INTRODUCTION
This instruction sheet is a supplement to ANSUL General Bulletin No. 2018032, published February 2018, which introduced new components for the CHECKFIRE 110/210 Systems.

The recommendations for installation of the following recently introduced components are the result of extensive testing for the components in various configurations commonly used in existing field installations.

DETECTION “h” CABLE INSTALLATION
The Detection “h” Cable (Part No. 446539) provides a straight cable connection to Detection Circuit Cables, Linear Detectors and Spot Thermal Detectors. The cable should be used in place of existing Detection Tees. All Detection Circuit installation rules apply to the use of the Detection “h” Cable. Refer to the CHECKFIRE 210 Detection and Actuation System Manual (Part No. 440392, latest revision); Section 5 – Installation, pages 5-12 to 5-14.

The supplied Connector Clamps must be installed on all cable connections to provide additional IP protection and further secure the cable connections. See Figure 1.

DETECTION 3 BRANCH CABLE ASSEMBLY
The Detection 3 Branch Cable Assembly eliminates the need to bank detection tees together when multiple tees are required. The single Detection Circuit Cable pigtail is the Main Trunk In cable from the ICM and is labeled as such on the assembly. The four Detection Circuit Cables are labeled Main Trunk Out, Branch 1, 2, and 3. All Detection Circuit installation rules apply to the use of the Detection 3 Branch Assembly. Refer to CHECKFIRE 210 Detection and Actuation System Manual (Part No. 440392, latest revision); Section 5 – Installation, pages 5-12 to 5-14.

Figure 2 shows a Detection 3 Branch Assembly with an EOL installed on the Main Trunk Out; EMAs installed on Branch 1 and 2 and a Spot Thermal Detector with Branch Terminator installed on Branch 3.

Figure 3 shows a Detection 3 Branch Assembly with an EOL installed on the Main Trunk Out; EMAs installed on Branch 1 and 2 and a Branch Terminator on Branch 3. If any Branch 1, 2, or 3 Circuit is not used, it must be terminated with a Branch Terminator.

The supplied Connector Clamps must be installed on all cable connections to provide additional IP protection and further secure the cable connections.
RELEASE “h” CABLE INSTALLATION

The Release “h” Cable provides a straight cable connection to Release Circuit Cables, and Release Circuit Drop Cables. The cable should be used in place of existing Release Tees. All Release Circuit installation rules apply to the use of the Release “h” Cable. Refer to CHECKFIRE 210 Detection and Actuation System Manual (Part No. 440392, latest revision); Section 5 – Installation, page 5-15.

The supplied Connector Clamps must be installed on all cable connections to provide additional IP protection and further secure the cable connections. See Figure 4.

RELEASE 4 TANK CABLE ASSEMBLY INSTALLATION

The Release 4 Tank Cable Assembly eliminates the need to bank Release Tees together when multiple tees are required. The single Release Circuit Cable pigtail is the Main Release Circuit In cable from the ICM. The four Release Circuit Cable pigtails are Release Circuit Connection Out of the assembly and is labeled “To PAD’s / Tanks or Terminator.”

The Release 4 Tank Cable Assembly may have additional Release 4 Tank Cable Assemblies and/or Release “h” Cable Assemblies connected to any of the output connections to allow for additional tank installations. If a Release Circuit Out is not used it must have a Release Circuit Terminator installed.

All Release Circuit installation rules apply to the use of the Release 4 Tank Cable Assembly. Refer to CHECKFIRE 210 Detection and Actuation System Manual (Part No. 440392, latest revision); Section 5 – Installation, page 5-15.

The supplied Connector Clamps must be installed on all cable connections to provide additional IP protection and further secure the cable connections. See Figure 5.
CONNECTOR CLAMP INSTALLATION

The cable Connector Clamp helps prevent unwanted water ingress from direct pressure washing while also providing a means to further secure the cable connections. The Connector Clamp may be used free floating or to secure the cable connectors to structure. The following instruction figures display the Connector Clamp (Part No. 447935) with Release, cables; however, the same instructions apply for the Power and Relay Cables, and to Part No. 447934, Connector Clamp for Detection and Display cables.

Assemble cable connectors as described in the CHECKFIRE 210 Detection and Actuation System Manual (Part No. 440392, latest revision); Section 5 – Installation, page 5-5. Torque the connectors to 8.85 in.-lb (1.0 N•m) using the Torque Wrench Assembly (Part No. 439484) and appropriate Torque Wrench Fitting. See Figure 6.

Install rubber grommet, centering over the cable connectors. Slide the stainless steel clamp on the cable. See Figure 7. Slide the stainless steel clamp over the rubber grommet ensuring the slit in the grommet is positioned at least 180° away from the clamp opening. It may be necessary to slightly spread the stainless steel clamp to slide it over the rubber grommet. See Figure 7.

If used free floating, cable should be supported a maximum of 18 in. (457 mm) on each side of the Connector Clamp. If mounted to structure, support cable a maximum of 36 in. (914 mm) from the Connector Clamp. If necessary, use additional supports to ensure cable is not subjected to snagging, crushing or abrasion. Cable Grommets (with P-Clamps), Rubber Coated P-Clips or Double Loop Cable Ties may be used to support cable.

Secure the Connector Clamp using a 3/8 in. (M10) bolt and nut or weld lug. The Connector Clamp may be used either free floating (see Figure 8) or mounted to structure (see Figure 9).
CABLE GROMMET INSTALLATION

Cable Grommets provide cable securement and ease of installation when routing cables.

- The 3 Hole Grommet may be used with Detection, Release, Power or Relay cable. The grommet may be used with 1, 2 or 3 cables as necessary.
  - Figure 10 displays the 3 Hole Grommet with 3 cables
  - Figure 11 shows the 3 Hole Grommet with 1 cable
- The 2 Hole Grommet (see Figure 12) is used for 1 or 2 Display Cables.
- The Linear Detector Grommet (see Figure 13) provides support for Linear Detectors and should be used in place of the existing Rubber Sleeves.

The rubber grommets are slit for easy insertion over the cable and secured by a 1 in. zinc plated P-Clamp and may be secured with up to a 3/8 in. (M10) bolt.
**BULKHEAD CORD GRIP INSTALLATION**

The Bulkhead Cord Grip requires a standard 3/4 in. electrical conduit knockout (1.109 in. + 0.032 in. / - 0.015 in.) hole size to be drilled with a maximum panel thickness of 1/4 in. (6.4 mm).

1. Disassemble Cord Grip (see Figure 14).
2. Insert nylon body through panel hole and tighten with sealing ring and zinc locknut.
3. Feed cable connector through the nylon nut, grommet and nylon gripper.
   a. The over molded cable connector (M12 size) used for Detection and Display Cables will easily pass through the Cord Grip assembly.
   b. The over molded cable connector (M16 size) used for Release, Power, and Relay Cables will require the grommet and nylon gripper be slit for the connector to pass through. These are easily cut* with scissors (see Figure 15).

4. Feed over molded cable connector through nylon body pulling as much cable as needed.
5. Slide nylon gripper*, grommet* and nylon nut together and tighten nylon nut until cable jacket is secured and no movement is observed.

*Note: If slit, ensure the slits in the Nylon Gripper and Grommet are positioned at least 90° from each other during installation.

**Note:** The converted metric values in this document are provided for dimensional reference only and do not reflect an actual measurement.

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