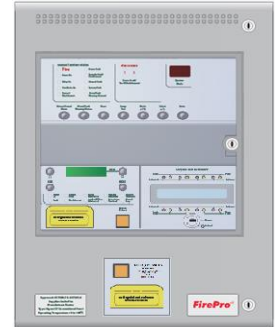


1. Maintenance General

Where FirePro systems have been installed in accordance with AS4487: Condensed Aerosol Fire Extinguishing Systems, periodic maintenance must be performed as per the requirements of AS1851: Routine Service of Fire Protection Systems and Equipment.

AS1851 Section 7.4 sets out the requirements for routine servicing in a monthly, six monthly and yearly schedule. Servicing should be only be performed by suitably qualified personnel.



2. Testing

Must be performed as per AS1851, Sections 6.4.1 and 7.4.2 by accredited service technicians. A logbook must be kept, recording all the relevant information from the installation and servicing

Monthly Servicing should be performed as follows, with any system repairs completed as necessary:

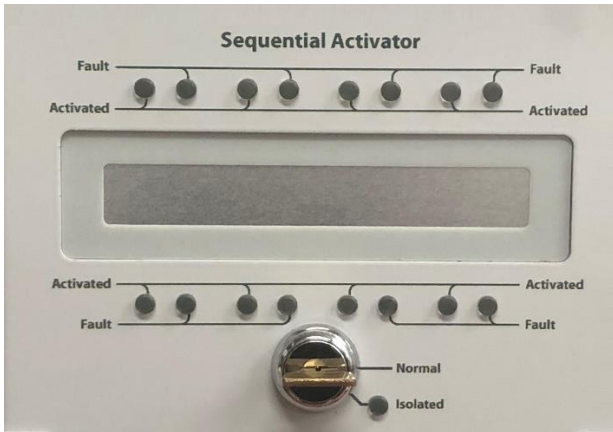
- Servicing should not be performed when the fire control panel is in an alarm/fault condition.
- No personnel should be in the risk area until the fire system is fully isolated.
- Where shutdown relays have been utilised, all personnel should be made aware equipment will not be operable until testing is completed. Shutdown Isolation Module (P/N 98510) may be used to bypass shutdown relays and allow for normal operation of connected equipment during testing.

2.1. Visual Inspection

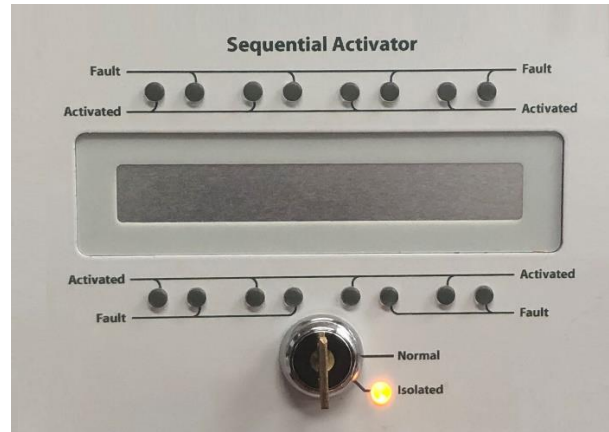
- 2.1.1. CIE and installed components should be accessible and free from debris, rust, electrical faults, or other damage.
- 2.1.2. Inspect CIE to ensure normal functioning. When the Sigma XT/Local Control Station is functioning normally the only indicators illuminated should be "Power" (green) on the Alarm Module and the Extinguishing Module.
- 2.1.3. All anti-tamper seals and travel pins should be in place and secure.
- 2.1.4. CIE, warning signs and strobes should be clearly visible and must indicate the designated egress points for the risk area.
- 2.1.5. Ensure that all FirePro Aerosol Generators have not been discharged and seals are intact.
- 2.1.6. Inspect the risk area to ensure that the risk has not changed from the approved design.
- 2.1.7. Review base data for any changes in environment or equipment installed.
- 2.1.8. Test operation of all CIE LED indicators by pressing the "Lamp Test" button on the Alarm Module

2.2. Isolation of System

Isolate Function: it is important to isolate the activation of the suppression system before any testing of the system is attempted. To isolate:



SYSTEM – NORMAL



SYSTEM ISOLATED

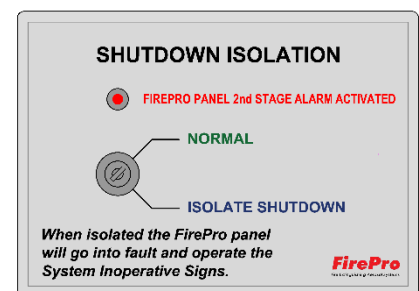
- 2.2.1. The fire suppression system activation circuit **must** remain isolated until all other testing is completed.
- 2.2.2. Unlock and open the display window for the Sigma XT. The centre lock opens the display window, allowing for operation of the controls.
- 2.2.3. Insert the 003 key into the isolate switch and turn until isolate LED is lit. The FirePro units are now isolated from activation.
- 2.2.4. This will initiate a fault and operate all installed “System Inoperative” warning signs.
- 2.2.5. Inspect all installed “System Inoperative” Warning Signs to ensure operation.
- 2.2.6. Where the Sigma XT is being remotely monitored or used as a Sub-Indicator Panel, ensure that the system isolation has been reported to monitoring equipment.



2.3. Isolation of Shutdown outputs

Where fitted, a shutdown isolation switch can be operated. This switch is operated by a “003” key, and when the switch is activated, any shutdown function which have been connected through this switch will be isolated.

- 2.3.1. Place the 003 key in the “Normal-Isolate” key switch located on the Shutdown Isolate Switch, which is in a separate enclosure adjacent to the FIP and turn from “Normal” to “Isolate Shutdown”.



- 2.3.2. This will initiate a fault and operate all installed “System Inoperative” warning signs.

- 2.3.3. The shutdown functions which are connected through the Shutdown Isolation Switch will continue as normal and will not be affected by the system testing regime.
- 2.3.4. The switch must be returned to the “Normal” position once testing is complete.

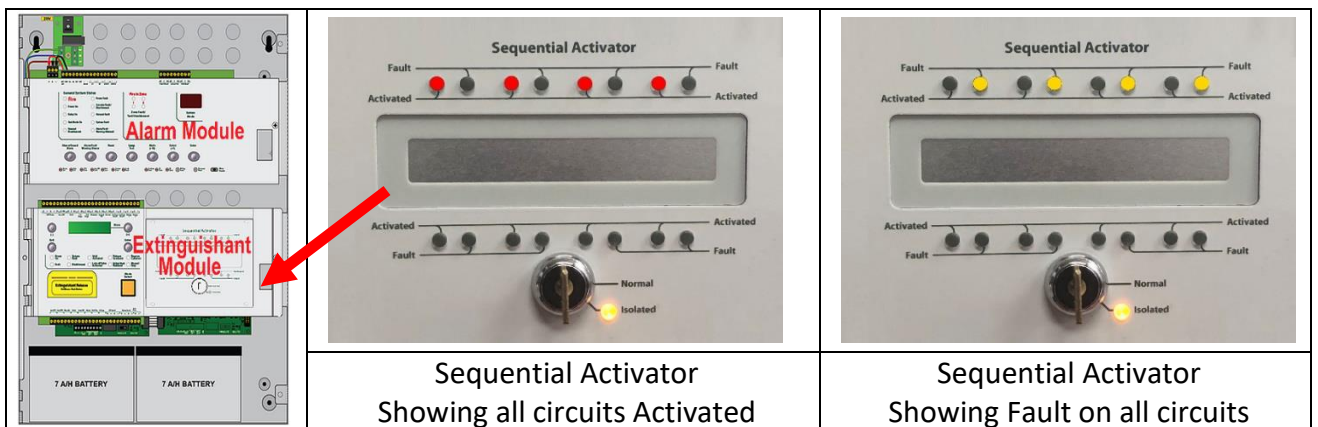
2.4. Alarm Function

The system must be placed into alarm and simple function tests observed to ensure that the system is capable of performing as designed

- 2.4.1. Simulate a single zone alarm by appropriately testing one of the installed detectors or manual call points. Testing should be performed on a different detector for each monthly service, so that over a period each device on the detection circuits has been individually tested.
- 2.4.2. Smoke Detectors can be tested using “Canned Smoke”. A spray of canned smoke should be applied to a detector and this should place the detector into alarm.
- 2.4.3. Thermal or Heat detectors can be tested with a Thermal Testing device. Applying heat to the detector should place the detector into alarm.
- 2.4.4. Flame detectors require a special simulation device which can be aimed at the flame detector to create an alarm condition.
- 2.4.5. This will operate all installed “Fire Alarm”, “Evacuate Area” and “Do Not Enter” warning signs, sirens and strobes.



- 2.4.6. The FirePro panel incorporates a mimic panel located in the Extinguishant Module of the FIP. This mimic panel will show by Red LEDs as each of the FirePro units are activated, without actually activating the units.



- 2.4.7. Inspect all installed Warning Signs, sirens and strobes to ensure operation.
- 2.4.8. Ensure operation of all installed shutdown relays and connected equipment.



- 2.4.9. Where the Sigma XT is being remotely monitored or used as a Sub-Indicator Panel, ensure that the alarm condition has been reported to monitoring equipment.

2.5. **Reset**

The Fire Indicator Panel must be reset once the testing is complete, this will allow the system to go back to operational status.

- 2.5.1. Unlock and open the centre display window. The centre lock opens the display window, allowing for operation of the controls.
- 2.5.2. Place the 003 key in the "Enable Control" key switch located on the Alarm Module and turn to enable "ACCESS LEVEL 2".
- 2.5.3. Press the "Reset" Button on the Alarm Module to reset the Sigma XT to normal condition.
- 2.5.4. Turn back the 003 key in the "Enable Control" key switch to exit "ACCESS LEVEL 2" and allow normal operation of the CIE.
- 2.5.5. CIE should no longer be in an alarm condition. The fire suppression system must remain isolated until CIE is no longer in an alarm condition.
- 2.5.6. Place the 003 key in the "Normal-Isolate" key switch located on the Extinguishing Module and turn from "Isolate" to "Normal".
- 2.5.7. Place the 003 key in the "Shutdown Isolate Switch" key switch normally located adjacent to the FIP in a separate enclosure and turn from "Isolate Shutdowns" to "Normal".
- 2.5.8. CIE should no longer be in a fault condition.
- 2.5.9. Close and lock the central display window. System is now operational.

2.6. **Logbook**

Logbook must be updated to record the outcome of servicing and any changes or repairs to the fire system.

2.7. **Review**

Following servicing, the fire suppression system should be reviewed for fitness of purpose.