

CRTK COUPON REPLACEMENT AND TEST KIT



CRTK-2 (Dry) Stock number - 0090173

CRTK-4 (Wet) Stock number - 0090174 (Pictured)

NOTICE Carefully read and follow the instructions and procedures provided in this and referenced documents. Failure to do so will inhibit our ability to provide accurate and complete test results.

NOTICE Do not handle the coupons with your bare hands. Use the latex gloves provided.

The CRTK contains the necessary components to remove, replace, and forward for analysis, the test coupons and water sample from a Potter Corrosion Monitoring Station.

Test Kit Includes:

- Two C1010 Mild Steel Corrosion Coupons (One for CRTK-2)
- Two CDA360 Brass Corrosion Coupons (One for CRTK-2)
- Corrosion Coupon Insertion Instructions #5401142
- Corrosion Coupon Insertion Confirmation Sheet #5401141
- 120cc Bottle with Cap (Used for Wet Pipe Systems Only)
- One Pair of Latex Gloves

Tools Required:

- Pipe wrench or 14" adjustable wrench to remove and replace Coupon Holders.
- Container used to drain water from the isolated coupon rack.
- Phillips head screwdriver to remove and re-install coupons to the coupon holders.
- Teflon tape

Procedure

Wet Pipe Systems: Use CRTK-4

(With older-style ceiling mount monitoring station, not Riser Mount (RM) version.)

- 1. Turn the two 1" ball valves (PCMS) or butterfly valve (PCMS-LP) to the closed position to isolate the coupon rack from the fire sprinkler system.
- Verify that the 1/2" drain valve is closed. Remove the 1/2" drain plug.
- 3. Relieve system pressure from the coupon rack by opening the drain valve slowly. <u>Do not drain the coupon rack completely at this time.</u> Use a container or bucket to catch the escaping water.

NOTE: The water in the coupon rack will be pressurized to the system pressure. After the system pressure has been relieved, close the drain valve.

- 4. Fill the 120cc bottle by opening the drain valve slowly. Close the 1/2" drain valve.
- 5. <u>Securely affix</u> the cap to the bottle by making sure the cap screws on tightly. Tape cap to bottle.
- 6. Drain the remaining water from the coupon rack through the 1/2" drain valve into a container. Close the 1/2" drain valve. Re-install 1/2" plug into drain valve.
- 7. Locate the plastic document holder (attached to the PCMS). Locate the completed coupon insertion confirmation sheet and original coupon envelopes. Find the coupon envelope that corresponds to Outlet #1.
- 8. Remove the coupon holder from Outlet #1. Use a screwdriver to loosen the plastic screw and nut. (See Fig. 1) Remove the coupon from the coupon holder and place the coupon into the corresponding original coupon envelope. Repeat this process on outlets #4,#5, and #8. (See Fig. 2)

DO NOT HANDLE COUPONS WITH BARE HANDS

- 9. Remove the new corresponding coupon from the new coupon envelope. Do NOT discard the envelope.
 - Ferrous/mild steel locations are for C1010 coupons.
 - Non-Ferrous/Brass locations are for CDA 360 coupons.
- 10. Confirm the serial numbers on the envelope and coupon match.
- 11. Assemble the coupon on the coupon holder as shown in Fig. 1.
- 12. Apply Teflon tape to the 1" threaded bushing threads on the coupon holder.
- 13. Insert and tighten the assembled coupon holder into the specific location shown on the monitoring station label.
- 14. Repeat steps 9-13 for the remaining coupon holders (see Figs. 2-4).

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CRTK COUPON REPLACEMENT AND TEST KIT

- 15. Follow the instructions provided on the coupon insertion confirmation sheet #5401141.
- 16. Verify that the isolation valves are in the open position and the corrosion monitoring station is free of any leaks.
- 17. Place the coupons and the coupon insertion sheet #5401141 in the bottom of the original shipping container. Place the water sample bottle in the top of the original shipping container. Ship the container next day air service to the address on the enclosed shipping label.

Fig. 1 Corrosion Coupon Assembly Coupon orientation required on older style in-line versions of dry pipe systems only. Scribe Line on PLUG FACE PARALLEL TO COUPON FACE

Wet Pipe Systems with Riser Mount (RM) Version: Use CRTK-2

- Turn the 1" coupon rack isolation valve to the closed position to isolate the coupon rack from the sprinkler system
- 2. Verify that the 1/2" drain valve is closed and remove the 1/2" drain plug.
- 3. Relieve system pressure from the coupon rack by opening the drain valve slowly. <u>Do not drain the coupon rack</u> <u>completely at this time.</u> Use a container or bucket to catch the escaping water.

NOTE: The water in the coupon rack will be pressurized to the system pressure. After the system pressure has been relieved, close the drain valve.

- 4. Fill the 120cc bottle by opening the drain valve slowly. Close the 1/2" drain valve.
- **5.** <u>Securely affix</u> the cap to the bottle by making sure the cap screws on tightly. Tape cap to bottle.
- 6. Drain the remaining water from the coupon rack through the 1/2" drain valve into a container. Close the 1/2" drain valve. Re-install 1/2" plug into drain valve.
- 7. Locate the plastic document holder attached to the monitoring station. Locate the completed coupon insertion confirmation sheet and original coupon envelopes.
- 8. Remove a coupon holder from the monitoring station. Use a screwdriver to loosen the plastic screw and nut (see Fig. 1). Remove the coupon from the coupon holder and place the coupon in the corresponding original coupon envelope.

DO NOT HANDLE COUPONS WITH BARE HANDS

- Remove the new corresponding coupon from the new coupon envelope. Do NOT discard the envelope.
 - Ferrous/mild steel locations are for C1010 coupons.
 - Non-Ferrous/Brass locations are for CDA 360 coupons.
- Confirm the serial numbers on the envelope and coupon match.
- 11. Assemble the coupon on the coupon holder as shown in

- Fig. 1.
- 12. Apply Teflon tape to the 1" threaded bushing threads on the coupon holder.
- 13. Insert and tighten the assembled coupon holder into the specific location shown on the monitoring station label.
- 14. Repeat steps 8-13 for the remaining coupon holders (see Figs. 2-4).
- 15. With the isolation and drain valves closed, open the air inlet valve and charge the PCMS-RM with air pressure to about ½ the system water pressure. Close the air isolation valve.
- 16. Open the system isolation valve and verify that the corrosion monitoring station is free of any leaks. Also verify that the water level in the corrosion monitoring station is at about the centerline. The water level can be adjusted by adjusting the air pressure in the monitoring station. More air pressure lowers the water level; less air pressure raises the water level.
- 17. Place the coupons and the coupon insertion sheet #5401141 in the bottom of the original shipping container. Place the water sample bottle in the top of the original shipping container. Ship the container to the address on the enclosed shipping label.

Dry Pipe Systems: Use CRTK-2

(With older-style in-line monitoring station, not Riser Mount (RM) version.)

- 1. Close the system control valve. Shut down the superivsory air supply and relieve system air pressure through the inspectors test valve.
 - **NOTE:** A water sample is not required for dry pipe systems
- Locate the plastic document holder (should be attached to the DPCMS). Locate the completed coupon insertion confirmation sheet and original coupon envelopes. Find the coupon envelope that corresponds with Outlet #2. (See Fig. 3)
- Remove the coupon holder from Outlet #2. Use a screwdriver to loosen the plastic screw and nut. (See Fig. 1)



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4. Remove the coupon from the coupon holder and place the coupon into the corresponding original coupon envelope. Repeat this process on Outlet #3.

DO NOT HANDLE COUPONS WITH BARE HANDS

- 5. Remove the new corresponding coupon from the new coupon envelope. Do NOT discard the envelope.
 - Ferrous/mild steel locations are for C1010 coupons.
 - Non-Ferrous/Brass locations are for CDA 360 coupons.
- 6. Confirm the serial numbers on the envelope and coupon match.
- 7. Assemble the coupon on the coupon holder as shown in Fig. 1.
- 8. Apply Teflon tape to the 1" threaded bushing threads on

- the coupon holder.
- 9. Insert and tighten the assembled coupon holder into the specific location shown on the monitoring station label.
- 10. Repeat steps 3-9 for the remaining coupon holders (see Figs. 2-4).
- 11. Follow the instructions provided on the Coupon Insertion Confirmation Sheet #5401141.
- 12. Place system back in service.
- 13. Verify that all valves are in the proper position and the corrosion mointoring station is free of any leaks.
- 14. Place the coupons in the original shipping container. Ship the container next day air to the address on the enclosed shipping label.

Dry Pipe Systems with Riser Mount (RM) Version: Use CRTK-2

- Turn the 1" coupon rack isolation valve to the closed position to isolate the coupon rack from the sprinkler system.
 - **NOTE:** A water sample is not required for testing coupons on dry pipe systems.
- 2. Locate the plastic document holder attached to the monitoring station. Locate the completed coupon insertion confirmation sheet and original coupon envelopes.

DO NOT HANDLE COUPONS OR PROBES WITH BARE HANDS

A CAUTION

The monitoring station is under pressure. Use extreme care when relieving pressure through the PCMS-RM drain or through carefully loosening a fitting on DPCMS-RM.

3. Remove a coupon holder from the monitoring station. Use a screwdriver to loosen the plastic screw and nut (see Fig. 1). Remove the coupon from the coupon holder and place the coupon in the corresponding original coupon envelope.

- 4. Remove the new corresponding coupon from the new coupon envelope. Do NOT discard the envelope.
 - Ferrous/mild steel locations are for C1010 coupons.
 - Non-Ferrous/Brass locations are for CDA 360 coupons.
- 5. Confirm the serial numbers on the envelope and coupon match.
- 6. Assemble the coupon on the coupon holder as shown in Fig. 1.
- 7. Apply Teflon take to the 1" threaded bushing threads on the coupon holder.
- 8. Insert and tighten the assembled coupon holder into the specific location shown on the monitoring station label (see Figs. 2-4).
- 9. Repeat steps 3-8 for the remaining coupon holders (see Figs. 2-4)
- 10. Open the system isolation valve and verify that the corrosion monitoring station is free of any leaks.
- 11. Place the coupons and the coupon insertion sheet #5401141 in the bottom of the original shipping container. Ship the container to the address on the enclosed shipping label.

Fig. 2 Corrosion Coupon Installation Diagram Wet Pipe

NON-FERROUS/ COPPER/BRASS FERROUS/STEEL MOST UPPER CORROSION FREQUENT CONNECTION CORROSION MONITORING CORROSION COUPON COUPON UPRIGHT SPKR. TO SPOOL 2 3 4 (D) 9 8 FERROUS/STEEL CORROSION LOWER MOST NON-FERROUS/ CONNECTION TO FREQUENT CORROSION MONITORING COPPER/BRASS COLIPON PROBE SPOOL PENDENT SPKR CORROSION COUPON BOTTOM DWG# 1176-3 MOST FREQUENT SIDEWALL SPKR.

TOP



Fig. 3 Corrosion Coupon Installation Diagram Dry Pipe

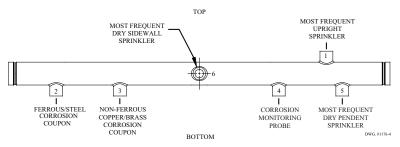


Fig. 4 Corrosion Coupon Installation Diagram Riser Mount (RM)

