

# Vulcanizing Press

## Duraline®



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## **VULCANIZING PRESS ASSEMBLY:**

Remove vulcanizing unit and accessories from packaging.

Parts Included in A300106-2 Vulcanizing Press

<b>Part Number</b>	<b>Part Description</b>
AD300068-MFJ	Male and Female J-Series (E1017, E1023) Stop Block
AD300068-MFB	Male and Female Ballnose (E1022) Stop Block
D600483-1	Thermomelt - 325°
A300106-2	Vulcanizing Press
DA200006-5	500 & 535 MCM 2 Piece Bushing Set (Installed)

- Install Handle – Position the aluminum handle on the threaded shaft of the press, aligning the small hole in the handle with the small hole in the shaft. Use the (2) provided 5/16-18 dog-point set-screws to secure the handle to the shaft from both sides. The dog-point of the set-screws should seat into the hole in the shaft. A 5/32” Allen hex key is provided.
- Install “L” Bracket for Stop Blocks – Seat the provided “L” shaped bracket into the milled slot on the top surface of the bottom plate of the mold. Align the hole in the bracket with the tapped hole in the base plate. Install the provided 1/4-20 x 3/4” socket-head cap screw to secure the bracket in place using the provided 3/16” Allen hex key to tighten.
- Anchor Press – Press should be securely anchored to a workbench to make process easier for operator, and to achieve best results.

## **VULCANIZER OPERATION:**

- Plug the power supply cord into a 110-120v 60Hz A.C. outlet fused for 15 amperes.
- Press power button. Button and amber light will glow.
  - The amber pilot light indicates that the power is on.
  - The red pilot light indicates that mold is heating.
- The molds are thermostatically controlled to maintain a molding temperature of 325°F to 350°F, for Neoprene and Hypalon jacketed cables.
- The red heater light will turn off when mold temperature has been reached, indicating readiness.
- Use a Temperature Crayon (Duraline p/n D600483-1) to verify mold temp.
- The heaters and heater light will cycle on and off as needed to maintain temperature.
- When finished, turn unit off and remove plug from power source.

## **VULCANIZING PROCEDURE – MALE OR FEMALE CONNECTOR:**

1. Cut cable to desired length using a sharp cable cutter.
  - Do not saw the conductor, as this can distort stranding and prevent fitment into the crimp tube.
2. Strip approximately 1-3/4" of cable jacket. Insert bare conductor into contact crimp tube and crimp with hydraulic hand or bench press, or other suitable crimping die. Die must be fully closed and sized for specific cable type/size.

<u>Crimp Tube Size</u>	<u>CRIMP TUBE O.D.</u>	<u>T&amp;B DIE#</u>	<u>T&amp;B DIE#</u>
		Full-size	Half-size
250 MCM	.83"	66	66H
262 MCM - 400 MCM	1.00"	80	80H
444 MCM	1.05"	87	87H
450 MCM - 535 MCM	1.31"	99 or 106	99H or 106H
750 MCM - 800 MCM	1.50"	115	115H

Full-size Dies are for use with T&B 40-Ton Hydraulic-Head Crimper – T&B #21940

Half-size "H" Dies are for use with T&B 15-Ton Hydraulic-Head crimper – #TBM15I

3. Roughen cable jacket approximately 6-1/2" behind contact to remove all dirt and wax. Use a coarse rasp, coarse wire wheel, coarse emery cloth, or abrasive sanding belt.
4. Coat the roughened jacket with neoprene adhesive, Chemlok No. 238. Allow to dry until tacky.
5. Wrap cable with neoprene tape, maintaining tension. Wrap from contact back so approx. 1/2" extends beyond the sleeve end. Build tape until it fits snugly into sleeve. Wrap the last layer from cable toward contact for easier assembly into sleeve.
6. Roughen up approx. 2" of both I.D. and O.D. of the insulator sleeve at cable end. Apply an even coat of Chemlok 238 and allow to dry.
7. Apply Stoner E218 Lubricant Spray (P/N 7447) into the I.D. of the insulator. Use sparingly.

## **VULCANIZING PROCEDURE – MALE OR FEMALE CONNECTOR (continued)**

8. Insert proper COME-A-LONG tool into the connection end of sleeve and push it through the insulator. If binding occurs, spray COME-A-LONG with Stoner E218 or similar lubricant spray.

9. Use the correct COME-A-LONG tool for inserting contacts: the male tool pulls the female connector into its insulator, and the female tool pulls the male connector. Clamping the tool in a bench vise can help steady it and make the process easier.

10. Attach the COME-A-LONG tool to the contact and pull the sleeve back over the contact and cable. Continue pulling until the contact's pin touches the metal ring inside the insulator. While pulling, rotate the insulator to help the pin seat into the groove of the ring. Keep pulling until the pin stops at the U-shaped slot—this locks the contact in place and prevents movement. The spring lock ring on the contact will secure behind the sleeve ring to hold everything firmly. Wipe away any excess spray lubricant. Before continuing, ensure the sleeve is fully seated on the contact. For male latching connectors, verify that the button activates the latch on the contact.

11. Paint the roughened portion of the sleeve with Chemlok 238. Allow to dry until tacky.

12. Wrap two or three layers of tape over the rear end of the insulator. Start just after the "O" ring (about 2" from the back end of the sleeve). Continue onto the cable jacket about 1/2". This should fill the area where the cable jacket enters the insulator.

13. Fit the Stop Block to the assembled contact and sleeve. Select based on connector type and sex. Insert just before vulcanizing into the mold. It should fit in the space between the "L" bracket and mold body. Adjust the square-head screw on the "L" bracket if necessary to prevent movement during heating and pressure.

14. Place connector and sleeve (with Stop Block) into mold. Confirm that the mold bushing is the correct size for the cable.

## **VULCANIZING PROCEDURE – MALE OR FEMALE CONNECTOR (continued)**

15. For male connectors with positive-latch release buttons: Ensure the button is facing up. Align ribs and grooves in sleeve with the mold's mating ribs/grooves.

16. Close the top half of the mold using the screw handle. Mold must be completely closed. Tighten the clamping screw slowly as the vulcanizing tape heats.

17. Mold at 325–350°F for approximately 30 minutes. Neoprene tape will be firm and tough when completely cured. Heaters in press will cycle on and off, while in use, to maintain the required temperature

18. Remove from mold. Allow the assembly to cool. Trim off excess flash with a razor blade, sharp knife, or scissors.

19. (Optional) – Add a final coat of Chemlok 238 over the vulcanized area.

**Note:** For additional guidance, a step-by-step video demonstration of this process is available at <https://www.jbn-duraline.com/>.

# Trouble Shooting Chart

## **Problem:**

**Pilot lights are not illuminating after hitting power button.**

### **Action:**

1. Check power to press confirm press is receiving 110v 60 Hz. If no power is detected, check related fuses and breakers.
2. Check the power button with Ohms meter to confirm power can pass through when pressed. If continuity cannot be detected when button is depressed replace switch.
3. If press is heating up and the lights are not illuminating check the light and replace with new light. See instructions below.

**Pilot lights don't light.**

### **Action:**

1. Check the light—it may be burned out or broken. Replace with a new pilot light.

**Can't close mold.**

### **Action:**

1. Too much tape used on cable or sleeve.
2. Allow molding to warm up and apply clamping pressure gradually to close as tape softens and flows.
3. Reduce tape wrapping as needed.

**Molding doesn't cure.**

### **Action:**

1. Mold temperature too low. Check temperature. It should be 325°-350°F Raise temperature by rotating adjustment screw on thermostat clockwise. See detailed instructions at end.

**Molding is scorched.**

### **Action:**

1. Check Temperature while under pressure.
2. Make sure Temperature testing is done with an approved temperature crayon or thermometer.  
- Warning - Laser and Infrared Pyrometers will provide inaccurate results due to reflective surfaces

**Molding is scorched, but the temperature is registering below 325°**

### **Action:**

1. Thermostat set too high.
2. Check mold temperature and adjust thermostat.

# Trouble Shooting Chart

## **Problem:**

**Neoprene tape does not bond to sleeve and cable or Vulcanizing tape doesn't flow or bond.**

## **Action:**

1. Chem-Lok 238 not applied.
2. Tape is too old and has already cured.
3. If tape is rubbery like rubber band, it has expired. order fresh tape.
4. Good tape is easily stretched, will bond to itself, and will soften and flow when heated. Tape should be stored in a cool, dry place under 70°F. Maximum shelf life is 6 months.
5. Dirty cable or sleeve. Failed to use bonding agent on cable and sleeve. The incorrect bonding agent for cable being used. Surface contaminated with grease, silicone, etc.

**Sleeve is loose on cable after molding**

## **Action:**

1. Tape build-up was insufficient to fit snugly into the sleeve.

**Mold will not heat.**

## **Action:**

1. Switch is not turned on.
2. Heater has burned out – replace heater.
3. Bad switch – replace switch.
4. Faulty thermo switch – replace thermo switch.

**Mold will not heat and red light is not illuminating.**

## **Action:**

1. Bad thermostat. Check thermostat with Ohm meter if continuity is not detected. Replace with new thermostat.

# Important Information

## **How To Replace Pilot Light:**

1. Unplug vulcanizer supply plug.
2. Pilot lights are rugged, sealed assemblies. When one burns out, replace with entire new unit by loosening screws on terminal board, remove locknut on back of pilot light, remove pilot light, and replace with new pilot light assembly.
  - Use P/N D100827-4 for Amber Pilot Light
  - Use P/N D100827-3 for Red Pilot Light

## **TEMPERATURE CALIBRATION OF VULCANIZING MOLD:**

### **DO NOT ADJUST THE VULCANIZING PRESS THERMOSTAT WITHOUT AUTHORIZATION FROM DURALINE SUPPORT TEAMS**

The thermostat in this vulcanizing press has been pre-set at the Duraline factory in the range of 325°F to 350°F. The temperature of mold is controlled by the thermostat, which is mounted on the bottom mold cavity inside the rear cover.

To recalibrate thermostat:

- Close the mold so the top and bottom halves are pressed together.
- Turn unit on and wait for red light to turn off (indicates the press is up to thermostat temperature).
- Check temperature using a Temperature Crayon or Thermocouple type Thermometer

If adjustment is needed:

- Turn off the unit and unplug power cord.
- Remove the rear cover by removing screws on each side.
- Twist cover back away from mold press.
- Using insulated pliers, turn the adjustment screw:
  - Counterclockwise to reduce temperature
  - Clockwise to increase temperature

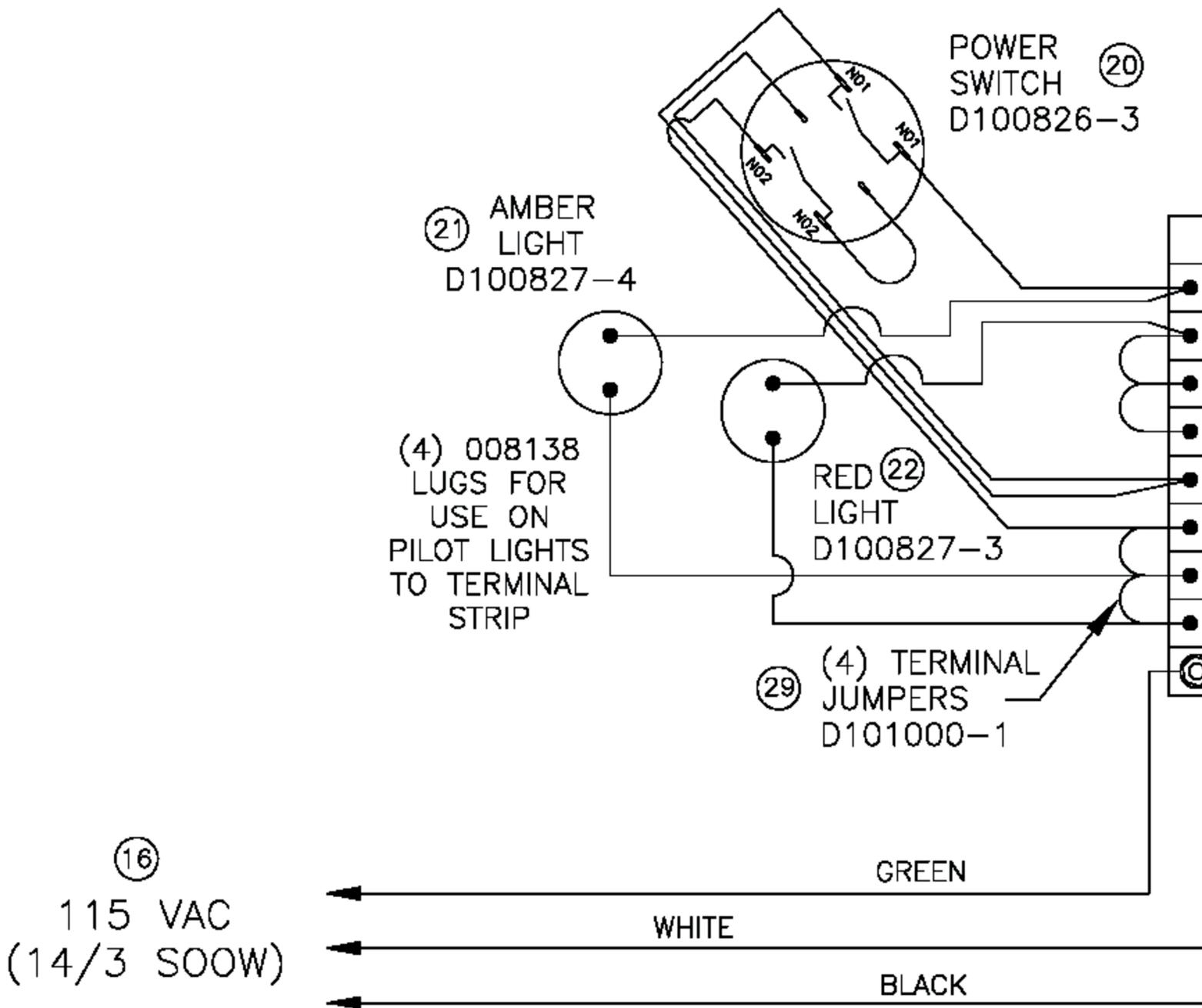
Adjust as required.

After adjustment:

- Replace the cover
- Plug in and turn on the unit
- Repeat temperature check

If temperature is within range, return unit to service. If not, repeat process until satisfactory results are achieved.

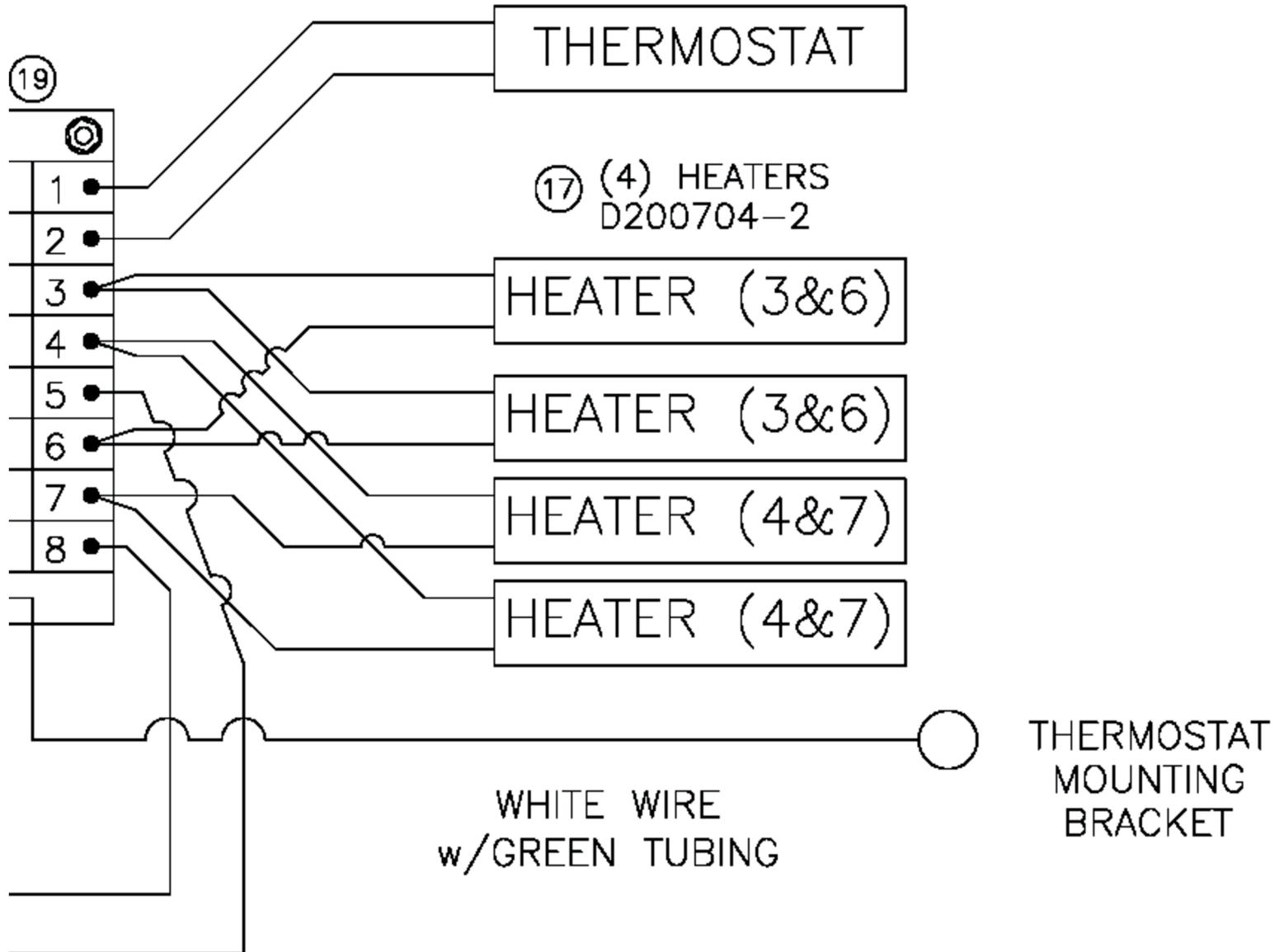
# Schematic for The Press



PART NO.	DESCRIPTION	NOTE	QTY	ITEM
008138	LUG, #26-24	FOR LIGHTS	4	46
008131	LUG #16/14	QUICK, WIDE	4	42
008130	LUG #22-18		16	41
008129	LUG #16/14	QUICK, NARROW	2	40
D101000-1	JUMPER		4	29
D100566-1	THERMOSTAT	W/BACKET	1	25
D100827-3	PILOT LIGHT	RED	1	22
D100827-4	PILOT LIGHT	AMBER	1	21
D100826-3	SWITCH		1	20
D100828-1	TERMINAL STRIP		1	19
D200704-2	HEATER	115V, 250W	4	17
M186600-014B-010-BLK	NEMA 5-15P ON 10' OF 14/3	MOLDED RUBBER	1	16

# Schematic for The Press

(25) THERMOSTAT  
WITH BRACKET  
D100566-1



# Recommended Parts List

## Accessories List

Part Number	Part Description
DA200020-5	Come-A-Long for Female Contacts and Sleeves
DA200020-6	Come-A-Long for Male Contacts and Sleeves
DA200006-2	250 to 262 MCM 2 Piece Bushing
DA200006-3	350 to 373 MCM 2 Piece Bushing
DA200006-4	400 to 444 MCM 2 Piece Bushing
DA200006-5	500 to 535 MCM 2 Piece Bushing
DA200006-7	750 to 777 MCM 2 Piece Bushing
AD300068-MFJ	Male and Female J-Series (E1017, E1023) Stop Block
AD300068-MFB	Male and Female Ballnose (E1022) Stop Block
AD300068-MFLS	Male and Female Long Shroud (E1046 - E1058) Stop Block
A003069-DURA-1	30' Duraline Vulcanizing Tape
A003069-DURA-6	30' Duraline Vulcanizing Tape - 6 Pack
7447	Stoner E218 Silicon Spray

## Replacement Parts

D100826-3	Power Switch
D100566-1	Thermostat
D200704-2	Heater, 115V 250W
D100827-4	Pilot Light, Amber
D100827-3	Heater Light, Red

To order additional parts or request custom fittings, please contact our sales support team at 386-873-2990



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