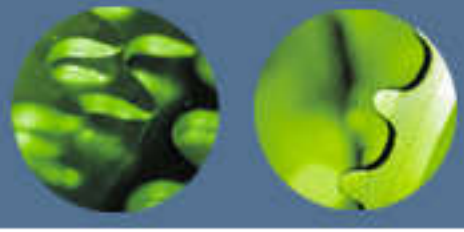
Rapid Change Technology

The following is a presentation to aid Technicians in the replacement of the Rapid Change Technology Block.

To take full advantage of this presentation, this file should be saved on your local drive.

Procedure Applies to the Following Machines

The Rapid Change Technology Replacement Procedure applies to the above machines. Slight differences apply to the removal and replacement of the machine lid.



Warning

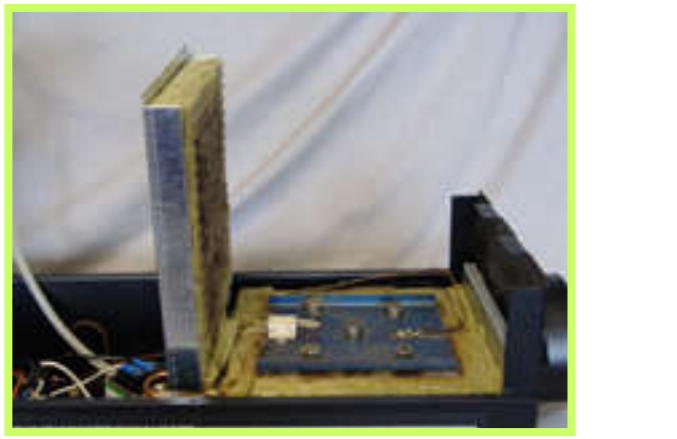
- Ensure the main power is disconnected from power source before attempting to remove the outer cover
- Ensure unit has cooled sufficiently before continuing

Remove the Lid

There are screws on both sides of the machine.

- Remove the lid screws from the fogger
- *Number of Screws*
  - Stage Fogger DMX – 8
  - Show Fogger Pro – 7
  - Battle Fogger – 7
  - Power Fog Industrial – 8
  - Power Fog Industrial 9D - 11
- Slide the lid off the front of the machine

Remove Block Cover



- Remove the two screws from the front edge of the block cover
- Slide the cover backward to release the two back tangs from the lower cover
- Lift the cover off

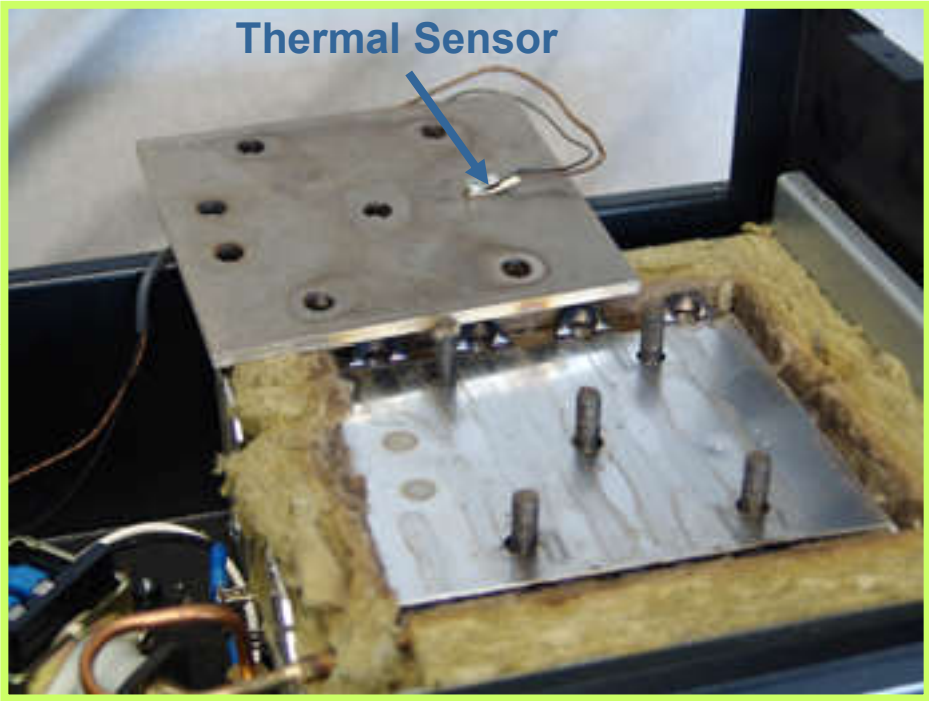
Loosen Brass Nut

- Loosen the tube by releasing the 7/16” brass nut at the pump
- *This line may be under high pressure if the tube was plugged*
- Slowly loosen the fitting to release any pressure

Remove Outer Steel Plate

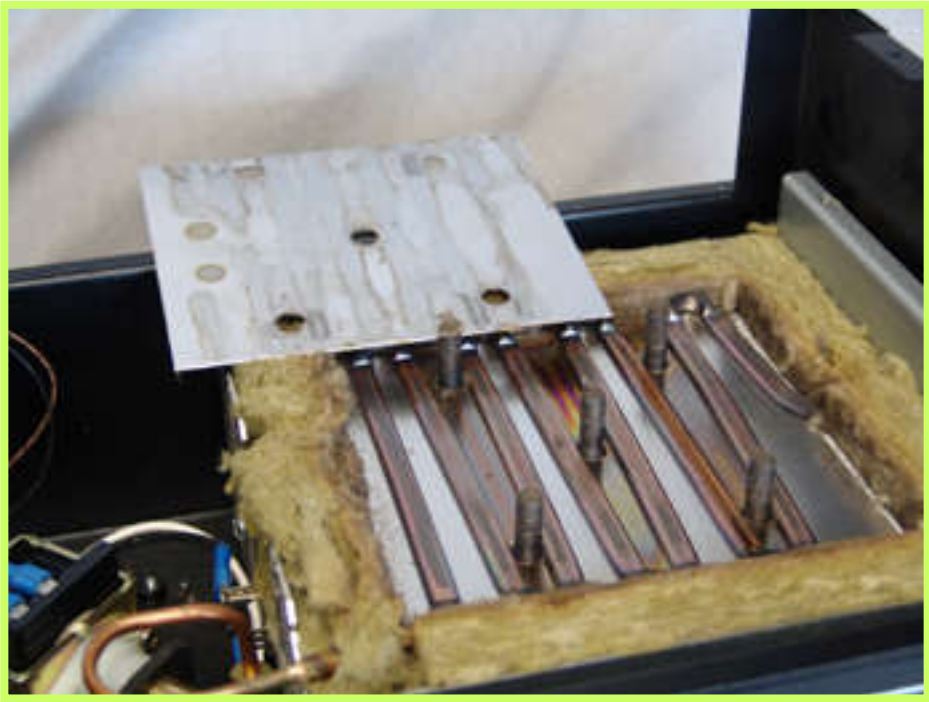
- Using a ½” socket, loosen the five nuts
- Remove all 5 nuts and washers (these will not be reused)
- ***Be careful not to damage any exposed wiring***
- Remove the upper steel plate by gently lifting the plate back out of the way leaving the high temperature switch connected to the plate

Remove Inner Aluminum Plate



- Lift the thick aluminum plate up cautiously to avoid damage to the Thermal Sensor

Remove Top Thin Plate

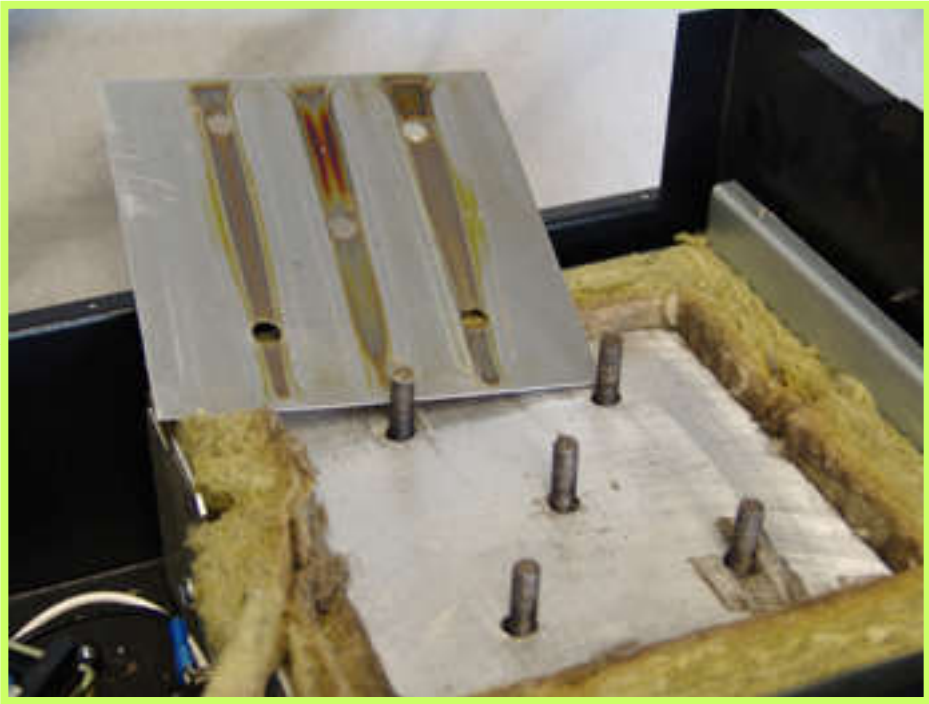


- Remove the thin aluminum wear plate that is positioned above the coil (this part will not be reused)

Remove Coil

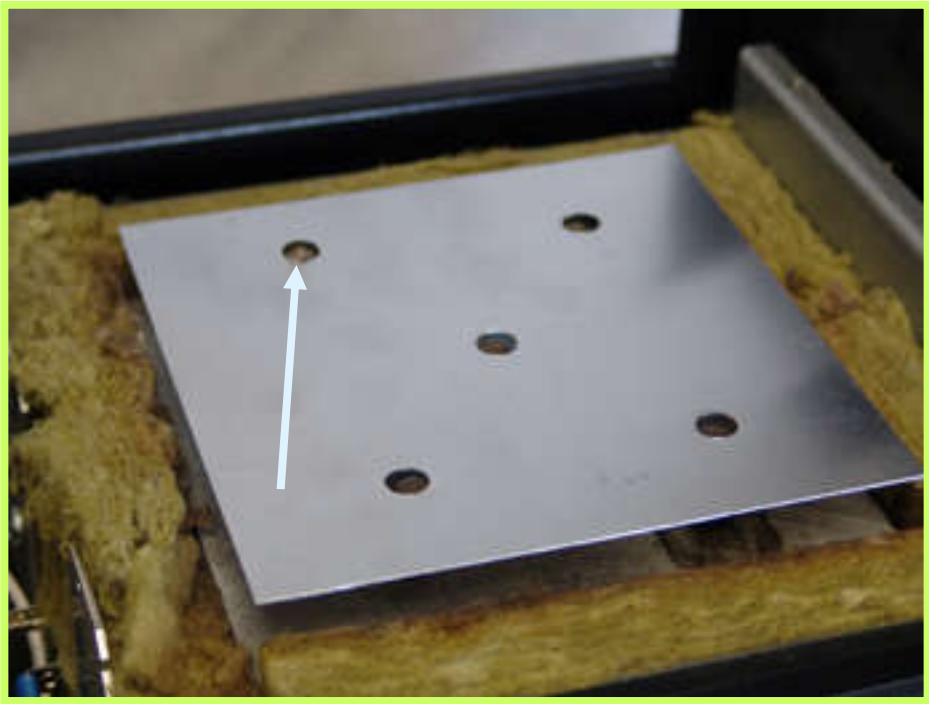
- Remove the used coil from the block (this part will not be reused)

Remove Lower Thin Plate



- Remove the second thin wear plate (this part will not be reused)

Replace Bottom Thin Plate



The hole pattern of the plates is not identical. One of the four outer bolts is offset more than the other three.

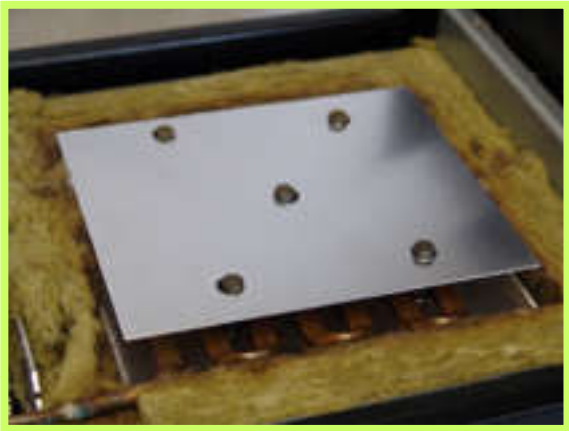
- When replacing the parts, ensure all mating surfaces are flat and clean to promote good thermal conduction
- Place the larger aluminum wear plate on the block

Replace Coil

Debris may get caught under bends

- Place the copper tube on the wear plate
- Adjust the runs of the tube so they do not touch the bolts

Replace Top Thin Plate



- Place the smaller wear plate on the coil
- The plate should fit perfectly into the small curves of the coil (the bends are molded slightly upward)

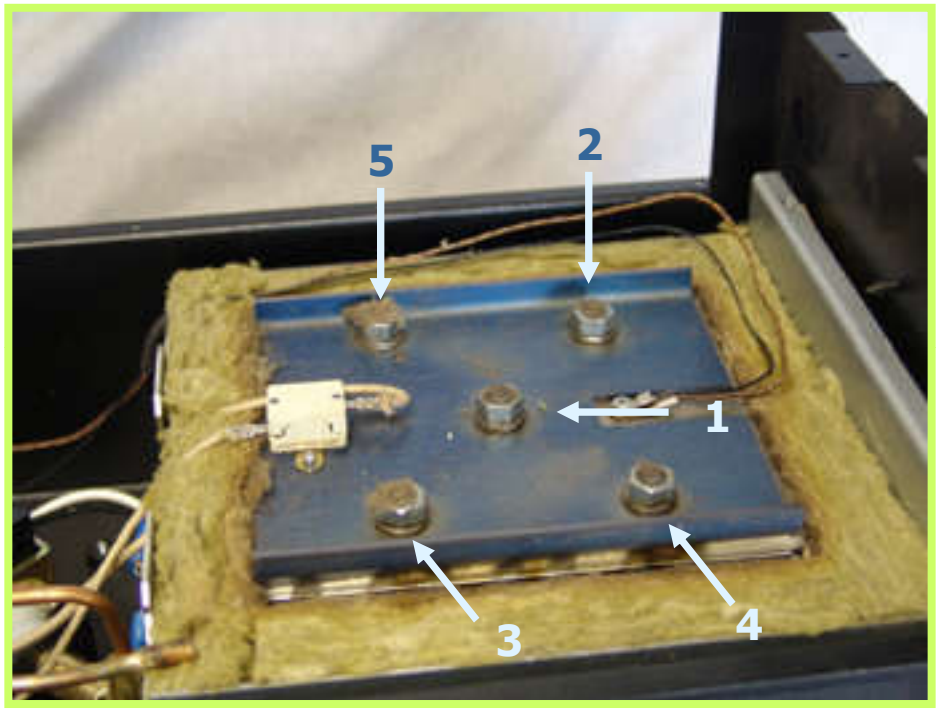
Replace Top Aluminum Plate

- Set the heavy aluminum plate on the smaller aluminum wear plate

Replace Outer Steel Plate

- Add the upper steel plate while checking that the wires are not pinched or shorted
- Move the tube side to side as required to allow the squeezing plates to rest only on the flattened area of the tube

Tightening Outer Steel Plate



- Thread the five new nuts and lock washers on finger tight
- Check alignment of the layers
- Tighten the center bolt down snug with a ½” socket
- Repeat with the other four bolts (in the order displayed)
- Move to the center bolt and pull tighter by a quarter turn
- This will give 5-7lbs of torque
- Repeat this on the remaining four bolts (in the order displayed)

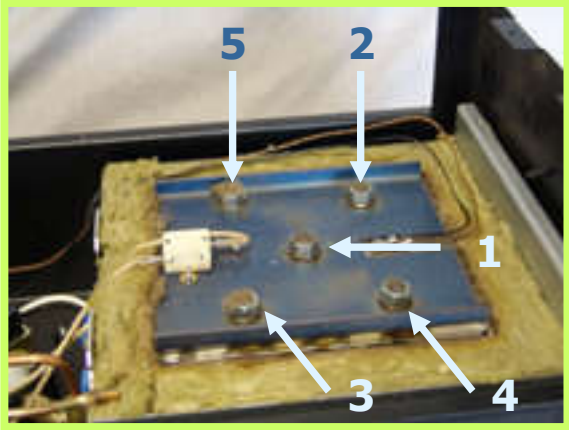
Tighten Brass Nut

- Attach the tube by screwing in the 7/16” brass nut at the pump

Test Run

- Reinstall the top insulation cover
- Power up fog machine and allow to heat up fully
- Run fog through the fog machine until it reaches its lowest output
- Turn off fog machine and disconnect from power source
- ***Caution: The Heat Exchanger is extremely hot, care must be taken not to burn yourself while tightening the bolts***

Tighten all Bolts



- Remove upper insulation and allow the unit to cool further
- ***Caution: The Heat Exchanger is still extremely hot, care must be taken not to burn yourself while tightening the bolts***
- Tighten all five bolts about ½ turn (in the order displayed)

Replace Block Cover

- Replace the upper insulation and cover by inserting the tangs into the slots and slide the cover forward
- Fasten the cover down with the two screws

Replace Machine Lid

There are screws on both sides of the machine.

- Slide the lid into place and fasten the machine screws
- Plug the machine in and allow it to come to full heat
- Now you're ready to fog!