

24V CORE TOTAL FLOOD PROTECTION INSTALLATION SUMMARY

CORE WATER LINE - 30 TO 70 PSI OPERATING PRESSURE, MINIMUM PRESSURE DEPENDENT ON LENGTH OF HOOD SYSTEM, 125 PSI MAX STATIC PRESSURE, 1.5 GPM PER FOOT OF HOOD, 3/4 INCH NPT FITTING, CONNECTED TO SUPERVISED, DEDICATED LINE WITH NO MANUAL SHUT-OFF VALVES CONNECT TO BUILDING FIRE SPRINKLER WATER LINE (REDUCE PRESSURE) INSTALLED BY WATER SPRINKLER CONTRACTOR
STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY

HOT WATER LINE - 140-170°F, 30 TO 70 PSI OPERATING PRESSURE, MINIMUM PRESSURE DEPENDENT ON LENGTH OF HOOD SYSTEM, 125 PSI MAX STATIC PRESSURE, 0.7 GPM PER FOOT OF HOOD 3/4 INCH NPT FITTING, INSULATED, INSTALLED BY PLUMBER

ELECTRIC DUCT FIRESTAT, 4 WIRES, 24VDC
CONNECT BLACK WIRES BETWEEN 25 AND 23
CONNECT WHITE WIRES BETWEEN 26 AND 24
HIGH TEMP (842°F) WIRE ONLY
(ADDITIONAL FIRESTATS WIRED IN SUPERVISED LOOP)
INSTALLED BY THE FIRE SYSTEM CONTRACTOR

END-TO-END OR BACK-TO-BACK CONNECTION POINT
INSTALLED AND PROVIDED BY PLUMBER
STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY

SHUNT TRIP BREAKER WIRES, 2 WIRES, 120VAC
CONNECT 120VAC TO SKC, ST to A1 ON SHUNT COIL, AND A2 ON SHUNT COIL TO NEUTRAL
INSTALLED BY ELECTRICIAN

HOOD DRAIN - 1-1/2 INCH NPT
CONNECTED TO BUILDING GREASE TRAP
2 DRAINS ON 30 INCH TALL HOODS
2 DRAINS ON 24 INCH HOODS
10 FEET AND LONGER
INSTALLED BY PLUMBER
STAINLESS STEEL, COPPER OR STEEL PIPE ONLY

GAS VALVE RESET
ASSEMBLY PART NUMBER - CORE-GVR
FACEPLATE PART NUMBER - SC-MT-GVR
PUSHBUTTON PART NUMBER - D7-F2X11
LAMP PART NUMBER - PF50CG5-24VDC-W6

FLOOR DRAIN - 1 1/2 IPS PIPE DRAIN
INSTALLED IN FLOOR, NEAR APPLIANCES
ONE DRAIN REQUIRED PER 10 FEET OF HOOD. FLOOR DRAINS MAY BE USED TO DRAIN HOOD.
INSTALLED BY PLUMBER

GAS VALVE POWER, 2 WIRES & GROUND, 24 VDC WIRE TO 35 AND N1D
INSTALLED BY FIRE SYSTEM CONTRACTOR

GAS VALVE BODY, THREADED NPT CONNECTIONS, MAX 15 PSI
INSTALLED BY PLUMBER

BUILDING ALARM WIRES, 2 WIRES, BUILDING FIRE ALARM CONNECTS TO FIRE ALARM RELAY CONTACTS, AL1 AND AL2, LOCATED IN CORE ELECTRICAL CONTROL PACKAGE
INSTALLED BY FIRE SYSTEM CONTRACTOR

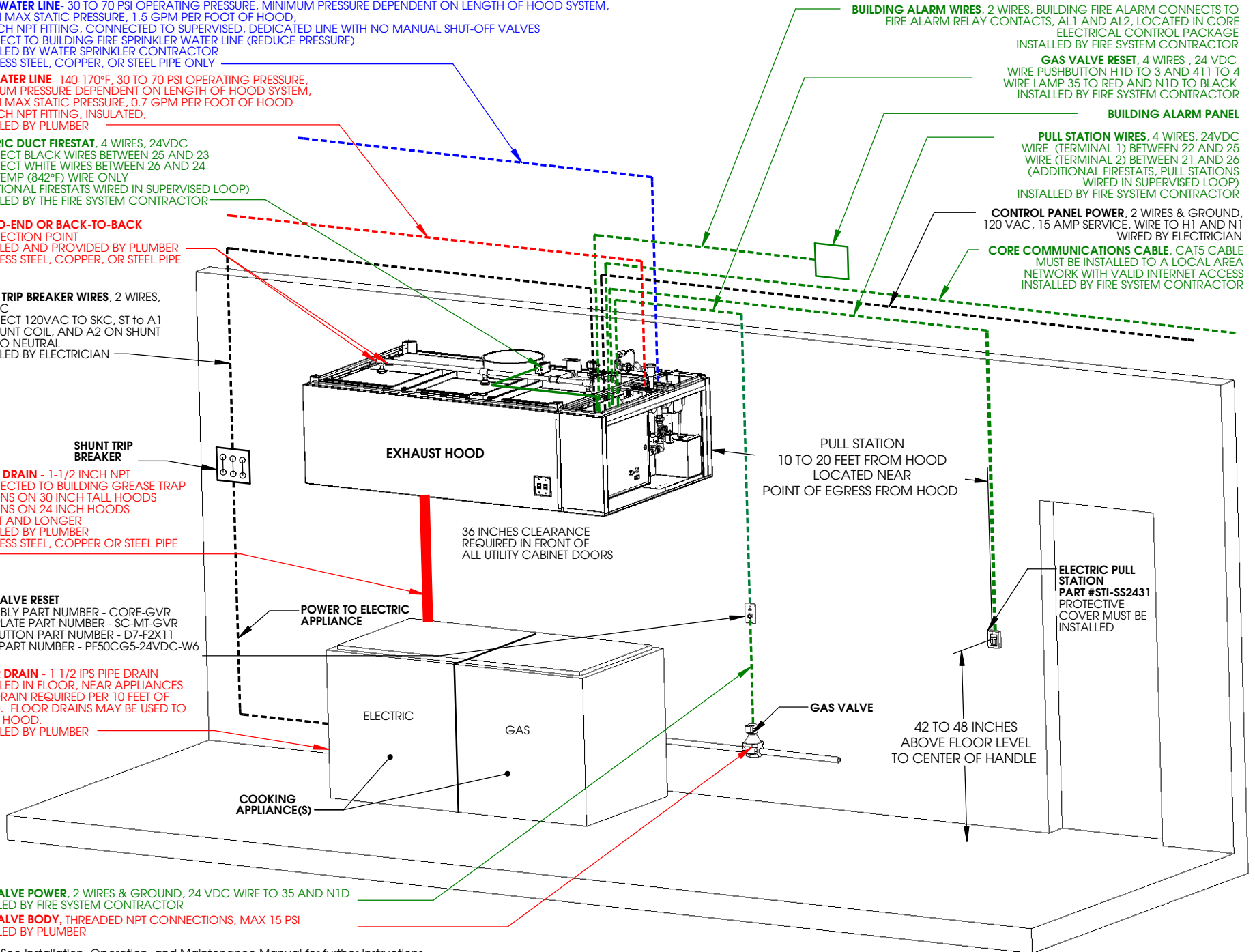
GAS VALVE RESET, 4 WIRES, 24 VDC
WIRE PUSHBUTTON H1D TO 3 AND 411 TO 4
WIRE LAMP 35 TO RED AND N1D TO BLACK
INSTALLED BY FIRE SYSTEM CONTRACTOR

BUILDING ALARM PANEL

PULL STATION WIRES, 4 WIRES, 24VDC
WIRE (TERMINAL 1) BETWEEN 22 AND 25
WIRE (TERMINAL 2) BETWEEN 21 AND 26
(ADDITIONAL FIRESTATS, PULL STATIONS
WIRED IN SUPERVISED LOOP)
INSTALLED BY FIRE SYSTEM CONTRACTOR

CONTROL PANEL POWER, 2 WIRES & GROUND, 120 VAC, 15 AMP SERVICE, WIRE TO H1 AND N1
WIRED BY ELECTRICIAN

CORE COMMUNICATIONS CABLE, CAT5 CABLE
MUST BE INSTALLED TO A LOCAL AREA NETWORK WITH VALID INTERNET ACCESS
INSTALLED BY FIRE SYSTEM CONTRACTOR



NOTE: See Installation, Operation, and Maintenance Manual for further instructions

WALL MOUNTED CORE TOTAL FLOOD PROTECTION INSTALLATION SUMMARY

11/12/2012 Rev. 12

CORE WATER LINE - 30 TO 70 PSI OPERATING PRESSURE, MINIMUM PRESSURE DEPENDENT ON LENGTH OF HOOD SYSTEM, 125 PSI MAX STATIC PRESSURE, 1.5 GPM PER FOOT OF HOOD, SIZED TO MATCH WALL MOUNT PACKAGE, CONNECTED TO SUPERVISED, DEDICATED LINE WITH NO MANUAL SHUT-OFF VALVES CONNECT TO BUILDING FIRE SPRINKLER WATER LINE (REDUCE PRESSURE) INSTALLED BY WATER SPRINKLER CONTRACTOR
STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY

APPLIANCE PROTECTION SOLENOID, 2 WIRES AND GROUND, BLACK TO WC2, WHITE TO N1D. WIRE SECURED TO WATER LINE TO AVOID CONTACT WITH HOOD, WIRED BY FIRE SYSTEM CONTRACTOR

HOT WATER LINE - 140-170°F, 30 TO 70 PSI OPERATING PRESSURE, MINIMUM PRESSURE DEPENDENT ON LENGTH OF HOOD SYSTEM, 125 PSI MAX STATIC PRESSURE, 0.7 GPM PER FOOT OF HOOD SIZED TO MATCH WALL MOUNT PACKAGE, INSULATED, INSTALLED BY PLUMBER

ELECTRIC DUCT FIRESTAT, 4 WIRES, 24VDC CONNECT BLACK WIRES BETWEEN 25 AND 23 CONNECT WHITE WIRES BETWEEN 26 AND 24 HIGH TEMP (842°F) WIRE ONLY (ADDITIONAL FIRESTATS WIRED IN SUPERVISED LOOP. INSTALLED BY THE FIRE SYSTEM CONTRACTOR

END-TO-END OR BACK-TO-BACK CONNECTION POINT INSTALLED AND PROVIDED BY PLUMBER

SHUNT TRIP BREAKER WIRES, 2 WIRES, 120VAC CONNECT 120VAC TO SKC, ST to A1 ON SHUNT COIL, AND A2 ON SHUNT COIL TO NEUTRAL INSTALLED BY ELECTRICIAN

HOOD DRAIN - 1-1/2 INCH NPT CONNECTED TO BUILDING GREASE TRAP 2 DRAINS ON 30 INCH TALL HOODS 2 DRAINS ON 24 INCH HOODS 10 FEET AND LONGER INSTALLED BY PLUMBER
STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY

GAS VALVE RESET ASSEMBLY PART NUMBER - CORE-GVR FACEPLATE PART NUMBER - SC-MT-GVR PUSHBUTTON PART NUMBER - D7-F2X11 LAMP PART NUMBER - PF50CG5-24VDC-W6

FLOOR DRAIN - 1 1/2 IPS PIPE DRAIN INSTALLED IN FLOOR, NEAR APPLIANCES ONE DRAIN REQUIRED PER 10 FEET OF HOOD. FLOOR DRAINS MAY BE USED TO DRAIN HOOD. INSTALLED BY PLUMBER

GAS VALVE POWER, 2 WIRES & GROUND, 24 VDC WIRE TO 35 AND N1D INSTALLED BY FIRE SYSTEM CONTRACTOR

GAS VALVE BODY, THREADED NPT CONNECTIONS, MAX 15 PSI. INSTALLED BY PLUMBER

HOOD WATER LINE. 30 TO 70 PSI OPERATING PRESSURE, SIZED TO MATCH PRESSURE DROP BETWEEN WALL MOUNT PACKAGE AND HOOD. DEDICATED LINE WITH NO MANUAL SHUT-OFF VALVE. SURFACTANT INJECTION INSTALLED AFTER FIELD INSTALLED VACUUM BREAKER. VACUUM BREAKER INSTALLED AT HIGHEST POINT BETWEEN HOOD AND WALL MOUNT PACKAGE AND HOOD INSTALLED BY PLUMBER
STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY

SURFACTANT LINE. 1/4" OD TUBING CONNECTING SURFACTANT PUMP WITH INJECTION POINT ON HOOD. LINE MUST NOT COME IN CONTACT WITH THE HOOD SURFACE. INSTALLED BY PLUMBER

GAS VALVE RESET, 4 WIRES, 24 VDC WIRE PUSHBUTTON HTD TO 3 AND 411 TO 4 WIRE LAMP 35 TO RED AND N1D TO BLACK INSTALLED BY FIRE SYSTEM CONTRACTOR

BUILDING ALARM WIRES, 2 WIRES, BUILDING FIRE ALARM CONNECTS TO FIRE ALARM RELAY CONTACTS, AL1 AND AL2, LOCATED IN CORE ELECTRICAL CONTROL PACKAGE INSTALLED BY FIRE SYSTEM CONTRACTOR

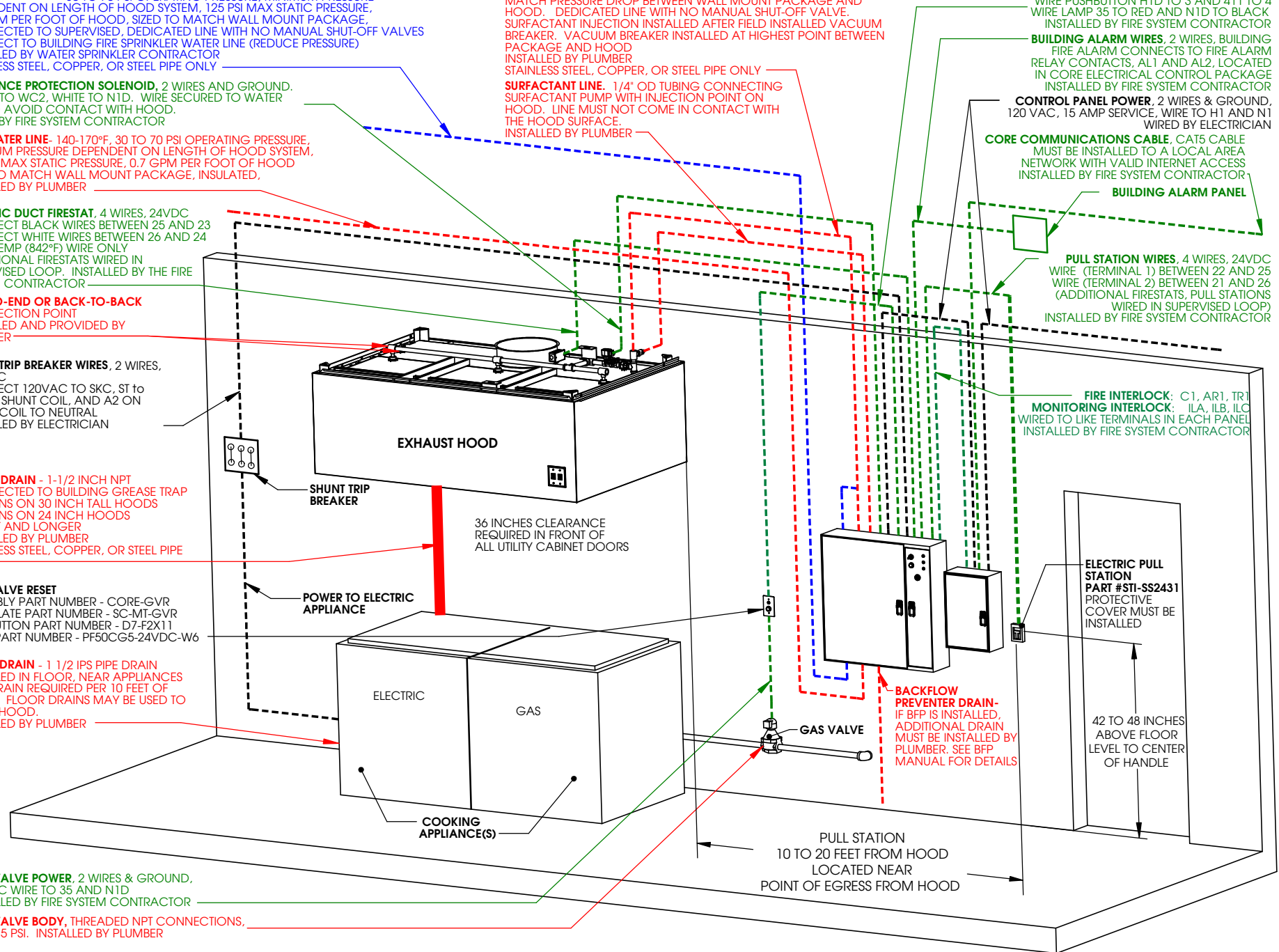
CONTROL PANEL POWER, 2 WIRES & GROUND, 120 VAC, 15 AMP SERVICE, WIRE TO H1 AND N1 WIRED BY ELECTRICIAN

CORE COMMUNICATIONS CABLE, CAT5 CABLE MUST BE INSTALLED TO A LOCAL AREA NETWORK WITH VALID INTERNET ACCESS INSTALLED BY FIRE SYSTEM CONTRACTOR

BUILDING ALARM PANEL

PULL STATION WIRES, 4 WIRES, 24VDC WIRE (TERMINAL 1) BETWEEN 22 AND 25 WIRE (TERMINAL 2) BETWEEN 21 AND 26 (ADDITIONAL FIRESTATS, PULL STATIONS WIRED IN SUPERVISED LOOP) INSTALLED BY FIRE SYSTEM CONTRACTOR

FIRE INTERLOCK: C1, AR1, TR1 MONITORING INTERLOCK: ILA, ILB, ILC WIRED TO LIKE TERMINALS IN EACH PANEL INSTALLED BY FIRE SYSTEM CONTRACTOR



NOTE: See Installation, Operation, and Maintenance Manual for further instructions

CORE TOTAL FLOOD INSTALLATION RESPONSIBILITY

- PLUMBER:**
1. Connect Hot Water Line.
 2. Connect Hood Drain(s). Stainless Steel, Copper, or Steel Pipe Only.
 3. Connect all End-To-End and Back-To-Back Hood Water Line Connections. Plumbing is field supplied for this. Field plumbing must not exceed height of vacuum breaker in main utility cabinet. Remove plug from main hood spray bar and connect to next hood. Stainless Steel, Copper, or Steel Pipe Only.

PLUMBING CONTRACTOR REQUIREMENT					
Item	Connection	Temperature	Pressure*	Flow Rate	Comments
Hot Water Line	3/4 Inch NPT	140 to 170°F	30 to 70 PSI	0.7 GPM Per Ft. of Hood	Insulate Hot Water Pipe, Minimum Pressure Dependent on Length of Hood System
Hood Drain(s)	1-1/2 Inch NPT	N/A	Gravity Drain	7 GPM Per Drain	2 Drains on 30 Inch Tall Hoods and Hoods 10 Feet and Longer
End-To-End Hood Connection	3/4 Inch NPT	N/A	N/A	N/A	Connect with NPT Pipe, Seal All Threads, Hood Connection Provided
Back-To-Back Hood Connection	3/4 Inch NPT	N/A	N/A	N/A	Connect with NPT Pipe, Seal All Threads, Hood Connection Provided
Gas Valve	Up to 2" NPT	N/A	15 PSI	N/A	Up To 2" NPT with 24v Controls. Max 15 PSI or 3,251,000 BTU/hr
Floor Drain(s)	1 1/2 Inch IPS	N/A	Gravity Drain	7 GPM Per Drain	One Drain Required Per 10 Feet of Hood
Surfactant Line	1/4" OD Tubing	N/A	70 PSI	N/A	Surfactant Line Must Not Be In Contact With The Hood Surface.
Backflow Preventer Drain Line	Varies	N/A	Gravity Drain	N/A	Installed when package has a Backflow Preventer. See Backflow Preventer Manual for details.

- * 125 psi max static pressure.
Regulators are not included to meet this pressure and must be ordered separately.
Part Numbers: X65BU(3/4"), X65BU(1"), or X65BU(1-1/2"). Consult Factory for Sizing.

BUILDING SPRINKLER CONTRACTOR:

1. Connect CORE Water Line to Building Wet Sprinkler System. Stainless Steel, Copper, Or Steel Pipe Only

SPRINKLER CONTRACTOR REQUIREMENT					
Item	Connection	Temperature	Pressure**	Flow Rate	Comments
CORE Water Line	3/4 Inch NPT	Non-Heated	30 to 70 PSI	1.5 GPM Per Ft. of Hood	Water Line Must Be Supervised and Have No Manual Shut-Off Valves, Minimum Pressure Dependent on Length of Hood System
End-To-End CORE Connection	3/4 Inch NPT	N/A	N/A	N/A	Connect with NPT Pipe, Seal All Threads, Hood Connection Provided
Back-To-Back CORE Connection	3/4 Inch NPT	N/A	N/A	N/A	Connect with NPT Pipe, Seal All Threads, Hood Connection Provided

- **30 to 70 psi operating pressure. 125 psi max static pressure.
Regulator is not included to meet this pressure from sprinkler line and must be provided by, installed by, and adjusted by the sprinkler contractor to meet incoming water pressure requirements.
A regulator such as the Elkhart Brass Model Number URFA-20S-2.5" or the UR-20 Series Parts Kits should be utilized. This must be confirmed with Fire Marshal.

ELECTRICIAN:

1. Wire main control panel per included schematic.
2. Wire all fans per included schematic.
3. Wire Shunt Trip Breaker.
4. Wire UDS Appliance Kill Switch, if equipped.

ELECTRICAL CONTRACTOR REQUIREMENT					
Item	Connection in Panel	Connection on Device	Voltage	Amperage	Comments
Shunt Trip Breaker	SKC & ST	Coil (A1 & A2)	120 VAC	< 1.0 Amps	Connect 120VAC to SKC, ST to A1 on shunt coil, and A2 on shunt coil to Neutral. If powered from control package, use H1 for 120VAC and N1 for Neutral.
Control Panel Power	H1 & N1	Circuit Breaker	120 VAC	15 Amps	Control Panel Power MUST NOT Be Run Through Shunt Trip Breaker
UDS Appliance Kill Switch	SKC & KS	SKC & KS	120 VAC	< 1.0 Amps	Kill Switch Terminals Must Be In Series With Other Kill Switches

BUILDING/SAFETY ALARM CONTRACTOR:

1. Wire Gas valve, Gas Valve Reset, Remote Pull Stations, CORE interlocks, Fire Sensors and Building Alarm Contacts.
2. Complete Final Hookup of System.
3. Perform Final Fire System Test.
4. Fill Surfactant Tank.

FIRE SYSTEM CONTRACTOR REQUIREMENT

Item	Connection in Panel	Connection on Device	Voltage	Amperage	Comments
Gas Valve	35 & N1D	Red / Red	24 VDC	< 1.0 Amps	2 Wires and Ground. N1D to Red, 35 to Red, and Green to Ground.
Gas Valve Reset Button	PUSHBUTTON HTD & 411 LAMP 35 & N1D	PUSHBUTTON 3 & 4 LAMP RED & BLACK	24 VDC	< 1.0 Amps	4 Wires. PUSHBUTTON, H1D to 3, 411 to 4. LAMP, 35 to RED, N1D to BLACK.
Remote Pull Station(s)	22 and 25 = Line 1 21 and 26 = Line 2	1 & 2	24 VDC	< 1.0 Amps	Wire pull station terminal 1 between terminals 22 and 25. Wire pull station terminal 2 between hood terminals 21 and 26.
Pull Station Cover	N/A	N/A	N/A	N/A	Pull Station Cover must be installed. If surface mounted, use cover extension STI-6531B
Remote Firestat Sensor(s)	25 and 23 = Line 1 26 and 24 = Line 2	Black & White	24 VDC	< 1.0 Amps	Wire fire sensor black wires between terminals 25 and 23. Wire fire sensor white wire between hood terminals 26 and 24. High Temp (842°F) Wire Only.
Building Alarm	AL1, AL2	Varies	MAX 120VAC	Up to 10 Amps	Fire Alarm Relay Contacts For Building Fire Alarm located in the CORE Electrical Control Panel.
PCU & Other CORE Interlocks	ILA, ILB, ILC	ILA, ILB, ILC	Signal	< 1.0 Amps	CORE SYSTEM 1 ILA, to CORE SYSTEM 2 ILA. CORE SYSTEM 1 ILB, to CORE SYSTEM 2 ILB. CORE SYSTEM 1 ILC, to CORE SYSTEM 2 ILC. Connections to COMM Module, if wall mounted or PCU CORE.
Trouble Relay	TBC, TBL, TOK	Varies	MAX 120 VAC	Up To 10 Amps	Trouble Relay Contacts for Building Management System Trouble Input or Building Fire Alarm System Trouble Input.
CORE Total Flood Solenoid ***	WC2 & N1D	Black & White	24 VDC	< 1.0 Amps	2 Wires and Ground. Black to WC2, White to N1D, and Green to Ground. Cable secured to water line to avoid contact with Hood.
FIRE Interlock ***	C1, AR1, TR1	C1, AR1, TR1	MAX 120VAC	Up to 10 Amps	Fire System Signal. Wire to Like terminals in Electrical Control Package.
CORE Communications Cable	RJ-45 Jack	Internet Connection	Signal	<1.0 Amps	Connect CAT5 Cable to Local Area Network with Valid Internet Connection.
EMSplus Control Package ***	MBA, MBB, MBC	MBA, MBB, MBC	Signal	<1.0 Amps	Network connections between Wall Mount CORE and Wall Mounted EMSplus.

APPLICABLE STANDARDS:

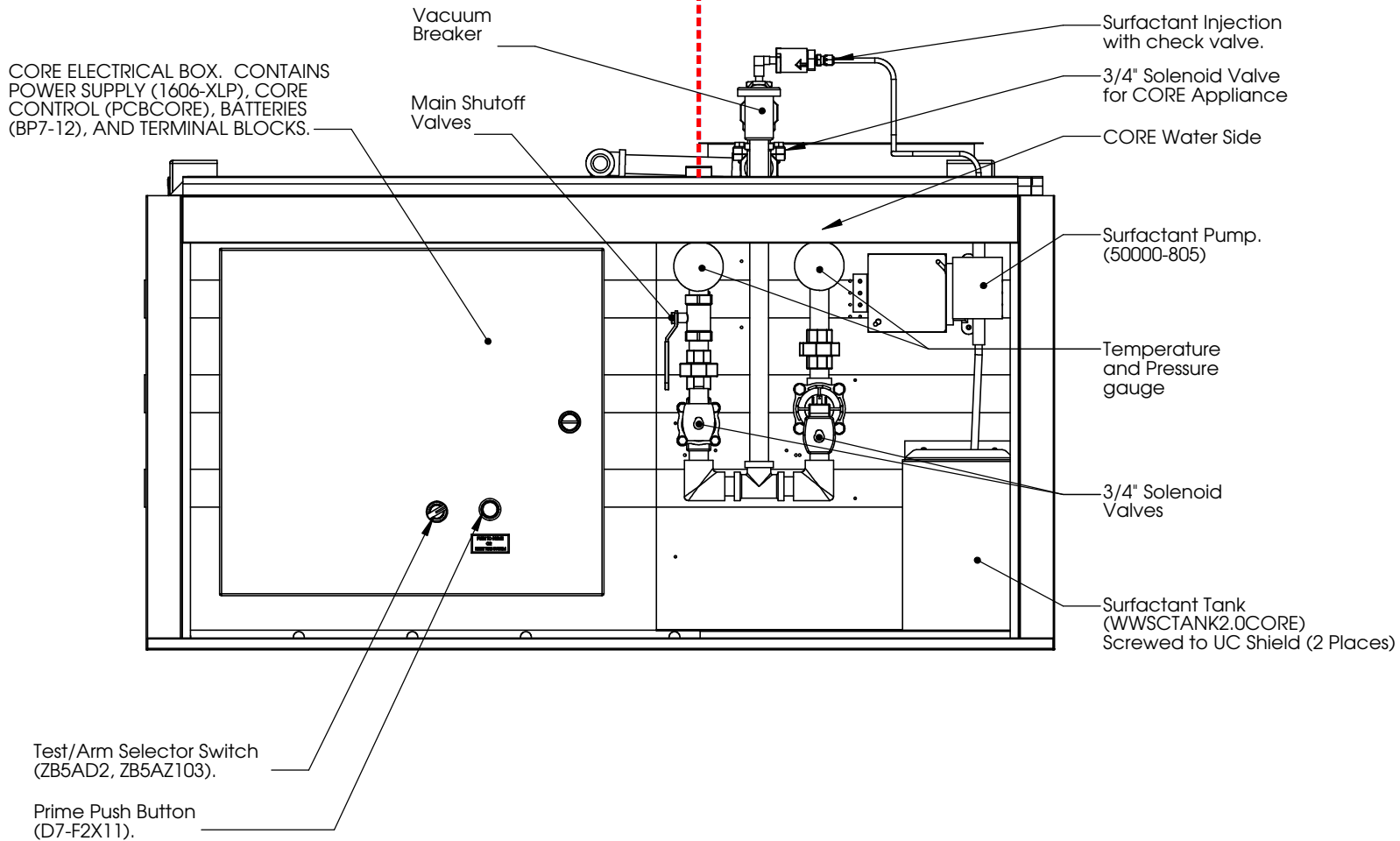
- 1) ETL listed under report number 3132231SAT-004 to Standard UL300 (Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment)
- 2) Meets requirements of NFPA 96 (Standard for the Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment)
- 3) NFPA 17A (Standard on Wet Chemical Extinguishing Systems)
- 4) CORE System provides UL300 Listed Appliance, Duct and Plenum Protection.

*** Field Connection for Wall Mounted Manifolds Only. Hood Mounted Manifolds will have this connection completed.

CORE TOTAL FLOOD UTILITY CABINET END VIEW

HOT WATER LINE - 140-170°F, 30 TO 70 PSI OPERATING PRESSURE,
MINIMUM PRESSURE DEPENDENT ON LENGTH OF HOOD SYSTEM,
125 PSI MAX STATIC PRESSURE,
0.7 GPM PER FOOT OF HOOD
3/4 INCH NPT FITTING, INSULATED, INSTALLED BY PLUMBER

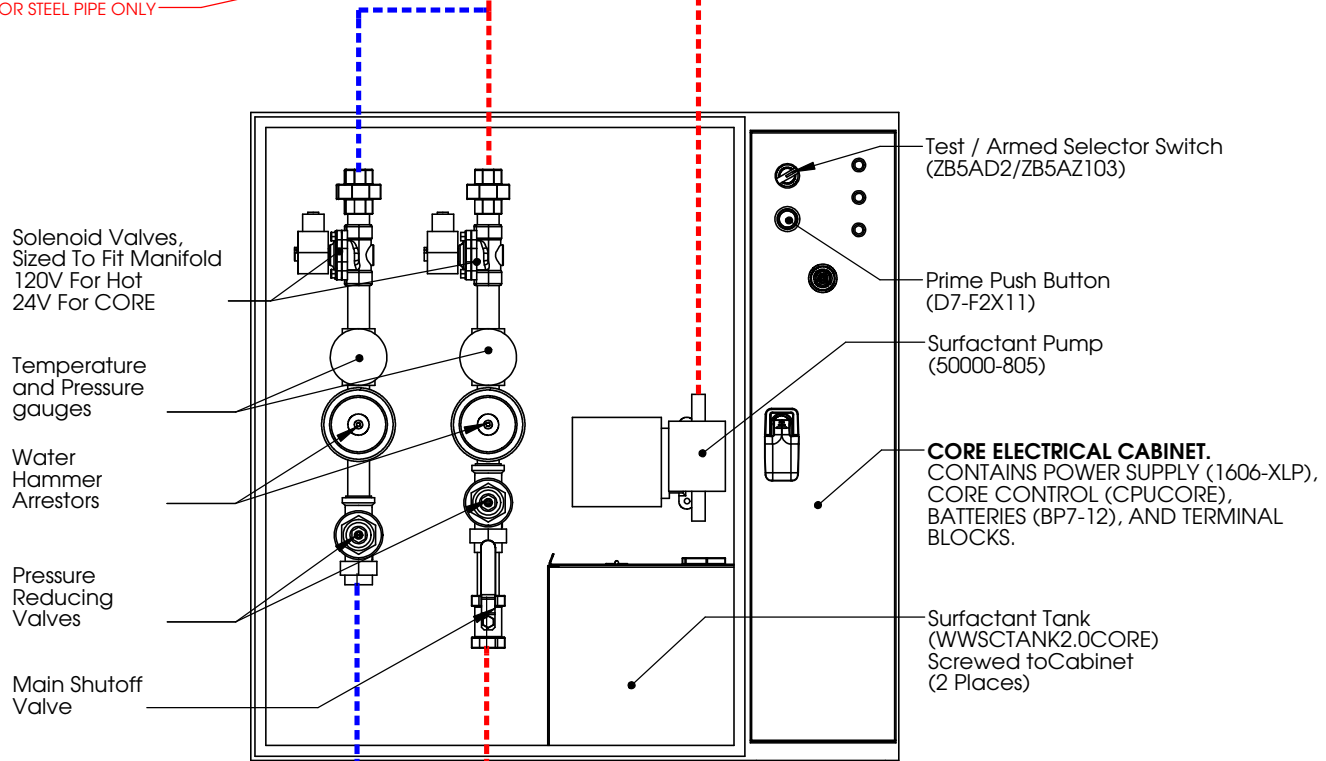
CORE WATER LINE - 30 TO 70 PSI OPERATING PRESSURE,
MINIMUM PRESSURE DEPENDENT ON LENGTH OF HOOD SYSTEM,
125 PSI MAX STATIC PRESSURE,
1.5 GPM PER FOOT OF HOOD
3/4 INCH NPT FITTING, CONNECTED TO SUPERVISED, DEDICATED LINE WITH
NO MANUAL SHUT-OFF VALVES.
CONNECT TO BUILDING FIRE SPRINKLER WATER LINE (REDUCE PRESSURE)
INSTALLED BY WATER SPRINKLER CONTRACTOR
STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY



WALL MOUNTED CORE TOTAL FLOOD CONTROL CABINET VIEW

HOOD WATER LINE. 30 TO 70 PSI OPERATING PRESSURE, SIZED TO MATCH PRESSURE DROP BETWEEN WALL MOUNT PACKAGE AND HOOD. DEDICATED LINE WITH NO MANUAL SHUT-OFF VALVE. SURFACTANT INJECTION INSTALLED AFTER FIELD INSTALLED VACUUM BREAKER. VACUUM BREAKER INSTALLED AT HIGHEST POINT BETWEEN PACKAGE AND HOOD
 STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY

SURFACTANT LINE. 1/4" OD TUBING CONNECTING SURFACTANT PUMP WITH INJECTION POINT ON HOOD. LINE MUST NOT COME IN CONTACT WITH THE HOOD SURFACE. INSTALLED BY PLUMBER



CORE WATER LINE - 30 TO 70 PSI OPERATING PRESSURE, MINIMUM PRESSURE DEPENDENT ON LENGTH OF HOOD SYSTEM, 125 PSI MAX STATIC PRESSURE, 1.5 GPM PER FOOT OF HOOD 3/4 INCH NPT FITTING, CONNECTED TO SUPERVISED, DEDICATED LINE WITH NO MANUAL SHUT-OFF VALVES CONNECT TO BUILDING FIRE SPRINKLER WATER LINE (REDUCE PRESSURE) INSTALLED BY WATER SPRINKLER CONTRACTOR STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY

HOT WATER LINE - 140-170°F, 30 TO 70 PSI OPERATING PRESSURE, MINIMUM PRESSURE DEPENDENT ON LENGTH OF HOOD SYSTEM, 125 PSI MAX STATIC PRESSURE, 0.7 GPM PER FOOT OF HOOD 3/4 INCH NPT FITTING, INSULATED, INSTALLED BY PLUMBER

NOTE:
 IF WALL MOUNT CORE PACKAGE CONTAINS A BACKFLOW PREVENTER, AN ADDITIONAL DRAIN MUST BE RUN AND CONNECTED TO BACKFLOW PREVENTER. SEE BACKFLOW PREVENTER MANUAL FOR ADDITIONAL INFORMATION.

24V CORE BASIC OPERATING INSTRUCTIONS

3/15/2010 Rev. 1

CORE Protection Fire System

The Self Cleaning hood is required to be installed to achieve CORE Protection. The daily basic operation of the CORE Protection system is identical to the Self Cleaning hood. In the event of a hood fire, CORE Protection is activated.

If the hood Firestat installed in the riser senses a temperature hotter than its internal set point or if the remote manual pull station is pulled, an electric signal is sent to the appliance protection fire system and the hood duct and plenum water system. An electric solenoid operated Automan activates the appliance surface protection system. An electric water solenoid is energized allowing the flow of water to the hood duct and plenum through the Self Cleaning hood spray bar. At the same time, surfactant is continually injected into the water stream to help suppress the fire.

Once the fire system is activated, a "Fire System Activated" light is illuminated on the hood control panel and an audible alarm sounds. All gas and electric appliances under the hood must be electrically interlocked to shut off. This is achieved via a gas valve relay and/or a shunt trip breaker. A timer is also energized upon fire system activation. The timer is set for 30 minutes and keeps the water spray system running for a minimum of 30 minutes. This is necessary to help extinguish all remaining duct fire potential.

The fire system is electrically operated and thus requires a battery backup system. In the event of a loss of electrical power, all gas and electric appliances under the hood must be electrically interlocked to shut off. This is achieved via a gas valve relay and/or a shunt trip breaker. The battery backup will automatically energize upon a loss of power. The battery backup will monitor the fire system circuit for up to three days and be able to operate the fire system circuit for a minimum of 30 minutes. Once power is restored, the battery will automatically recharge.

CORE Protection Reset Overview

There are multiple actions required to reset the fire system. First, the duct Firestat must be cooled to below its internal set point and the remote pull station must be reset using a standard Allen wrench key. Once both of these devices have been reset, the timer will automatically stop the fire system once its time duration has ended. An alternative method to bypassing the timer is to press the fire system reset button on the face of the CORE control cabinet. This will de-energize the timer and reset the system. NOTE: The Firestat must be cool and the remote pull station must be reset for this button to work.

The appliance protection fire system must be recharged with surfactant and nozzle caps must be reinstalled.

After a fire, full inspection by a certified professional must be conducted prior to restarting the fire system.

CORE Application Specific Details

Self Cleaning Hoods

Self Cleaning Hood option is required to apply CORE Protection. High Efficiency, High Velocity Cartridge, SOLO, or COMBO filters are required. If substitute filters are utilized, product warranty is void and there is no guarantee in performance.

Solid Fuel Appliances

Solid Fuel Appliances produce sparks that can travel into ductwork. These appliances require SOLO filters and an additional Firestat at the duct discharge near the fan if the ductwork exceeds 10 feet in length or contains horizontal duct runs. Indicate on ductwork drawing where Firestat is to be installed with quick seal. All additional Firestats are wired into the supervised loop with the first Firestat. Duct should be insulated per code requirements. If substitute filters are utilized, product warranty is void and there is no guarantee in performance. Self Cleaning Hoods and ETL listed ductwork are also required.

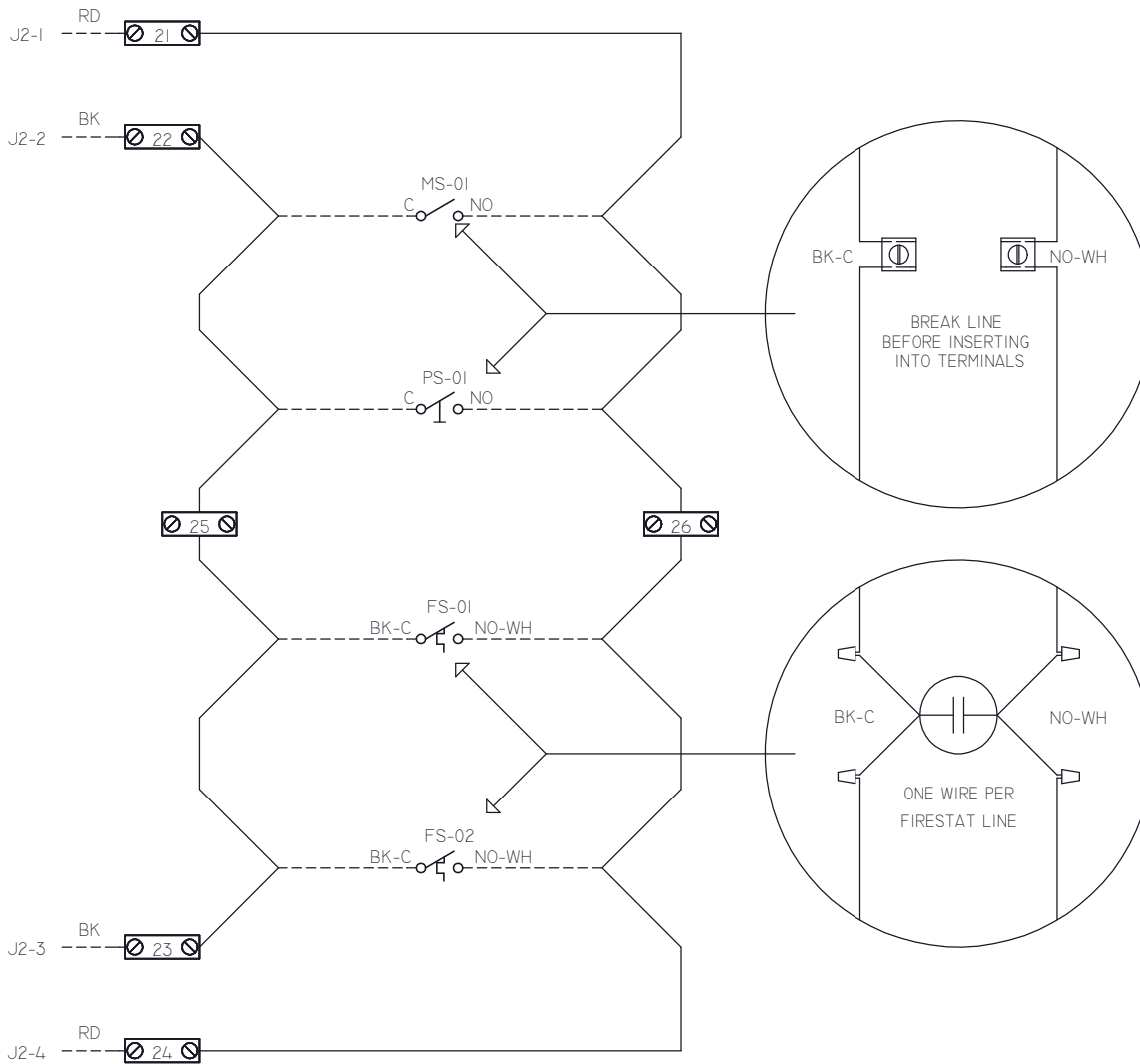
Duct Firestats

A Firestat must be installed at 50 Foot intervals when the duct length exceeds 50 Feet.

IMPORTANT:

Any deviation from any of the manufacturer's recommendations in this document or the operation and installation manual must be approved by the owner of this equipment and voids the warranty and performance guarantee of this product.

24V SUPERVISED LOOP INSTRUCTIONS



Supervised Loop Installation

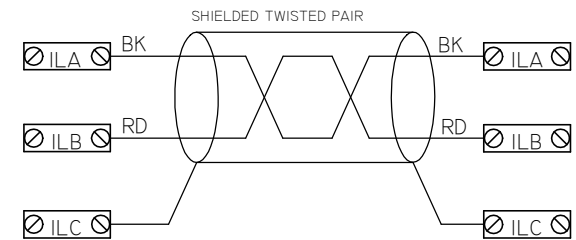
Loop must be continuous between the Firestats and Pull Stations. Quantity of each components may vary.

Pollution Control Unit may not have a pull station installed. In this case, install a jumper between terminals 21 and 26, as well as terminals 22 and 25.

Multiple pull stations and fire sensors can be used on each panel. When installed, they are wired in a Daisy-Chain style as shown.

Connection Between Multiple CORE Systems

There is an RS-485 connection in each CORE panel. To connect multiple CORE panels, simply connect matching terminals from one panel to the next in series. Use 18 to 24 GA shielded, single twisted pair wire for wire runs.



RS-485 INTERLOCK NETWORK

PRESSURE REDUCING VALVE WITH SUPERVISION SWITCH AND PRESSURE MONITORING SWITCH



Valve Supervision Switch

The pressure reducing valve must be installed with an approved supervision switch. Switch part numbers and support brackets are listed in the table. The switch comes with two single pole, double throw switches for connections to the building panel.

The Switch must be attached per Pressure Reduction Valve Bracket instructions.

Valve Supervision Switch Bracket

Valve Bracket contains necessary parts and instructions to adapt the supervision switch to the valve.

Pressure Reducing Valve

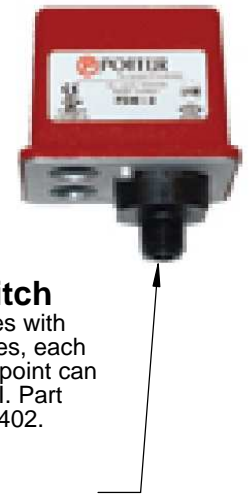
The pressure reducing valve must be installed before the CORE Protection package to reduce the sprinkler line incoming pressure and volume. This pressure reduction is based upon the incoming pressure and volume. See table for reduction percentage.

Valve is available in 1 1/2" NPT connections.

Pressure Monitoring Switch

The pressure Monitoring Valve comes with two single pole, double throw switches, each with an adjustable setpoint. This setpoint can be anywhere between 10 and 60 PSI. Part number for this component is PL-PS402.

Switch is available with a 1/2" NPT connection.



Reduced Pressure (PSI)	UR-20 Valve	Incoming Pressure (PSI)												
		50	60	70	80	90	100	110	120	130	140	150	160	170
	UR-20-W	14.35	17.22	20.09	22.96	25.83	28.7	31.57	34.44	37.31	40.18	43.05	45.92	48.79
	UR-20-X	16.9	20.28	23.66	27.04	30.42	33.8	37.18	40.56	43.94	47.32	50.7	54.08	57.46
	UR-20-Z	28.25	33.9	39.55	45.2	50.85	56.5	62.15	67.8	73.45	79.1	84.75	90.4	96.05

Complete Parts Kit	UR-20 Valve	Reduction Presentage	Supervision Switch	Switch Bracket
UR-20-W KIT	UR-20-W	28.7%	PL-PCVS2	80574001
UR-20-X KIT	UR-20-X	33.8%	PL-PCVS2	80574001
UR-20-Z KIT	UR-20-Z	56.5%	PL-PCVS2	80574001

Wiring Connections For Supervision Controls

BUILDING FIRE ALARM OR MONITORING SYSTEM

