

# **WICO CONVERSION S-70-75-A**

FOR SEEBURG PHONOGRAPHS  
MODELS M100A and MH100A

**TO 45 RPM.**

205/2116

## **INSTALLATION INSTRUCTIONS**

MANUFACTURED BY

**WICO CORPORATION**

**CHICAGO 41, ILLINOIS**



## INSTALLATION INSTRUCTIONS

Your Seeburg Phonograph should be in perfect running condition before you start to install the 'WICO' Conversion Kit. The mechanism and the cabinet should be thoroughly cleaned before it is being taken apart and all adjustments should be checked to assure proper operation.

NOW YOU ARE READY TO START TO CONVERT.

Remove both plastic carriage covers and make sure that you don't lose the screws.

The two switch reversing brackets on the front of the chassis have to be adjusted so that the carriage over-travels as little as possible past the last record on each end of the rack.

### A. INSTALLATION OF NEW GEARS AND WORM

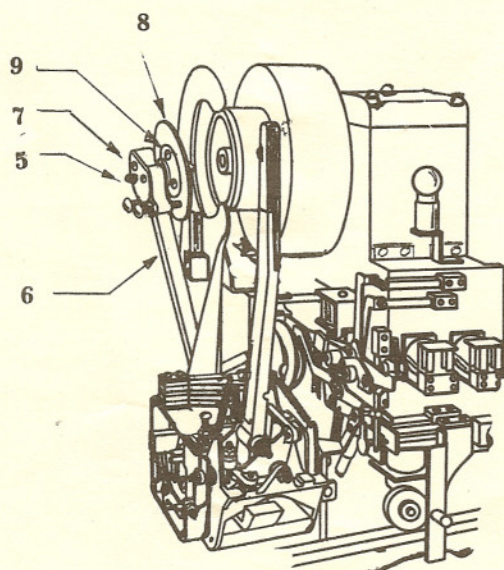
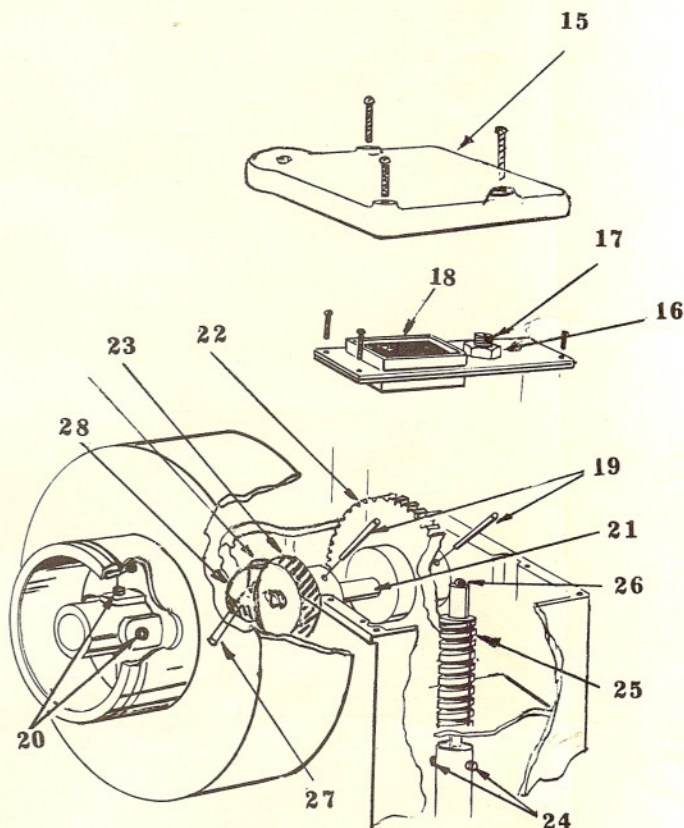


FIGURE 1

1. Remove clamp plate assembly (5) from clamp arm (6) by removing the screws (7).
2. Now remove clamp plate (8) by the 4 small screws (9).

3. Fasten the record centering ring (70-68) with the enclosed screws and lockwashers to the clamp plate assembly (5) but do not yet install it into the machine.

FIGURE 2.



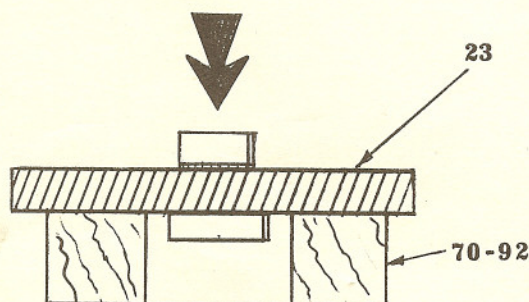
4. Remove cover (15) from gear box. Remove lock nut (16) and set screw (17) make sure not to loose anything.
5. Remove bracket (18) containing the the oil reservoir and the worm bearing. Drive out the taper pins (19) with a 1/16 inch drift punch, but make sure that you drive the small ends of the taper pins.
6. Loosen the setscrews (20) inside the flywheel allmost all the way. Tap driveshaft (21) toward the left until the gears (22 & 23) come free.



Be sure not to damage the shaft while removing the gears.

7. Now loosen the setscrews (24) on the upper end of the motor coupling and lift out worm (25) including ball (26).
8. Drive out taper pin (27) from gear (28) and make sure you drive again from the small end of the pin. It is advisable to support the gear with a wedge while tapping the pin.
9. Now clean out the gear box and clean the parts which you will reuse before you replace them in the mechanism.
10. Now install helical steel gear (70-46) onto the vertical shaft (29) and insert taper pin (27) securely.
11. Install worm (70-81) and fasten it with the two set screws (24) to the upper end of the motor coupling.

FIGURE 3

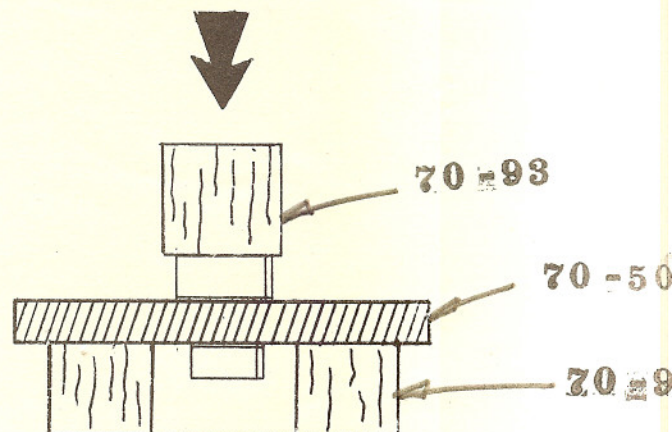


12. Now take the old fiber gear (23) place it on the wood block (70-92) so that the larger part of the hub fits into the hole, place the gear so that the larger part of the hub fits into the hole, place the wooden piece on top of the extending hub and knock the hub from the fiber gear. Be sure not to hit the hub with the hammer.

#### NOW YOU START REASSEMBLING THE MACHINE

1. Take the new fiber gear (70-50) and press it onto the old hub using the wood block (70-92 and 70-93) (See figure 4).
2. Push the shaft onto the washers which you removed, when you disassembled the gears from the shaft.

FIGURE 4

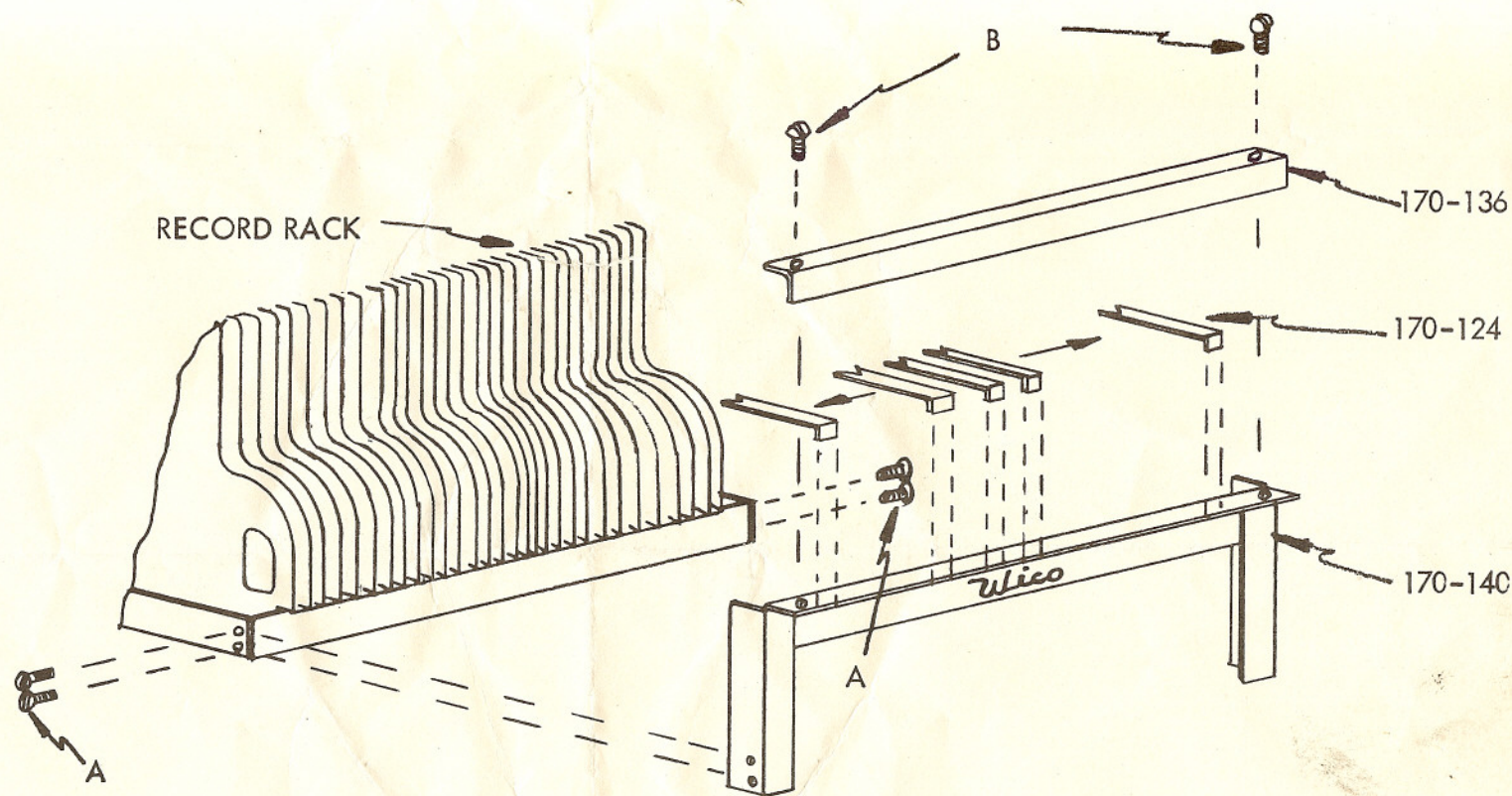


3. Push the shaft onto the helical bronze gear (70-47), the hub facing toward the right.
4. Push the shaft 21 onto the hub of the fiber gear (70-50), the smaller diameter of the hub facing to the
5. Insert the taper pins (19) securely into the hubs of both gears.
6. Insert the long end of the new worm (70-81) into the upper end of the motor coupling and tighten both setscrews.
7. Insert the taper pins (19) and (27). Make sure that the pins are properly lined up with the holes in the shafts and the large opening of the gears meet with the large opening of the shafts.
8. Insert the long end of the new worm (70-81) into the upper end of the motor coupling and tighten both set screws (24).
9. Replace bracket 18 on top of the gear housing and fasten it with the screws.
10. Drop ball (70-91) through the hole of bracket (18) onto the end of worm shaft (70-81).
11. Replace Setscrew (17) and screw it down. Start the motor and adjust the setscrew properly.
12. Now add the locknut (16) to the setscrew (17) and tighten it.

NOW SHUT OFF THE MOTOR AGAIN.



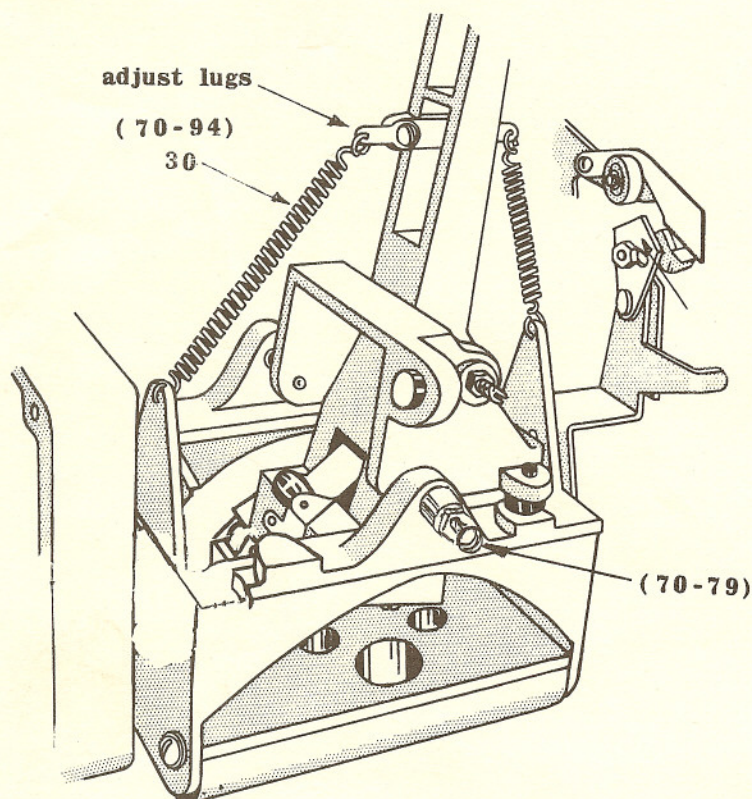
SUPPLEMENT TO WICO CONVERSION KIT 170-075  
INSTRUCTION FOR MOUNTING REAR BRACKET ASSEMBLY 170-145



1. ) Remove (A) 4-Screws Holding Mechanism Frame
2. ) Attach Bracket Assembly (170-140), using Same Screws
3. ) Insert 50 Record Fingers (170-124) into Record Rack, Starting from Center Outward To Each Side.
4. ) Attach Angle Bracket (170-136) to (170-140) With 2 Screws (B)



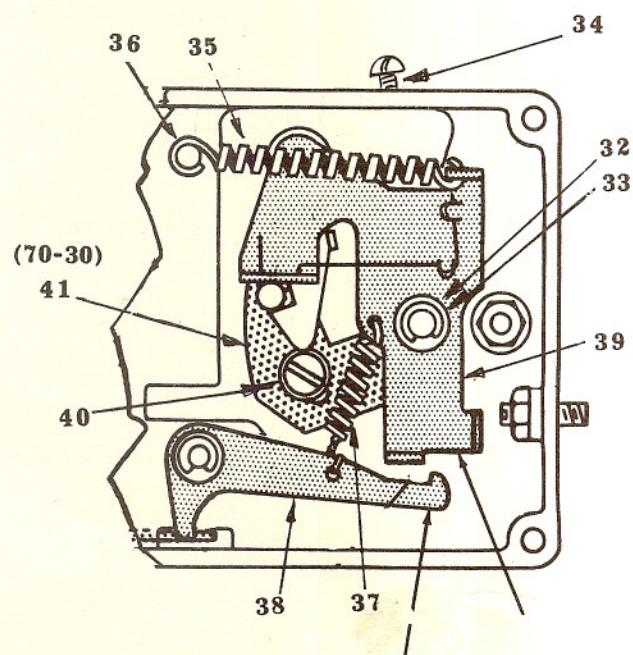
FIGURE 5



PICK-UP AND PICK-UP ARM.

1. Remove the 78 RPM needles from the pick-up and replace them with the new 45 RPM needles (M-193-45).
2. Remove two springs (30) and replace them with the new springs (70-94). The pressure on the needle will be approximately 12 grams but can be adjusted by moving the little lugs on which they are hooked on, up or down.
4. Your next step is to replace the latchbracket (41), from the casting left of the tone arm mounting.

FIGURE 6



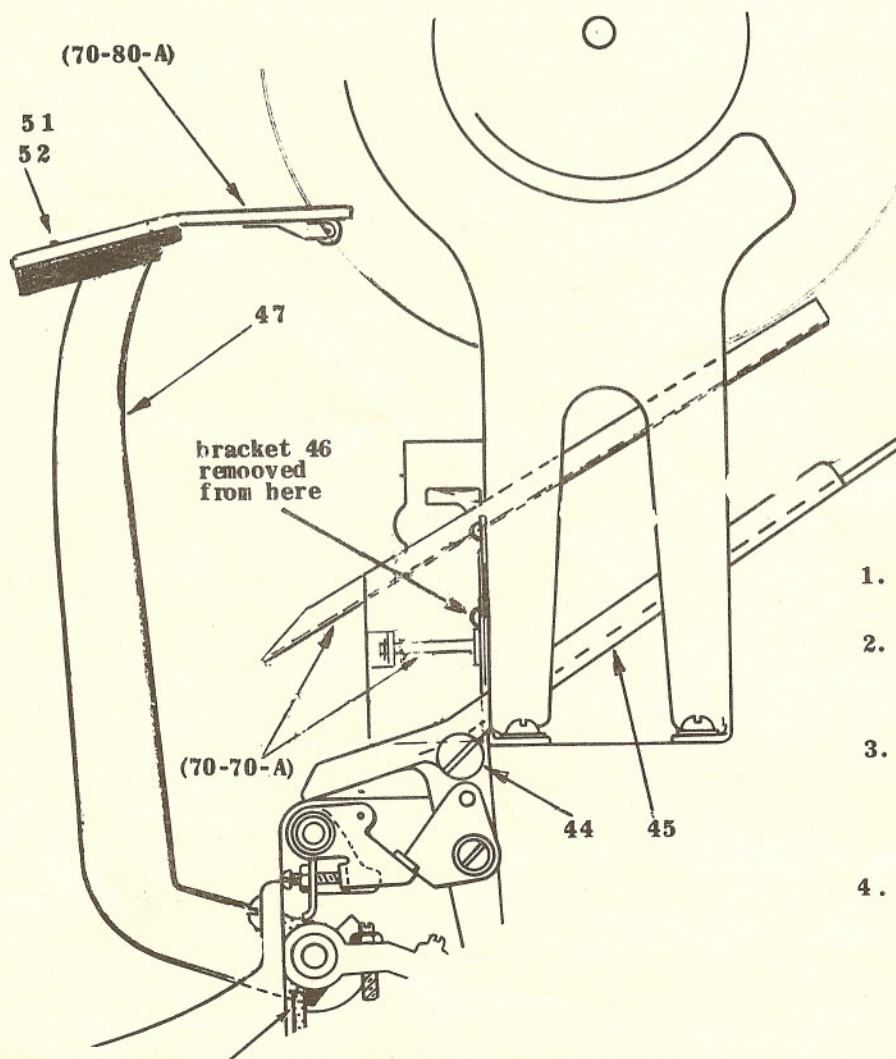
PICKUP BOOSTER ASSEMBLY

On the left hand side of the bottom of the pickup arm is a square casting which contains a number of brackets, springs, switches etc.

1. Remove E-washer (32) and washer (33).
2. Remove adjusting screw and nut (34).
3. Unhook spring (35) from hook (36).
4. Unhook spring (37) from bucket (38).
4. Unhook spring (37) from bracket (38).
5. Slide out bracket (39).
6. Remove screw (40) and lift out the bracket (41). This bracket will not be used again.
7. Put the new latch bracket (70-30) into the same place from which you removed bracket (41).
8. Replace screw and washer (40).
9. Replace bracket (39).
10. Fasten spring (37) to bracket 38
10. Fasten spring (37) to bracket (38).
11. Fasten spring (35) to stud (36).
12. Replace adjusting screw and nut (34)



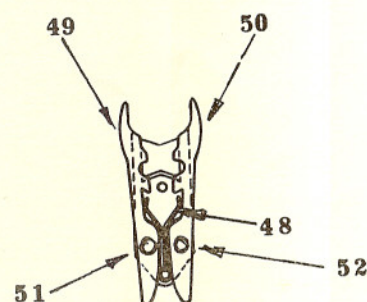
FIGURE 7



#### RECORD CHUTE ASSEMBLY

1. Remove shoulder screw (44) and record chute (45).
2. Remove the tin shields which are attached between both mirrors and the mechanism frame.
3. Remove guide bracket (46)
4. Use the same screws which held the guide bracket (46) and fasten with them the new channel assembly (70-70-A)

FIGURE 8



#### RECORD TRANSFER ARM

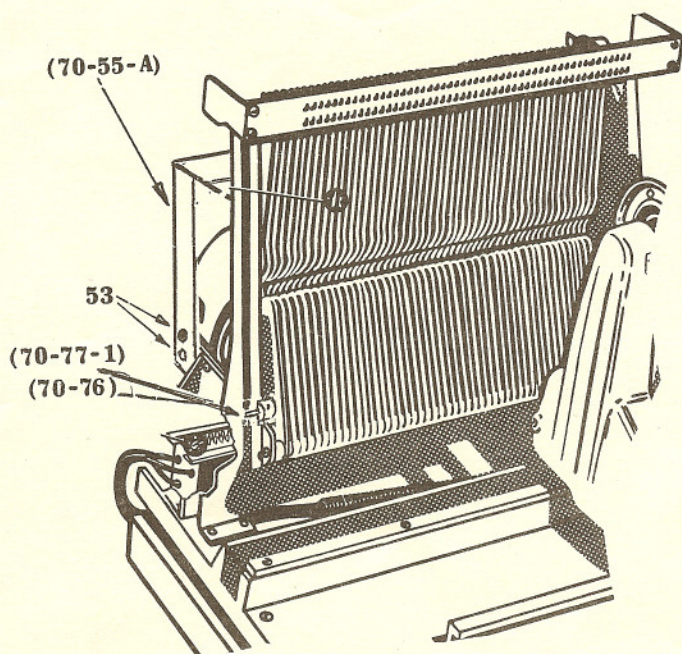
1. Raise record transfer arm (47) into playing position.
2. Remove spring (48) and remove also both transfer arm head levers (49) and (50).
3. Take the new transfer arm extension assembly (70-80-A) and push it onto the pins (51 and 52) on top of the transfer arm (47).
4. Take the two tiny E-washers and push them into the grooves on the pins (51 and 52), thus locking the transfer arm extension assembly (70-80-A) tightly to the top of the transfer arm (47).

#### RECORD RACK AND RECORD SUPPORT

1. Remove 4 screws (53) holding the mechanism frame together in the back and attach with the same screws the support bracket assembly (70-55-A).
2. Hold one set collar (70-77-1) next to the hole (54) on the left hand side of the record rack and push



FIGURE 9



- a steel rod (70-76) through the set collar and through all the holes in the dividers (55) to the middle of the magazine.
3. Now repeat the same action with the other set collar (70-77-1) on the right side of the machine.
  4. Before tightening the set screws in the set collars make sure that the two rods (70-76) meet completely and within the metal of the divider so that no record can slip through.
  5. Now tighten the two set screws in

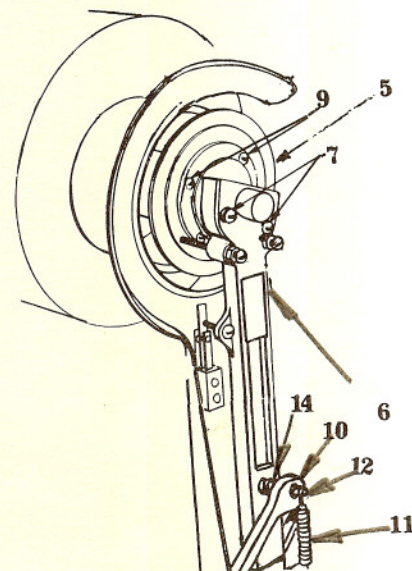
#### RECORD CENTERING RING AND CLAMP PLATE

You are now ready to reinstall the record centering ring and the clamp plate.

1. Fasten clamp plate assembly (5) using the screws (7) to the clamp arm (6).

As the 45 RPM records are thinner than the 78 RPM records it is necessary to increase the pressure of the clamp arm

FIGURE 10



- (6). This can easily be done by removing steelwasher (10). First remove spring (11) and 'C'-washer (12). Now you can remove the steelwasher (10). Replace 'C'-washer (12) and spring (11). If this should not give enough pressure counterbore the hole in bracket (14) so that the 'C'-washer can go in deeper.

#### COUNTERWEIGHT

1. Attach counterweight (70-79) including screw and nut (42) to the adjusting screw (43) in front of the tone arm mounting.

#### RECORD SHIELD

1. Replace the plastic covers onto the machine.
- 2 Use screw (56) to fasten the new record shield (70-71) to the top right hand cover so that one end of the bracket (70-69) reaches into the slot on top of the plastic cover.