

Sun™ Modular Datacenter S20

Fire Suppression Guide

This manual discusses the types of fire suppressant clean agents available, and describes how to remove and install the clean agent tanks.

The Sun Modular Datacenter S20 (Sun MD) comes standard with a two-tiered fire suppression system. The primary control system, the Fire Control Panel (FCP), automatically controls the release of the clean agent in the event of a fire. The FCP also contains a control button that allows for manual clean agent release, and the clean agent tank has a manual release handle mounted at its valve.

There are several types of FCPs available for installation with the Sun MD S20. The type of FCP you select depends on the fire codes and requirements for your local Authority Having Jurisdiction (AHJ).

Note – Authority Having Jurisdiction (AHJ):

In this manual, reference will be made to the *Authority Having Jurisdiction* or *AHJ*. For the purposes of the information in this manual, the AHJ shall be considered the organization, office, or individual responsible for approving the legal installation and use of the Sun MD at the designated site. With respect to Building, Electrical, Fire and other codes applicable throughout the United States, AHJ is the official term used to denote such an authority. This term may vary depending upon the country in which the Sun MD will be installed. However, in this manual, AHJ is the term used to designate such an authority regardless of the country in which the Sun MD installation will be performed.

For more information about the FCP and the fire control system, refer to the *Sun Modular Datacenter S20 Installation Guide* and the *Sun Modular Datacenter S20 Service Manual*.

Note – The Sun Modular Datacenter S20 documentation is available online through a password-protected web site. Contact your Sun Sales Representative for information about accessing the Sun MD product documentation.



Caution – The contents of the clean agent tanks are under pressure, and could cause injury or death if handled improperly. The clean agent tanks and FCPs should only be removed and replaced by a trained service technician. The instructions in this section are included only for reference.

The following figure shows the location of the fire suppression system in the datacenter enclosure.

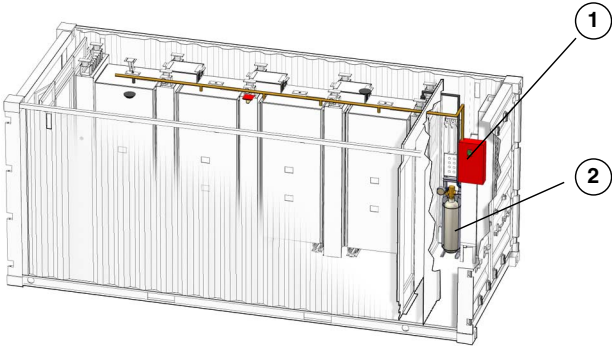


FIGURE 1 Location of the FCP and Clean Agent Tank

Figure Legend Components in the Figure

1	Fire Control Panel (FCP)
2	Clean Agent Tank

Selecting a Clean Agent

Note – The type of clean agent you select depends on local codes and regulations. Contact your local Authority Having Jurisdiction (AHJ) to make sure that your choice of clean agent complies with local fire codes.

The clean agent used in the Sun Modular Datacenter S20 Fire Suppression option comes in three different types:

- FE-25 (supplied as a default unless another clean agent is specified), Marketing Part Number X5315A-Z
- FM-200 (also known as HFC-227), Marketing Part Number X5316A-Z
- Novec (also known as FK-5-1-12 or Sapphire), marketing Part Number X5317A-Z


The three clean agents all work in a similar fashion. Each agent is safe for human exposure, has no effect on equipment (whether powered or unpowered), and will fit inside the datacenter enclosure. All three agents are approved by the U.S. Environmental Protection Agency (EPA) and are SNAP (Significant New Alternative Protocol) approved.

Contents of the Installation Kit

The installation kit for each clean agent type contains a different kind of clean agent and associated tank hardware. The installation process for each kit is the same.


Removing and Replacing the Clean Agent Tanks

In general, clean agent tanks only need to be replaced after they have been discharged, or if you are changing to a different type of clean agent. The FCP only needs to be replaced if it is defective. For more information about replacing the FCP, refer to the *Sun Modular Datacenter S20 Service Manual*.



Caution – The clean agent tanks and FCPs should be removed and replaced only by a trained service technician. The instructions in this section are included only for reference.

Before removing the existing clean agent tank, make sure that you have a replacement tank available and that the fire control system is disabled. This prevents the fire control system from activating while you are changing the clean agent tanks.



Caution – The contents of the clean agent tanks are under pressure. Wear eye protection when servicing the clean agent tanks.

The following figure shows the FCP and clean agent tank assemblies.

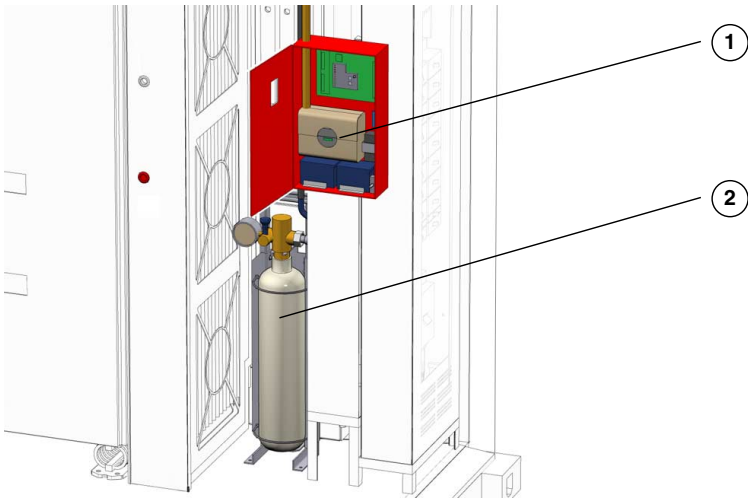


FIGURE 2 Location of the FCP and Clean Agent Tank

Figure Legend Components in the Figure

1	Fire Control Panel (FCP)
2	Clean Agent Tank

FIGURE 3 Fire Control Panel and Clean Agent Tank Assemblies

▼ To Disable the Fire Control System

1. Ensure that the FCP shows no trouble conditions, and that only the green AC POWER LED is illuminated.
If the FCP does show any trouble conditions, make sure that the conditions are cleared before proceeding.
2. Open the door to the fire control box and set the ENABLE/DISABLE switch to DISABLE.
3. Press the ACK button to silence the buzzer.

▼ To Remove the Existing Clean Agent Tank

Note – If the cylinder is being changed because you are changing to a different type of clean agent, then the nozzle must also be removed with a wrench. Replace the nozzle with the correct type of nozzle for the clean agent you intend to use. For more information, refer to the *Sun Modular Datacenter S20 Service Manual*.

1. Make sure that all pressure in the system has been relieved before you disconnect the tank.
2. Unscrew and remove the gauge from the existing clean agent tank.
The replacement tank comes with a new gauge, so you do not need to reuse the gauge you just removed.
3. Remove the black solenoid on top of the tank by unscrewing the retaining nut and then sliding the solenoid up and off of the tank.
4. Disconnect the black discharge hose from the side of the valve, using a wrench and turning in a counterclockwise direction.
5. Loosen the U-bolt bracket that holds the cylinder to the bracket by loosening the two nuts that secure the left side of the bracket.
6. Gently lift the cylinder up and off the bracket.

▼ To Install the New Clean Agent Tank

1. Gently insert the new, fully charged clean agent cylinder into the bracket.
2. Re-tighten the two left side nuts holding the U-bolt bracket.
3. Reconnect the black discharge hose to the side of the valve and tighten with a wrench.
4. Slide the black solenoid onto the top of the cylinder and reinstall the retaining nut by hand tightening the nut.
5. Screw the new gauge clockwise into the slot until it is snug.
6. Check for any leaks around the gauge connection by dripping soapy water onto the connection.
Look for any bubbles. If you see bubbles, remove and then reinstall the gauge until the connection is tight and no bubbles are visible.

Once you are satisfied that the gauge is installed properly, you can re-enable the fire control system.

▼ To Enable the Fire Control System

- ◆ Open the door to the fire control box and set the ENABLE/DISABLE switch to ENABLE.



Accessing Sun Documentation

You can view, print, or purchase a broad selection of Sun documentation, including localized versions, at:

<http://www.sun.com/documentation>

Third-Party Web Sites

Sun is not responsible for the availability of third-party web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused by or in connection with the use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

Contacting Sun Technical Support

If you have technical questions about this product that are not answered in this document, go to:

<http://www.sun.com/service/contacting>

Sun Welcomes Your Comments

Sun is interested in improving its documentation and welcomes your comments and suggestions. You can submit your comments by going to:

<http://www.sun.com/hwdocs/feedback>

Please include the title and part number of your document with your feedback:

Sun Modular Datacenter S20 Fire Suppression Guide, part number 820-2621-10

Copyright 2008 Sun Microsystems, Inc. All rights reserved.

Copyright 2008 Sun Microsystems, Inc. Tous droits réservés.



Sun Microsystems, Inc.
www.sun.com