DATE: February 11, 2016
TO: Authorized ANSUL I-101 Distributors
FROM: Quality Assurance
SUBJECT: Failure of Control Head to Operate

WARNING

VERY IMPORTANT SAFETY NOTICE

If you own, sell or service ANSUL I-101 Industrial Fire Suppression Systems, please read and follow the instructions in this BULLETIN.

FAILURE TO READ AND FOLLOW THE INFORMATION IN THIS BULLETIN INCREASES THE RISK THAT AN ANSUL I-101 INDUSTRIAL FIRE SUPPRESSION SYSTEM COULD FAIL TO ACTIVATE IN A FIRE.

Tyco Fire Protection Products (Tyco) received isolated reports of Control Heads failing to operate during the commissioning of systems. We discovered an issue with the Spring Plate located in the Control Head that could interfere with other moving parts within the Control Head which could result in the system failing to activate.

Once aware of the issue, Tyco implemented appropriate corrective actions including containment and rework of the Control Heads.

Further testing by Tyco found the affected Control Heads could pass commissioning but the Spring Plate could seize over time. Therefore, Tyco is implementing a field remediation program for affected units. Affected units were sold between January 1, 2015 and September 8, 2015.

Action

Visit www.controlhead.net using your company's unique customer number and password provided in the cover letter to this bulletin. The website lists your company's purchases between January 1, 2015 and September 8, 2015. Please update the number of Control Heads that you have in your possession that are within the affected time range. Tyco will contact you within the next business day from when you update this information and provide direction on how these units you have in stock will be replaced.

Distributors that have installed the Control Head(s) should make arrangements to visit the properties where these are installed as soon as possible. Confirm if the Control Head is within the affected time period. If so, complete the replacement of the Spring Plate as outlined in the Mechanical Control Head Spring Plate Replacement Instruction Sheet, Part No. 443220 provided with this Bulletin. The Bulletin and Replacement Instruction Sheet will also be available on www.controlhead.net and the ANSUL Distributor Portal. Tyco has already shipped Spring Plate Assembly Kits to Distributors that received Control Heads during the affected time period. You may email ControlHead@tycoint.com for more Spring Plate Assembly Kits should that be necessary.
Distributors will be eligible for a $200 credit for the first Control Head they repair at each site and $75 for each additional Control Head repaired at the same site. In addition, Tyco will reimburse the cost of other system components recommended for replacement in the Mechanical Control Head Spring Plate Replacement Instruction Sheet. In order to receive your credit, please visit www.controlhead.net and enter the complete site information in the Job Site Verification section. You will receive notification from Tyco when the credit has been processed.

Identification

The Control Head has a serial number inside the Control Head (see Photo 1). Products manufactured during the affected time period between January 1, 2015 and September 8, 2015 will have a serial code between 201529883 and 201541533.

Marked Control Heads

Units marked with a blue dot as shown in Photo 1 have already been reworked at Tyco or were built after September 8, 2015 and do not need to be repaired in the field regardless of the serial code.

Replacement Spring Plates used for field replacement have been marked with a black circle (see Photo 2). Control Heads in the field with Spring Plates containing this mark have already been reworked in the field and no further action is necessary.

Refer to the specific system Design, Installation, Recharge and Maintenance Manual for any procedure not addressed in the Mechanical Control Head Spring Plate Instruction Sheet.

Questions

If you have any questions, please send an email to: ControlHead@tycoint.com

Thank you in advance for checking and replacing the mechanical control head spring plates in a timely manner.
DATE: February 11, 2016

TO: Authorized PYRO-CHEM KITCHEN KNIGHT II and MONARCH Distributors

FROM: Quality Assurance

SUBJECT: Failure of Control Head to Operate

WARNING

VERY IMPORTANT SAFETY NOTICE

If you own, sell or service PYRO-CHEM KITCHEN KNIGHT II Restaurant Fire Suppression Systems or MONARCH Industrial Fire Suppression Systems, please read and follow the instructions in this BULLETIN.

FAILURE TO READ AND FOLLOW THE INFORMATION IN THIS BULLETIN INCREASES THE RISK THAT A PYRO-CHEM KITCHEN KNIGHT II RESTAURANT FIRE SUPPRESSION SYSTEM OR MONARCH INDUSTRIAL FIRE SUPPRESSION SYSTEM COULD FAIL TO ACTIVATE IN A FIRE.

Tyco Fire Protection Products (Tyco), received isolated reports of Control Heads failing to operate during the commissioning of systems. We discovered an issue with the Spring Plate located in the Control Head that could interfere with other moving parts within the Control Head which could result in the system failing to activate.

Once aware of the issue, Tyco implemented appropriate corrective actions including containment and rework of the Control Heads.

Further testing by Tyco found the affected Control Heads could pass commissioning but the Spring Plate could seize over time. Therefore, Tyco is implementing a field remediation program for affected units. Affected units were sold between January 1, 2015 and September 8, 2015.

Action

Visit www.controlhead.net using your company’s unique customer number and password provided in the cover letter to this bulletin. The website lists your company’s purchases between January 1, 2015 and September 8, 2015. Please update the number of Control Heads that you have in your possession that are within the affected time range. Tyco will contact you within the next business day from when you update this information and provide direction on how these units you have in stock will be replaced.
Distributors that have installed the Control Head(s) should make arrangements to visit the properties where these are installed as soon as possible. Confirm if the Control Head is within the affected time period. If so, complete the replacement of the Spring Plate as outlined in the Mechanical Control Head Spring Plate Replacement Instruction Sheet, Part No. 443220 provided with this Bulletin. The Bulletin and Replacement Instruction Sheet will also be available on www.controlhead.net and the PYRO-CHEM Distributor Extranet. Tyco has already shipped Spring Plate Assembly Kits to Distributors that received Control Heads during the affected time period. You may email ControlHead@tycoint.com for more Spring Plate Assembly Kits should that be necessary.

Distributors will be eligible for a $200 credit for the first Control Head they repair at each site and $75 for each additional Control Head repaired at the same site. In addition, Tyco will reimburse the cost of other system components recommended for replacement in the Mechanical Control Head Spring Plate Replacement Instruction Sheet. In order to receive your credit, please visit www.controlhead.net and enter the complete site information in the Job Site Verification section. You will receive notification from Tyco when the credit has been processed.

Identification
The Control Head has a serial number inside the Control Head (see Photo 1). Products manufactured during the affected time period between January 1, 2015 and September 8, 2015 will have a serial code between 201520883 and 201541533.

Marked Control Heads
Units marked with a blue dot as shown in Photo 1 have already been reworked at Tyco or were built after September 8, 2015 and do not need to be repaired in the field regardless of the serial code.

Replacement Spring Plates used for field replacement have been marked with a black circle (see Photo 2). Control Heads in the field with Spring Plates containing this mark have already been reworked in the field and no further action is necessary.
Refer to the specific system Design, Installation, Recharge and Maintenance Manual for any procedure not addressed in the Mechanical Control Head Spring Plate Instruction Sheet.

Questions

If you have any questions, please send an email to: ControlHead@tycoint.com

Thank you in advance for checking and replacing the mechanical control head spring plates in a timely manner.
MECHANICAL CONTROL HEAD SPRING PLATE REPLACEMENT
INSTRUCTION SHEET FOR MODELS: EN-MCU3, MCH3, NMCH3
2015-OCT-23 REV. 0 PAGE 1

The Mechanical Control Head Spring Plate Replacement instructions are intended for use with the mechanical control head spring plate (Part No. 443216).

Personnel responsible for installation, recharge, and/or maintenance must read and fully understand these instructions prior to attempting to replace and install the new mechanical control head spring plate assembly (see Figure 1).

Note: Disconnect any fire control panel and/or alarms before performing the steps outlined in this procedure.

SPRING PLATE REMOVAL
1. Use an appropriate tool to remove the four screws holding cover to the mechanical control head. See Figure 2.

Note: Keep screws for re-assembly.

CAUTION
Do NOT rotate the handle on the mechanical control head. Rotating the handle could cause a system release.

DESCRIPTION
The retro-fit Spring Plate Assembly Kit (Part No. 443217) includes all parts required to replace the spring plate assembly in the EN-MCU3, MCH3 or NMCH3 mechanical control head.

CONTENTS – SPRING PLATE ASSEMBLY KIT

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<td>Pan Head Screw (10-32 x 3/8 in.)</td>
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<td>443216</td>
<td>Spring Plate Assembly</td>
<td>See Figure 1</td>
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2. After removing screws, hold left and right sides of cover and pull cover straight out to remove cover from base. Pull pin and handle are removed with the cover.

3. **Model MCH3 only**: Separate the visual seal, pull pin and handle.

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CAUTION
The mechanical control head will not function correctly if the spring plate is not properly installed. Read and follow all instructions carefully.
SPRING PLATE REMOVAL (Continued)

4. After removing cover, insert pull pin into the indicated hole in the slide plate above the latching arm. See Figure 3 and Figure 4.

5. Pull out and remove the mechanical control head base plate. See Figure 5 and Figure 6.

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**CAUTION**

Before continuing with the next step, disconnect the control head or pneumatic tubing from valve cap assembly of each agent cylinder.
SPRING PLATE REMOVAL (Continued)

6. Remove the CO₂ cartridge from the mechanical control head assembly. Make sure the CO₂ cartridge is placed in a safe location. See Figure 7 and Figure 8.

b. While the ratchet wheel is in the rotated position, push down on the pawl lock lever to release the cable tension. See Figure 10.

7. Loosen the tension applied to the detection line cable.

a. Using a 1/2 in. hex wrench, slightly turn the spring plate ratchet wheel clockwise to relieve pressure on the pawl lock. See Figure 9.

d. Once the cable has been unspooled (see Figure 12), cut off the stop sleeve at the end of the detection line cable and remove the detection line cable from the ratchet wheel.

b. While holding the pawl lock lever in place, using the 1/2 in. hex wrench, turn the ratchet wheel counterclockwise to unspool all cable. See Figure 11.

FIGURE 7
CO₂ CARTRIDGE REMOVAL
007763

FIGURE 10
PUSH DOWN ON THE PAWL LOCK LEVER
007765

FIGURE 8
CO₂ CARTRIDGE REMOVED
007764

FIGURE 11
SPRING PLATE RATCHET WHEEL ROTATION
007767

FIGURE 9
SPRING PLATE RATCHET WHEEL ROTATION
007765

FIGURE 12
DETECTION LINE STOP SLEEVE REMOVAL
007768
8. Tightly hold the yellow indicator to keep the slide plate from snapping to the right, then remove pull pin. See Figure 13. After pull pin is removed, slowly allow slide plate to move to the right. Note: set pin aside for future use.

9. Remove screw holding spring plate assembly in place. Collapse linkage, so it is out of the way of spring plate assembly. Dispose of screw. See Figure 14.

10. After the linkage is collapsed, remove the washer from the mounting stud. Dispose of washer. See Figure 15.

11. Using a socket wrench or nut driver, remove the #10 nut in the upper right corner of the mechanical control head. See Figure 16 and Figure 17.
**SPRING PLATE REMOVAL (Continued)**

12. Remove existing spring from threaded stud in upper right corner of the mechanical control head. See Figure 18.

![Figure 18: Remove spring from threaded stud](image)

**FIGURE 18**

**REMOVE SPRING FROM THREADED STUD**

009774

13. Collapse the linkage (see Figure 19), and remove the existing spring plate from the mounting stud. See Figure 20.

**FIGURE 19**

**REMOVE EXISTING SPRING PLATE**

009775

**IMPORTANT:**

DO NOT LIFT OR REMOVE THE SLIDE PLATE ASSEMBLY FROM ITS LOCATION.

**INSTALLATION**

1. To install new spring plate (Part No. 443216), confirm linkage is still collapsed then insert spring plate on mounting stud. See Figure 21.

**FIGURE 21**

**SPRING PLATE INSTALLATION**

009819

2. Install new washer (Part No. 550275) supplied in the spring plate assembly kit. The washer fits on the mounting stud holding the spring plate in place (replaces washer removed in step 10, page 4). The washer is placed between the spring plate and linkage, and must be installed BEFORE the linkage is installed. See Figure 22.

**FIGURE 22**

**WASHER INSTALLATION**

008811

**FIGURE 20**

**EXISTING SPRING PLATE REMOVED**

009776
INSTALLATION (Continued)

3. Reassemble the linkage to the mounting stud. The linkage fits over the mounting stud on top of washer and slides into place. See Figure 23.

5. Install the spring to the threaded stud in the upper right corner of the mechanical control head. See Figure 25.

4. Fasten slide plate linkage to spring plate using new pan head screw (Part No. 551130) provided in the spring plate assembly kit. See Figure 24.

6. Once the spring is in place install the new washer nut (Part No. 551220), supplied in the spring plate assembly kit, to the threaded stud and snug, using an appropriately sized nut driver or socket wrench, to secure. See Figure 38. When installing the washer nut, make sure the washer on the nut is facing toward the spring. See Figure 26.

7. Replace all fusible links in the system with the proper temperature rated A-PC style fusible link.

8. Verify the detection line is properly installed. Feed the wire rope through the hole in the fusible link ratchet wheel. The new stop sleeve (Part No. 26317) must then be crimped on the detection line, and the crimp must be positioned inside the center of the ratchet wheel.
INSTALLATION (Continued)

9. The detection (fusible link) line can now be put into a set position by applying tension to the fusible link line. This can be accomplished by using a 1/2 in. hex wrench on the fusible link ratchet wheel. The ratchet wheel will be ratcheted in a clockwise direction until the spring plate makes contact with the top* of the control head box. See Figure 27.

* If the EN-MCU3 is being used, only tighten the ratchet wheel until the spring plate is parallel to the top of the enclosure.

10. Ensure the fusible link(s) remain centered in the bracket after the fusible link line is set.

11. Set the control head by moving the slide plate from right to left, and ensure the bolt extending from the cam arm is in the slot provided in the slide plate. Continue moving the slide plate to the left until the latching arm is in the locked position.

12. Insert pull pin into the hole in slide plate above the latching arm. This will lock the control head in set position, eliminating accidental actuation during the remaining installation procedure. See Figure 28.

SYSTEM CHECKOUT

Before placing the system back in service, all components must be checked for proper operation. During this checkout, ensure the carbon dioxide pilot cartridge is not installed in the control head.

1. Remove the pull pin from the hole in the slide plate.

2. Cut the terminal link or the "S" hook holding the link. This will relieve tension on fusible link line and operate the control head. Verify slide plate completely moved to the right and gas valve cable released, causing gas valve to close. Confirm any auxiliary equipment connected to the dry contacts of the solenoid monitor and/or the electrical (Snap-Action) switch in the control head operated.

   NOTICE
   
   If any of these events fail to occur, the problem must be investigated and repaired.

3. Repair the terminal link or "S" hook and return fusible link line to the set position. After fusible link line is set, place control head into the set position. Follow Steps 9 through 11 (page 7) for setting the detection line and control head.
SYSTEM CHECKOUT (Continued)

4. Once the control head is set, remove the pull handle on the remote pull station to ensure the control head operates. If the control head operates normally, the control head can be reset. Insert the pull pin into the hole in the slide plate above the latching arm. See Figure 28. Replace the remote pull station handle and break rod.

5. Ensure the gas valve is fully open by ratcheting the gas valve ratchet wheel. Do not over tighten.

⚠️ CAUTION

Be sure to light any applicable pilot lights immediately following opening of the gas valve.

6. Before installing the 16 gram carbon dioxide pilot cartridge into the actuator, ensure the actuator has an o-ring installed. Install the cartridge into the actuator by hand-tightening until it is fully secure. Once hand-tightened, further tighten 1/4 to 3/4 turn using a needle-nose locking pliers.

IMPORTANT: Use caution when tightening the cartridge. Do not damage the cartridge with the locking pliers.

Note: When the cartridge is properly engaged, 4 to 5 threads should be showing. It is important that no more than 5 threads be showing.

⚠️ CAUTION

Do not over-tighten the cartridge. Over tightening can result in premature puncturing of the cartridge seal.

7. Reconnect the control head or pneumatic tubing to the valve cap assembly of each agent cylinder.

8. Remove the pull pin from the hole in the slide plate.

9. Re-install the control head base plate, cover and screws to the control head enclosure (refer to step 5 (page 2) and step 1 (page 1)).

10. Model MCH3 requires the ring pin to be re-installed on the control head cover, and re-sealed using the new visual seal (Part No. 25940) supplied in the spring plate assembly kit.

Note: Once the spring plate installation procedure is complete, make sure to reactivate any alarms and/or fire control panels that were disabled for this procedure.