

# Fire Detection System

## GENERAL

A fire detection system has been installed on the unit. The system includes ceiling-mounted detectors and manual pull stations at the doors. Upon activation, an audio alarm and strobe lights warn the occupants of a potential fire hazard. This system will provide protection through an automatic and/or manually activated fire alarm. The detectors are located as follows: one (1) in the Clean Room; two (2) in the Soiled Room area; one (1) in each of the two (2) procedure rooms, two (2) in the pre-op / post op areas; and one (1) in the bathroom.

# Intrusion Alarm System

## GENERAL

This unit is equipped with an intrusion alarm system. When the doors are closed and the system is armed, the sensors indicate a closed circuit to the Mini Controller. Opening a door will break the loop circuit and alarm the system. The belly compartments are also protected by a separate circuit. The operation of the alarm system is detailed in the OEM operations manual provide in the Appendix portion of this manual.

## **CONTROLS**

The main alarm switch is located in the Electrical Room and is equipped with a status light.

A secondary alarm system switch is located below the main alarm switch in its own compartment. The switch control is a sub-circuit that protects the belly compartments and can be armed while the unit is occupied to protect the contents of the compartments.

## **MANUAL OPERATION**

Manual pull boxes are located at each designated entrance door.

To operate the pull boxes, simply pull down on the lever. This will flip a toggle switch and signal the alarm system. Upon operation the horn will sound and strobe lights will activate.

Refer to the Fire Detection System manual in the Appendix portion of this manual for maintenance instructions.

# Sprinkler Fire Suppression System

## GENERAL

A Fire Sprinkler System has been installed on the Mobile Endoscopy Unit™. The system includes:

- Ceiling-mounted type sprinkler heads (12)
- Controls mounted in the loft above the rest room
- A 2" connection outside below the back wall to connect the supply (customer-supplied) source of water,
- A standard fire department connection on the rear wall
- Industry standard testing and purging ports

Please refer to Section 9 Pages 5 and 6 for Set-up and Shutdown procedures and Water Supply Requirements.

Refer to Section 9 of the Appendix for instructions, OEM manuals, warnings and operating procedures for this system.

# Fire Protection Procedures

## SET-UP PROCEDURE:

1. Close main drain valve.
2. Close test and drain connection.
3. Close (2) ½” auxiliary drains.
4. Connect 1 – ¼” stainless union at connector piece.
5. Connect water supply to riser connection piece at base of trailer.  
**NOTE:** Water supply must be a minimum of 3” pipe. Water supply must be flushed thoroughly in accordance with NFPA 13 requirements prior to system connection. See the attached “Contractor’s Material and Test Certificate for Underground Piping.”
6. Open main system control valve slowly until the system pressure builds up to the street pressure. An alarm should activate when this occurs.
7. Vent the sprinkler branchlines at the (2) ½” auxiliary drains in order to bleed off the air in the lines.
8. Test the flow switch through the test and drain connection. Depending on the retard adjustment, alarms should sound within 90 seconds.
9. Check for leaks at all connections, heads, couplings and threads.

## SHUTDOWN PROCEDURE:

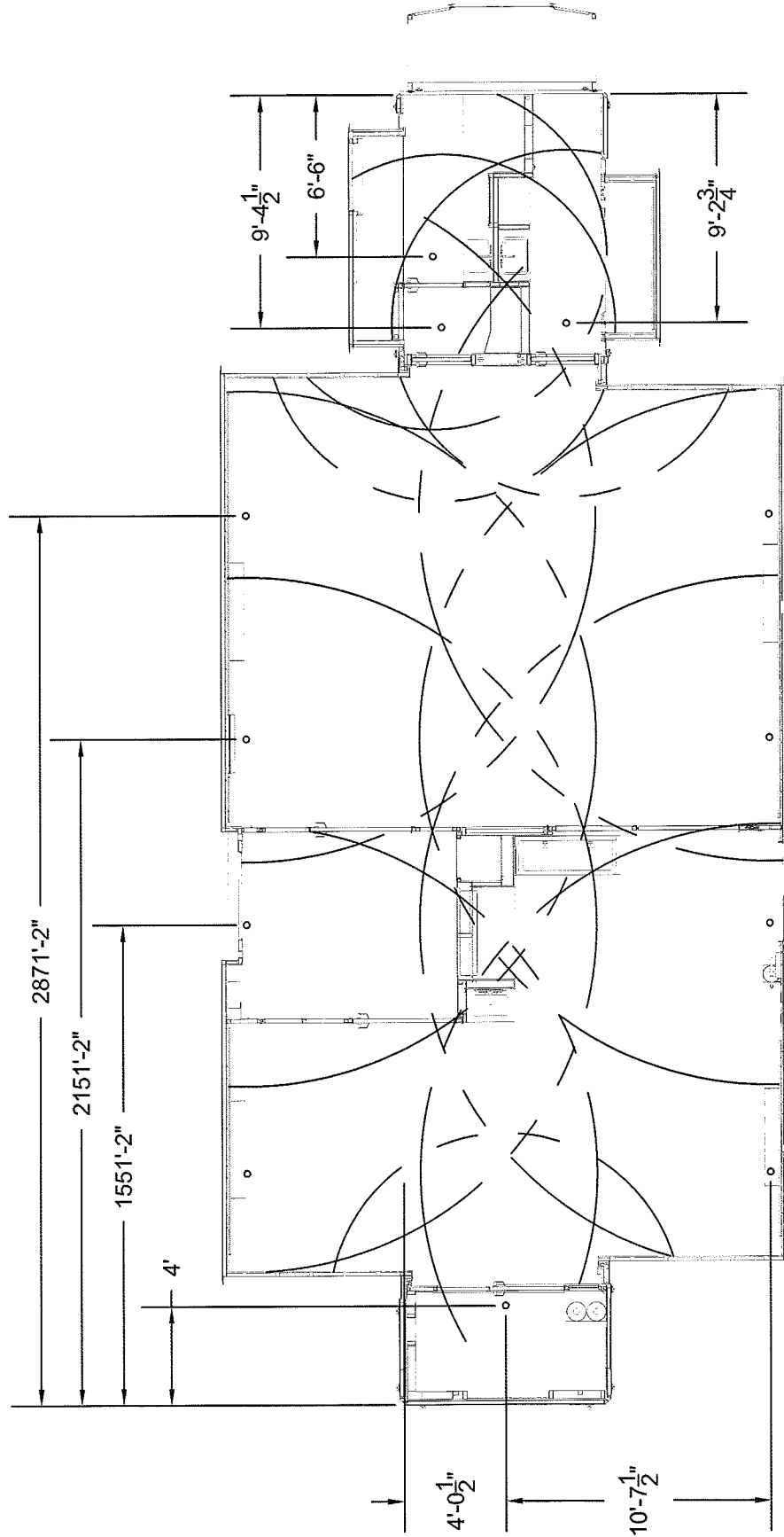
1. Close main system control valve.
2. Open test and drain valve.
3. Open (3) ½” auxiliary drains located within the ceiling in the roadside and curbside of the OR and one in the electrical utility area (between the Soiled Utility Room and the OR).
4. Drain system completely. Vacuum out all remaining water.  
**NOTE:** All of the water must be removed from the sprinkler system in the unit before and during exposure to temperatures at or below 40 degrees Fahrenheit or system may freeze and fail.
5. Disconnect 1 – ¼” union and remove connector piece.

## Water Supply Requirements

The sprinkler system demand at the base of the riser is 205.08 GPM at 33.673 psi. A 100 GPM hose stream allowance was added outside the unit at the point of test connection. The hydraulic calculations were based on the following assumptions:

1. Point of water supply connection is no more than 100 feet away from the trailer.
2. The supply main is a minimum of 3" Schedule 40 steel pipe.
3. Minimum available water supply:  
Static Pressure = 70 psi  
Residual Pressure = 50 psi  
Flow = 600 GPM

To determine if the available water supply is acceptable, review the Water Supply Curve shown on Drawing FP 1 located in the Appendix, Book 1 of 3, Section 7. Any water supply that provides a cushion of 10 psi above point D3 is acceptable.



### Sprinkler Layout, 1018

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RELEASE LEVEL: PROD	REVISION: A
DRAWN BY: JRM	CHANGED BY: TLG
DATE DRAWN: 11/10/2009	SHEET: 1 OF 1
PLATFORM: COM63	MMU TYPE: MSU

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## **FIRE EXTINGUISHERS**

Fire extinguishers are located at each of the designated entrances to the unit. These are class A/B/C fire extinguishers.

### **To Operate**

- 1.) Pull the pin. Hold the unit upright.
- 2.) Stand back six (6) feet and aim the extinguisher nozzle at the base of the fire.
- 3.) Squeeze the lever and sweep the nozzle from side to side.

**NOTE:** Read and follow all of the instructions and cautions labeled on the extinguishers.



## **MAINTENANCE**

Each of the fire extinguishers needs to be checked, certified and tagged annually.