRE TO QC20.

30) ON THE POTENTIOMETER CONNECT THE BLACK WIRE TO THE FRONT/LEFT POST. CONNECT THE BLUE WIRE TO THE MIDDLE POST. CONNECT THE RED WIRE TO REAR/RIGHT POST.

31) ADHERE A PRESS CLIP BELOW THE SUPPLY ROLL BRACKET AND CABLE TIE MICROSWITCH WIRES. ADHERE PRESS CLIP BELOW THE POTENTIOMETER AND SECURE THE POTENTIOMETER AND MICROSWITCH WIRES. CONTINUE TOWARD SNAP BUSHING. ADD A THIRD PRESS LIP AND INCLUDE THE BLACK HEATER CARTRIDGE WIRES.

32) CABLE TIE WIRES ON BOTTOM HOUSING. KEEP SENSOR AND THIN WIRES SEPARATE FROM 14 GAUGE WIRES. LOOP THE THIN WIRES AND CABLE TIE.

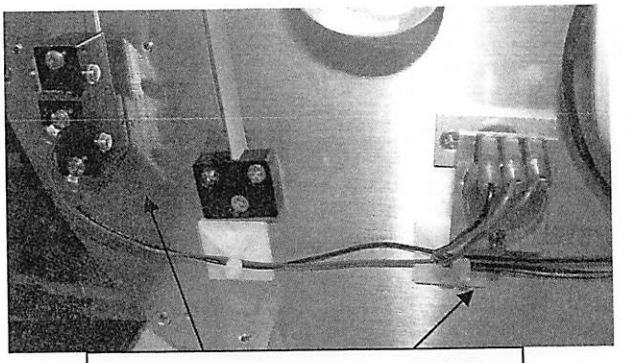
33) CONNECT THE GRAY RIBBON WIRE BETWEEN THE DISPLAY BOARD AND THE BLUE JACK ON THE CONTROLLER BOARD, MARKED "DISPLAY BOARD." THE BLUE ARROW 'KEY' FITS INTO BOARD CHANNELS. ENDS WILL CLOSE UP.

34) **WHEN HANDLING CONTROL BOARDS AVOID ANY STATIC CHARGE, AS STATIC ELECTRICITY CAN *DESTROY* THE BOARD.

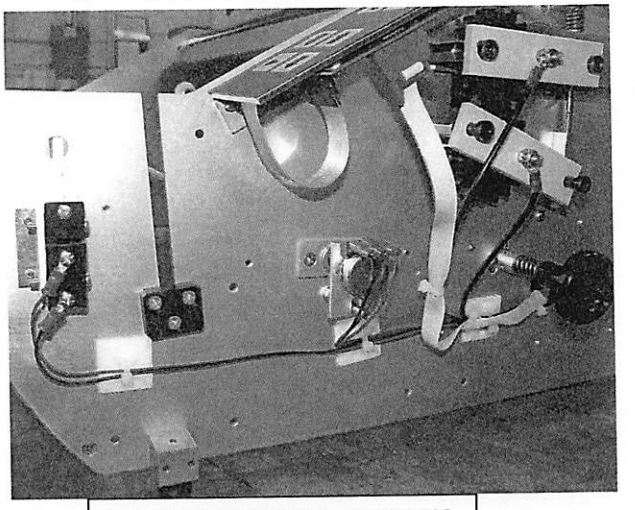
35) ***GENTLY*** FOLD EXTRA RIBBON WIRE, IF TOO LONG. CABLE TIE AND PRESS CLIP ALONG SIDE PANEL.

36) ABOVE THE CONTROLLER BOARD, LOOP THE THIN "GAUGE" WIRES AND THE THIN "MICROSWITCH" WIRES TOGETHER AND CABLE TIE.

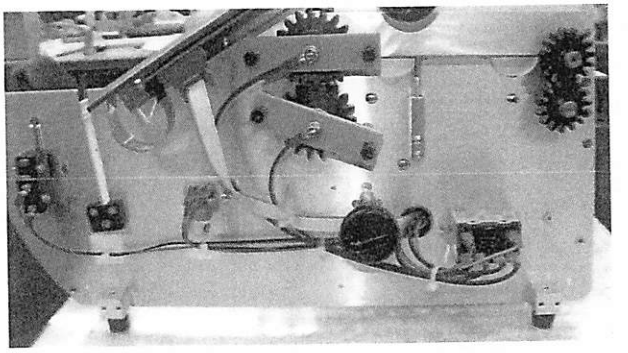
37) SLIDE THE BOTTOM MOTOR COVER UPWARD, FITTING THE PLUG CONNECTION ON THE FAN UNDER THE FRONT COVER LIP FIRST. CHECK THAT YOU DO NOT PINCH OR LOOSEN WIRES AS YOU RAISE THE BOTTOM MOTOR COVER. SECURE THE BOTTOM MOTOR COVER TO THE FRONT MOTOR COVER AND THEN TO THE BACK MOTOR COVER USING THE ORIGINAL (8) M4 X.07X6 PH.

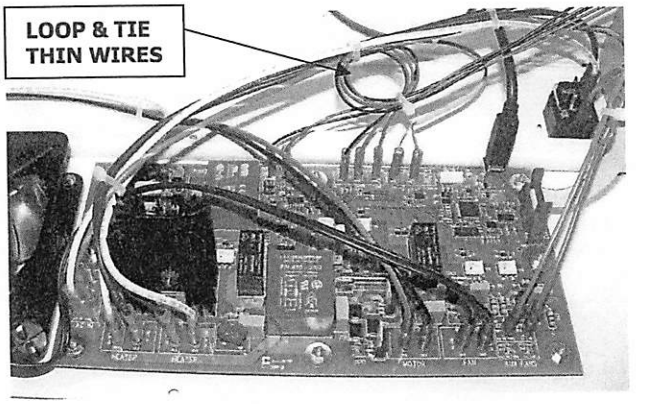


MICROSWITCH & POTENTIOMETER



TIE RIBBON WIRE SEPARATELY

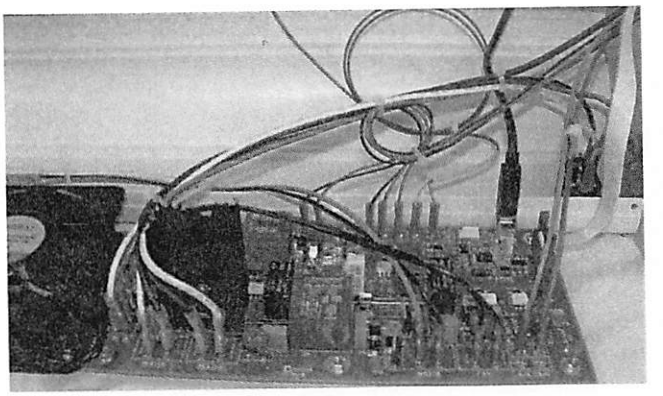


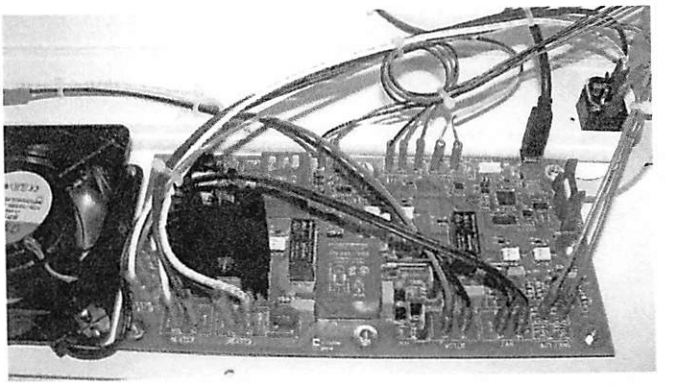


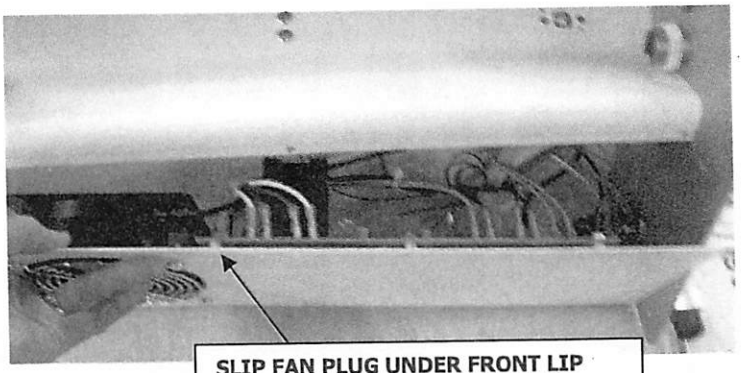
38) WHILE THE COMPASS IS ON ITS BACK IN THE WIRING POSITION, CONNECT THE USB CABLE TO THE USB PORT. THE USB CABLE IS LOCATED AT THE COMPAST STATION.

39) BE VERY CAREFULLY NOT TO PINCH THE USB CORD ON THE COMPASS FEET AS YOU *CAREFULLY* RETURN THE COMPASS TO THE UPRIGHT POSITION.

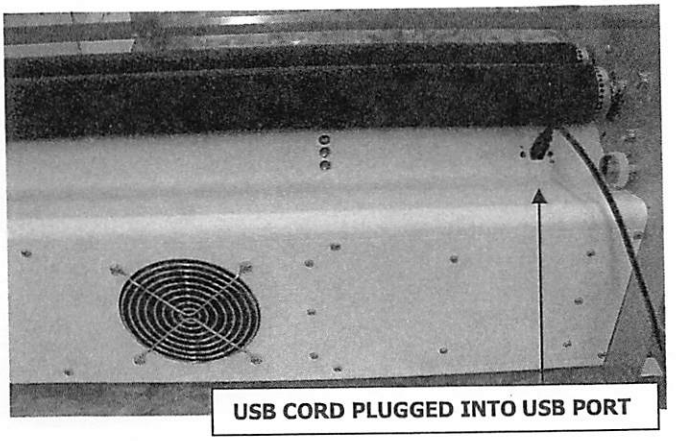
40) PLUG THE COMPASS INTO A 110 VOLT POWER OUTLET USING THE POWER CORD (PRC118) LD05.



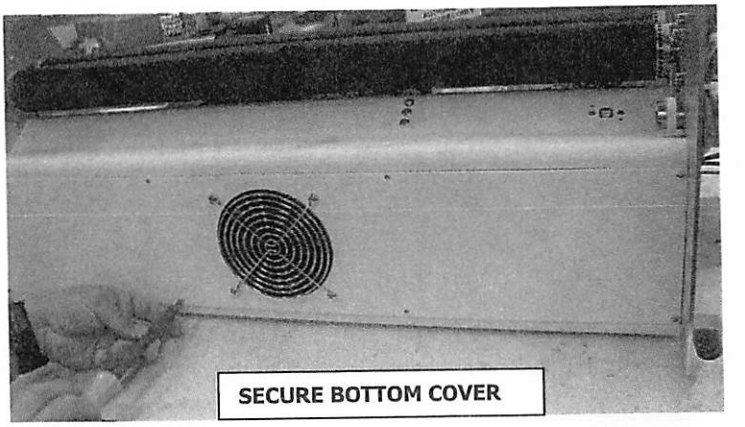




SLIP FAN PLUG UNDER FRONT LIP



USB CORD PLUGGED INTO USB PORT

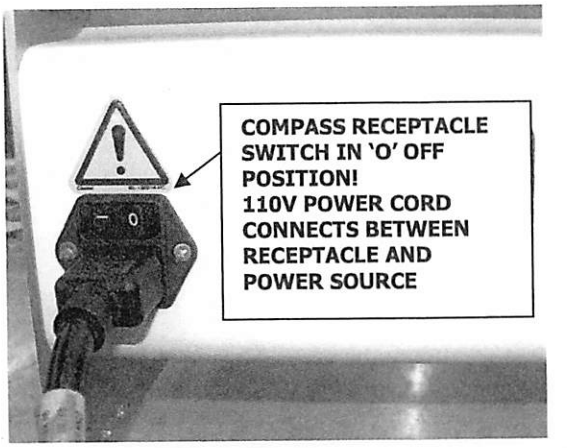


SECURE BOTTOM COVER

COMPASS W-27 500 SERIES
PARAMETER SETTING – IN HOUSE 2015

1) FOR THE <u>COMPASS 500 SERIES,</u> THAT ARE BUILT IN-HOUSE AT LEDCO, THE QUICKEST AND MOST EFFICENT PARAMETER SETTING IS DONE BY USING THE COMPUTER TOWER AND SCREEN ON THE RECEIVING DESK.

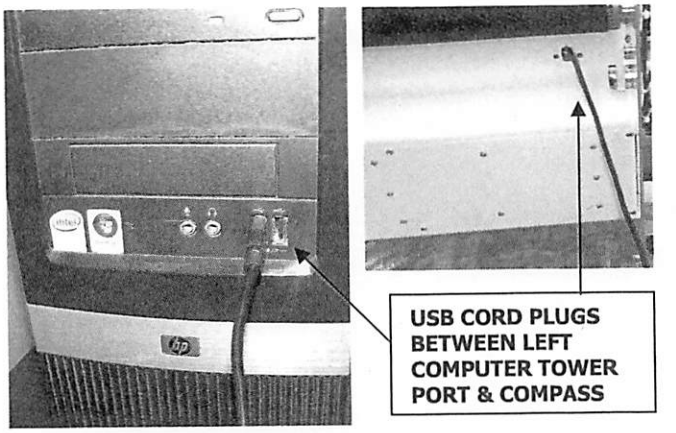
2) ***FIRST*** BE CERTAIN THE COMPASS RECEPTACLE SWITCH IS IN THE "OFF" POSITION WHICH IS INDICATED BY "0" ON THE RECEPTACLE. THEN CONNECT THE COMPASS POWER CORD (PRC118) LD05 BETWEEN THE COMPASS RECEPTACLE AND A 110V POWER SOURCE.



3) THE USB CORD USED FOR COMPASS PARAMATER SETTING IS LOCATED AT THE WB09.

4) BE SURE THE COMPASS PARAMETER SETTING USB CORD IN USB PORT IS NOT TOUCHING THE LOWER HOT RUBBER ROLL.

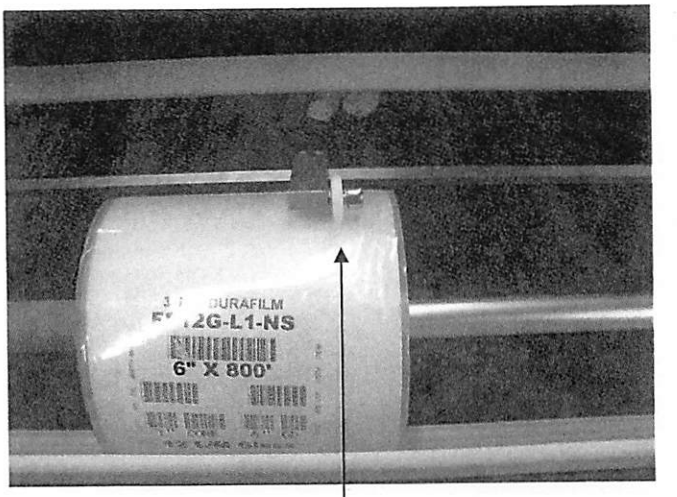
5) CONNECT THE USB CORD BETWEEN THE FIRST/LEFT SIDE COMPUTER TOWER PORT AND THE COMPASS PORT, LOCATED BELOW THE RUBBER ROLLS.



6) LOCATE PARAMETER SETTING SAMPLE SUPPLY ROLL AT THE COMPASS STATION WHICH HAS A SPOOL OF NARROW, 3 MIL FILM AND SEVERAL INCHES OF THE FILM CORE SHOWING, ON THE LEFT SIDE.

7) PLACE THE PARAMETER SETTING SUPPLY ROLL IN THE BOTTOM SUPPLY ROLL POSTION OF THE COMPASS, WITH THE FILM TO THE RIGHT SIDE OF THE ROLLER GAUGE BAR AND THE EMPTY FILM CORE TO THE LEFT SIDE.

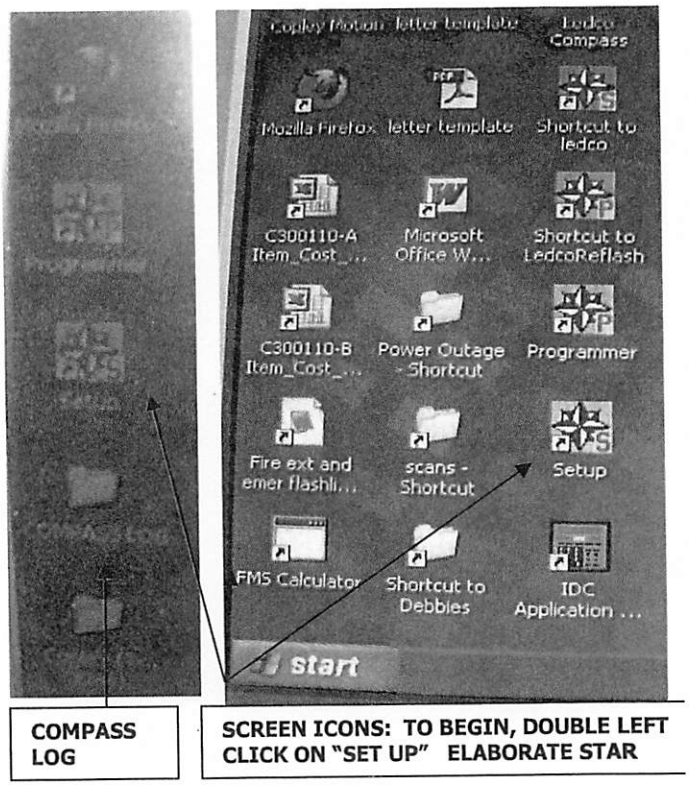
8) SET THE SUPPLY ROLL GAUGE ROLLER ON THE FULL SAMPLE FILM ROLL THIS WILL ESTABLISH THE 100% FILM SET POINT LATER ON.



9) TURN ON THE COMPASS POWER SWITCH. THE NUMBER '126' WILL SHOW IN THE COMPASS DISPLAY SCREEN, *BRIEFLY*. THEN A WRENCH APPEARS ON LOWER RIGHT DISPLAY. THE TOWER WILL MAKE A CHIME SOUND.

10) MOVE CURSOR TO THE LOWER OF THE TWO ELABORATE STAR ICONS, ON THE MAIN MENUE AT LEFT OF SCREEN THAT HAS "SET UP" WRITTEN UNDER IT. DOUBLE LEFT CLICK ON THE "SET UP" STAR ICON.

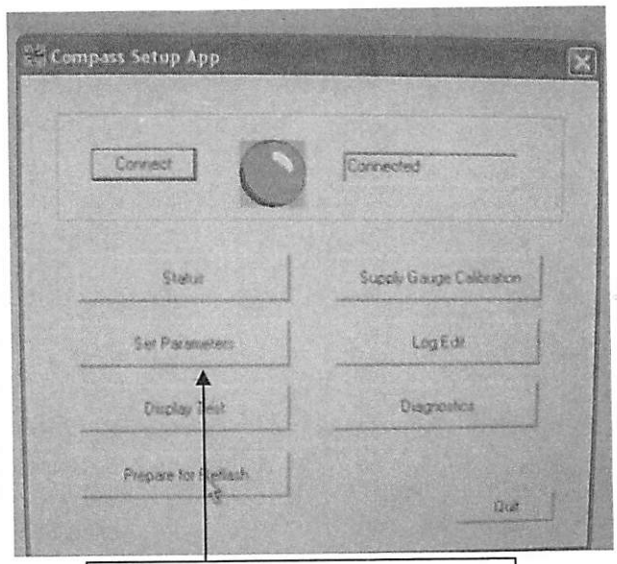
11) THE "COMPASS SETUP APP" SCREEN APPEARS IN THE CENTER OF THE COMPUTER WINDOW WITH A GREEN BALL, IF CORRECTLY CONNECTED AND A RED BALL IF NOT CONNECTED CORRECTLY.

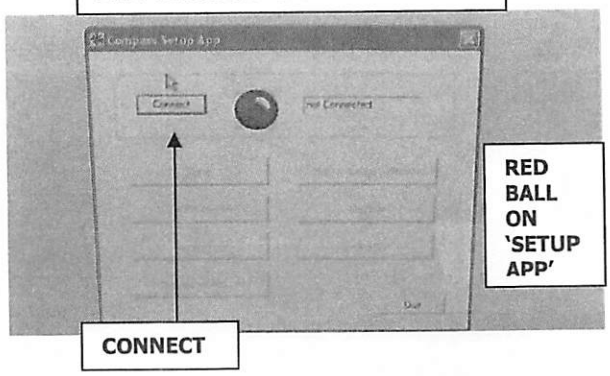


12) IF BALL IS RED, LEFT CLICK ON THE "CONNECT" BOX IN THE COMPASS SETUP APP BOX. THE RED BALL SHOULD THEN BECOME A GREEN BALL, WHICH MEANS YOU ARE PROPERLY CONNECTED AND MAY CONTINUE.

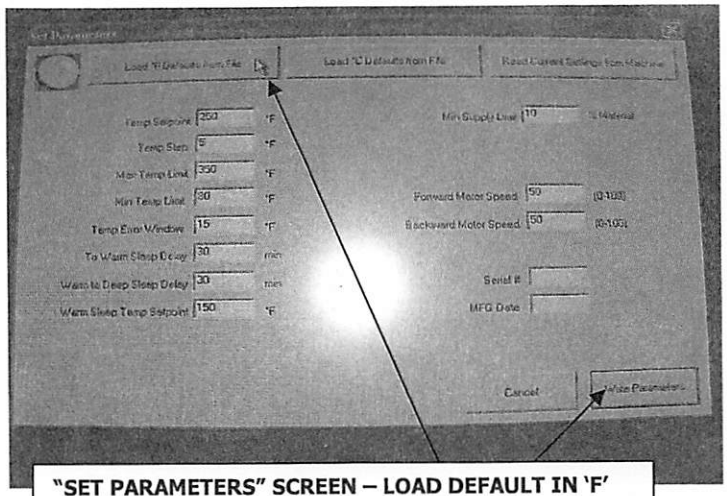
13) THE COMPASS CONTROLLER BOARD HAS TO BE REPROGRAMMED BEFORE SHIPMENT. LEFT CLICK IN THE "SET PARAMETERS" BOX LOCATED IN THE COMPASS SETUP APP. A NEW "SET PARAMETERS" SCREEN WILL APPEAR.

14) AT RIGHT IS AN EXAMPLE OF THE "COMPASS SETUP APP" SHOWING THE RED BALL. SCROLL TO THE "CONNECT" BOX AND LEFT CLICK. THE BALL THEN GOES GREEN AND YOU MAY PROCEED.



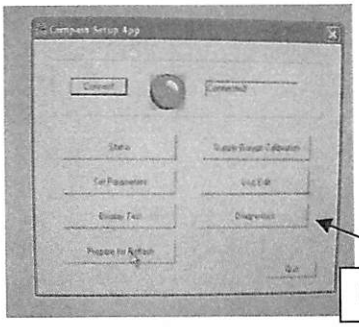


15) **IN THE "SET PARAMETERS" SCREEN, SCROLL TO "LOAD 'F' DEFAULT FROM FILE" (THE 'F' STANDS FOR FAHRENHEIT). LEFT CLICK IN BOX, IT WILL HIGHLIGHT. SCROLL AND LEFT CLICK ON 'WRITE PARAMETERS' BOX AT THE LOWER RIGHT.**

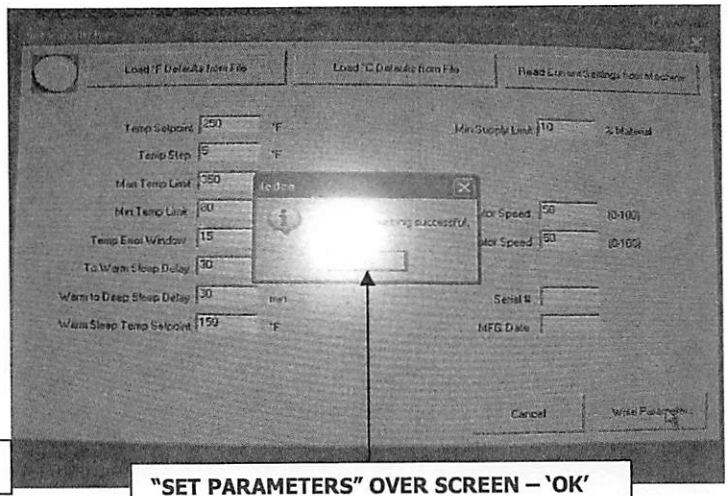


"SET PARAMETERS" SCREEN – LOAD DEFAULT IN 'F'

16) **A SMALL OVER SCREEN BOX ENTITLED 'LEDCO' CENTERS ON THE 'SET PARAMETERS' SCREEN AND A CHIME SOUND. LEFT CLICK ON "OK" BOX IN OVER SCREEN. A NEW SCREEN APPREARS, "COMPASS SETUP APP."**

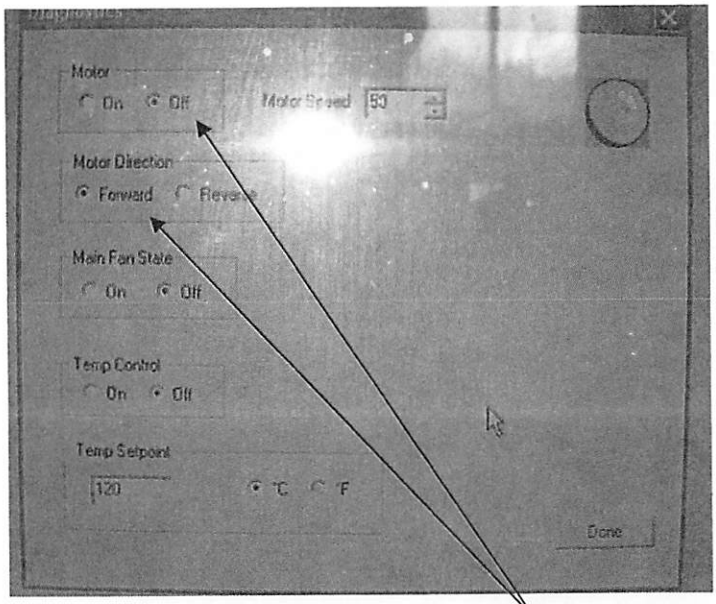


DIAGONASTICS



"SET PARAMETERS" OVER SCREEN – 'OK'

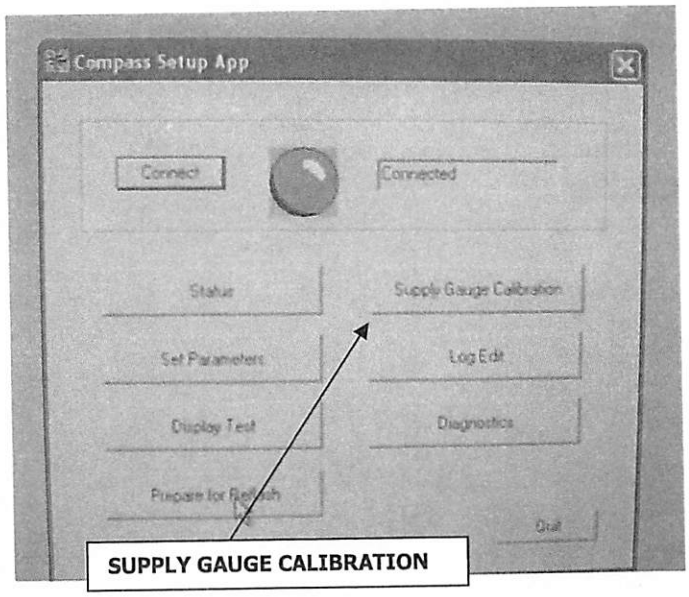
17) **SCROLL TO 'DIAGNOSTICS' IN THE 'COMPASS SETUP APP' AND LEFT CLICK. THE "DIOGNASTICS" SCREEN APPEARS. SCROLL TO MOTOR BOX AND LEFT CLICK 'ON.' THE COMPASS MOTOR WILL RUN THE RUBBER ROLLS IN THE FORWARD DIRECTION. **** THIS IS A GOOD TIME TO *LIGHTLY* OIL THE CHAIN. SCROLL TO MOTOR BOX AND LEFT CLICK MOTOR BOX 'OFF.' SCROLL TO MOTOR DIRECTION BOX AND LEFT CLICK 'REVERSE.' SCROLL TO MOTOR BOX AND LEFT CLICK 'ON.' THE MOTOR WILL RUN THE RUBBER ROLLS IN THE REVERSE DIRECTION. SCROLL TO MOTOR BOX AND LEFT CLICK 'OFF.' SCROLL TO MOTOR DIRECTION BOX AND LEFT CLICK 'FORWARD.' THIS WILL END THE MOTOR TEST, LEAVING THE MOTOR IN THE FORWARD POSITION.**



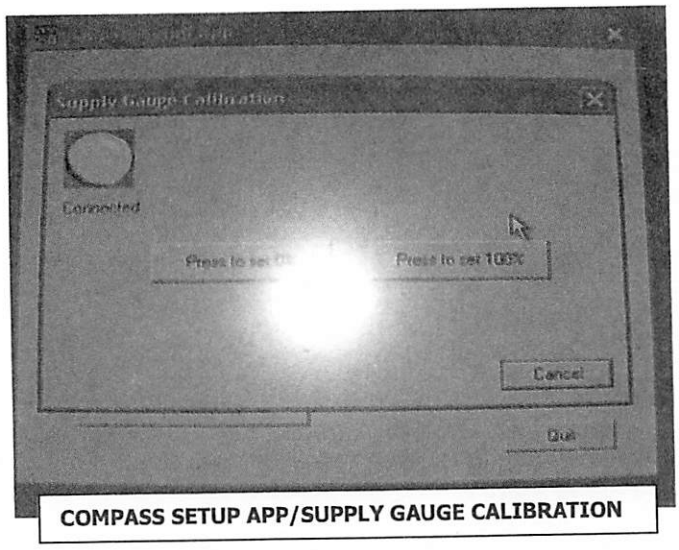
"DIAGONASTICS" SCREEN: MOTOR OFF/FORWARD

18) WHILE STILL IN THE "DIOGNASTICS" SCREEN, SCROLL DOWN TO THE "MAIN FAN STATE." SCROLL TO 'ON' AND LEFT CLICK. THE COMPASS FAN WILL TURN ON. SCROLL TO 'OFF' AND LEFT CLICK, THE FAN WILL STOP. SCROLL TO 'DONE' AND LEFT CLICK. A NEW SCREEN WILL APPREAR.

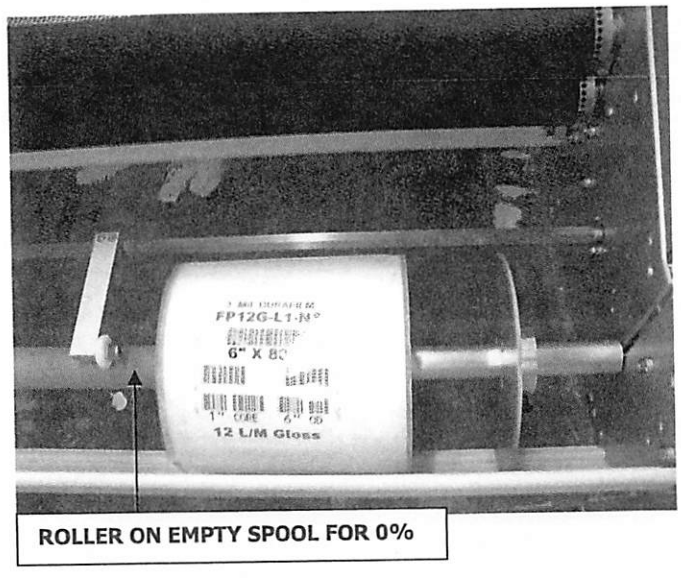
19) THE NEW SCREEN IS "COMPASS SETUP APP." SCROLL TO 'SUPPLY GAUGE CALIBRATION' AND LEFT CLICK. AN OVER SCREEN APPEARS "SUPPLY GAUGE CALIBRATION."



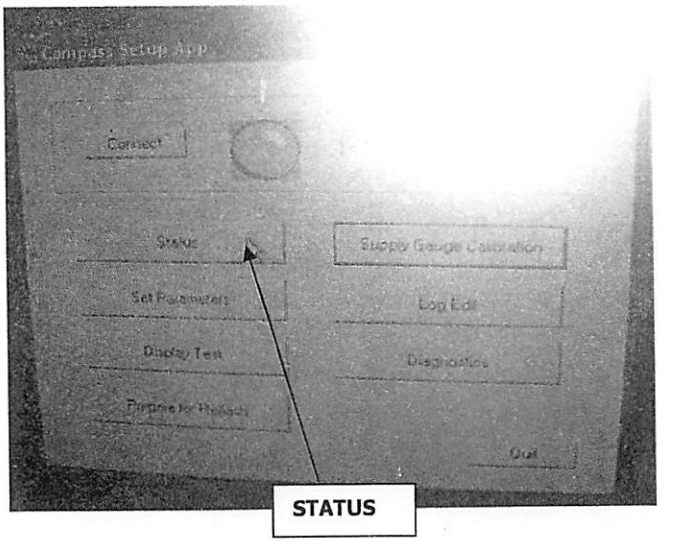
20) WITH THE SUPPLY GAUGE ROLLER ON THE FULL TEST FILM, SCROLL TO 'PRESS TO SET 100%'. LEFT CLICK ON THIS BOX. IT WILL FLASH AND HIGHLIGHT.



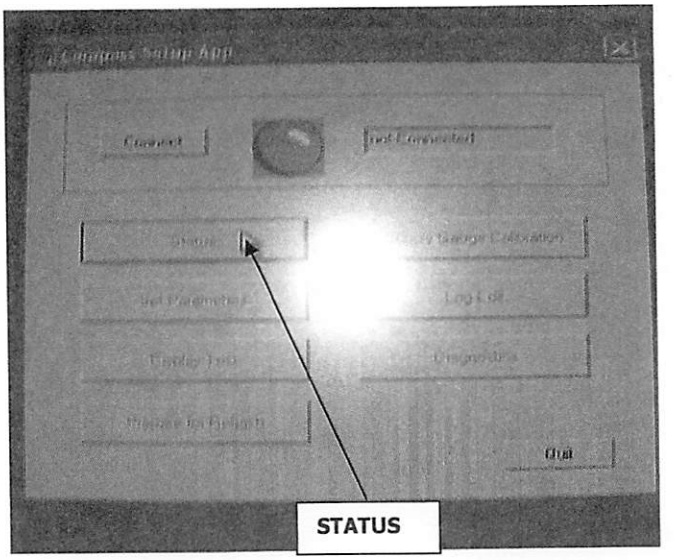
21) PLACE THE SUPPLY ROLL GAUGE ROLLER ON THE EMPTY FILM SUPPLY ROLL. WHILE STILL IN "SUPPLY GAUGE CALIBRATION" SCROLL TO 'PRESS TO SET 0%' AND LEFT CLICK. THAT BOX WILL FLASH AND HIGHLIGHT. SCROLL TO RED BOX IN 'SUPPLY GAUGE CALIBRATION' SCREEN WITH X IN IT AND LEFT CLICK.



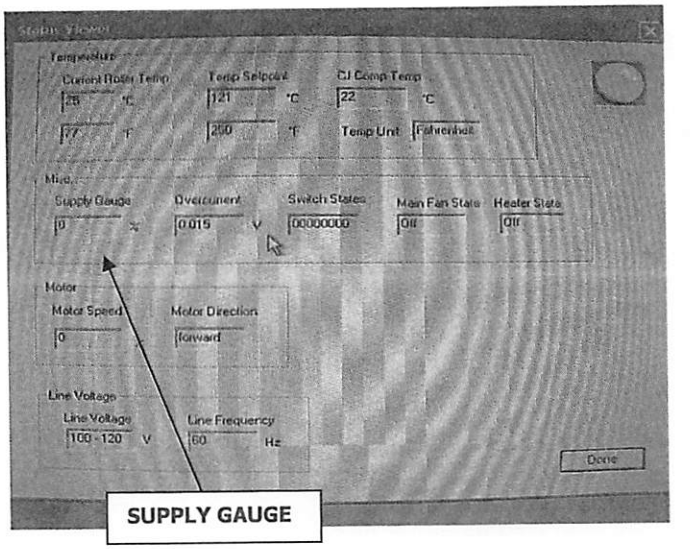
22) THE 'COMPASS SETUP APP' REMAINS WITH A GREEN BALL. ** ON THE BACK OF THE COMPASS, PRESS THE RECEPTACLE/SWITCH TO THE OFF "O" POSITION. WAIT FOR CHIME SHOUND FROM THE TOWER. THE 'COMPASS SETUP APP' SCREEN REMAINS ON EVEN WHEN THE COMPASS SWITCH IS TURNED OFF. TURN COMPASS BACK ON AT RECEPTACLE. WAIT FOR CHIME SOUND FROM THE TOWER.



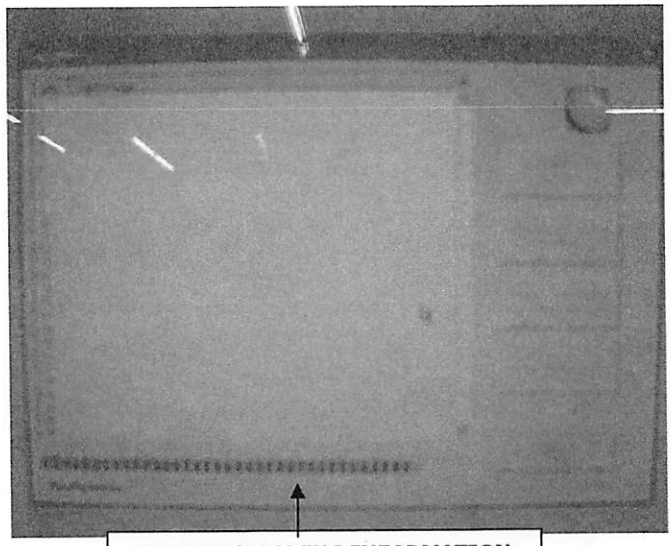
23) NOW WE CAN CHECK THE STATUS OF THE INPUT. SCROLL TO THE STATUS BOX AND LEFT CLICK. THE COMPASS SETUP APP BALL WILL GO RED. SCROLL TO THE 'CONNECT' BOX AND LEFT CLICK. THE COMPASS SETUP BALL THEN GOES GREEN. SCROLL TO THE 'STATUS' BOX A SECOND TIME AND LEFT CLICK. A NEW SCREEN WILL APPEAR.



24) THE NEW SCREEN 'STATUS VIEWER' SHOWS NUMBERS THAT HAVE BEEN PROGRAMMED. TEST SUPPLY ROLL GAUGE ON THE COMPASS BY LIFTING AND LOWERING GAUGE. THE NUMBERS WILL INCREASE OR DECREASE IN THE SUPPLY GAUGE BOX. LEFT CLICK ON THE 'DONE' BOX AT LOWER RIGHT.

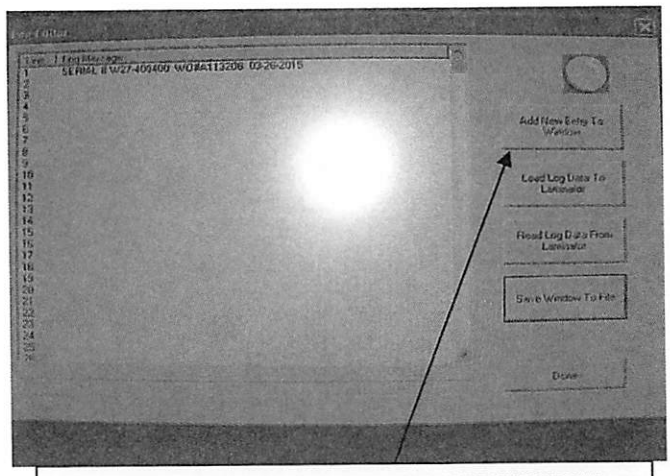


25) SCROLL TO 'LOG EDIT' BOX IN 'COMPASS SETUP APP" AND LEFT CLICK. THE "LOG EDITOR' SCREEN APPEARS. IT WILL LOAD, WAIT UNTIL LOADING IS DONE. LOADING IS INDICATED BY BLUE SECTIONAL LINE WORKING ACROSS BOTTOM OF SCREEN.



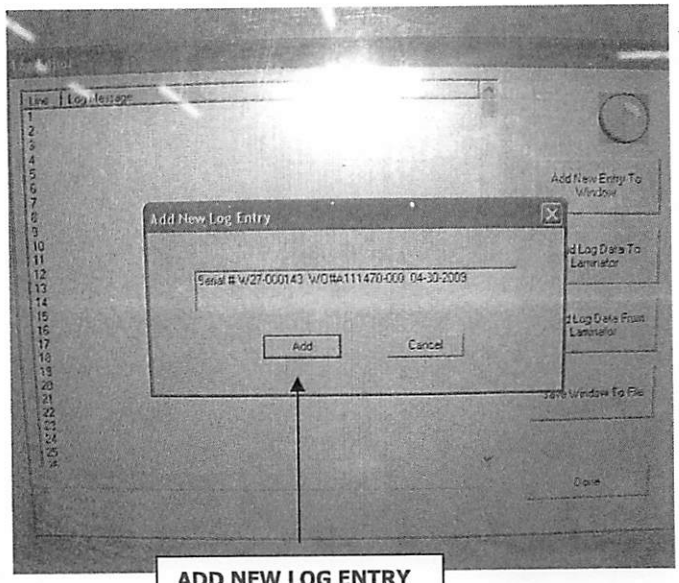
LOG EDIT/LOADING INFORMATION

26) SCROLL TO 'ADD NEW ENTRY TO WINDOW' AND LEFT CLICK. NEW OVER SCREEN APPREARS.



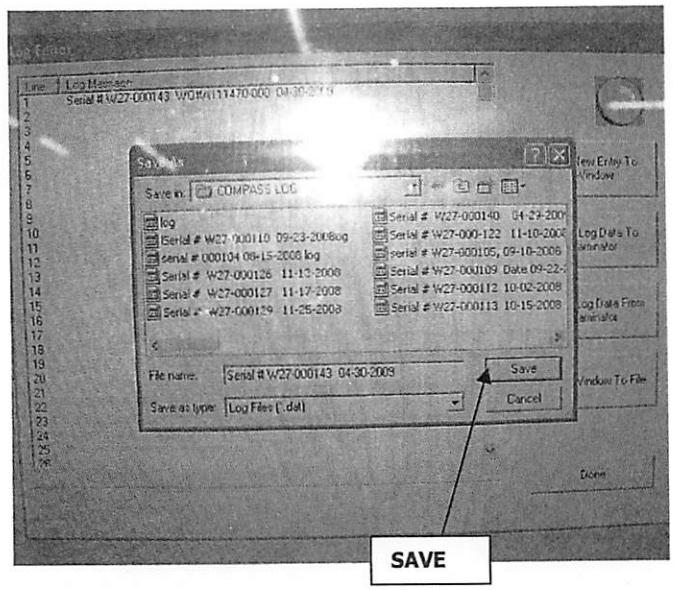
"LOG EIT" SCREEN: ADD NEW ENTRY TO WINDOW

27) THE OVER SCREEN IS 'ADD NEW LOG ENTRY.' IN 'ADD NEW LOG ENTRY' SCREEN TYPE IN: <u>SERIAL # W27-400000</u> THE SERIAL NUMBER OF THE MACHINE BEING TESTED. DEPRESS SPACE BAR TWICE AND TYPE: <u>WO#A111470</u> THE NEW WORK ORDER NUMBER. DEPRESS SPACE BAR TWICE AND <u>04-20-2012</u> THE CURRENT DATE. SCROLL TO 'ADD' IN OVER SCREEN AND LEFT CLICK. THE OVER SCREEN LEAVES AND INFORMATION APPEARS IN LOG EDIT SCREEN. SCROLL TO 'SAVE WINDOW TO FILE' AND LEFT CLICK.



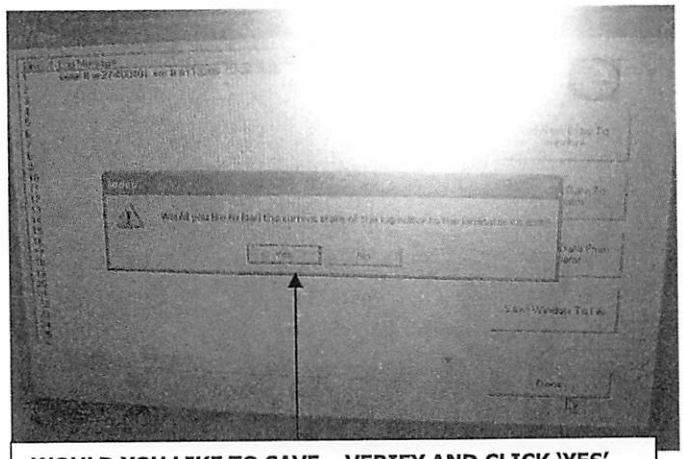
ADD NEW LOG ENTRY

28) THE "SAVE AS" OVER SCREEN APPEARS. IN 'FILE NAME' TYPE: <u>SERIAL # W27-400140</u> CURRENT COMPASS SERIAL NUMBER, DEPRESS THE SPACE BAR TWICE AND TYPE: <u>04-29-2012</u> THE CURRENT DATE. SCROLL TO 'SAVE' AND LEFT CLICK. OVER SCREEN LEAVES. SCROLL TO "DONE" AND LEFT CLICK.

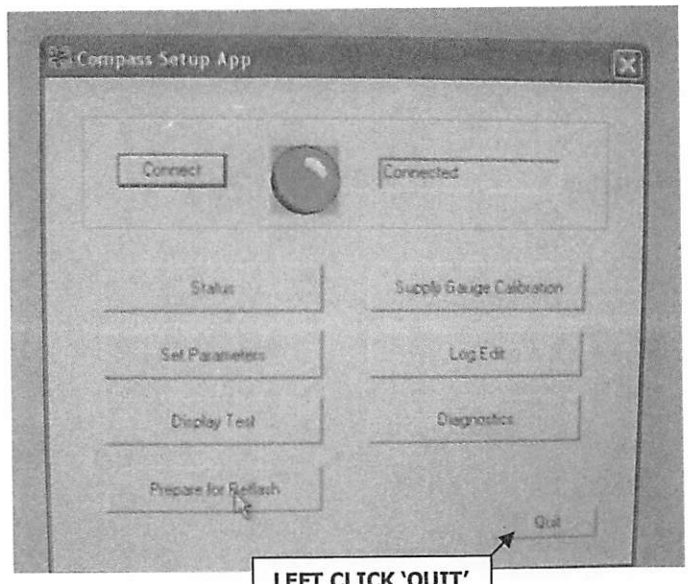


SAVE

29) A NEW OVER SCREEN APPEARS ENTITLED 'LEDCO' ASKING "WOULD YOU LIKE TO LOAD . . ." SCROLL TO THE 'YES' BOX IN THE OVER SCREEN AND LEFT CLICK. THE SCREEN THEN GOES TO "LOG EDIT" AND LOADS, SHOWN BY BLUE SEGMENTS AT BOTTOM.

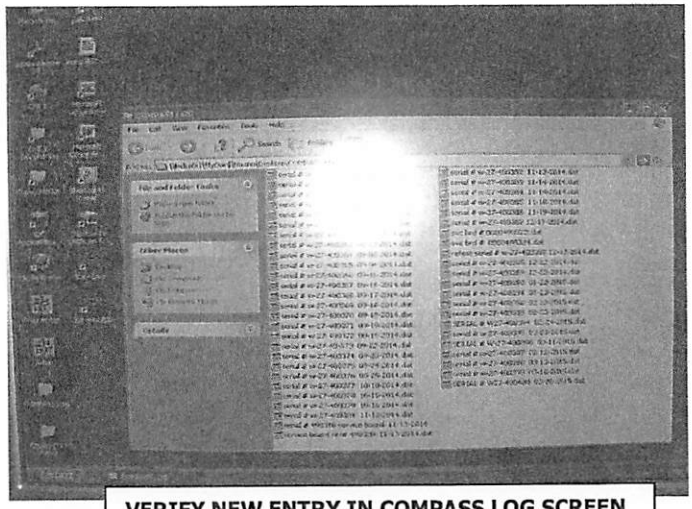

WOULD YOU LIKE TO SAVE – VERIFY AND CLICK 'YES'

30) THE 'COMPASS SETUP APP' SCREEN APPEARS WITH A GREEN BALL. SCROLL TO THE 'QUIT' BOX AND LEFT CLICK. THE MAIN MENU APPEARS.



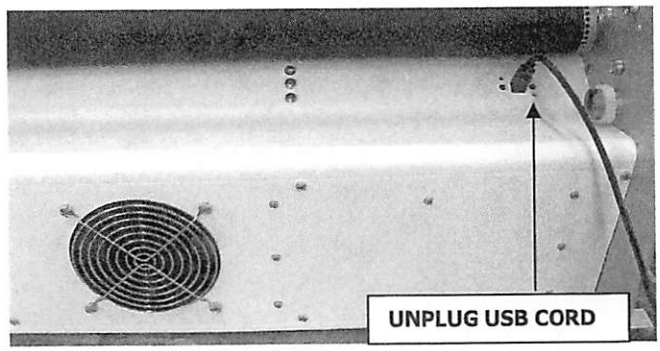
LEFT CLICK 'QUIT'

31) ON MAIN MENU COMPUTER SCREEN, MOVE CURSOR TO "COMPASS LOG" ICON. DOUBLE LEFT CLICK ON THIS ICON AND 'COMPASS LOG' SCREEN APPREARS. VERIFY THE NEW COMPASS SERIAL NUMBER AND THAT THE INFORMATION HAS BEEN ADDED. RED 'X' OUT OF THE 'COMPASS LOG'. YOU ARE NOW DONE.



VERIFY NEW ENTRY IN COMPASS LOG SCREEN

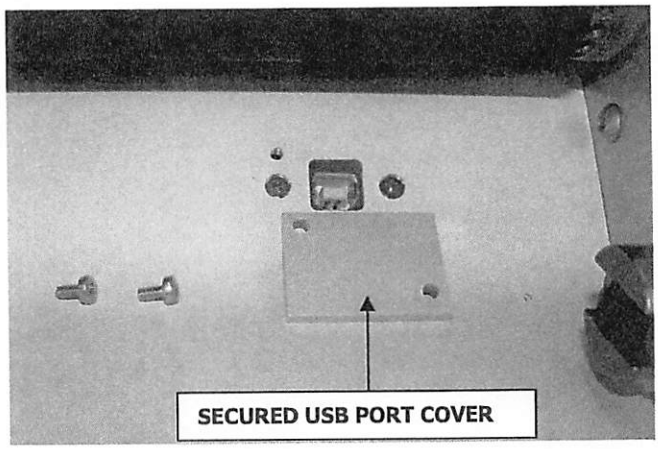
32) PRESS THE OFF SWITCH BY THE COMPASS RECEPTACLE. UNPLUG THE COMPASS MAIN POWER AT RECEPTACLE. REMOVE THE TEST SUPPLY ROLL AND SET IN STORAGE AREA.



UNPLUG USB CORD

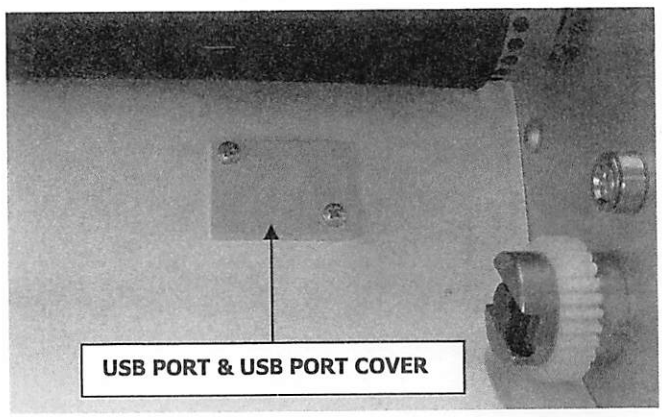
33) PLACE THE COMPASS ON ITS BACK AND UNPLUG THE USB PORT CORD, ALONG WITH THE LAP TOP END OF THE CORD. STORE AT COMPASS STATION.

34) SECURE THE USB PORT COVER (W27 217.4) WHICH WAS REMOVED FOR ASSEMBLY, OVER THE USB PORT. USE THE ORIGINAL SCREWS OR (2) M3 X 6 PHIL PH TO SECURE COVER. RETURN COMPASS TO THE UPRIGHT POSITION.



SECURED USB PORT COVER

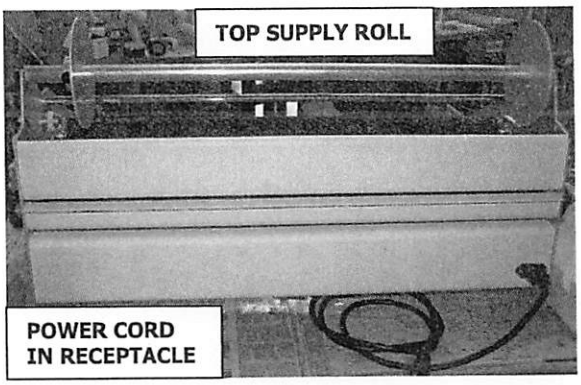
35) THE COMPASS PARAMETER SETTING PHASE IS COMPLETED. MOVE COMPASS TO TESTING AREA.



USB PORT & USB PORT COVER

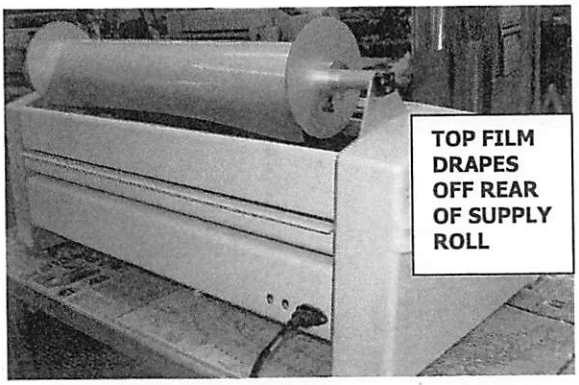
COMPASS W-27 400 SERIES TESTING

1) PLUG THE COMPASS LAMINATOR POWER CORD INTO THE REAR RECEPTACLE AND A 110 VOLT POWER SOURCE.

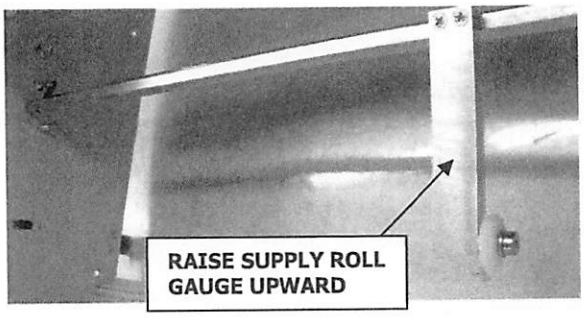


2) PLACE THE FILM MIL OF CHOICE, DEPENDING ON MATERIAL BEING LAMINATED, ON THE TOP AND BOTTOM SUPPLY ROLLS. LEDCO TESTS ARE RUN WITH 1.7 MIL.

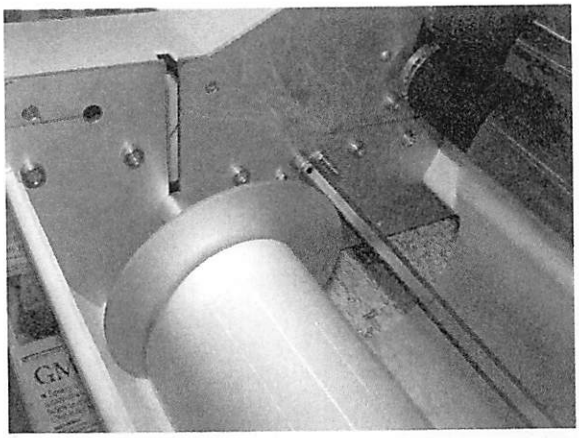
3) PLACE THE TOP SUPPLY ROLL IN THE TOP SUPPLY ROLL BRACKETS, WITH THE FILM DRAPING OFF THE REAR OF THE SUPPLY ROLL.



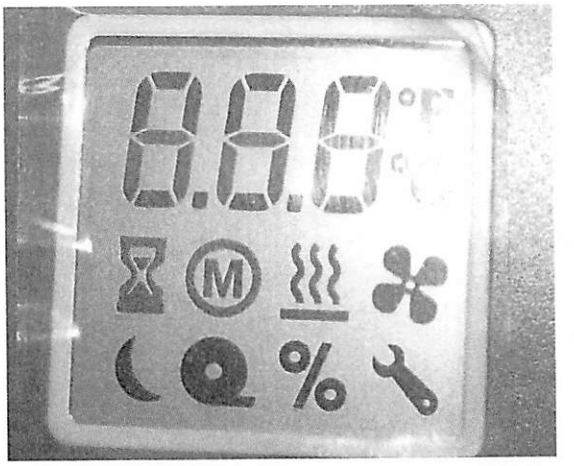
4) LIFT THE FILM GAUGE ROLLER ON THE BOTTOM SUPPLY ROLL SHAFT TO THE UPWARD POSITION.



5) PLACE THE BOTTOM SUPPLY ROLL BETWEEN THE SIDE PANEL SLOTS. THE FILM DRAPES DOWNWARD FROM THE FRONT. SET THE FILM GAUGE ROLLER ON THE FILM. THE FILM WILL THEN CONTINUE *UNDER* THE SUPPLY ROLL AND THE GAUGE SHAFT, WITH THE SHINY SIDE OF THE FILM OUTWARD.

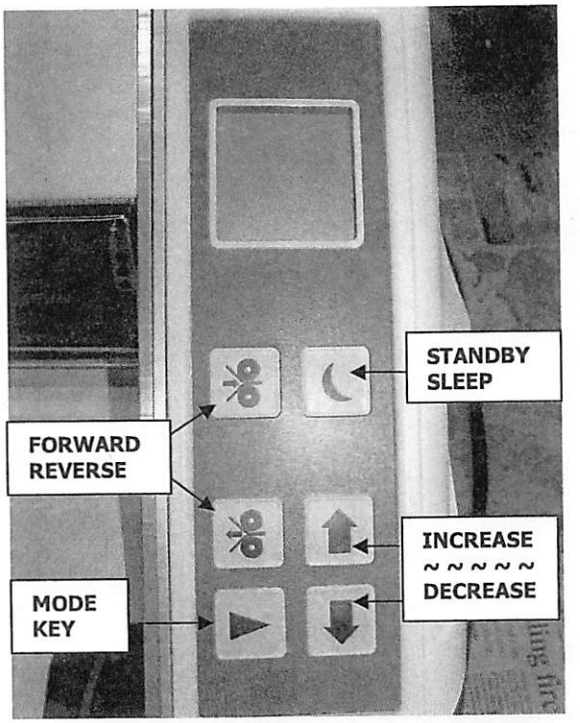


6) THE MOTOR AND RUBBER ROLLS WILL NOT ACTIVATE UNTIL THE LAMINATOR HAS WARMED TO NEARLY SET POINT TEMPERATURE. TEMPERATURES ARE SET IN "F" FAHRENHEIT OR "C" CENTIGRADE DURING PARAMETERS SECTION. FILM THREADS EASIEST *AFTER* THE RUBBER ROLLS HAVE WARMED, SO FILMS MELT TOGETHER. TO ACTIVATE ROLL MOVEMENT *BEFORE* SET TEMPERATURE: A) DEPRESS *STANDBY/SLEEP* KEY B) HOLD *FORWARD* KEY DOWN. TOOL ICON IS VISIBLE. EXPLANATIONS OF THE CONTROL DISPLAY PANEL ICONS AND CONTROL BOARD SETTINGS FOLLOW.



7) FIRST, PRESS ON THE POWER SWITCH. SECOND, TO ACTIVATE WITHOUT FEEDTABLE, INSERT A PENCIL INTO THE OPENING ON THE INNER RIGHT SIDE PANEL, FAR ENOUGH TO MOVE THE MICROSWITCH LEVER. RUN ROLLS AS COMPASS WARMS TO WORK OUT FLAT SPOTS OCCURRED DURING STORAGE.

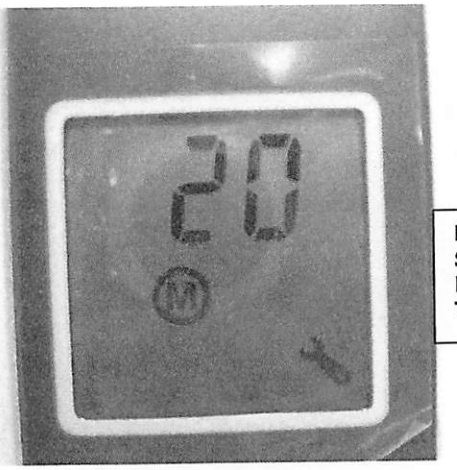
8) TO PROGRAM THE COMPASS FOR VARIOUS ACTIVITIES, DEPRESS THE "MODE" KEY, LOCATED IN THE LOWER LEFT KEY PAD AND INDICATED BY A TRIANGLE POINTING TO THE RIGHT. DEPRESSING THE MODE KEY DIRECTS THE CONTROL BOARD TO DISPLAY CURRENT RUBBER ROLL TEMPERATURE, ALLOW YOU TO SET TEMPERATURE, INDICATES FILM SUPPLY REMAINING (BOTTOM SUPPLY ROLL ONLY), READ MOTOR SPEED AND SET MOTOR SPEED VIA ARROWS. SET MOTOR SPEED *NOW* FROM 50 TO 20 FOR TESTING.



9) BELOW THE DISPLAY WINDOW, THE UPPER LEFT KEY PAD REPRESENTS START/STOP FOR THE MOTOR CONTROL AND RUBBER ROLLS IN THE *FORWARD* MOTION, USED FOR THREADING OR LAMINATING. THIS IS REPRESENTED BY AN ARROW POINTING INWARD WITH FILM GOING BETWEEN RUBBER ROLLS.

10) BELOW THE FORWARD KEY PAD IS THE

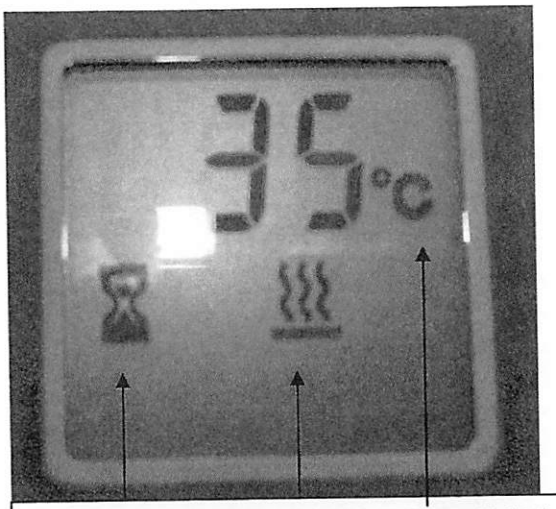
REVERSE START/STOP CONTROL FOR MOTOR AND RUBBER ROLLS. THIS IS REPRESENTED BY AN ARROW POINTING LEFT, OUT OF THE RUBBER ROLLS. ONE DEPRESSION STARTS THE MOTOR; THE FOLLOWING DEPRESSION STOPS THE MOTOR MOVEMENT.



MOTOR SPEED FOR TESTING

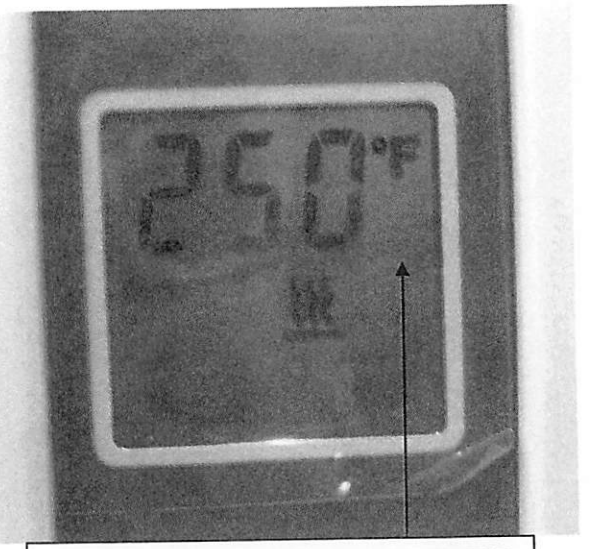
11) SET THE RUBBER ROLL TEMPERATURE ACCORDING TO FILM MANUFACTURER'S RECOMMENDATIONS WHICH WILL BE APPROXIMATELY: 1.7 MIL SET WITH A TEMPERATURE OF 250 DEGREES; 3 MIL CAN BE SET IN THE RANGE OF 240 DEGREES; 5 MIL CAN BE SET IN THE 240 DEGREE RANGE AND 10 MIL CAN BE SET IN THE 230 DEGREE GRANGE. MOTOR SPEED MUST ALSO BE ADJUSTED FOR FILM THICKNESS. THICK FILMS REQUIRE SLOWER LAMINATION TIME.

12) TO SET DESIRED TEMPERATURE, PUSH MODE KEY UNTIL HEAT SYMBOL APPREARS AND FLASHES. USE ARROW KEYS TO SET DESIRED TEMPERATURE. A STEADY HEAT SYMBOL INDICATES SET TEMPERATURE IS REACHED AND MACHINE IS READY TO LAMINATE. TEST 1.7 MIL FILM AT 250 DEGREES.



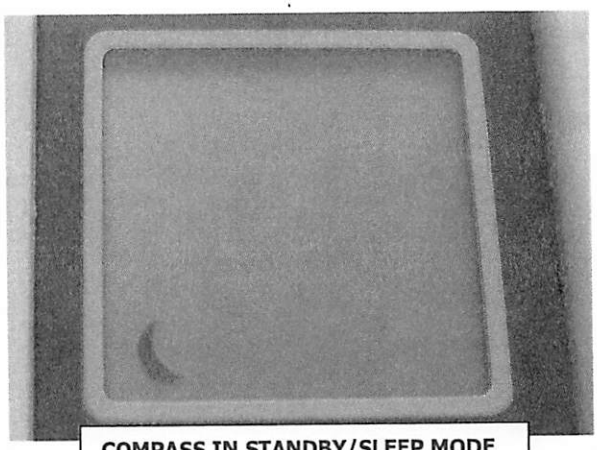
HOURGLASS , HEATING SYMBOL, CENTIGRADE

13) THE TEMPERATURE SCREEN DISPLAYS THE CURRENT AND INCREASING TEMPERATURE OF THE ROLLERS. THE HOURGLASS SYMBOL, LOCATED TO THE LEFT OF THE HEAT SYMBOL, INDICATES THE MACHINE HAS NOT REACHED THE SET TEMPERATURE. THE ROLLERS WILL NOT ACTIVATE UNTIL THE LAMINATOR REACHES APPROXIMATELY SET TEMPERATURE. WHEN THE HOURGLASS GOES OFF AND THE HEAT SYMBOL IS STEADY THE SET TEMPERATURE IS READING ON THE DISPLAY WINDOW, THE LAMINATOR WILL NOW OPERATE.



NO HOURGLASS = SET TEMP, FAHRENHEIT

14) AFTER THE HOURGLASS GOES OFF, IF THE COMPASS IS NOT USED FOR ABOUT 30 MINUTES THE STANDBY/SLEEP MODE WILL ENGAGE. TEST FUNCTION OF STANDBY/SLEEP MODE BY WAITING UNTIL 'MOON' SHOWS IN LOWER LEFT WINDOW. TO RESTART HEATING PROCESS, PRESS THE MOON SHAPED STANDBY/SLEEP ICON. START ROLLERS UNTIL THE HOURGLASS IS OFF AGAIN.

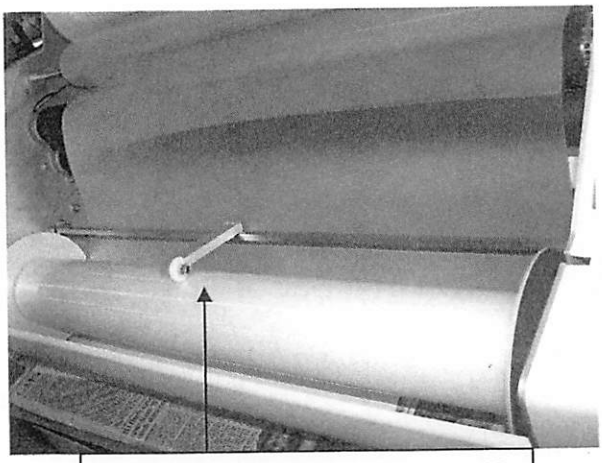


COMPASS IN STANDBY/SLEEP MODE

15) THREAD FILM WHEN MACHINE IS WARM. THREAD FILM WITH THE FEEDTABLE OFF. LAY THE TOP FILM *OVER* THE IDLER SHAFT AND ONTO THE WARM TOP RUBBER ROLL. **THE SHINY SIDE OF THE FILM GOES NEXT TO THE RUBBER ROLLS. THERE WILL BE SOME MELTING.

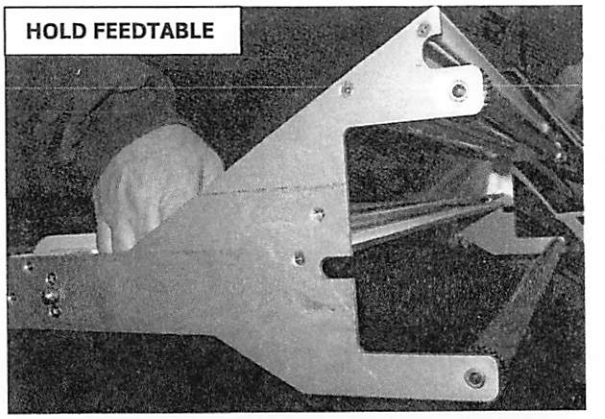
TOP FILM OVER IDLER & ONTO WARM ROLLS

16) THREAD THE LOWER FILM UNDER THE SUPPLY ROLL AND SUPPLY ROLL FILM GAUGE SHAFT. REST THE FILM GAUGE ROLLER IS ON THE BOTTOM SUPPLY ROLL OF FILM. CONTINUE FILM UPWARD, CAREFULLY ALIGNING THE TOP AND BOTTOM FILM EDGES TO AVOID HOT FILM GLUE FROM GETTING ON THE RUBBER ROLLS. LAY THE BOTTOM FILM ONTO THE WARM TOP FILM. THE TOP AND BOTTOM FILMS WILL BEGIN TO ADHERE FROM THE HEATED TOP RUBBER ROLL.

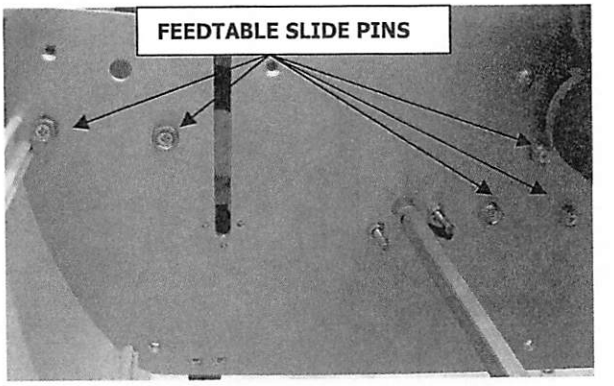


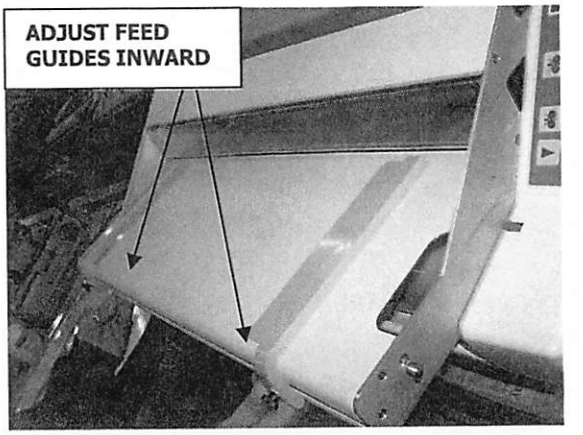
FILM GAUGE & BOTTOM SUPPLY ROLL

17) PICK UP THE FEEDTABLE WITH THE FRONT TRAY SECTION CLOSER TO YOU, BY HOLDING THE RIGHT AND LEFT OPEN HAND HOLD AREAS ON THE TRAY AND DEPRESSING THE LATCH PINS WHICH ARE SPRING LOADED. ALIGN THE FEEDTABLE PERFECTLY STRAIGHT BETWEEN THE FRONT SIDE PANELS. ***RAISE*** THE OUTER PORTION OF THE FEEDTABLE SLIGHTLY UPWARD. THIS IS TO CERTAIN YOU DO ***NOT SCRATCH THE LOWER IDLER TUBE ON THE SHARP EDGE OF THE FILM GAUGE BLOCK.***

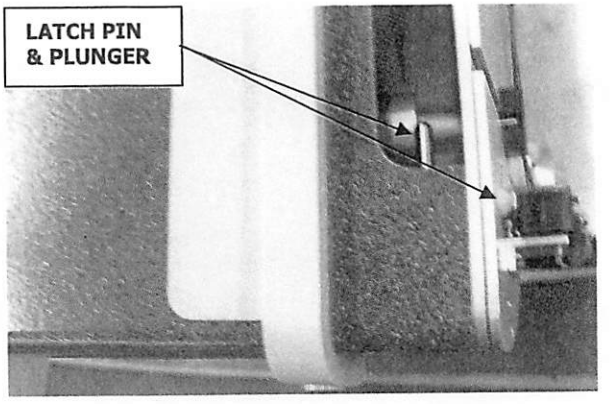


18) THERE ARE (5) FEEDTABLE SLIDE PINS THAT ROLL ON BOTH THE INNER RIGHT AND LEFT SIDE PANELS. THE LOWER FEEDTABLE BRACKET EDGE ROLLS BETWEEN THE INNER TOP AND LOWER SLIDE PINS LOCATED IN FRONT OF THE BOTTOM HOT ROLL AS IT IS INSERTED. WHEN YOU FEEL THE FEEDTABLE CATCH BETWEEN THE SLIDE PINS, LOWER THE FRONT OF THE FEEDTABLE. WITH THE LATCH PINS DEPRESSED, SLIDE THE REMAINDER OF THE FEEDTABLE SMOOTHLY INWARD. THE FEEDTABLE IDLER TUBES SNUG THE FILM.

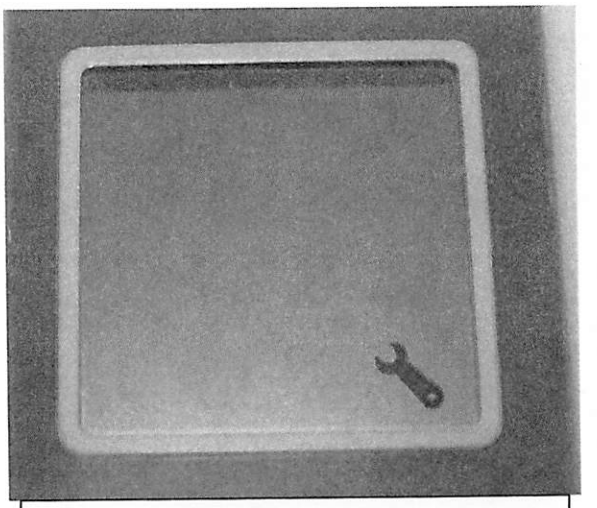




19) THE LATCH PINS LOCK THE FEEDTABLE IN PLACE. ON THE RIGHT SIDE THE LATCH PIN PLUNGER PRESSES ON THE MICROSWITCH LEVER AND ACTIVATES THE COMPASS.

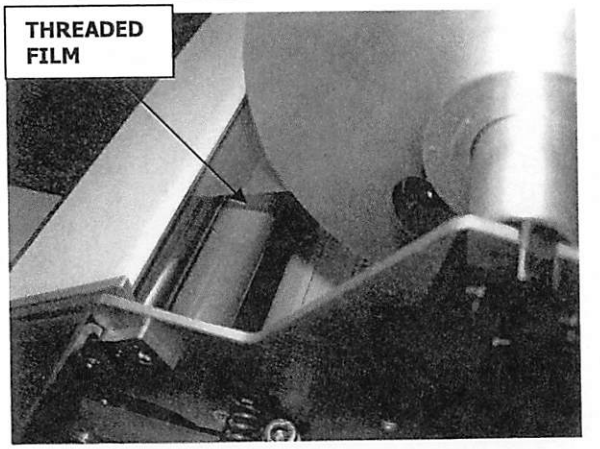


19) IF THE FEEDTABLE IS *NOT* INSERTED ALL THE WAY INWARD, THE CONTROL PANEL DISPLAYS WILL SHOW A "WRENCH" IN THE LOWER RIGHT WINDOW. READJUST THE FEEDTABLE INWARD UNTIL IT CATCHES. WHEN COMPLETELY INSERTED, THE WRENCH ICON GOES OUT ON DISPLAY WINDOW.

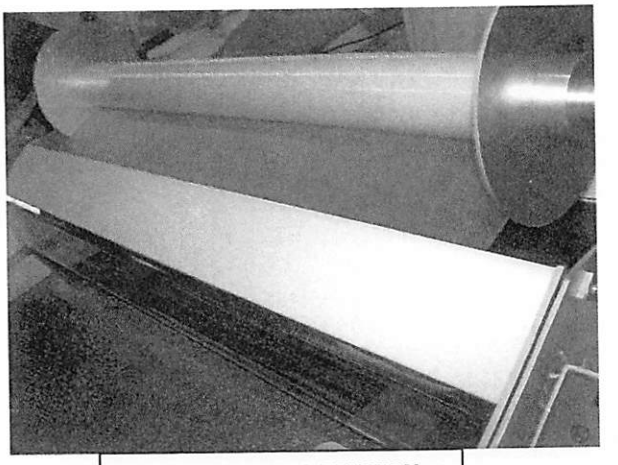


WRENCH INDICATES FEEDTABLE ADJUSTMENT

20) NOTE THE THREADING OF THE TOP FILM OVER THE TOP FEEDTABLE IDLER SHAFT. AFTER THE FEEDTABLE IS INSERTED, THE IDLER TUBE SNUGS THE TOP FILM. THE LOWER FEEDTABLE IDLER TUBE SNUGS THE BOTTOM SUPPLY ROLL FILM.



21) FRONT VIEW OF TENSION ON TOP SUPPLY ROLL FILM AFTER FEEDTABLE HAS BEEN PROPERLY INSTALLED.



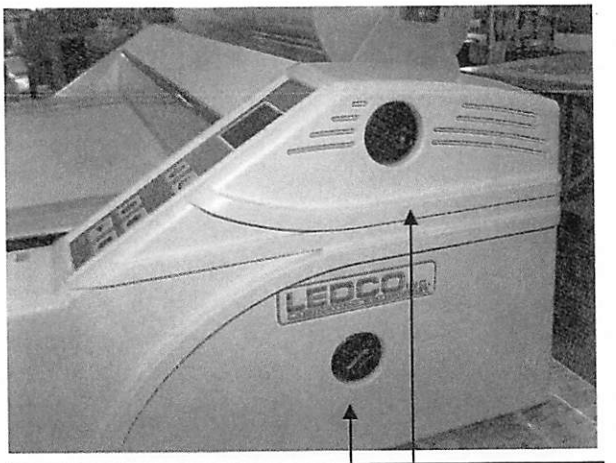
TOP SUPPLY ROLL TENSION

22) INSERT A THREADING BOARD LD01 INTO THE NIP OF THE FRONT RUBBER ROLLS TO BEGIN THE TOP AND BOTTOM FILMS. DEPRESS THE START/STOP FORWARD KEY ON THE CONTROL PANEL.

THREADBOARD STARTING FILM THROUGH ROLLS

23) THE FILM TENSION ON THE UPPER AND LOWER SUPPY ROLLS CAN BE ADJUSTED BY THE UPPER AND LOWER DIALS ON THE RIGHT HOUSING. TO INCREASE TENSION TURN THE DIAL IN A CLOCKWISE DIRECTION. TO DECREASE SUPPLY ROLL TENSION, TURN THE DIAL COUNTERCLOCK WISE.

24) TEST SAMPLES AND RUN CUSTOMER COPY OF LAMINATION. CUT FILM AND ***REVERSE OUT*** FILM SO ADHESIVE GLUE DOESN'T STICK TO ROLLERS AS THE CUT PORTION PASSES THROUGH.

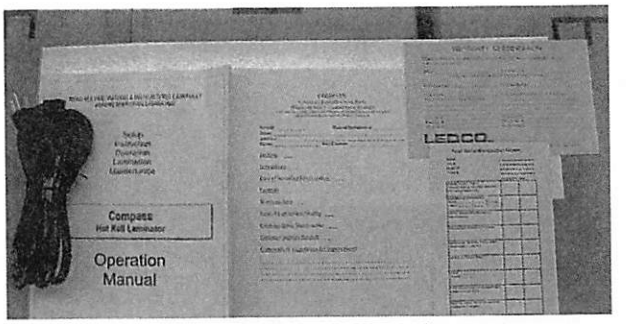


TOP & BOTTOM SUPPLY ROLL TENSIONING DIALS

25) IF THE HOUSINGS ORIGINALLY BOXED WITH THE COMPASS HAVE BEEN DISCARDED DUE TO BREAKAGE, REPLACE HOUSINGS WITH NEW ONES AS14 USING THE ORIGINAL (7) SCREWS ON EACH SIDE OR NEW (M4 FH) RACK 4.

26) BE CERTAIN RUBBER ROLLS AND ALL AREA OF THE COMPASS IS CLEAN.

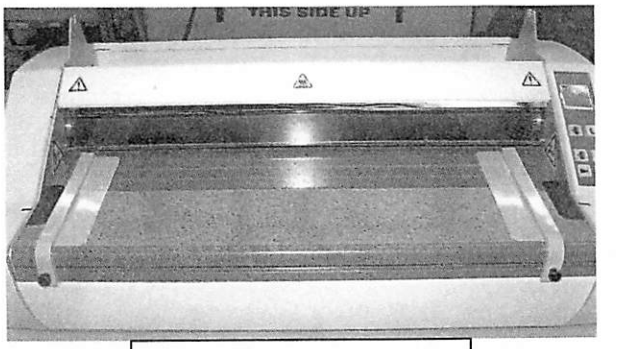
27) PLACE FEEDTABLE BACK IN COMPASS. ASSEMBLE PAPERWORK AND PLACE ON FEEDTABLE: COMPASS MANUAL (XS94) RACK 3, PINK WARRANTEE CARD (XS6) LD SHIPPING TABLE, EVALUATION SHEET & ENVELOPE IN COMPASS STATION FOLDER, COMPLETED FINAL TEST CARD, PLUG (PRC118) LD05 AND FEEDBOARD.



PAPERWORK & CORD

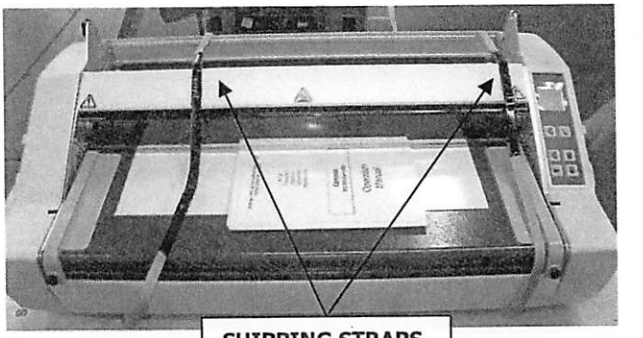
28) ON THE SAFETY SHIELD OF THE FEEDTABLE ADHERE (2) YELLOW DANGER LABELS (LAB52) AS09, ONE ON EACH END OF THE IVORY COLORED BRACE ABOVE THE SAFETY SHIELD ITSELF.

29) ADHERE A YELLOW INTERNATIONAL HEAT LABEL (LAB100) AS09 CENTERED ON THE FEEDTABLE SAFETY SHIELD BRACE, BETWEEN THE DANGER LABELS.



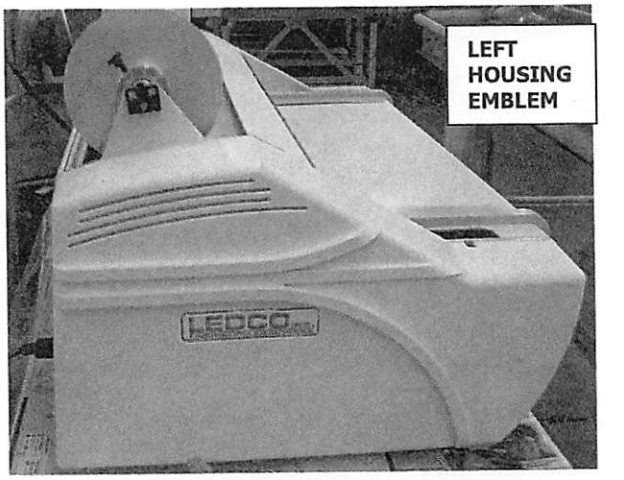
(3) SAFETY SHIELD LABELS

30) SLIDE THE (2) ORIGINAL SHIPPING STRAPS OVER THE COMPASS BODY, ON THE INSIDE OF THE FRONT AND REAR FEET.



SHIPPING STRAPS

31) ADHERE A DOMED LEDCO EMBLEM (LAB05A) AS09 OVER THE DEPRESSION INDICATION ON THE LEFT HOUSING, LOCATED APPROXIMATELY IN THE CENTER, AS PICTURED.

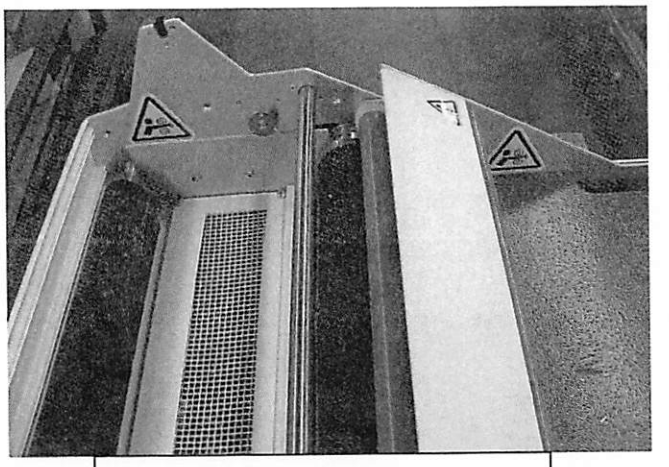


LEFT HOUSING EMBLEM

32) ADHERE A DOMED LEDCO EMBLEM (LAB05A) AS09 OVER THE DEPRESSION INDICATION ON THE RIGHT HOUSING, LOCATED APPROXIMATELY IN THE CENTER, AS PICTURED.

LEDCO EMBLEM ON RIGHT HOUSING

33) ADHERE (4) ARM ENTANGLEMENT LABELS (LAB51) AS09. THERE ARE (2) LOCATED ON THE INNER RIGHT AND LEFT SUPPLY ROLL BRACKETS BELOW THE SUPPLY ROLL, TO THE REAR AND (2) ON THE INNER FEEDTABLE BRACKETS IN FRONT OF THE SAFETY SHIELD.



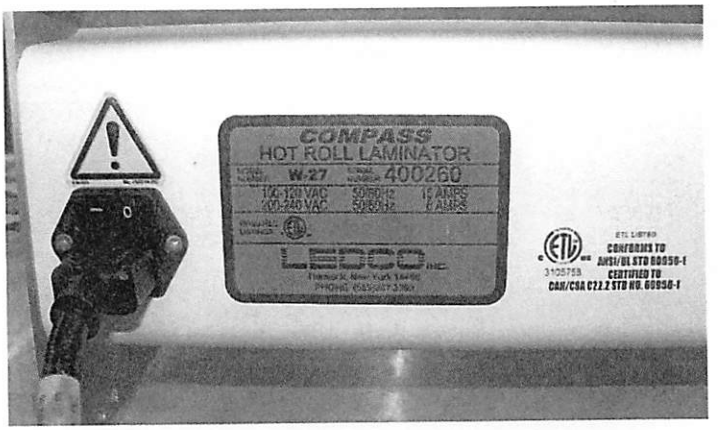
RIGHT SIDE (2) ARM ENTANGLEMENT

34) ADHERE A YELLOW GENERAL DANGER LABEL (LAB52) AS09 DIRECTLY ABOVE THE RECEPTACLE IN THE REAR OF THE COMPASS.

35) ADHERE THE ETL SERIAL TAG LABEL WITH JOB TO THE RIGHT OF THE POWER CORD.

36) ADHERE THE WHITE ETL LABEL WITH JOB RIGHT OF THE SERIAL TAG LABEL.

37) NOTIFY SHIPPING.



COMPASS W-27 400 SERIES HIGH POT TESTING

1) TO COMPLY WITH 2/2009 U.S. ETL CERTIFICATION THE COMPASS 27" LAMINATOR MUST PASS A HIGH POT TEST. THE PROCEDURES FOR THE HIGH POT TEST ARE AS FOLLOWS.

2) ROLL THE TEST EQUIPMENT TABLE TO THE COMPASS, NEAR A 110 VOLT POWER OUTLET.

3) WITH THE HIGH POT TESTER POWER SWITCH IN "OFF" POSITION CONNECT THE <u>TESTER POWER CORD</u> BETWEEN THE "INPUT" INLET ON TESTER AND THE POWER BAR ON THE TEST TABLE. THE "TESTER GROUND" LAMP GLOWS AMBER IF GROUND IS SATISFACTORY. THIS INDICATES THE <u>TESTER</u> IS GROUNDED.

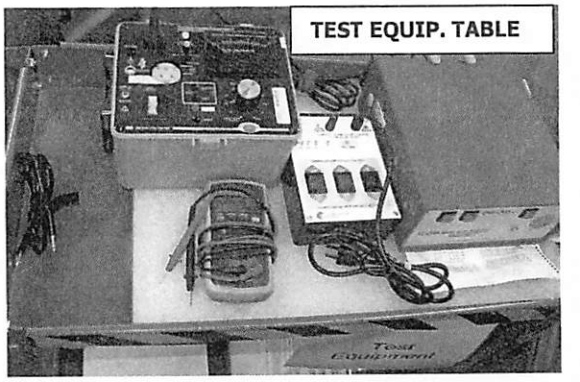
4) ***CLEAR THE AREA!! DO NOT TOUCH THE MACHINE OR THE CORD WHILE HIGH POT TESTING, AS SEVERE SHOCK MAY OCCUR IF MACHINE FAILS TEST.***

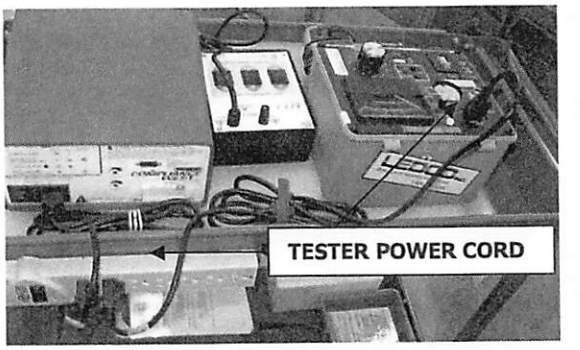
5) WITH THE "GROUND CHECK" SWITCH *UPWARD*, PLUG THE TESTER <u>MACHINE GROUND CORD</u> BETWEEN "RETURN" INLET ON TESTER AND CLAMP THE TOOTHED END OF THE CORD THE FRONT SCREW SECURING THE <u>LEFT SIDE HOLE COVER</u> TO THE SIDE PANEL.

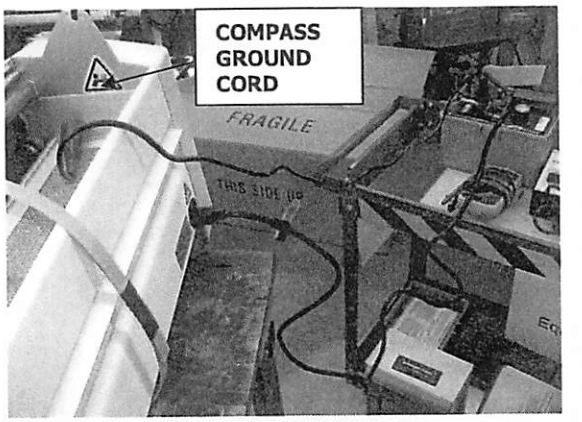
6) PLUG THE <u>TEST EQUIPMENT POWER CORD</u> PROVIDED AND APPROVED FOR THIS TEST AND LOCATED ON THE TEST CART, BETWEEN THE COMPASS RECEPTACLE AND THREE-PRONG "OUTPUT" INLET ON THE HIGH POT.

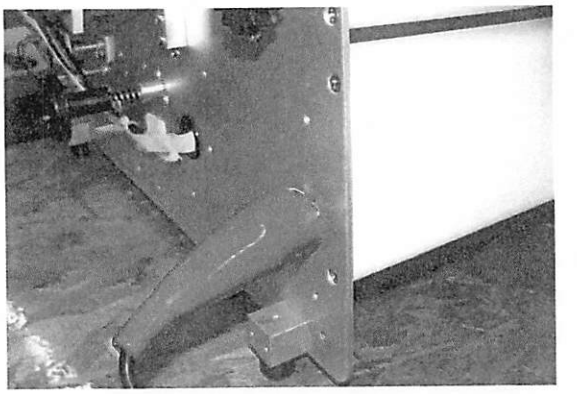
7) WITH THE POWER BAR "OFF" PLUG THE POWER BAR CORD INTO A 110 VOLT POWER SOURCE. TURN ON POWER CORD BAR.

8) PRESS HIGH POT ROCKER SWITCH TO "ON" POSITION. THE GREEN "GOOD WHEN LIT" LIGHT GLOWS WHEN MACHINE IS GROUNDED.









9) WITH "ZERO/START" ON VOLTAGE DIAL, PRESS BLACK "RESET" BUTTON.

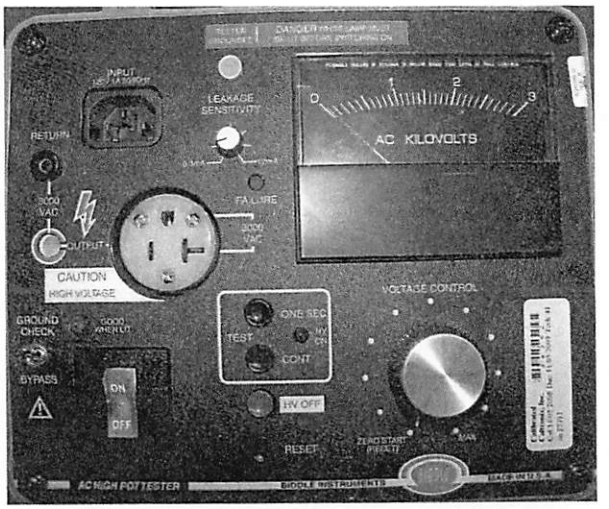
10) PRESS THE BLACK "CONT" BUTTON. THE RED "HV" LIGHT COME ON.

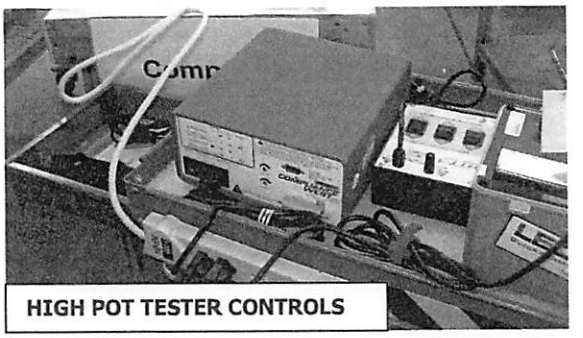
11) WITH "VOLTAGE CONTROL" STILL AT ZERO/START, INCREASE AC KILOVOLT DIAL CLOCKWISE TO 1.5 AC KILOVOLTS ON THE REGISTER SCREEN. MAINTAIN 1.5 AC KILOVOLTS FOR TWO SECONDS. A *HIGH POT TEST FAILURE* REGISTERS WITH AN AMBER "FAILURE" LIGHT AND A "BEEP."

12) TO END THE HIGH POT TEST, RETURN THE VOLTAGE DIAL TO ZERO/START, PRESS THE "HV OFF" BUTTON, "HV ON" LIGHT GOES OUT.

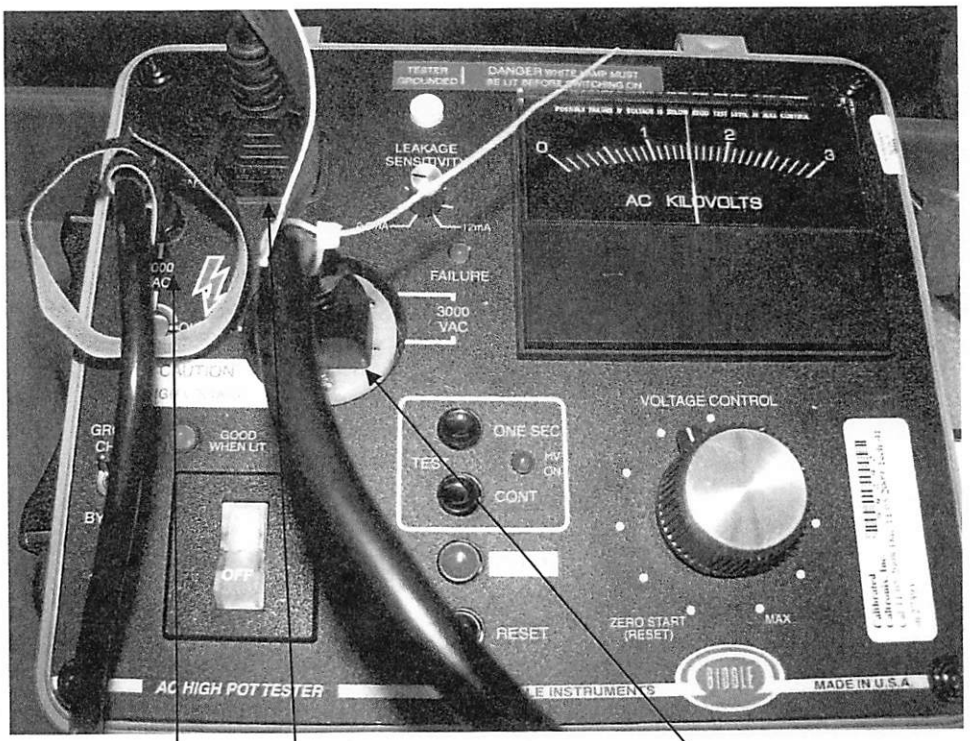
13) TURN "OFF" THE HIGH POT TESTER ROCKER SWITCH. TURN OFF THE POWER BAR SWITCH. UNPLUG REMAINING CORDS.

14) STORE CORDS NEATLY ON TEST CART.





HIGH POT TESTER CONTROLS



COMPASS GROUND, TESTER POWER & GROUND, TESTER MAIN POWER CORD