DENLAR
FIRE PROTECTION
PRE-ENGINEERED RANGE HOODS

D1000 Installation and Service Manual

Version 3.0

10 Denlar Drive, Chester CT (860) 526-9846 www.denlarhoods.com

READ AND SAVE THESE INSTRUCTIONS

WARNING

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS OBSERVE THE FOLLOWING:

1. Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer at the address or telephone number listed on the front cover of this manual.
2. Before servicing or cleaning unit, put the unit into Maintenance mode and disconnect power which will prevent the unit from being powered ON accidentally. When the Maintenance disconnect cannot be locked, securely fasten a prominent warning device, such as a tag, to the Maintenance panel.
3. Installation work and electrical wiring must be done by a qualified person(s) in accordance with applicable codes and standards, including fire-rated construction codes and standards.
4. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the HVAC equipment manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA) and the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
5. When cutting or drilling into wall or ceilings do not damage electrical wiring and other hidden utilities.
6. To reduce the risk of fire or electric shock, do not use this range hood with an additional speed control device, unless provided by Denlar Fire Protection.
7. Ducted fans must always be vented outdoors.
8. To reduce the risk of fire, use only metal ductwork, or follow local code.
9. Use with approved wiring only.
10. This unit must be grounded.

TO REDUCE THE RISK OF A RANGE TOP GREASE FIRE:

1. Never leave surface units unattended at high settings. Boil-overs cause smoking and greasy spillovers that may ignite. Heat oils slowly on low or medium settings.
2. Always turn fan ON when cooking at high heat or when cooking flaming foods.
3. Clean ventilating fans and filters frequently. Grease should not be allowed to accumulate on fan or filter.
4. Use proper pan size. Always use cookware appropriate for the size of the surface element.

CAUTION

TO REDUCE THE RISK OF INJURY TO PERSONS IN THE EVENT OF RANGE TOP GREASE FIRE OBSERVE THE FOLLOWING: *

1. SMOTHER FLAMES with a close-fitting lid, cookie sheet, or metal tray; then turn off the burner. BE CAREFUL TO PREVENT BURNS. If the flames do not go out immediately, EVACUATE AND CALL THE FIRE DEPARTMENT.
2. NEVER PICK UP A FLAMING PAN – You may be burned.
3. DO NOT USE WATER, including wet dishcloths or towels – violent steam explosion will result.
4. Use an extinguisher ONLY if:
   A. You know you have a Class K extinguisher and you already know how to operate it.
   B. The fire is small and contained in the area where it started.
   C. The fire department is being called.
   D. You can fight the fire with your back to an exit.

*Based on "Kitchen Fire Safety Tips published by NFPA

To Reduce General Risk

1. For general ventilating use only. Do not exhaust hazardous or explosive materials and vapors.
2. To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall debris, construction dust, etc. way from hood.
3. For best capture of cooking impurities and performance of fire extinguisher, your range hood should be mounted so that the bottom of the hood is 24-36" above the cooking surface, depending on model.
4. Please read Datasheets provided by Denlar Fire Protection for further information and requirements.

DISCLAIMER: DENLAR Fire Protection shall not be liable for errors contained in this Manual or for incidental, consequential damages in connection with the furnishing, performance or use of this information. DENLAR Fire Protection makes no warranty of any kind with regard to this information, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose.

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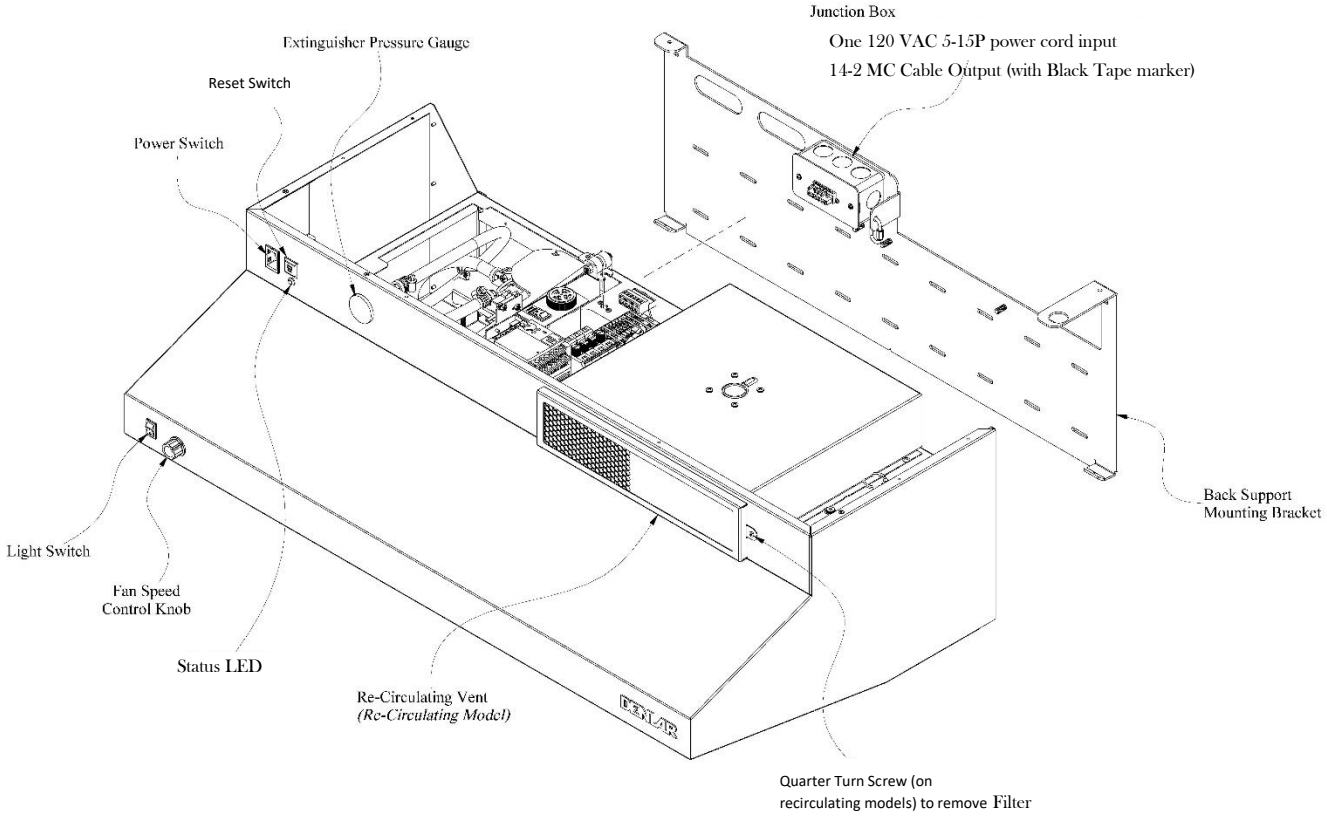
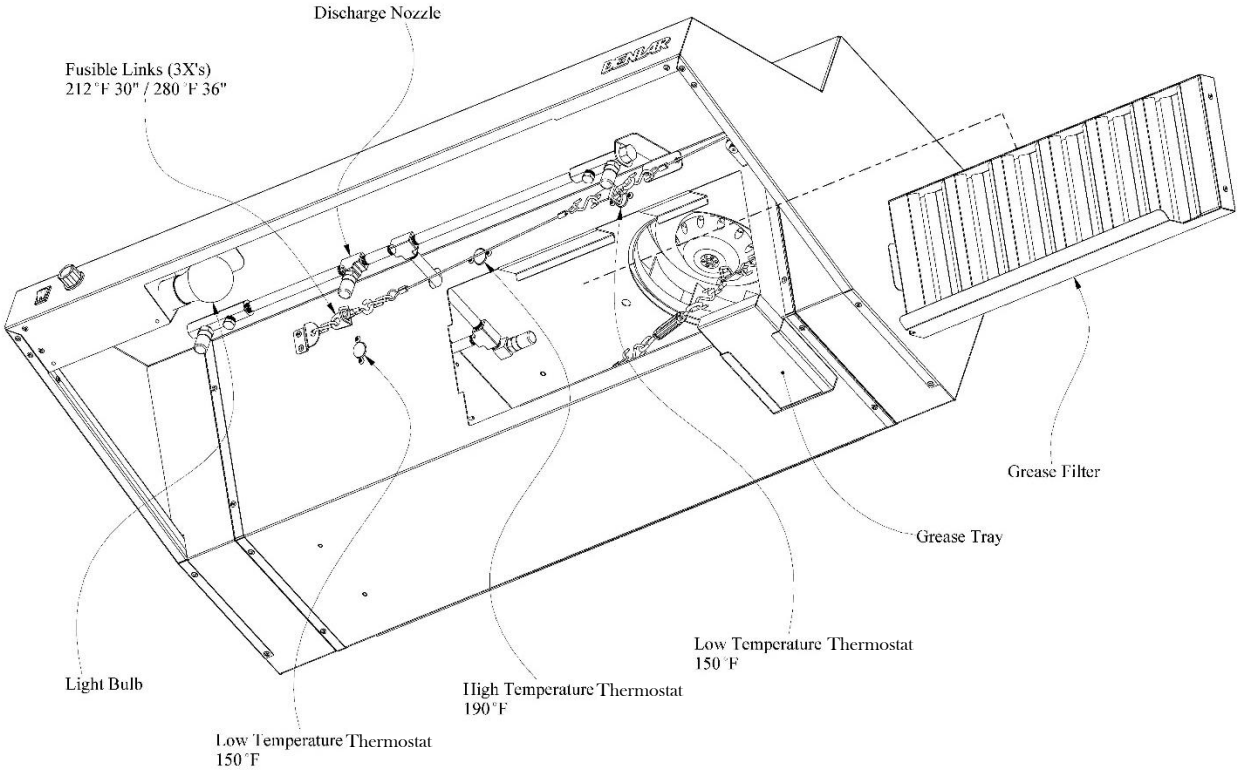
INSTALLATION:

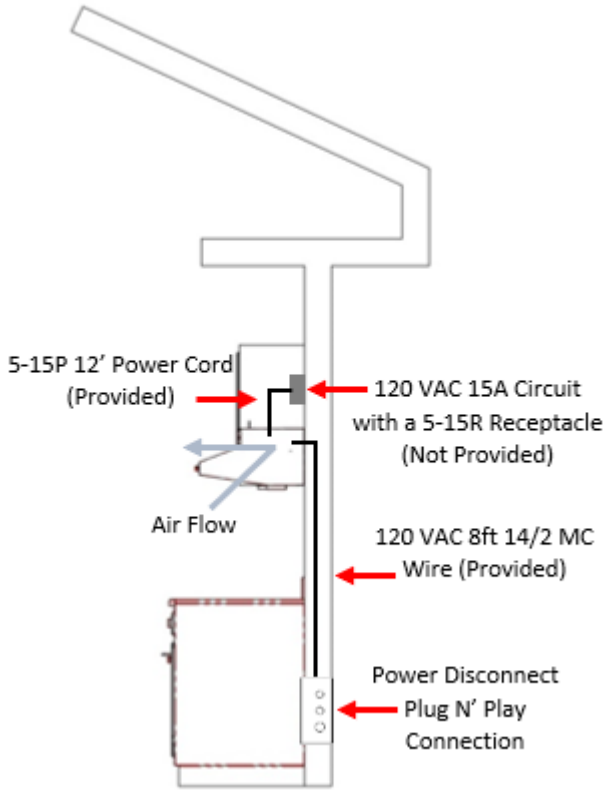
SYSTEM ANATOMY





SAMPLE ELEVATIONS

D103X-F



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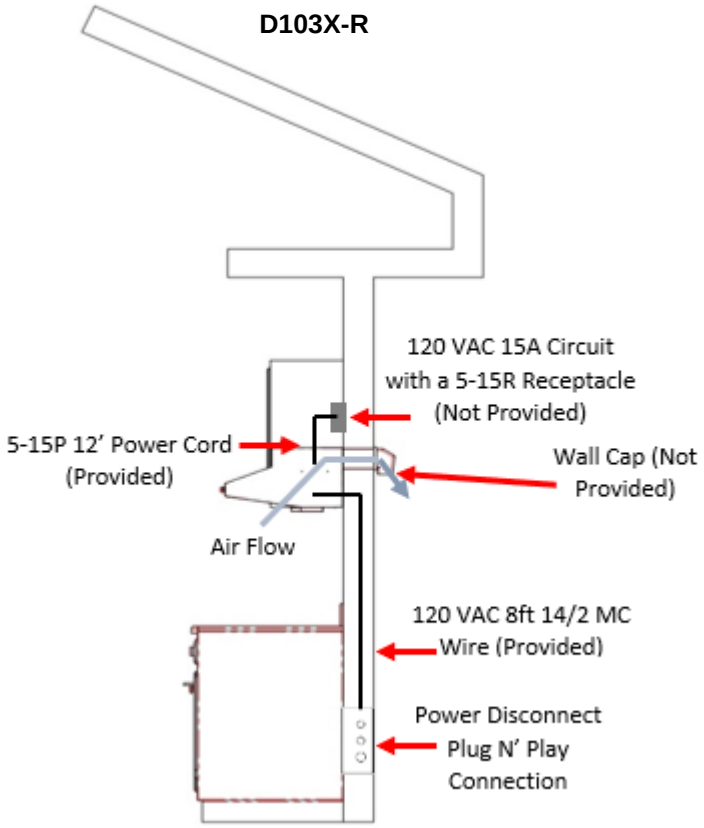
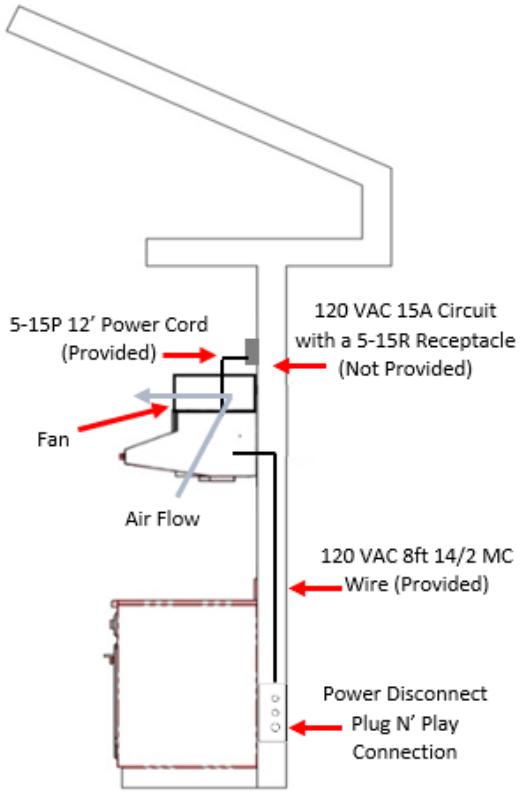
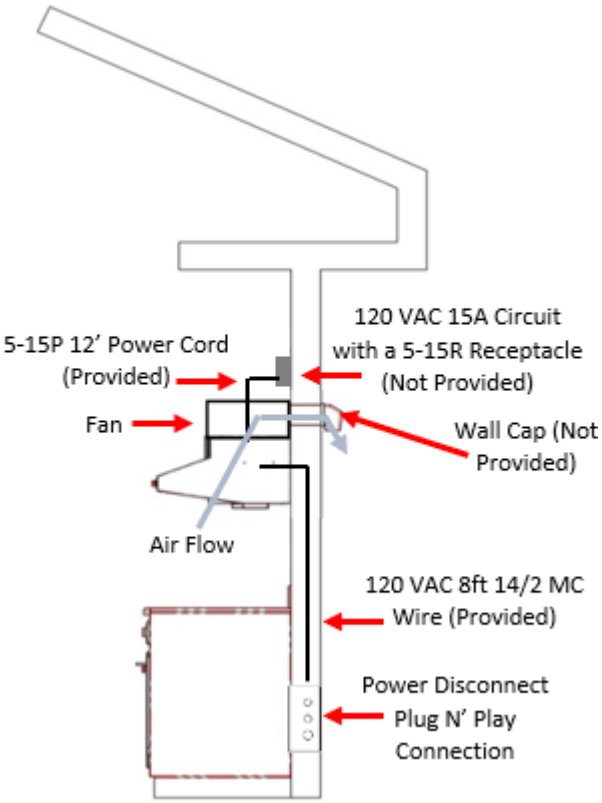


D103X-F-NFPA

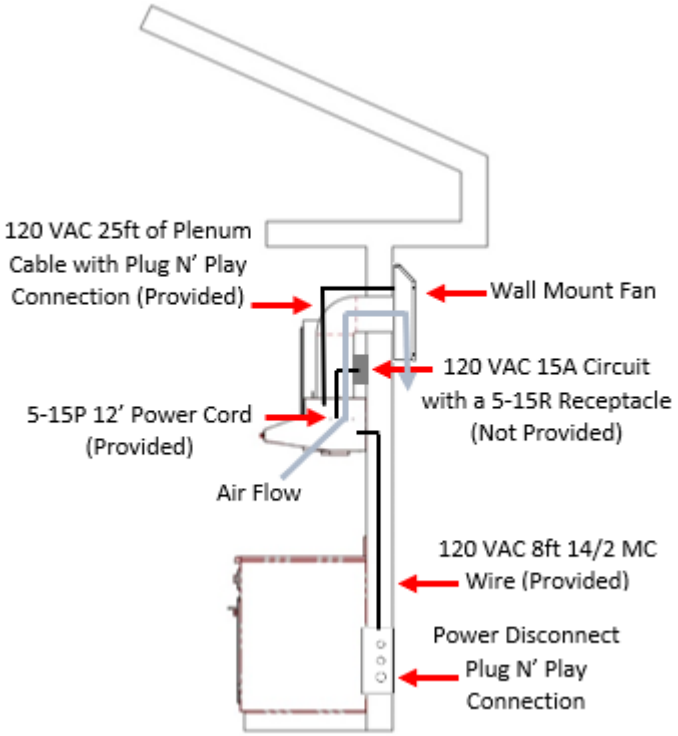


D103X-R-NFPA

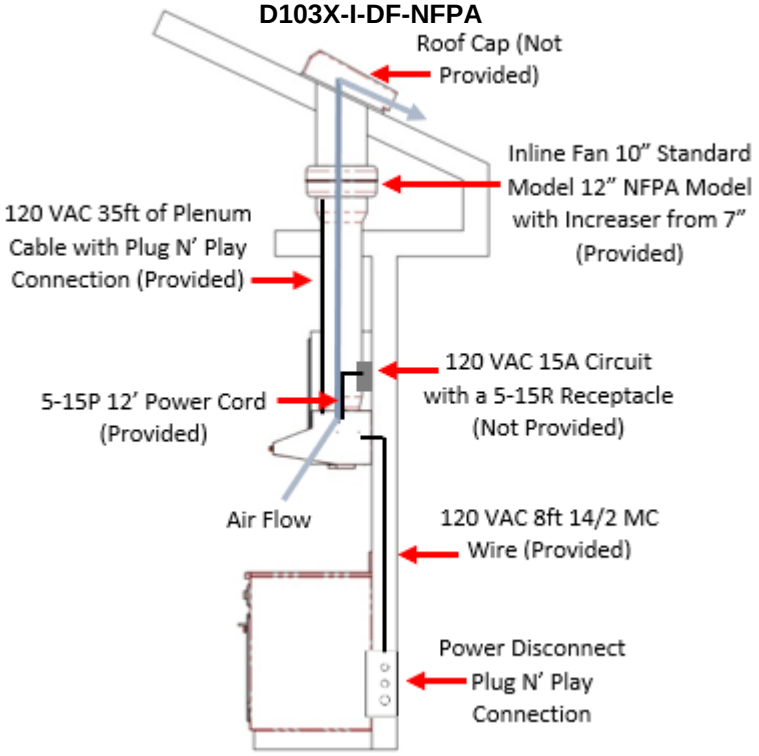


SAMPLE ELEVATIONS

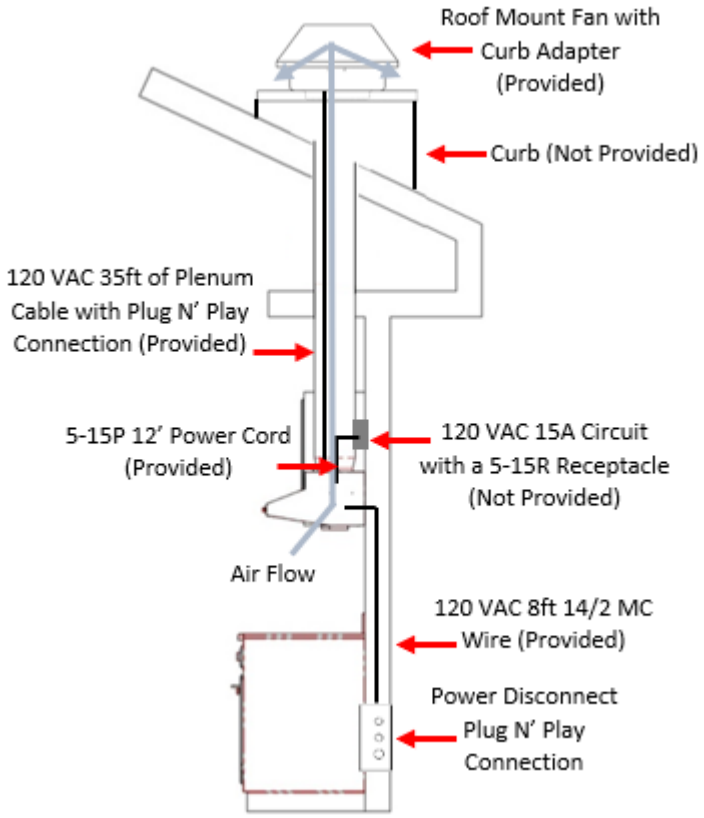
D103X-I-WM
D103X-I-WM-NFPA



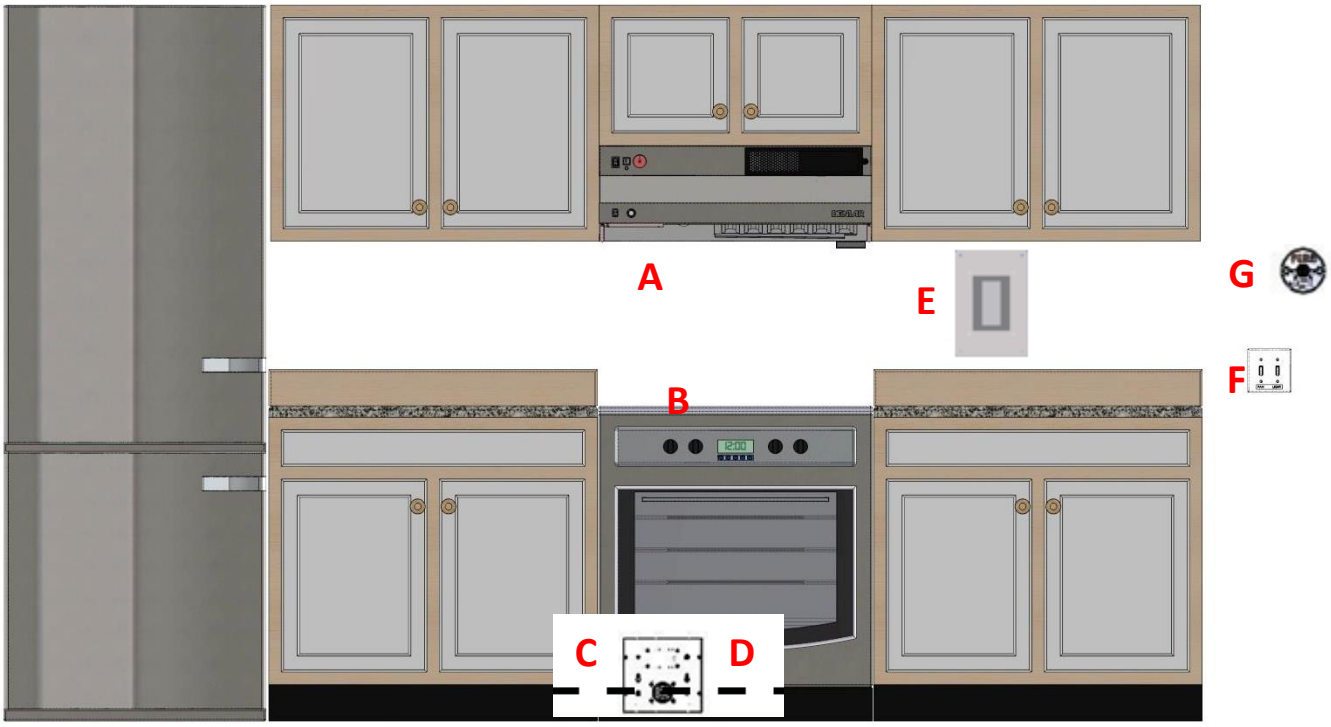
D103X-I-DF
D103X-I-DF-NFPA



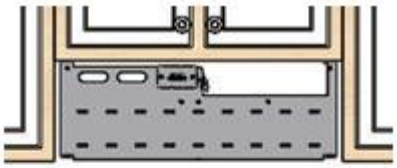
D103X-I-RF
D103X-I-RF-NFPA



PREPARING THE INSTALL LOCATION



Note# 1: If cabinets are not present in the space, a Top Cover is required (option D1030 -TC I or F/R or D1036-TC I or F/R)
Note #2: Center the D1000 over the range. If the range is not in place, the center marking should be relative to its final Position.
Note #3: Refer to the model specific engineered submittal sheet for the exact measurements which are not represented here (available at denlarhoods.com)
Note #4: Refer to “Installing the D1000” (on page 17) for instructions on attaching the D1000 to the mounting bracket
Note #5: Refer to option specific schematics for more details on how to connect them to the D1000
Note # 6: As indicated on page 7, allow for 4 5/8” between the top of the mounting bracket and the bottom of the cabinet above. In order to allow the installation of the NFPA101 compliant version of the D1000-F/R, which uses an additional Fan Box as shown attach the fan box to the bracket, and then proceed.



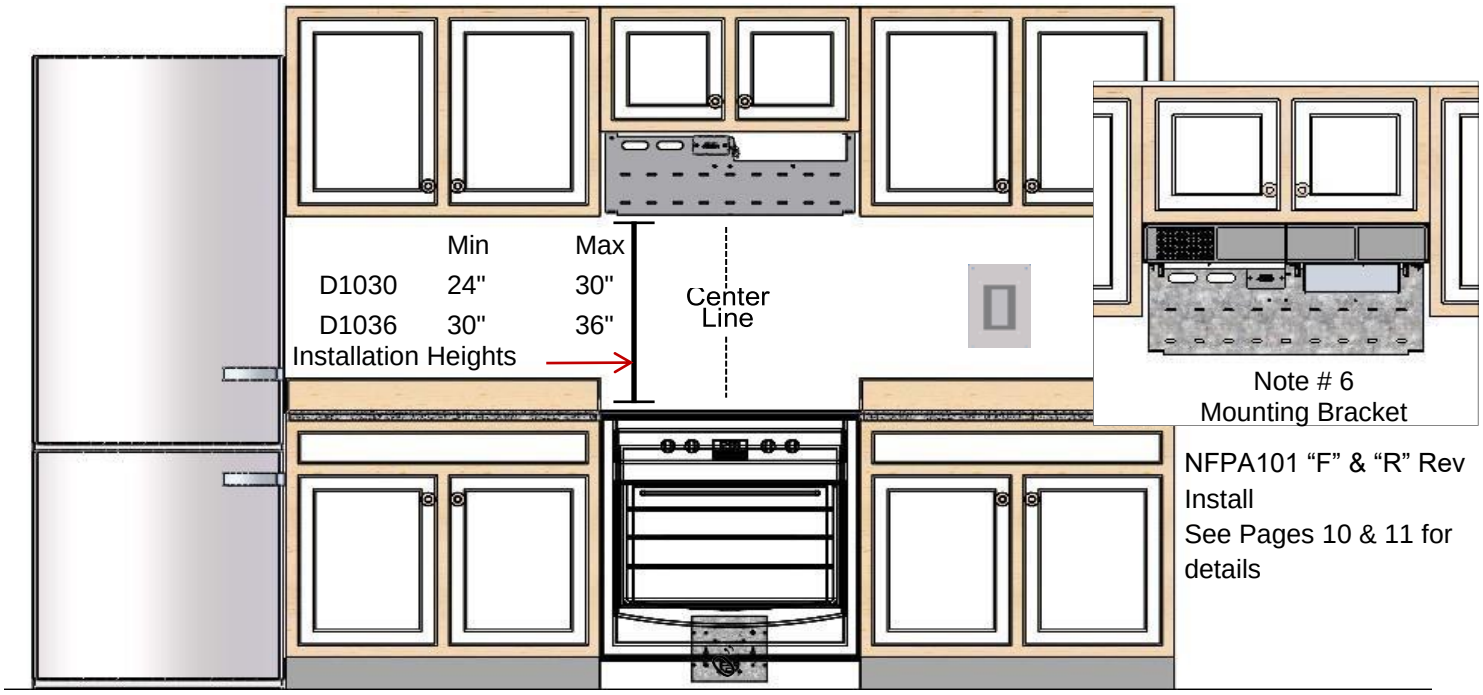
View of Mounting Bracket Installed

NOTE # 5 COMPONENTS

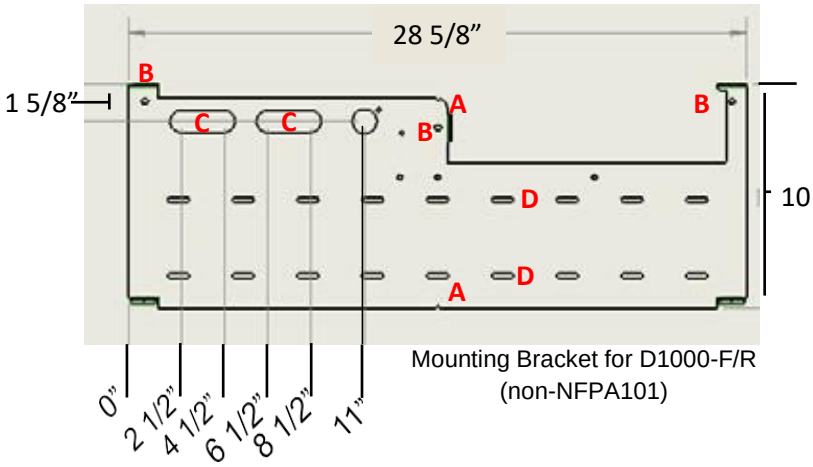
A. DENLAR D1000 (30” or 36”)
B. Range (for reference purposes (gas, electric or dual element, dual receptacle)
C. Electric Power disconnect (shown)
D. Gas Power Disconnect (not shown)
E. The CLOCKBOX- range element lockout system (CLBX option) *The Touchscreen (E) is shown, the control module is not shown.*
F. Handicap Accessible Control Box (ADA option)
G. Manual Pull Station (MPK option)

Note: The dual element disconnect (DED option) integrates both the electric and gas power disconnect options.

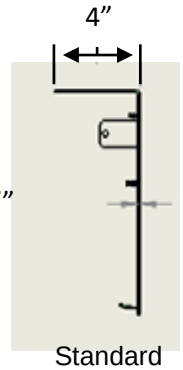
PREPARING THE INSTALL LOCATION



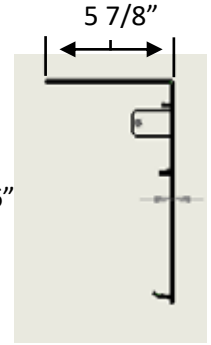
NFPA101 “F” & “R” Rev Install
See Pages 10 & 11 for details



Mounting Bracket for D1000-F/R (non-NFPA101)



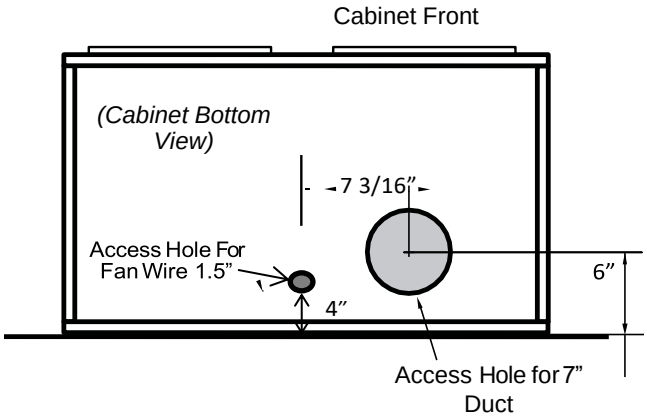
Standard Bracket



NFPA101 Bracket

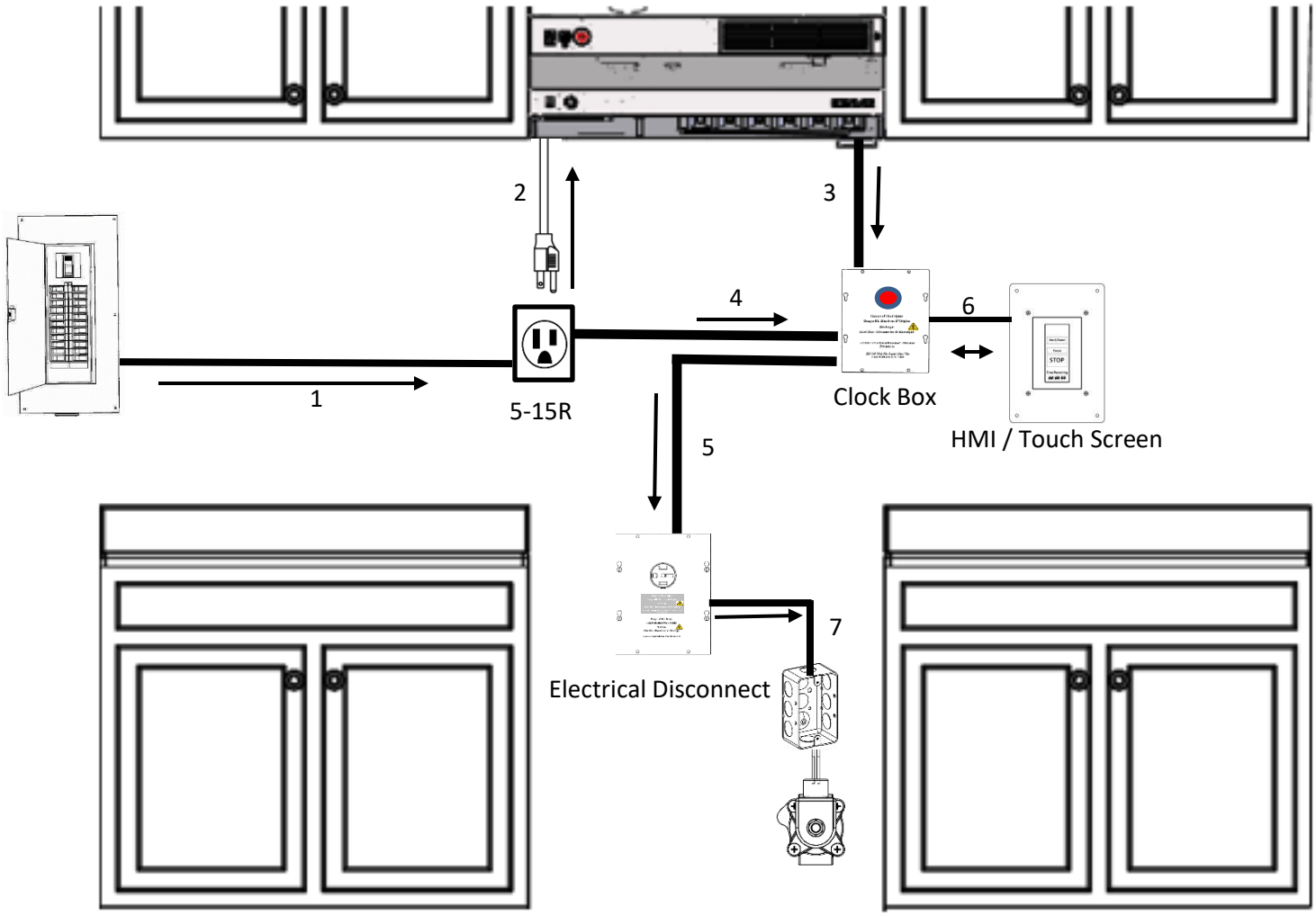
D1000 MOUNTING BRACKET

- **A.** Center Notches
- **B.** Critical Mounting Points (must be secured to suds or dry wall hangers)
- **C.** Primary Access Point for connections to hood (options/accessories)
  - **a.** Supply lines run inside of the wall.
- **D.** Additional Mounting Points



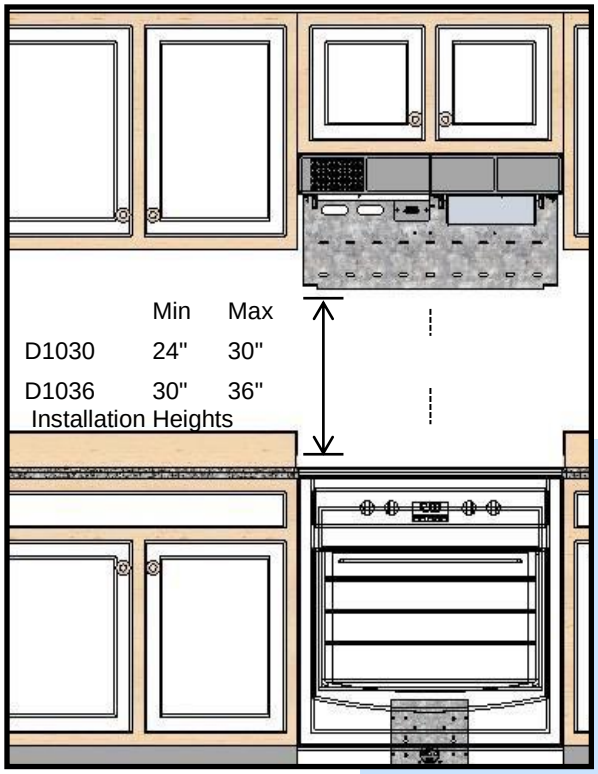
PREPARING THE INSTALL LOCATION

CAUTION: This should be performed by a licensed electrician. Installation should be completed according to all applicable codes and regulations. Shut off power at the main breaker to prevent electrical shock. Use Power Cord (provided) or, replaced with wire specified by building codes.



1. 120 VAC Input (not provided)
    a. 120 VAC 15 Amp circuit provided by installer
    b. Voltage supply from the Main Breaker Panel to the 5-15R Receptacle (not provided)
2. 120 VAC 15 Amp Plug Input to Hood (provided)
    a. 12 Ft in length
    b. Power Cord from the Hood and connects to the 5-15R Receptacle (not provided)
3. 120 VAC Output from Hood (provided)
    a. 8 Ft in length
    b. One 14/2 MC Wire
    c. Cable from the Hood to the Clock Box (if applicable) or the Power Source Disconnect for the Range (Gas or Electric)
4. 120 VAC Input (not provided)
    a. 120 VAC 15 Amp circuit provided by installer
    b. Voltage supply from the Main Breaker Panel to Clock Box (not provided)
5. 120 VAC Input to Power Source Disconnect for the Range (not provided)
    a. 120 VAC Provided by installer
6. 5 VDC Input / Output Communication cable encased in 16 mm ENT Flexible Conduit (provided)
    a. 25 Ft in length
    b. One communication cable
    c. Connects to the Clock Box PLC and HMI / Touch Screen
7. Power Source Disconnect (not provided)
    a. 120 VAC jumper between Electric and Gas Disconnects

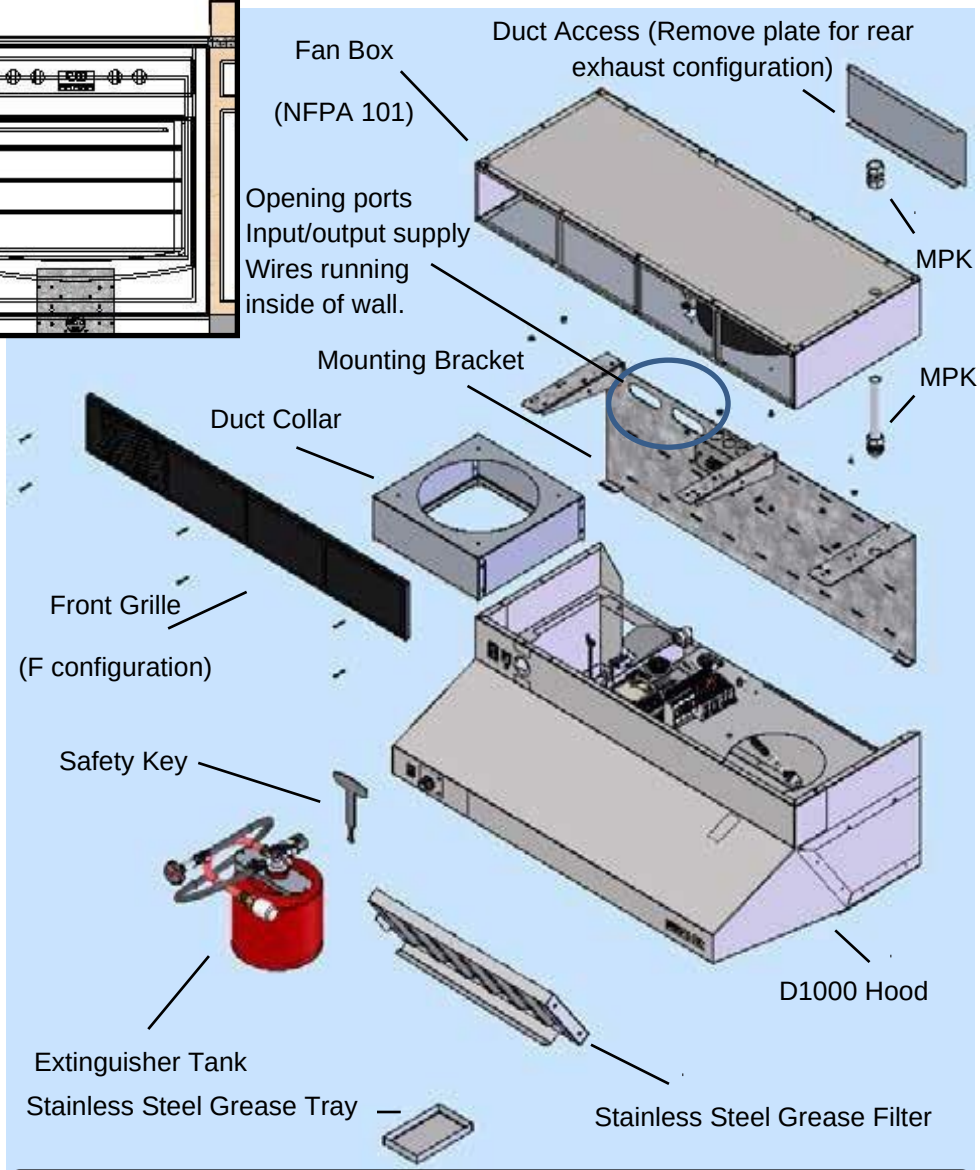
NFPA101 FRONT/REAR (F/R) DISCHARGE INSTALLATION



The NFPA101 compliant calibration of the DENLAR D1000 was engineered to comply with the requirements of the NFPA Life Safety Code, related to residential cooking appliances used in non-production cooking environments. Due to the specific performance requirements in the code, the NFPA101 version of the D1000 differs slightly from the standard calibration. Refer to this section for NFPA101 Front/Rear version-specific information.

NOTE: *The NFPA101 versions of the D1000-D does not change the hood as the fans are installed remotely.*

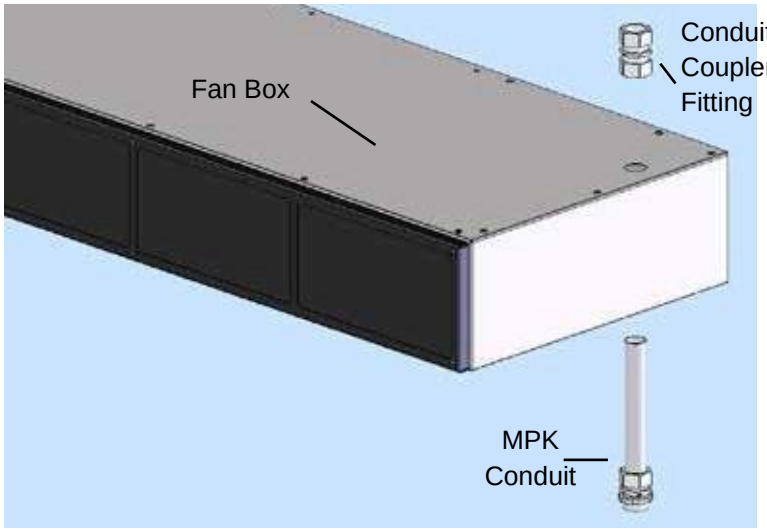
The NFPA101 versions of the D1000-F and D1000-R are identical barring the rear's (R) need for ducting to pass through the exterior wall. Where the (R) expels vapor through the rear of the hood the fascia of the fan box is a continuous stainless steel cover.



NOTE: *The NFPA101 recirculating option is not approved for use in installations Group I-1 and I-2 occupancies per section 505.3 of the 2018 version of the IMC.*

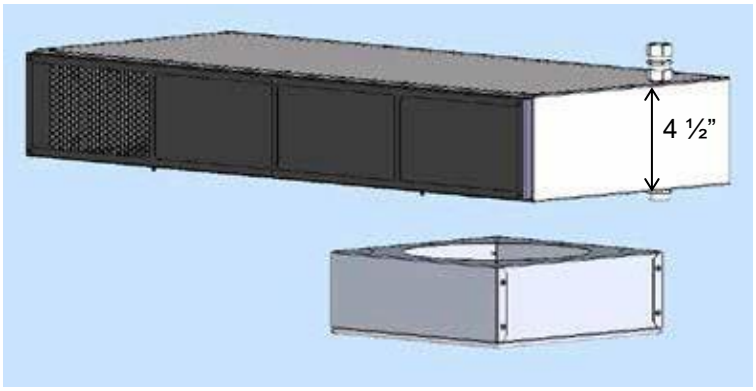
NFPA101 FRONT/REAR DISCHARGE INSTALLATION

If installing under cabinets, keeping the fan box flush to the underside will guarantee correct spacing. Otherwise, center and mark the installation area according to the mounting bracket prior to hanging. Keep 4.5” below the underside of the cabinet to allow the fan bracket to be installed later.



1. Insert/attach the top portion of the MPK conduit through the fan box.

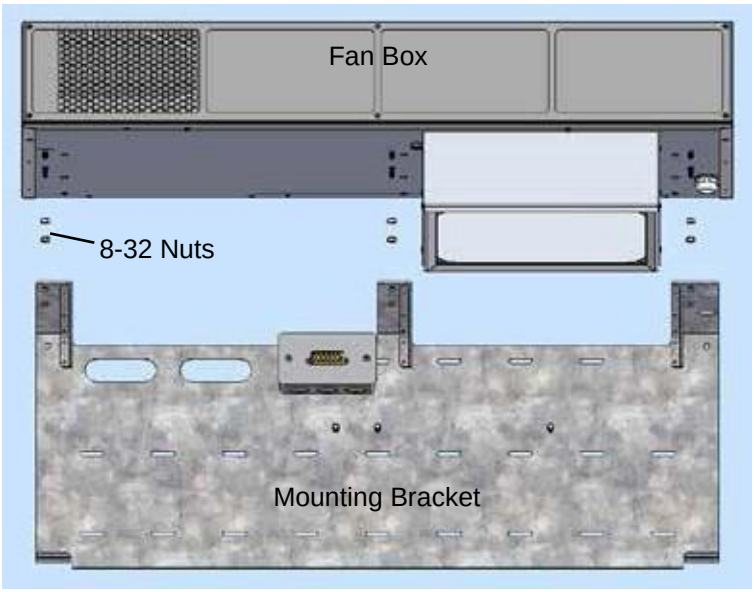
2. Attach the fan box to the mounting bracket with included 8-32 nuts, then complete the installation on the MPK conduit and top/bottom unions.



The fan box is 4.5” tall. If prepping a space for install, 4.5” must be left between the top of the mounting bracket and the bottom of the cabinet.

The additional height of the unit should not result in reduced range clearance. Cabinets should be installed approximately 5” higher to accommodate the additional size of the NFPA101 fan box assembly.

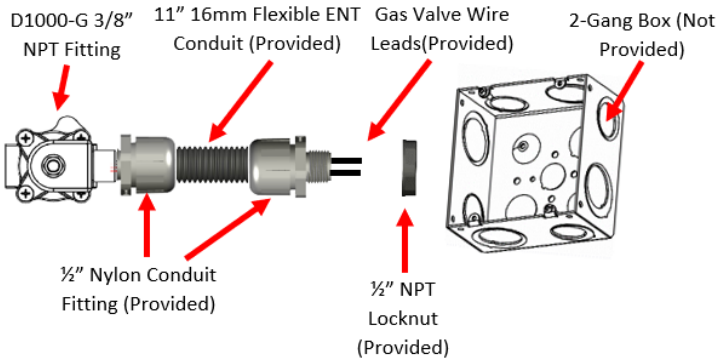
NOTE: *The NFPA LSC (101) requires 500CFM of airflow in a 300A hood and suppression system. This amount of airflow, through a recirculating hood, will create inefficiencies within the system resulting in additional noise production.*



RANGE ELEMENT DISCONNECT INSTALLATION

D1000-G Installation

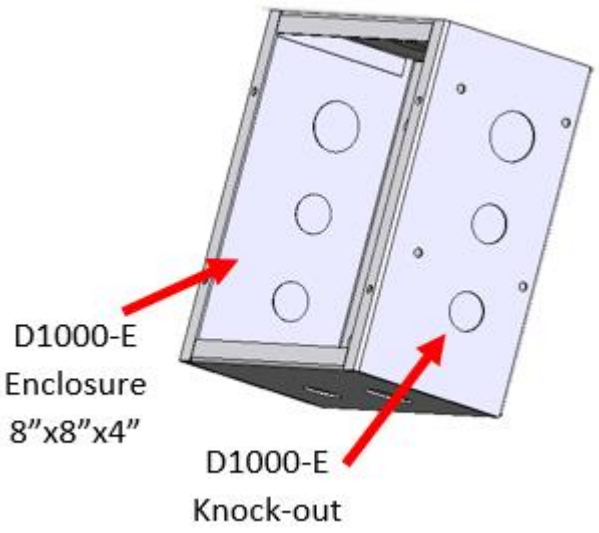
1. Secure the gas line input and output to the D1000-G. The fittings are 3/8" NPT. Note the direction of the flow, there is an arrow on the bottom of the D1000-G.
2. The D1000-G has an 11" 16mm Flexible ENT Conduit with the wire leads inside. Install the 11" 16mm Flexible ENT Conduit attached with a plug into the 2-Gang Box. Secure the Box.
3. Run the120 VAC 8 ft 14/2 MC Wire (Provided) from the hood's junction box location found on the mounting bracket, to the power disconnect location.
4. Install the cover for the 2-Gang Box.



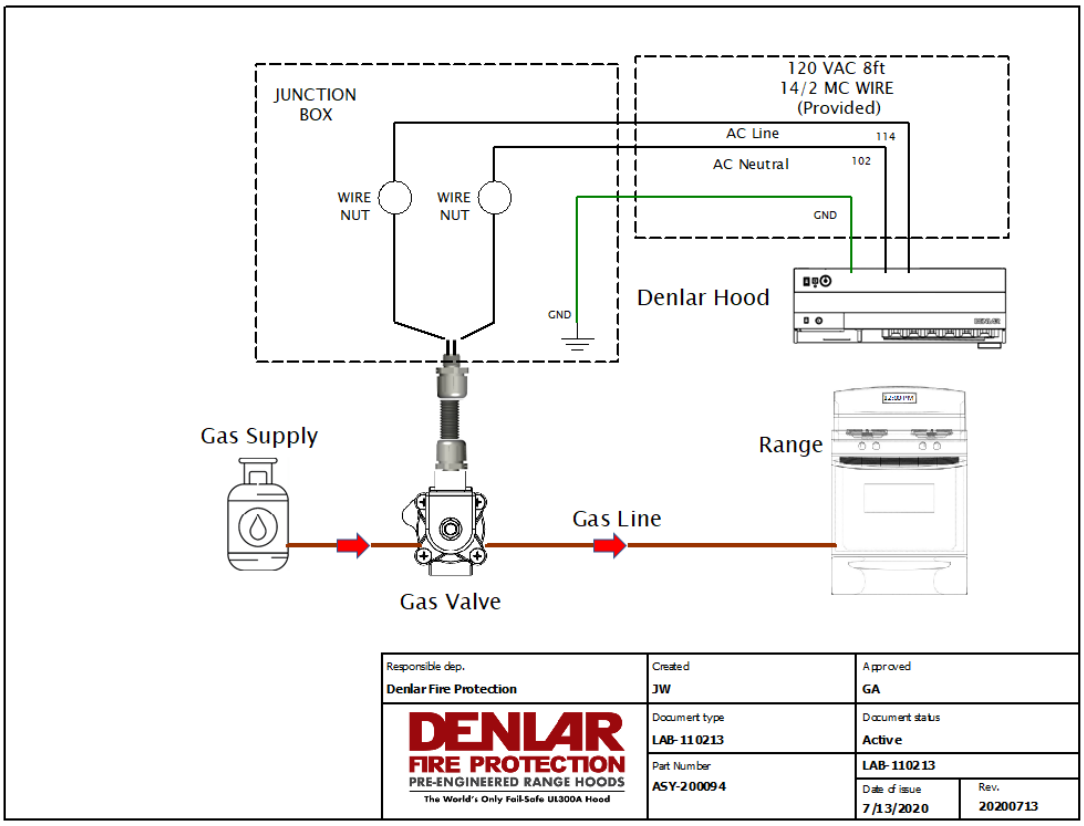
Note: *The Coil voltage cannot be used to power the electronics in the range (clock, ignitors, etc.). Doing this voids the warranty and ETL listing of the Hood, in addition to blowing the fuses and damaging the PLC.*

D1000-E Installation

1. Cut a hole in the drywall for the D1000-E Enclosure; refer to the specification sheets for the dimensions. Be sure to note the 1 ¼" overhang on both sides of the face plate. The cutout opening should be about 8 3/8". The power disconnect has been designed to fit a standard 2" x 4" framed wall.
5. Run the120 VAC 8 ft 14/2 MC Wire (Provided) from the hood's junction box location found on the mounting bracket, to the power disconnect location.
2. Run 120 VAC 15 – 20 Amps or 220 VAC 20 – 50 Amps from Main Breaker Panel (Not Provided) to the contactor. This will provide power to the receptacle.
3. Secure the face plate to the power disconnect.

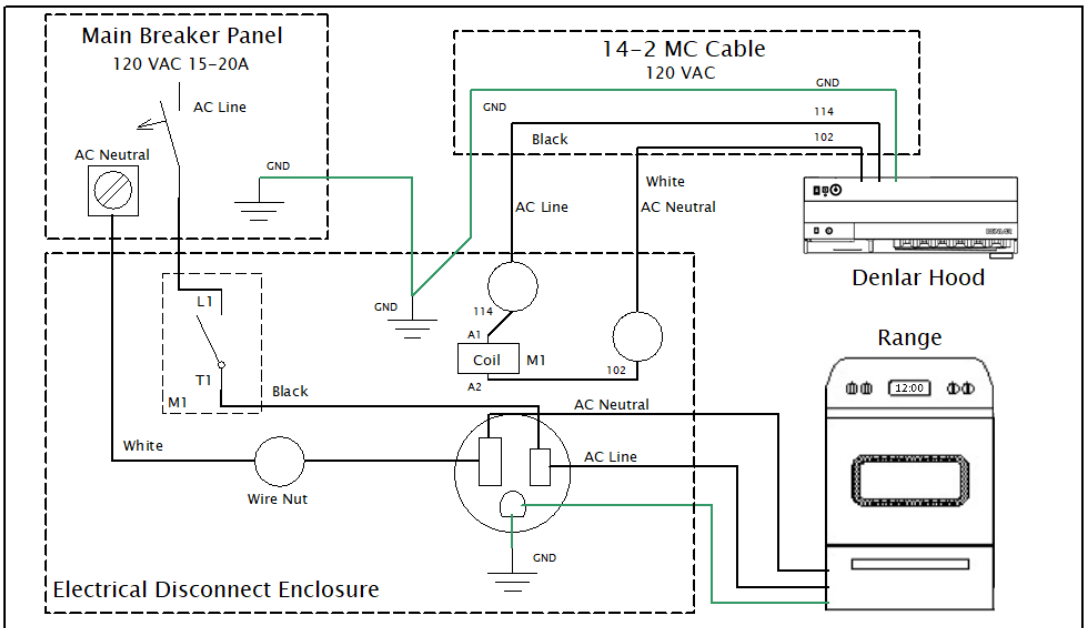


D1000-G Schematic



Responsible dep.	Created	Approved	
Denlar Fire Protection	JW	GA	
DENLAR FIRE PROTECTION PRE-ENGINEERED RANGE HOODS The World's Only Fail-Safe UL300A Hood	Document type: LAB-110213	Document status: Active	
	Part Number: ASY-200094	LAB-110213	
		Date of issue: 7/13/2020	Rev.: 20200713

D1000-E-120 Schematic

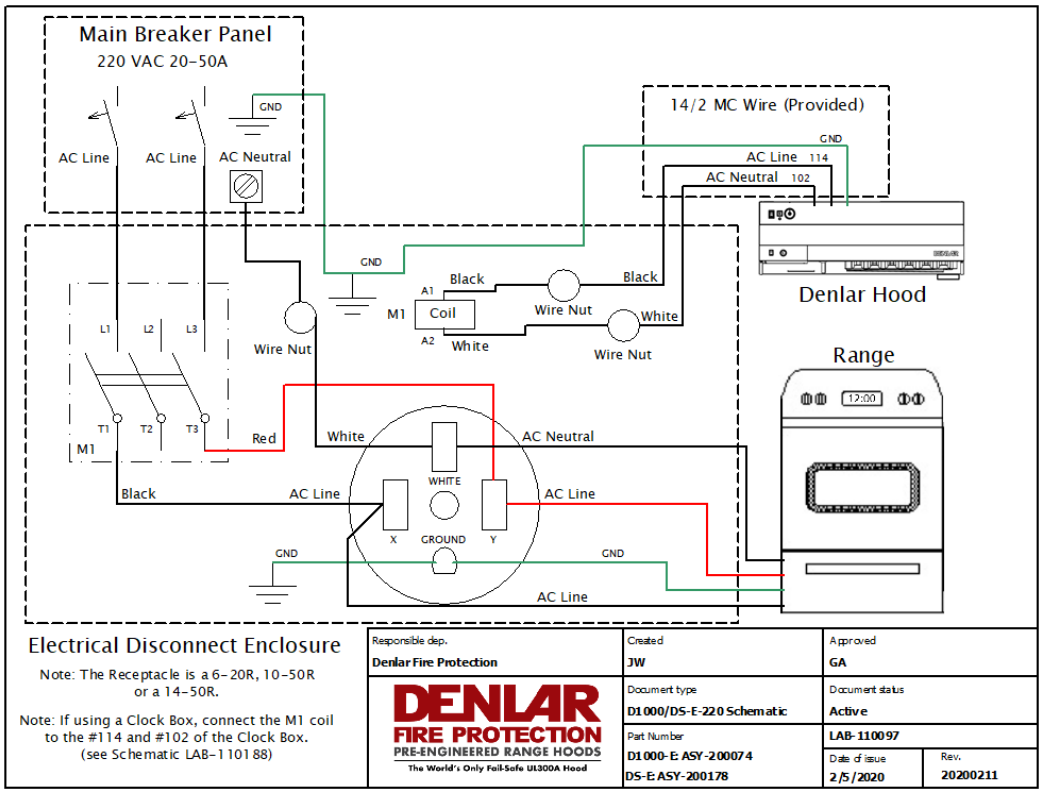


Note: The Receptacle is a 5-15R or a 5-20R.

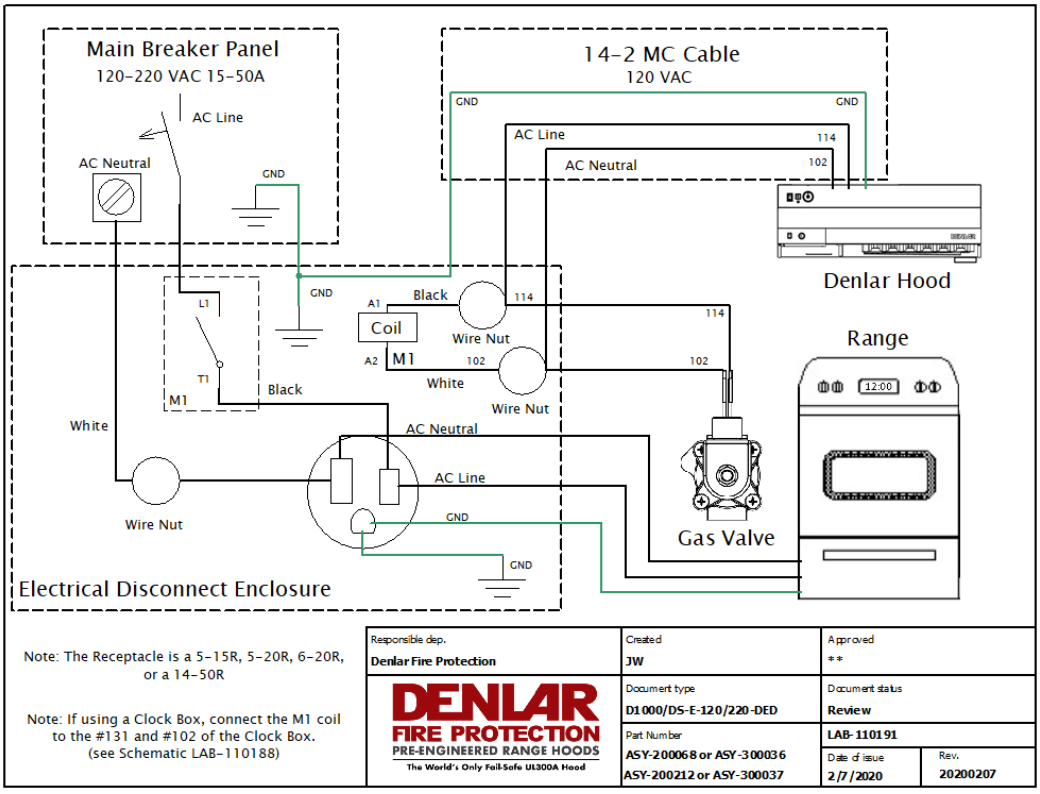
Note: If using a Clock Box, connect the M1 coil to the #131 and #102 of the Clock Box. (see Schematic LAB-110188)

Responsible dep.	Created	Approved	
Denlar Fire Protection	JW	GA	
DENLAR FIRE PROTECTION PRE-ENGINEERED RANGE HOODS The World's Only Fail-Safe UL300A Hood	Document type: D1000/DS-E-120 Schematic	Document status: Active	
	Part Number: ASY-300035 ASY-300038	LAB-110190	
		Date of issue: 2/6/2020	Rev.: 20200207

D1000-E-220 Schematic



D1000-DED Schematic



HANDICAP ACCESSIBLE CONTROLS (ADA)

COMPONENTS

- ADA Wire Harness Assembly
  - (2) Toggle Switches (white)
  - (15') Plenum Cable Encased in 16mm ENT Flexible Conduit
  - (1) Eight Position Male Connector (Plug-N-Play)
  - (1) 2-Gang White Switch Cover
  - (2) Mounting Brackets

Handicap Accessible Controls

PREPARATION

Turn OFF the main 110-120 VAC power (at the panel) to the Hood or unplug the Six Position connector at the Handy Box (Hood) labeled Power Input/Output. Remove the ADA Wire Harness Assembly from the packing.

INSTALLATION

1. Unscrew the two switches from the Metal 2-Gang Enclosure.
2. Mount the Metal 2-Gang Enclosure to the desired wall using the mounting brackets in accordance with local building codes and electrical codes.
3. Screw the two switches back to the Metal 2-Gang Enclosure.
4. Install the 2-Gang White Switch Plate on the Metal 2-Gang Enclosure.
5. Run and secure the Plenum Cable Encased in 16mm ENT Flexible Conduit. Plug the Eight-Position male and female connectors together, labeled ADA Plug.
6. Ensure electrical connections are tight.
7. Turn the power on for the Hood.
8. The switch on the left of the Metal 2-Gang Enclosure with the Red and White wires connected to it is for the fan function. Turning on this switch, enables the fan to run at High Speed only. There is no speed control with this switch.

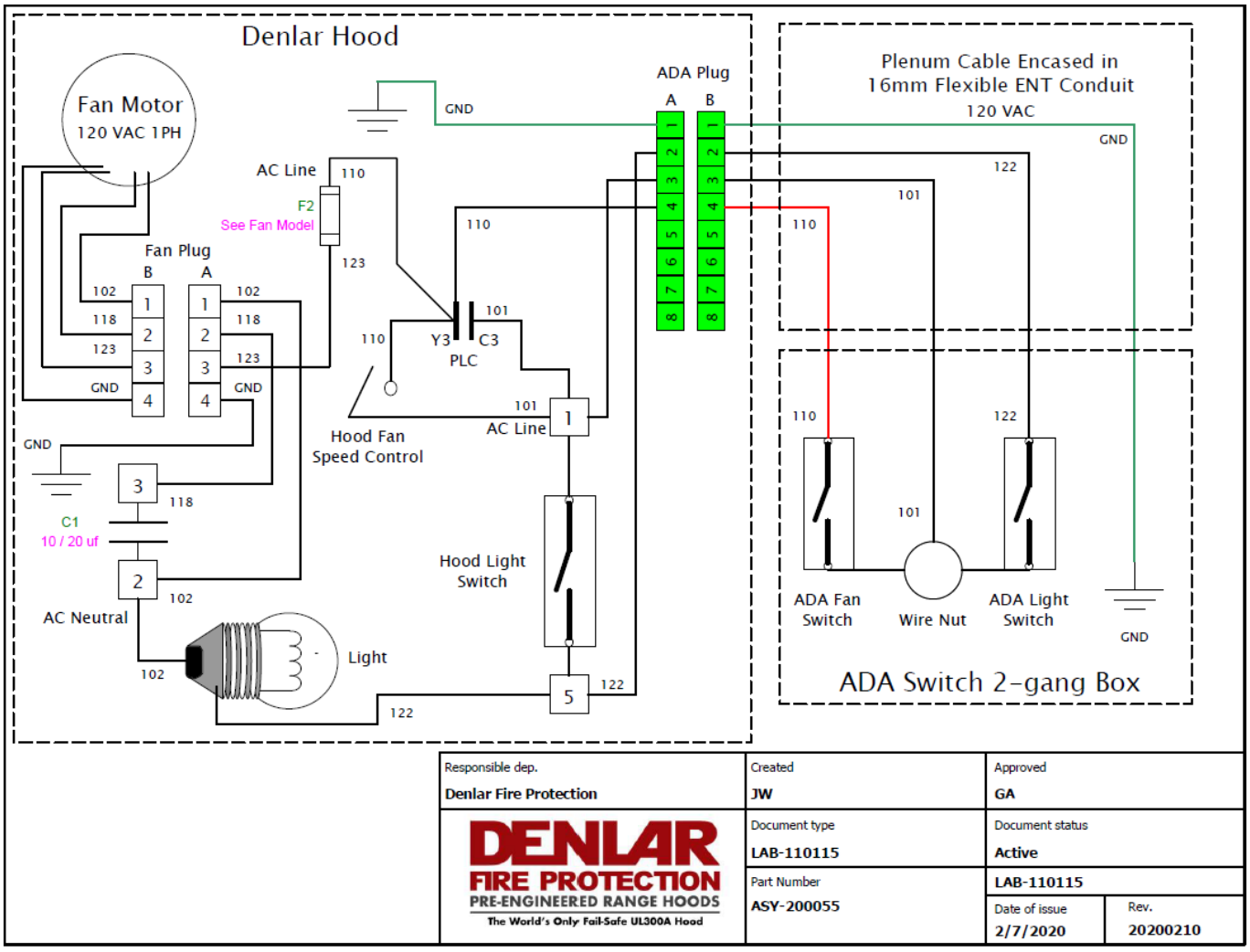
   Note: In order to turn the fan OFF, both the ADA toggle switch and the speed control at the hood need to be OFF.

9. The switch on the right of the Metal 2-Gang Enclosure with Black and White wires connected to it is for the light function.

   Note: In order to the turn the light OFF, both the ADA toggle switch and the light switch at the hood need to be OFF.

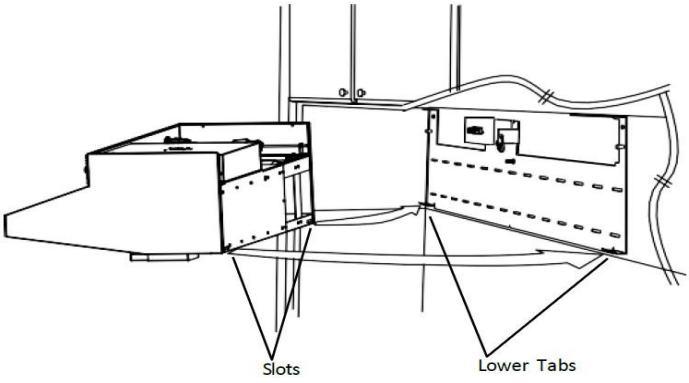
HANDICAP ACCESSIBLE CONTROLS

D1000-ADA Schematic

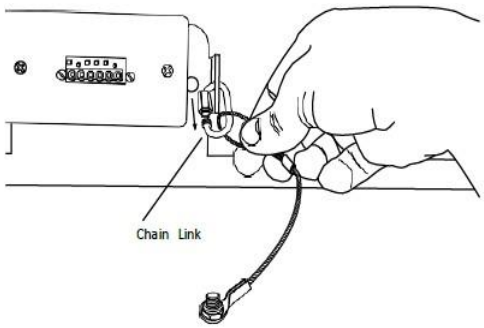


INSTALLING THE D1000

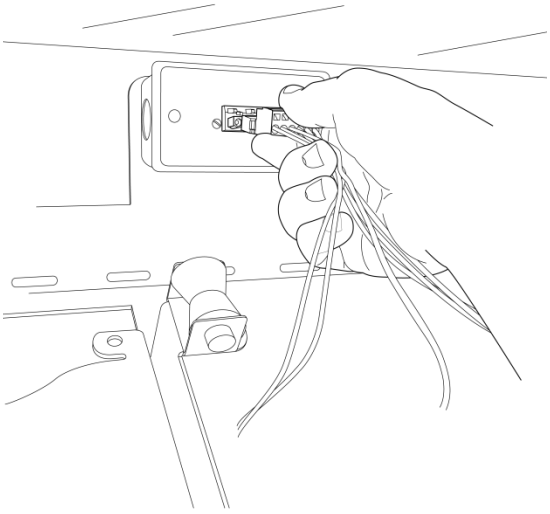
1. Line unit up to the secured D1000 mounting bracket and seat lower tabs into slots in the back of the hood.



2. While holding the unit up, hook cable to the chain link on the mounting bracket and screw the nut to close the link. The hood is now in maintenance position.

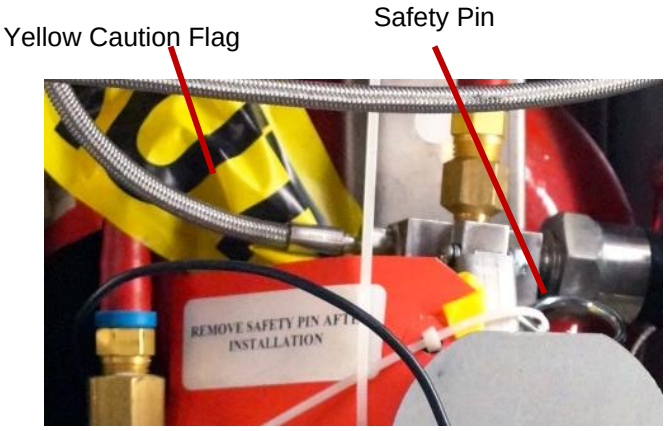


3. Connect the power to the junction box.

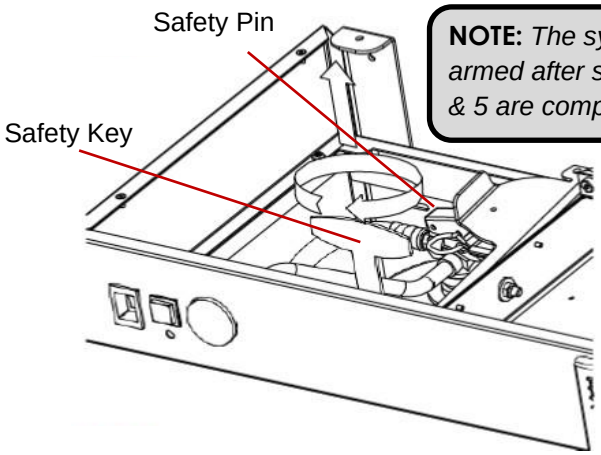


NOTE: *Install the MPK prior to arming the system.*

4. On the tank, remove the safety pin-identified with the yellow flag “caution” from the trigger on top of the extinguisher bottle.

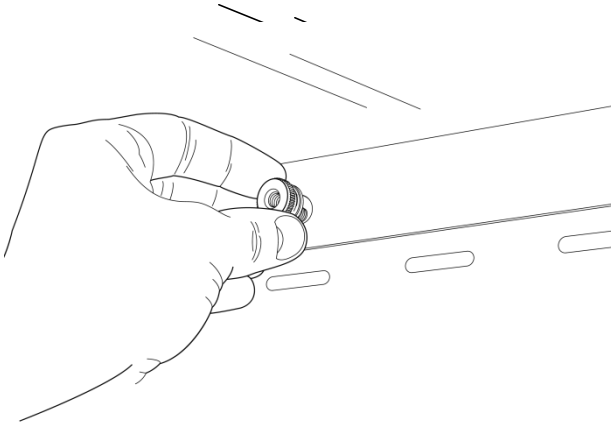


5. Remove the safety key from the actuator arm by rotating and lifting the key straight upwards. **THE SYSTEM WILL NOT ACTUATE WITHOUT COMPLETING STEPS 4 & 5.**



NOTE: *The system is armed after steps 4 & 5 are completed.*

6. Tilt the D1000 hood towards wall and thread the three thumb nuts to the bolts in the back-support mounting bracket. See page 24 for location of thumb nuts.



FIRE ALARM CONNECTIONS

The D1000 has three fire alarm connections (discrete switches), each independent from each other. Two are controlled by the PLC and one is mechanical.

- A connection is made to one output (Y#) and one common (C#) at the PLC. The output labeled YO is triggered by a fault from Hi-Temp, 190˚F, pressure switch or hose switch. A buzzer in the unit will sound and the power disconnect will turn off.
- Output, Y1, is triggered by a high temperature switch, 190˚F, and a low-pressure fault in the extinguisher tank (the fire suppressant has discharged). When there is a fault, a buzzer in the unit will sound and the power disconnect will turn off.

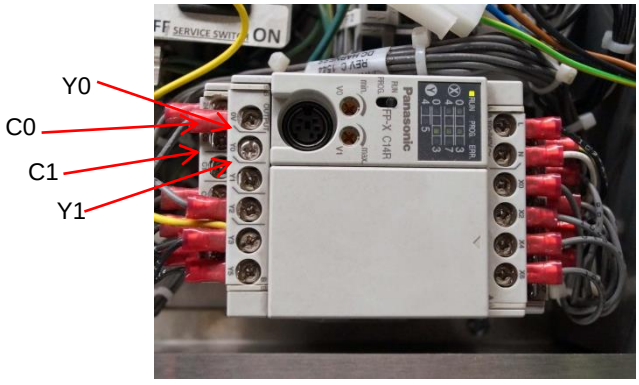
PLC CONTROLLED ALARMS-REQUIRE POWER TO THE HOOD

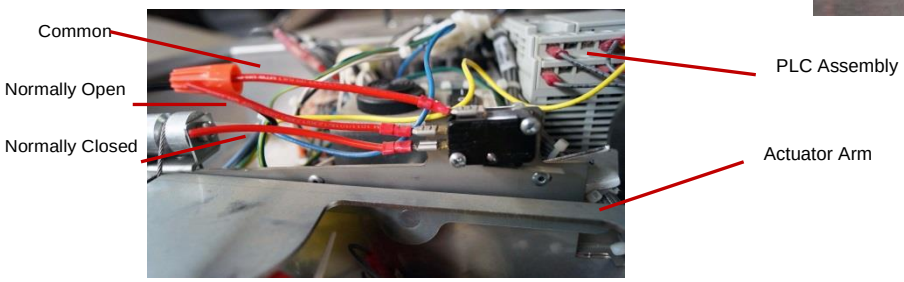
- Local Alarm Connection: Connect to output Y0 and common C0
- Remote Alarm Connection: Connect to output Y1 and common C1

To connect to the alarms, it is recommended that you use a 3.22mm spade fork connector (not supplied), however a stripped wire is acceptable.

Either one of the connections may be used depending on the needs of the job site.

Connecting the alarm system in configurations described above results in a normally open connection.





Fire Alarm Switch

Figure 14.2

MECHANICAL SWITCH – NOT POWERED

This connection does not require power to be supplied to the hood in order to function. The alarm switch is located above the actuator arm, next to the PLC assembly. The alarm switch is tripped when the actuator arm is released.

- Wire the alarm to the common connector and normally open, or normally closed connection as shown, depending on what the on-site alarm requires.

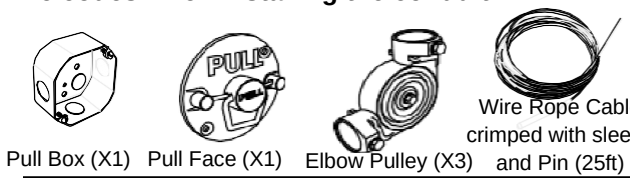
MANUAL PULL STATION (MPK) INSTALLATION

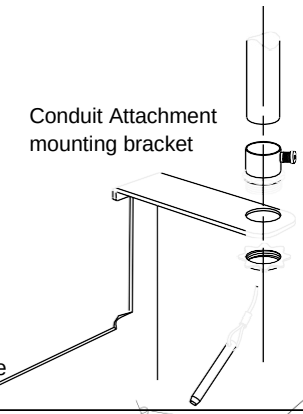
STEP 1: INSTALLING CONDUIT

Mount the pull box in an appropriate location according to local building codes. The MPK supplied with twenty-five feet of wire rope cable and three elbow pulleys as our listing requires.

- Install ½" conduit (not provided) between the unit and the pull box, using the pulleys as needed.
- Pull the wire rope cable through the conduit and allow 8-12" of slack to be left at the hood unit end.

Be sure to abide by all local building and fire codes when installing the conduit.



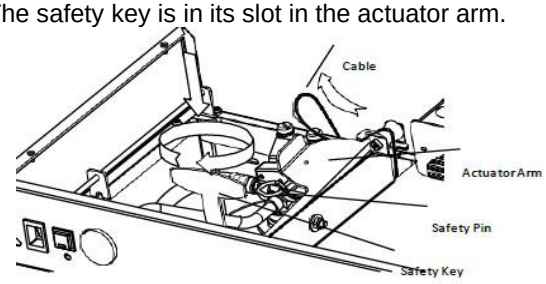


STEP 2: PLACE UNIT IN MAINTENANCE MODE TO HELP PREVENT ACCIDENTAL DISCHARGE

- Ensure that the unit is in Maintenance mode (**see Page 20**).

CHECK THE FOLLOWING:

- The safety pin is in its slot at the top of the extinguisher tank. **See figure 14.3 Tank Safety Pin**
- The safety key is in its slot in the actuator arm.



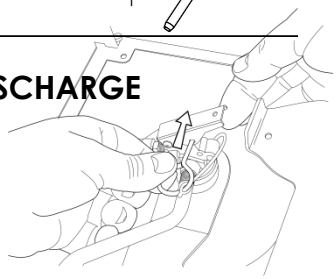


Figure 14.3
Tank Safety Pin

WARNING: *You must allow for 8-12" of slack in the wire rope cable to sit at the pull face. Failure to do so will cause the unit to discharge the next time the unit is lowered into its service position.*

STEP 3: INSTALL ACTUATION CABLE AND PIN TO CLEVIS

- Thread the actuation cable through the conduit, with the pin reaching the unit.
- Remove the grease baffle.
- There is a turnbuckle attached to the link cable, located in the plenum. Turn the turnbuckle to release tension on the link cable
- In the upper corner, locate the two pulleys **(see Figure 14.4 Pulley-Unit)**
- Hold the rear-most pulley in place.
- From the top of the unit, replace the existing clevis pin with the one on the wire rope cable.
- Push the pin through the pulley until it clicks in place.
- Re-attach the actuation cable onto the actuator arm.

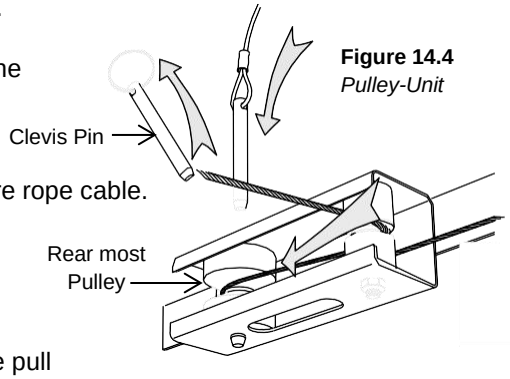
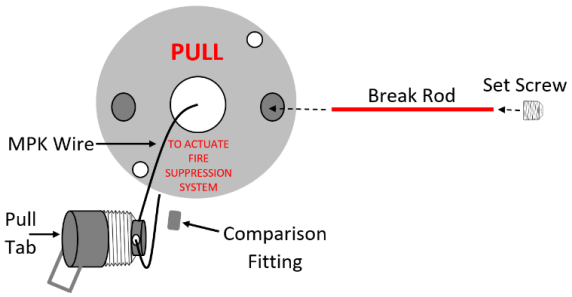


Figure 14.4
Pulley-Unit

STEP 4: INSTALL WIRE ROPE CABLE TO PULL FACE

- While the unit is still in Maintenance position, attach the wire rope cable to the pull face by crimping a sleeve in the wire rope cable through the back side of the handle.
- Ensure the wire rope cable is securely crimped to withstand at least 40 lbs. of pull force.
- Leave no more than 12" of slack in the line on the pull face end but maintain 8-12" of slack.
- Remove the MPK handle by loosening the set screw in one of the studs and sliding the red plastic rod out.
- Attach the pull face to the pull box that is already mounted to the wall, collecting any slack into the pull box.
- Do not allow slack wire rope cable to collect above the hood. (See Figure 14.5 MPK Front Plate)



MANUAL PULL STATION (MPK) INSTALLATION

CABLE TRAVELING/DISCHARGE MECHANICS

Positioning the Hood

- Lowering the hood form its Normal Operating Position (NOP) to 45º Maintenance Position (MP)
  - The stainless-steel rope travels 3.5 inches when lowering the hood from NOP to 45º MP
- In order to ease the force required to manually activate the MPK, a momentum of force is suggested when pulling the cable at the MPK station.

Manual Activation

- Per NFPA 96 Code:
  - Force
    - Shall not require more than 178N (40lbs.) of force to activate
      - Our system is tested at 15.6 lbs.
  - Travel Distance
    - Movement not to exceed 356 MM (14 inches)
    - Since the minimum traveling distance of the SS cable is 3.5 inches and the maximum per code is 14 inches, we recommend 7-10 inches of extra cable slack
  - Cable Slack Location
    - The extra cable needs to be located at the MPK Station coiled inside of the junction box.

NFPA 96 SECTION 10.5

NFPA® 96
Standard for
Ventilation Control and
Fire Protection of
Commercial Cooking
Operations

10.5 Manual Activation

10.5.1 A readily accessible means for manual activation shall be located between 1067 mm. and 1219 mm (42 in. and 48 in.) above the floor, be accessible in the event of a fire, be located in a path of egress, and clearly identify the hazard protected.

10.5.1.1 At least one manual actuation device shall be located a minimum of 3m (10ft.) and a maximum of 6 m (20 ft.) from the protected hood exhaust system(s) within a path of egress or at an alternative location acceptable to the AHJ.

10.5.1.2 Manual activation using a cable-operating pull station shall not require more than 178 N (40 lb.) of force, with a pull movement not to exceed 356 mm. (14 in.) to activate the automatic fire-extinguishing equipment.

10.5.2 The automatic and manual means of system activation external to the control head or releasing device shall be separate and independent of each other so that failure of one will not impair the operation of the other except as permitted by 10.5.3.

NOTE: *The D1000 hood systems only ship with 25' of cable; longer sections are not sold; DFP recommends following installation requirements found in NFPA96 Section 10.5*

DUCTING AND AIRFLOW

The ductwork and fittings used for outside venting must be carefully selected to ensure that the static pressure is in line with the fan parameters. The ducting is provided by other and should be specified by the HVAC contractor on the job as each local code requirement may differ.

The recommended duct length for all "D" models, allows for up to three 90° angles. The table below are readings tested at 25' of duct work where applicable.

		dB's		PRESSURE (InWater)				CFM (+ - 2.5%)	
				Fan Speed					
				Low		High			
		Fan Speed		Grease Filter				Low	High
		Low	High	Without	With	Without	With		
Front	Standard	62	70	-0.01	-0.09	-0.02	-0.18	174	276
	NFPA	60	84	-0.04	-0.26	-0.23	-1.38	216	514
Rear	Standard	62	70	-0.01	-0.09	-0.01	-0.17	139	279
	NFPA	60	80	-0.03	-0.25	-0.17	-1.35	174	519
In-line	Standard	57	69	-0.03	-0.23	-0.11	-0.61	283	474
	NFPA	60	70	-0.05	-0.29	-0.20	-0.89	297	545
Wall Mount	Standard	56	60	-0.02	-0.14	-0.05	-0.28	208	281
	NFPA	60	75	-0.01	-0.10	-0.11	-0.66	172	522
Roof Mount	Standard	61	73	-0.07	-0.40	-0.14	-0.84	357	499
	NFPA	63	75	-0.08	-0.39	-0.22	-1.09	326	548

WARNING: *The amount of fittings and ductwork directly affects the resistance or static pressure placed on the system. If the system is not within the proper static pressure range, the heat sensors and controls will be adversely affected and will impact the proper functioning of the safety controls. Therefore it is required that air flow testing be recorded along with install documentation. The air testing area is accessed by the removal of the grease tray and measured with an air flow pressure gauge.*

STATIC PRESSURE TESTING

The magnehelic gauge test port opening is located beneath the grease tray. The static pressure needs to be measured to ensure air flows meet design criteria. The airflow is measured by attaching the gauge tubing to the magnehelic gauge inlet, and the hood fitting is attached to the grease drain hole beneath the grease tray.

Refer to chart above to meet design standards. This reading will correspond to the static pressures of the ductwork, hood and fan combination.

WARNING: *The static pressure must be maintained in order for the hood to perform properly. The grease filter must be in place when performing the reading.*

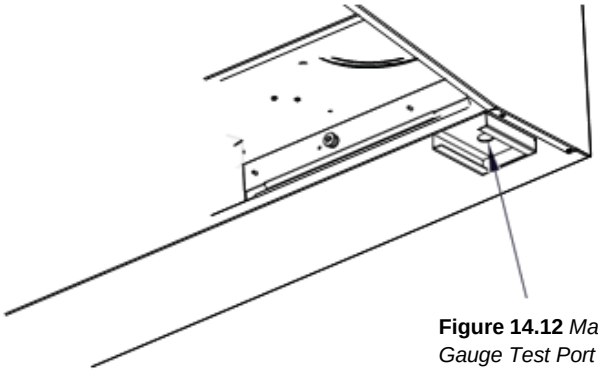
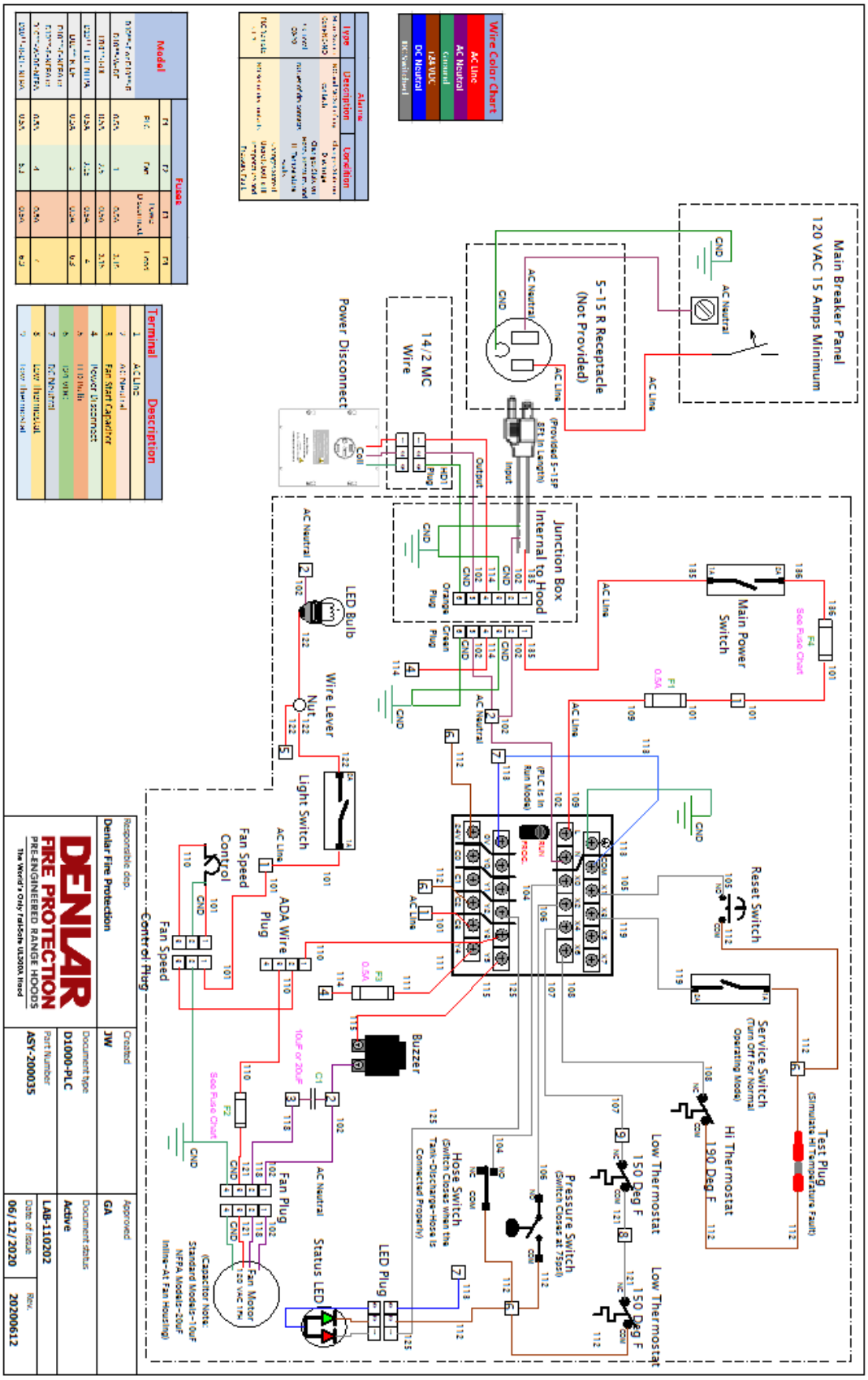
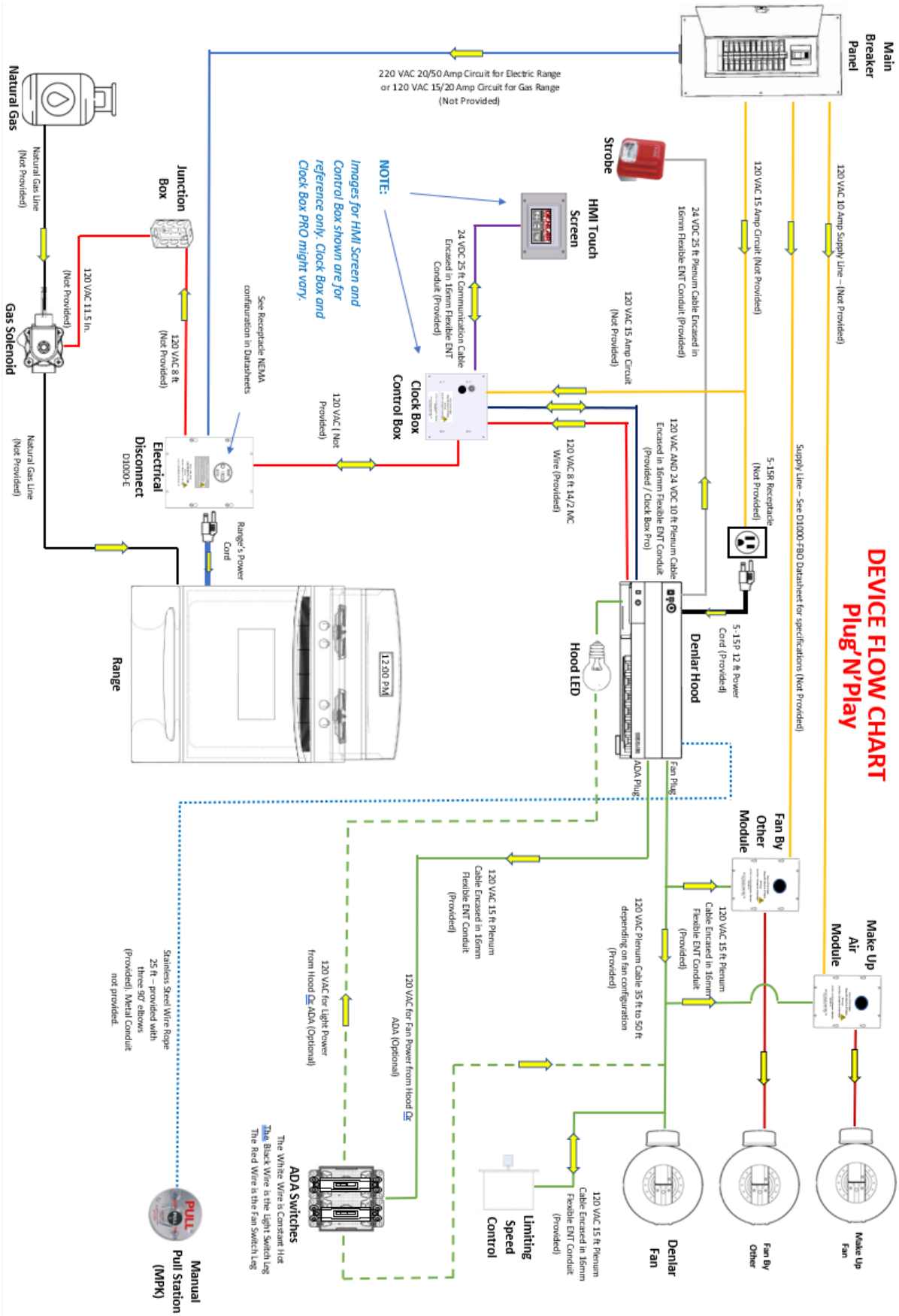


Figure 14.12 *Magnehelic Gauge Test Port*

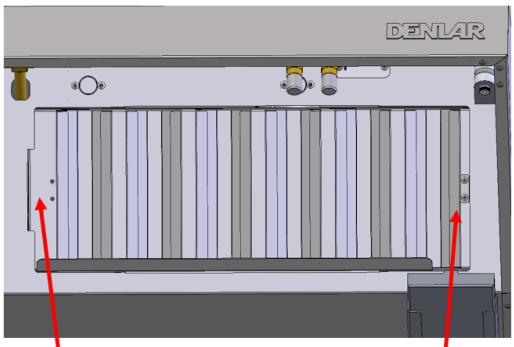
ELECTRICAL SCHEMATIC



Device Flow Chart

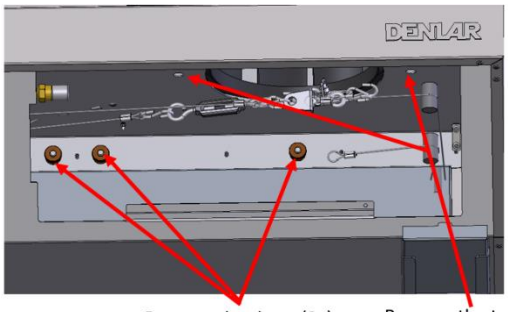


MAINTENANCE POSTION & MAINTENANCE MODE



Step 2: Pull out and slide to the left

Step 1: Push in and slide to the right



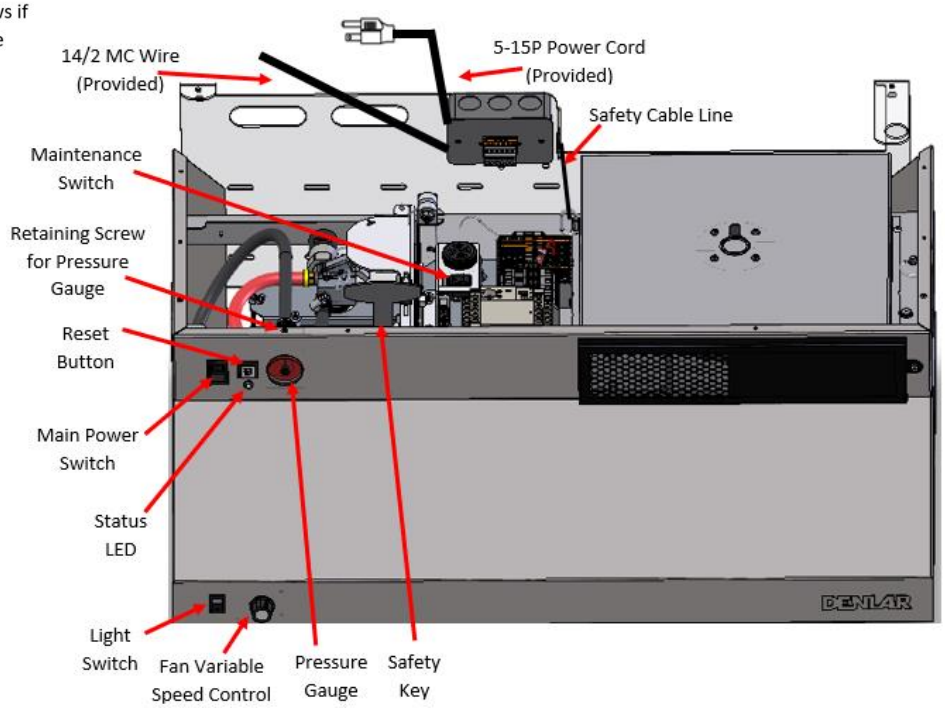
Remove the three (3x) brass thumb nuts

Remove the two (2x) thumb screws if applicable

LOWERING THE HOOD INTO MAINTENANCE POSITION

- Shut the unit off with the power switch on the front of the hood.
- Remove the grease tray and filter from the hood
- Determine if a Pull Station is Connected
- If Pull Station is present, check for adequate slack
- Determine if the unit is connected to a Duct Run
- If ducted vertically, remove thumb screws at duct by reaching into the unit
- Reach into the unit and remove thumb nuts, holding the unit in place
- As thumbs nuts are removed, support front with one hand and slowly lower front of hood until safety cable line engages

MAINTENANCE SWITCH & SYSTEM LOCKOUT



- For Maintenance or recertification, the service switch should be placed into the Maintenance Mode position (Maintenance Mode)
  - The red maintenance switch is illuminated
- For normal operation, the maintenance switch should be in the “OFF” (O) position (Operating Mode)
  - The red maintenance switch is not illuminated
  - If connected to the alarm panel the appropriate officials should be contacted prior to testing as the alarm will sound
- Before any maintenance is done the safety key should be placed in the unit to raise the paddle above the actuator arm
- The key will be parallel to the wall when in the proper position
- The safety pin should also be placed inside of the tank to prevent an accidental actuation

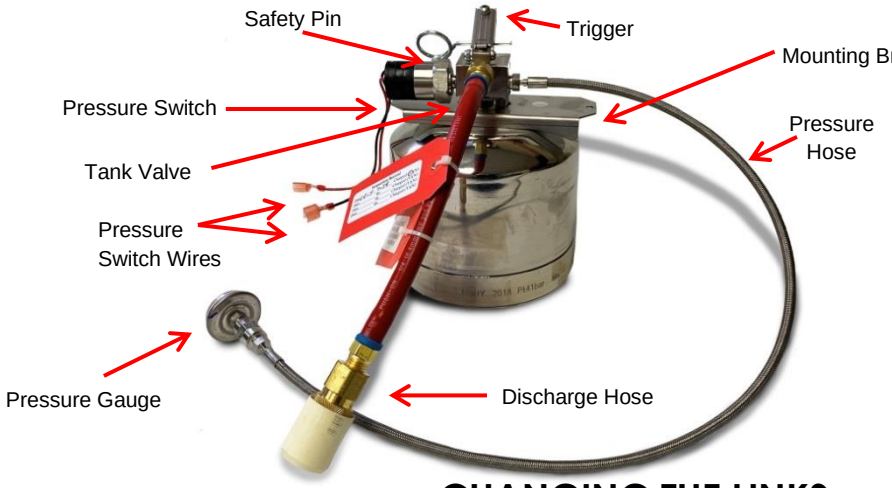
TANK AND LINK REPLACEMENT

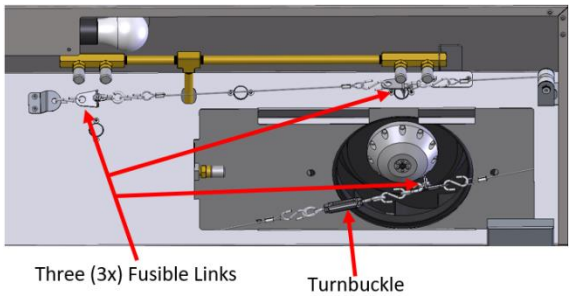
REMOVING AND INSTALLING A TANK

- Begin with the hood in the maintenance position, maintenance mode should be ON, the red maintenance switch is illuminated when in maintenance mode. Both the maintenance key and safety pin should be in place in order to prevent an accidental discharge
- Unplug the pressure switch wires and move the wires out of the way
- Disconnect the discharge hose from the hoods internal wall plate
- Remove the two wing nuts holding the mounting bracket for the tank
- Remove the retaining screw for the pressure gauge
- Lift the tank out of the hood
- To replace the tank, simply reverse your steps

If service is complete, raise the hood back into its operational position.

WARNING: *Rubber gloves and safety glasses should be worn during service or inspection of the tank. If contact with skin or eyes occurs, flush immediately with water for fifteen minutes. If irritation persists, contact a physician. If taken internally, do not induce vomiting. Dilute with water or milk and contact a physician. Follow MSDS information for handling of suppression media.*



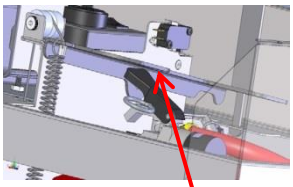


WARNING: *See page 25 for requirements on replacing fusible links.*

CHANGING THE LINKS

Note: Safety glasses should be worn.

- Begin with the hood in the maintenance position, maintenance mode should be ON (the red maintenance switch is illuminated), and both the maintenance key and safety pin should be in place in order to prevent an accidental discharge
- Loosen the turnbuckle to create slack, be careful not to unwind the metal rope
- Unhook the existing links
- Replace the fusible link by hooking the new link in place
- Tighten the turnbuckle by screwing it back in and verify all connections are in place



NOTE: *The actuator arm should not be touching the paddle.*

TEST TANK AND DEMONSTRATION

If a test is needed with a test tank, a Nitrogen only tank (D1000-TANK-TEST) will need to be ordered separately.

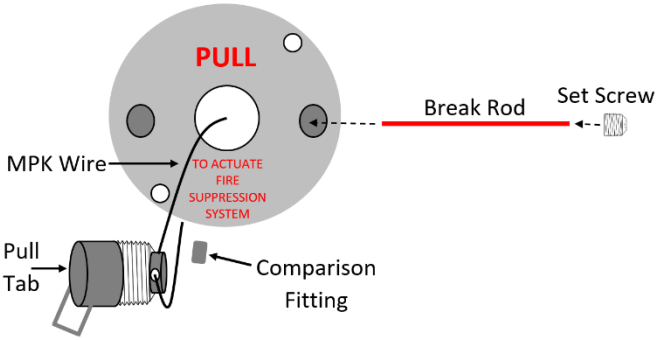
- Using safety glasses follow the instructions for replacing a tank. The system should be in its operational position prior to testing, the red maintenance switch is not illuminated

The unit can be actuated one of two ways:

1. Replace the fusible link with a test link.
   a. Cut the test link with wire cutters or similar.
2. Manual Pull Station (if installed)
   a. Remove the plastic break rod (to avoid breaking the rod) from the pull face with an Allen wrench (see figure 14.5)
   b. Pull the handle to actuate the unit.
   c. Return the Manual Pull Station to its operational state

- Nitrogen will be released from each nozzle simultaneously. Note: The blow-off nozzle caps will be released.
- Once test is done:
  - Replace the test tank with the extinguisher tank
  - Replace the test link with a fusible link
  - Return the unit to normal operational mode.
  - Replace the blow-off nozzle caps.

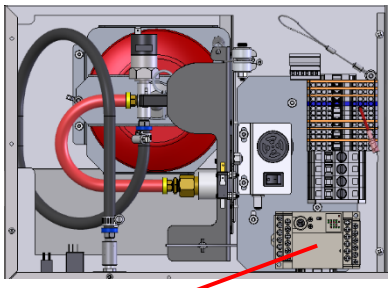
NOTE: *If performing the Manual Pull Station test without a test tank and the fully charged tank is pinned off, the hood will not go into alarm mode and shut off the range. The hood monitors the pressure in the tank not the mechanical actuation of the hood. To simulate a discharge or loss of pressure in the tank the pressure switch is unplugged. There is a red and black wire coming from the pressure switch. The wires connect to two grey wires, unplug either of the wires to simulate loos of pressure in the tank.*

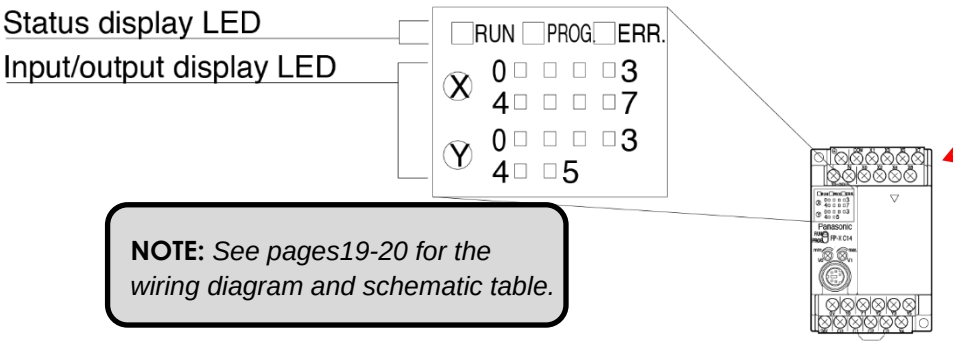


TROUBLESHOOTING THE D1000 SYSTEM

D1000 OPERATING SYSTEM-PLC DRIVE FUNCTIONS

PROGRAMMABLE LOGIC CONTROLLER (PLC)





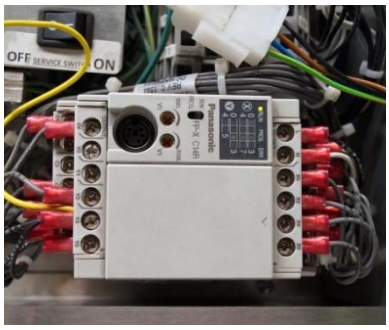
NOTE: *See pages19-20 for the wiring diagram and schematic table.*

HOW THE ENVIRONMENTAL MONITORING SYSTEM WORKS

The PLC operating system is designed to enhance the functionality of the unit and the safety of the cooking environment. The system relies on the input of a set of three thermostats to control the fan and shutoff power to the range when the temperature reaches the preset points. There are two temperature thresholds that the PLC responds to: 150◦F and 190◦F.

- There are two 150◦F temperature switches. When this set point is reached, the following will occur:
  - The fan will turn ON to the 'HIGH' speed setting, overriding front panel switch settings.
- There is one 190◦F temperature switch. When this set point is reached, the following will occur:
  - Power Source Disconnect de-energizes shutting OFF the power to the range.
  - 'Local' alarm output tripped, indicating a trouble condition with the unit.
    - The output is from contacts C0 and Y0 on the PLC
    - The Buzzer beeps five (5x) times

PROGRAMMABLE LOGIC CONTROLLER (PLC)



There are two rows of LED's next to the X (inputs)

X0 - Hose switch (hose in place) LED ON
X1 - Reset switch (this is ON when the reset switch is pressed)
X2 - Pressure switch (proper pressure) LED ON
X3 - Maintenance switch is in the OFF position for normal operating mode
Note: *The maintenance switch is not illuminated in normal operating mode. In maintenance mode the maintenance switch is illuminated.*
X4 -Both low temperature thermostats are in the normal position LED ON
X6 - High temperature thermostat in the normal position LED ON

There are two rows of LED's next to the Y (outputs)

Y0 - Alarm output for local alarm is off unless one of the following events occurs. The hose switch, the high temperature switch, or the pressure switch open due to an event.
Y1 - Alarm output is off unless the tank's pressure drops below 75 PSI and the high temperature thermostat is above 190◦F. The output turns on only if both conditions happen.
Y2 - Status LED (should be off under normal operating conditions)
Y3 - Fan (this will be on when the PLC turns the fan ON)
Y4 - Output to the power disconnect (ON in normal operating conditions) LED ON
Y5 - Output for the buzzer (OFF under normal operating conditions)

SELF-MONITORING SYSTEM

LOW PRESSURE

HOW TO TEST FUNCTION:

- Unplug one of the wire terminal connections attached to the pressure switch.
- The status LED turns from green to orange blinking with the buzzer.
- Power for gas solenoid or electrical disconnect turns OFF.
- Audible buzzer inside of hood beeps 4 times.
- Local Alarm Activation “Y0 -C0”
- Hood remains powered.

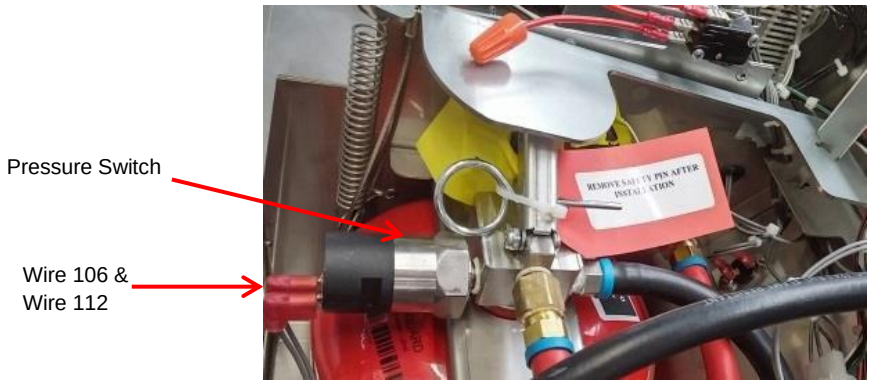


Figure 14.10
Extinguisher Tank

LOOSE CONNECTION ON DISCHARGE HOSE

HOW TO TEST FUNCTION:

- Unplug the quick disconnect coupling on the hose to the discharge manifold.
- The status LED turns from green to orange blinking with buzzer.
- Power for gas solenoid or electrical disconnect turns OFF.
- Audible buzzer inside of hood beeps 3 times.
- Local Alarm Activation “Y0 to C0”
- Hood remains powered

HIGH TEMPERATURE SWITCH

HOW TO TEST FUNCTION:

- Unplug the red wire with the pink termination connection on the central strip (#4) Note: Do not remove the wire, only unplug the connection.
- The status LED turns from green to orange blinking with buzzer.
- Power for gas solenoid or electrical disconnect turns OFF
- Audible buzzer inside of hood beeps 5 times
- Local Alarm Activation “Y0 to C0”
- The fan turns on to ‘High’ speed setting.
- The fan remains ON for 3 minutes after the temperature on the center thermostat drops below 190◦F or until the red wire is reconnected.
- Hood remains powered

SELF-MONITORING SYSTEM

LOW TEMPERATURE SWITCH

HOW TO TEST FUNCTION:

- Use heat gun on either the left or right low thermostat. Be careful not to apply heat to the fusible link.
- The fan turns ON
- The fan remains ON for 3 minutes after temperature falls below 150'F

HIGH TEMPERATURE AND LOW TEMPERATURE SWITCH

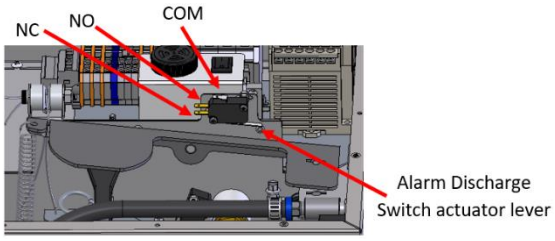
HOW TO TEST FUNCTION:

- Unplug the red wire with the pink termination connection on the central strip (#4) (Do **NOT** remove the wire, only unplug the connection).
- Unplug the wires attached to the pressure switch (see Figure 14.10 Extinguisher tank).
- The fan turns ON.
- The status LED turns from green to orange.
- The range fuel source turns OFF.
- Audible buzzer inside of the hood is on continuously.
- Local Alarm Activation "Y0 to C0"
- Remote Alarm Activation "Y1 to C1"
- Hood remains powered.

ALARM DISCHARGE SWITCH

HOW TO TEST FUNCTION:

- Depress actuator lever located at the micro-switch above to tank (see figure 14.11)
- Check continuity of both normally open & closed contacts.



MAINTENANCE SWITCH IN "ON" POSITION

HOW TO TEST FUNCTION:

- The Maintenance Switch is illuminated
- The status LED turns from green to blinking orange
- Power source disconnect turns OFF
- No alarm closure at Y1-C1 or Y0 and C0
    - No audible buzzer
    - Hood remains powered
    - Fuel source turns OFF

NOTE: *Pressing the reset button will not reset the hood unless the maintenance switch is in the OFF position (not illuminated).*

MAINTENANCE

HOW THE D1000 WORKS

The D1000 is a fully integrated fire suppression range hood system. It functions as a standard ventilation range hood with the capability to suppress fires on the cooktop. The D1000 is designed for use over 30”and 36” residential ranges, in “not for profit” cooking environments. The D1000 uses a mechanical commercial style automatic fire suppression system.

- A PLC provides an internal alarm connection for up to two external alarms that may go to a local alarm panel and/or remote location; i.e. the local fire department.
- The unit is powered by a standard 120 VAC/60Hz/15A/ single phase circuit.
- The thermostat switches react to preset points to turn the fan ON to dissipate heat and prevent a fire event.
- If a fire occurs, the fusible links will melt, causing the hood’s system to release the fire suppression (Amerex 660) mechanically fail safe process

WARNING: *Safety glasses and gloves must be worn whenever service operations are performed.*

The hood should be put in maintenance mode (see page 20) prior to service.

RECOMMENDED MAINTENANCE SCHEDULE

	Monthly	Semi-Annually	Annually
Cleaning	Clean Grease Filter & Grease Tray, Wipe Hood, Links, and Wire Rope to Remove Grease Build Up		
Discharge Nozzles	Inspect for Grease build-up, etc. Clean and/or replace as needed		
Fusible Links	Inspect for signs of loosening and wear; if any is present replace as needed	Replace on a semi-annual basis once the the unit has goine into service or is required by local code(s)	
Extinguisher Tank	Inspect-if any leaks are detected the tank should be replaced, not recharged.		Recertify

NOTE: *The pressure gauge should be inspected for the proper pressure levels prior to each use.*

FUSIBLE LINKS

The date stamped into a fusible link during manufacturing is intended as “Inventory Control Identification”. The date however, in no way limits or suggests when the fusible link can be used. It is important to understand that fusible links, having never being used, have no shelf life. Fusible links only begin to degrade once they are installed into a system and exposed to the hazard. From the installed date, the life of the fusible links is not to exceed six (6) months. Replacement is required as the links may not be reused. The code requires used links to be destroyed after use. Refer to NFPA17A 7.3.4 for additional information.

WARNING: *Each fusible link must be replaced after six months of use.*

MAINTENANCE

CLEANING THE HOOD

- To remove cooking debris and grease build up, clean the unit thoroughly using a mixture of mild detergent and warm water. Taking care not to splash water onto the electrical system, as this could damage the hood.
- The grease entrapment filter, grease tray and front discharge grille (on recirculating hoods only), should be cleaned by running through the dishwasher or washing them in the sink with mild detergent and warm water
- The carbon filter cannot be washed and should be replaced periodically as needed. About every 2-3 months depending on the amount of use.

NOTE: *Abrasive cleaning pads are not recommended as they may scratch or mar the surface.*

INSPECTING THE DISCHARGE NOZZLES

- All discharge nozzles have blow-off nozzle caps installed. Remove nozzle caps by carefully pulling them off.
- Inspect the nozzle orifice and caps for grease build-up and/or if so rinse with hot water until build-up is no longer present.
- If clogging is suspected, remove the discharge nozzle with a 7/16” wrench
    - Flush with hot water until the water flows freely through the discharge nozzle
    - If this cannot be achieved, replace the nozzle since it can substantially compromise the fire suppression.
- Re-install the discharge nozzle and protective nozzle caps

NOTE: *The nozzle caps should stay on the discharge nozzles at all times. In the event of a discharge, the caps will blow-off.*

INSPECTING THE FUSIBLE LINKS

The fusible link system should be inspected monthly to ensure the unit is in proper working order in the case of a fire.

- Place the hood in maintenance mode (see page 21).
- Remove the extinguisher from the hood (see page 22).
- Check fusible links for signs of wear and for date stamp
    - When the fusible links need to be replaced, replacements may be ordered from your local distributor
- Inspect the pulleys and actuation cable.
- Pulleys should rotate freely and the actuation cable should be flexible.
- Ensure there is no grease build-up present; if there is, carefully clean with a mixture of mild detergent and warm water.
- Reinstall the tank by reversing the steps to remove the tank.
- Remove the hood from maintenance mode and return to normal operation mode.

WARNING: *If grease build-up on the actuation cable is not kept to a minimum, the actuation cable could become stiff and will not discharge the suppressant in the event of a fire.*

MAINTENANCE

10 YEAR MAINTENANCE

Hydrostatic testing and new liquid agent, or tank replacement is recommended at ten-year intervals. The manufacture date is identified on the top of the tank. Material Safety Data Sheets (MSDS) are available at denlarhoods.com

WARNING: *Rubber gloves and safety glasses should be worn during service or inspection of the tank. If contact with skin or eyes occurs, flush immediately with water for 15 minutes. If irritation persists, contact a physician. If taken internally, do not induce vomiting. Dilute with water or milk and contact a physician. See MSDS for more information.*

INSPECTING THE EXTINGUISHER TANK

The extinguisher tank should be inspected monthly and recertified annually.

- Check the gauge on the tank (visible from the outside of the hood) for the tank's pressure.
  - Needle should be in the green section of the pie.
- Place the hood in Maintenance mode (see page 20)
- Check the tank for any visible signs of wear or leaks; if any leaks are present, the tank will have to be replaced with a new tank.
- Be sure to check all connections to ensure there are no loose connections.
- Return the hood into normal Operating mode.

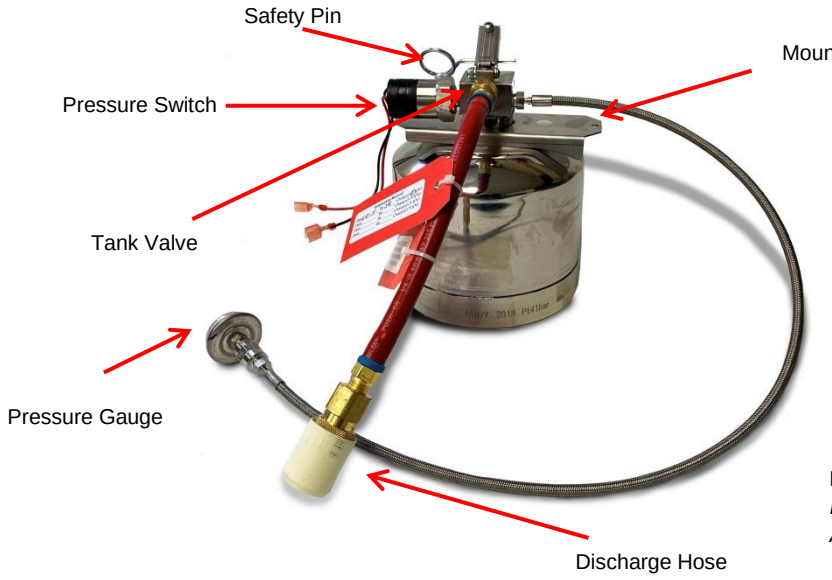


Figure 14.9
Extinguisher Tank Assembly

LIGHTING

Illumination is provided by a 120VAC 60-Watt medium-base shatterproof incandescent light bulb or a shatterproof LED bulb. To replace, ensure the light switch is in the "OFF" position, and then gently unscrew the bulb and replace accordingly. (Bulb: 60-Watt15/TF LED: 5A15)

OPERATING THE HOOD

OPERATING THE MAIN POWER

The D1000 hood has a Main Power ON/OFF switch.

- Prior to operating the hood ensure that the main power switch is in the ON (I) position
    - The main power switch is in the upper top left corner of the hood (see Page 21)

THE RESET BUTTON

If the hood loses Power or is turned OFF the reset switch needs to be pressed.

- When power is applied to the hood the status LED goes green for a second then turns to orange.
- While the status LED is orange press the white reset button once, for normal operating mode (see switch with "check burner" label).
- The status LED will be green when the system has reset and is in normal operating mode.

OPERATING THE FAN

The fan on your D1000 hood has a fan speed controller.

- The fan speed controller operates from OFF to ON and high to low speed setting.
- Turn the knob clockwise until the fan is at its desired speed before beginning to cook
- Turn the knob counterclockwise until the fan speed controller clicks to turn off the fan.

TURNING ON THE LIGHT

- To turn the light ON push the rocker switch (located on the front of the hood) so that the switch is in the ON (I) position
- To turn the light OFF push the rocker switch so that the switch is in the OFF (0) position

USING YOUR ADA (OPTIONAL)

The handicap accessible control box will control the fan and light on the hood from a remote location (see page 19).

CLOCKBOX (OPTIONAL)

The Clockbox controls power to your range, by requiring a password to be entered to power the range for 120 minutes (see Clock Box Manual).

NOTE: *For more detailed instructions on how to use the CLOCKBOX refer to the manual that came with the CLOCKBOX.*

AFTER AN ACTUATION

CLEAN-UP

Kitchen surfaces should be cleaned immediately after a system discharge due to the fire-suppressing agent's alkaline nature.

- Observing the recommendation and clearance from the fire officials, allow the system to cool down before attempting to clean.
- Ensure all fuel or electrical sources to the equipment to be cleaned are OFF.
- Unplug the hood and all appliance's electrical controls to avoid any risk of electrical shock resulting from the cleaning process or from an electrically conductive liquid agent.
    - Discard all food and cooking oil that has contacted the extinguishing agent. It is no longer suitable for consumption.
- Wipe agent off with paper towels or rags removing as much excess agent as possible
- Use hot, soapy water to clean away residue on all surfaces that the agent has come into contact with.
- Completely dry all areas before continuing Maintenance procedure

INSPECT THE UNIT

Ensure that no fire and/or smoke damage is present on any of the unit's components

DETERMINE THE CAUSE OF THE DISCHARGE

Determining the cause of the system's discharge before replacing the fire-suppression system and re-setting the unit is critical to ensure the system performed correctly, or if there is evidence of malfunction.

NOTE: *Contact the manufacturer before continuing if a malfunction is suspected.*
Potential Causes:

- The fusible links have been melted by a fire, causing the system to discharge.
    - If there is evidence of a fire inspect the electrical system and wiring for heat damage.
- The remote pull station (optional) was pulled.
- If fusible links are over 6 months old or have expired, they may have stretched causing the actuation cable to be released.

RESET THE SYSTEM

- Refer to local codes in bringing the system back to operation.
- Remove the extinguisher tank and replace with a test tank (see Page 22).
- Remove the fusible links from the actuation cable assembly and replace links with new properly rated links and one test link at the terminal end (see Page 22).
- Return the tanks discharge paddle and actuation cable to the set position.
- Replace the nozzles.
- Using wire cutters, cut the test link at the terminal end to simulate an actuation.
- If the mechanism does not actuate, check the following and address as needed:
    - The fusible links are in the correct position through pulleys.
    - No twists or knots are present in the actuation cable.
    - Ensure that the actuator arm is in place and in the set position.
    - Verify the safety pin is removed from the tank and the safety key has been removed.
    - Re-test the system after installing a new test link on the terminal end.
    - If problems persist contact the manufacturer.
- Once the system actuates successfully replace the test tank with a fully charged tank and replace the test link with the correct fusible link.

WARNING: *Safety glasses and gloves must be worn for all operations. Flush thoroughly with water if agent comes in contact with skin or eyes.*

AFTER AN ACTUATION

RESETTING THE POWER DISCONNECT

Gas Disconnect

- Refer to local codes in bringing the system back to operation.
- Observing the recommendation and clearance from the fire officials and make sure all burners are in the OFF position. Turn off any electric or mechanical devices capable of igniting gas to reduce the risk of explosion due to leaking gas.
    - Done by a licensed and qualified individual.
- See Reset the System (page 38).
- The gas solenoid valve will energize into its normal operating position (open).
- Examine burners for gaseous odor.
    - If gas odor exists, turn the main power switch OFF (O).
    - This will cause the gas solenoid valve to close and will shut off the gas supply.

Electric Disconnect

- Check to ensure the power switch on the top left of the hood is in the ON (I) position
- Press the white manual reset button on the top left of the hood
    - The status LED will turn from Orange to green
    - The disconnect will be energized

If the system does not reset, check for one of the following issues:

- Tank hose is not connected properly.
- Tank pressure switch wire is disconnected.
- Tank does not have adequate pressure.
- Power to the hood is OFF.
- Maintenance switch is in the ON (I) position.
- Check the status LED and audible buzzer for fault codes.

D1000 COMMON PARTS LIST

Model	Description
D1030-F	30-Inch-Wide - Front Vented, Recirculating Design, 18 GA, 304 Stainless Steel Hood with Internal Fan, PLC Environmental Monitoring & Fire Suppression System
D1030-R	30-Inch-Wide - Rear Vented, Rear Duct Connection, 18 GA, 304 Stainless Steel Hood with Internal Fan, PLC Environmental Monitoring & Fire Suppression System
D1030-D***	30-Inch-Wide - Top Vented, Vertical Duct Connection, 18 GA, 304 Stainless Steel Hood with External Fan, PLC Environmental Monitoring & Fire Suppression System
D1036-F	36-Inch-Wide - Front Vented, Recirculating Design, 18 GA, 304 Stainless Steel Hood with Internal Fan, PLC Environmental Monitoring & Fire Suppression System
D1036-R	36-Inch-Wide - Rear Vented, Rear Duct Connection, 18 GA, 304 Stainless Steel Hood with Internal Fan, PLC Environmental Monitoring & Fire Suppression System
D1036-D***	36-Inch-Wide - Top Vented, Vertical Duct Connection, 18GA, 304 Stainless Steel Hood with External Fan, PLC Environmental Monitoring & Fire Suppression System
⚠ **External Fan for "D1000-D" Ducted Models and NFPA upgrades**	
IF	D1000 Only – 10" Inline Fan and 35 Foot Cable
WF	D1000 Only – Exterior Wall Mount Fan with 35 Foot Cable
RF	D1000 Only – Roof Mounted Fan with 50 Foot Cable
F (R)-NFPA	D1000-F (R) - Upgrade to NFPA Life Safety Code with Internal Fan
IF-NFPA	D1000-D-IF – 12" Inline Fan and 35 Foot Cable with Upgrade to NFPA Life Safety Code
WF-NFPA	D1000-D-WF – Exterior Wall Mount Fan with 35 Foot Cable with Upgrade to NFPA Life Safety Code
RF-NFPA	D1000-D-RF – Roof Mounted Fan with 50 Foot Cable with Upgrade to NFPA Life Safety Code
Range Element Disconnect	
D1000-E	Electrical Disconnect Box * [required - which NEMA is needed, 120V 5-15, 5-20, 220V 6-20 or 14-50]
D1000-G	3/4" NPT Solenoid Gas Valve 120VAC
D1000-DED	Dual Element Disconnect Integrated 'E' and 'G' * *[required if electric Igniters need to be powered]* [required - which NEMA is needed, 120V 5-15, 5-20, 220V 6-20 or 14-50]
D1000-DRD	Dual Receptacle Disconnect 2-120VAC (5-15 or 5-20) or 2 -220VAC (6-20) Receptacles * *[required - which NEMA is needed?]*
Optional Components	
CLBX	The "ClockBox" - password protected, range element time out system
D1000-ADA	Handicap Accessible Control Box Includes wiring harness, light and fan controls
D1000-MPK	Manual Pull Kit, Face Plate, 3 Elbows, 25 Foot Cable
D1000-LSC	Limiting speed control module to limit maximum CFM's exerted by the fan
D1000-FBO	Control Module to allow the use of a fan not provided by DFP, see data sheet for details
D1000-MACM	Make-up Air Control Module External to energize a separate Make-Up Fan (not provided), limited to 10 Amps
D1000-STROBE	Horn & Strobe Light, designed to be used in conjunction with the D1000
D103X-TC-D	Top Cover for D1030/D1036 Ducted "D" Models
D103X-TC-F (R)	Front / Rear Vented Top Cover for D1030/D1036 Model (not compatible with NFPA101)
Test Kits & Spare Parts	
D1000-TANK-FC	D1000 Replacement Kit Tank Assembly, Fully Charged *[cannot ship via Air]*
D1000-TANK-TEST	D1000 Test Kit Tank Assembly, Nitrogen only with Adapter & Test Link *[cannot ship via Air]*
D1000-TANK-SA	D1000 Replacement Kit Tank Assembly with Suppression Agent with Adapter but unpressurized *[requires Nitrogen charge]*
D1000-TANK-E	D1000 Replacement Kit Tank Assembly without Suppression Agent with Adapter / Unpressurized *[requires Nitrogen charge]*
D1000-TEST-KIT	D1000 Test Kit (Set of 2 Test Links, 5 Nozzle Caps and 1 Safety Key & Pin)
D103x-ASK	D1030= 212 ºF or D1036=280ºF- Annual Service Kit (3 Links & 1 Service Tag)

D1000-LED Bulb	D1000 LED Bulb, Pack of 2
D1000-FL212	D1030 Fusible links, 212 ºF 3 Links
D1000-FL280	D1030 Fusible links, 280 ºF 3 Links
D1000-SNC	D1000 Set of 10 Nozzle Caps
D1000-WRA-3x	D1030 or D1036 Wire Rope Assembly Set
D1000-FPAK	D1030-F & D1036-F Charcoal Filters (non NFPA101), Pack of 10
D1000-FPAK30	D1030-F-NFPA101 Charcoal Filters for 30” models, Pack of 10
D1000-FPAK36	D1036-F-NFPA101 Charcoal Filters for 36” models, Pack of 10
D1000-KEY	D1000 Replacement Safety Key
D1000-GF	D1000 Grease Entrapment Filter
D1000-GC	D1000 Grease Entrapment Filter Cup
D1000-FUSEKIT	D1000 Replacement System and ClockBox Fuses

* Select NEMA needed: 5-15(120VAC-15 Amp), 5-20 (120 VAC-20 Amps), 6-20 (220VAC -20 Amps), 14-15 (220VAC – 50 Amps)
*** External Fan Option for all D1000-D models Only

ADDITIONAL INFORMATION

CONTACT INFORMATION

DENLAR Fire Protection
10 Denlar Dr.
Chester, CT 06412
P: 860-526-9846
F: 860-526-9585
denlarhoods.com

MAINTENANCE

860-526-9846 option 2
Maintenance@denlarhoods.com

SALES

860-526-9846 option 1
sales@denlarhoods.com

WARRANTY INFORMATION

Specific warranty statement can be found at denlarhoods.com within the product pages or by contacting us via e-mail at info@denlarhoods.com with a request for the Warranty Statement.