

LS-45 LAMP INSTALLATION INSTRUCTIONS

Tools required:

#2 phillips head screwdriver
5/16" nut driver, or equivalent
Lamp Adjustment Tool - Leaf # 37160 or Radio Shack #64-2230

INSTALLATION INSTRUCTIONS

Set the *Mode* dip switch on the rear of the scanner to hex 0 (all switches **up**). Set the *Address* switch to hex 08 (2nd switch from left **down**—all others **up**. If you have been using the GPIB interface, this is your normal setting. Plug LS-45 into the correct voltage outlet. Power up Scanner.

The purpose of applying power now is to position the stepper motor on the lamp housing for removal. Observe the BUSY LED on the front of the scanner. When this yellow LED stops blinking and remains on, power down the scanner. Disconnect the power cord from AC power.

Remove lens cover. Remove the 6 screws for the front cover. Four are located near the fasteners for the lens cover. Two are located at lower front on the chassis section. Save these screws for reassembly. Remove front cover.

Caution: Lamp housing contain four wratten gelatin filters. Handle with care. Also do not force the stepper motor. Damage to the motor can occur.

Locate the lamp housing (black rectangular assembly protruding from either side of the film holder table). Disconnect the 15 pin connector located on left rear side of housing (the larger of the 2 connectors at this location). Locate the retaining latch on the right side of housing. Push latch down and slide housing out of scanner from right to left. Be sure that the shaft at the rear of the filter motor clears the scanner housing.

Position housing on flat working surface with the lamp facing upward and wiring toward you. The metal brackets enclosing the lamp are heatsinks which must be spread apart. Loosen the 6 kepnuts that hold the lamp heatsinks.

Spread the heatsinks apart and remove lamp. Loosen the four screws for the two lamp sockets. This will allow movement of new lamp to center within the lamp heatsinks.

Remove replacement lamp from container. Remove and discard the Warning Tag that is attached to lamp. Insert the lamp into housing make sure that the clear aperture area of lamp is down toward the heat mirror (the glass). Polarity is not important. Be sure that the glass below the lamp has not accumulated any foreign matter, but be careful as this glass has a fragile coating.

Tighten hardware in the follow sequence:

Press the heatsinks together at the center of the lamp. Adjust the lamp position within the curved areas of the heatsinks. Tighten the two center kepnuts.

Press the heatsinks together at the left of the lamp. Adjust the lamp position within the curved areas of the heatsinks. Tighten the two left kepnuts.

Press the heatsinks together at the right of the lamp. Adjust the lamp position within the curved areas of the heatsinks. Tighten the two right kepnuts.

Tighten four screws for the two lamp sockets.

If the lamp is not centered in the lamp heatsinks, loosen the screws for each lamp socket (2). Tighten the heatsinks around the lamp which should now center the lamp correctly. Tighten the kepnuts for the lamp heatsinks. Tighten the screws for the lamp sockets (2).

Slide the housing back into scanner until it is retained by the latch. Connect the cable to the 15 pin connector of chassis.

Place front cover back onto scanner and secure with the six original screws. Place lens cover onto front cover.

LAMP ADJUSTMENT PROCEDURE (must be performed after installing new lamp)

Make note of current switch settings of the 3 position *mode* switch and the 5 position *address* switch located on the back of scanner.

Pug the AC power cord to scanner and AC power.

Set the 3 position *mode* switch on the processor board to hex 2 (center switch down, all others up). Set the 5 position *address* switch to hex 10 (left switch down, all others up). Remove lens cover and set lens to f/8. Place the lens cover (**not** lens cap) back into position and then press the reset switch.

Observe the status LED's. After scanner initialization, all the LED's will be on and the blue filter will be in place. Remove the lens cover and set lens to f/4 (wide open). Place the lens cover back into position.

Locate the lamp adjustment hole (label LAMP ADJ) on the back of the scanner, next to power switch. Insert the lamp adjustment tool (Leaf # 37160) into hole and locate the lamp adjustment screw. Use the end that has the **recessed** screwdriver tip.

Turn the screw completely clockwise until you hear a click. This may take several turns. All the LED's should still be on.

Turn the screw counter clockwise until some of the LED's go out. Continue turning counter clockwise until only the two right-most LED's remain on.

Set the 3 position dip switch and the 5 position dip switch to the original positions noted at the start of this procedure. Remove the lens cover and set lens to f/4.7. Place the lens cover back to position and then press the reset switch.