EFFECTIVE DATE 4-2005

THE GAYLORD VENTILATOR TECHNICAL MANUAL

FOR THE Ultima Vent™ "CG3-UV" SERIES WATER-WASH VENTILATORS WITH MODEL C-6000-UV COMMAND CENTER

GAYLORD INDUSTRIES
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"Undisputed World Leader in Engineered Systems for Commercial Kitchens"tm

GAYLORD INDUSTRIES

World Headquarters: 10900 S.W. Avery Street • Tualatin, Oregon 97062-1149 U.S.A.

To Our Customers. . .

Congratulations on your recent purchase of a Gaylord kitchen exhaust hood system. We are proud to be able to provide you with a quality product that incorporates the latest engineering concepts and is a result of over 50 years of experience in the foodservice kitchen exhaust industry.

If you have other Gaylord equipment such as a Gaylord Utility Distribution System, Quencher Fire Protection System, or Roof Top Air Handling Equipment, etc., please refer to the corresponding supplementary equipment manuals.

If you have further questions, please visit our web site at: www.gaylordusa.com, or call us toll-free at 1-800-547-9696. We are more than happy to help.

Sincerely,

Gaylord Industries

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"CG3-UV" VENTILATOR DESCRIPTIONS

There are 5 different types of **"CG3-UV"** "Classic Gaylord", water-wash ventilators. The differences involve the type and location of fire damper and whether the ventilator has a fire damper. The first part of the model number indicates the type of ventilator, see below:

Explanation of Prefixes:

CG3-UV	Water-wash ventilator with three-position, thermostatically activated (electric) damper at air inlet slot.**[With Damper motor and 1 or more Thermostat(s)]**
CG3-UV-FDL	Water-wash ventilator with three-position, thermostatically activated (electric) damper at air inlet slot. A bracket (Fire Damper Lockout) has been added to prevent the damper from closing to the fire position.**[With Damper motor and 1 or more Thermostat(s)]**
CG3-UV-FDD	Inlet damper is fixed, and there is a weighted fuse link activated fire damper located at the duct collar. **[No Damper motor, No Thermostats]**
CG3-UV-FDT	Inlet damper is fixed, and there is a weighted fuse link activated fire damper located at the duct collar, and there is a single thermostat to activate the fire mode in the control cabinet and ventilator.**[No Belimo, One Thermostat]**
CG3-UV-ND	Inlet damper is fixed. No Fire Damper at duct collar. A bracket (Fire Damper Lockout) has been added to show that the damper will not close to the fire position. **[No Damper motor, No Thermostats]**

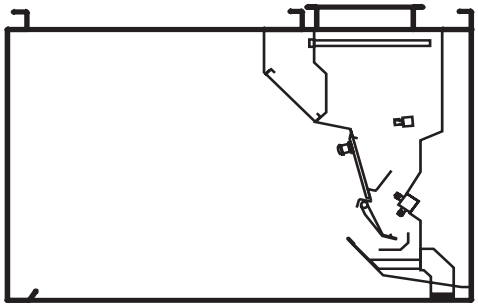
Summary of "CG3-UV" Ventilators:

The CG3-UV and CG3-UV-FDL are very similar. Both have a damper motor that closes the inlet damper during the wash mode and stays closed until the exhaust fan is started. Both have thermostats that can detect an "Internal Fire". The main difference is the CG3-UV-FDL has a Fire Damper Lockout (FDL) bracket added that prevents the inlet damper from closing to the fire position, so it does NOT have a fire damper.

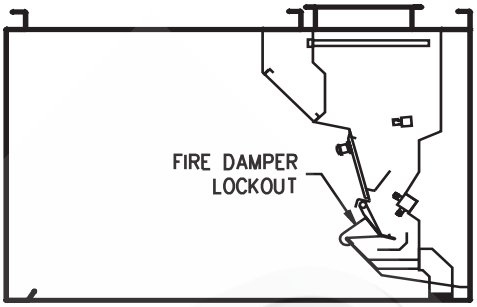
The CG3-UV-FDD and CG3-UV-FDT are similar to each other. Both have fixed inlet dampers and do not have damper motors. They both have fuse link activated fire dampers in the duct collar that will close when the temperature reaches 280°F. The CG3-UV-FDT has an added thermostat that will detect an "Internal Fire" and activate the "Internal Fire Mode". The CG3-UV-FDD does NOT have any thermostats.

The CG3-UV-ND has a fixed inlet damper and does NOT have a fire damper.

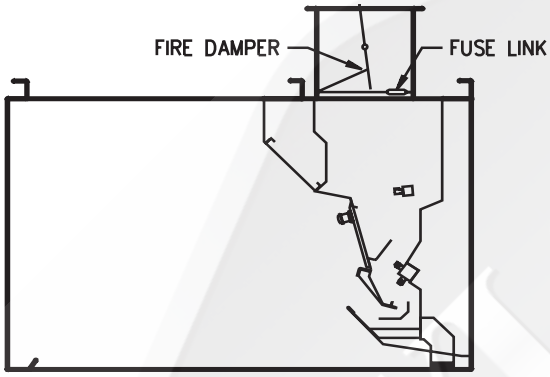
"CG3-UV" VENTILATOR DESCRIPTIONS



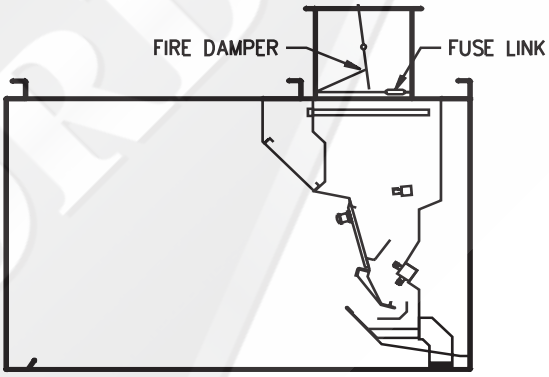
CG3-UV SERIES
ELECTRIC INTERNAL DAMPER
[W/DAMPER MOTOR &
THERMOSTAT(S)]



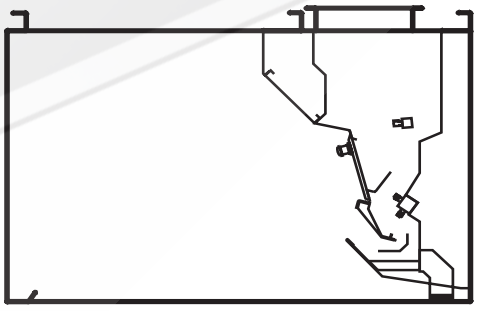
CG3-UV-FDL SERIES
FIRE DAMPER LOCKOUT
[W/DAMPER MOTOR &
THERMOSTAT(S)]



CG3-UV-FDD SERIES
FUSE LINK DUCT COLLAR DAMPER
[NO DAMPER MOTOR, NO
THERMOSTAT(S)]



CG3-UV-FDT SERIES
FUSE LINK DUCT COLLAR DAMPER
[NO DAMPER MOTOR, ONE
THERMOSTAT(S)]



CG3-UV-ND SERIES
NO DAMPERS
[NO DAMPER MOTOR, NO
THERMOSTAT(S)]

GREASE EXTRACTION

The Gaylord "CG3-UV" Series Ventilator extracts up to 95% of the grease, dust and lint particles from the airstream passing through it, when operated and maintained in accordance with design specifications.

The hot, contaminant-laden air rising from the cooking surface merges with the higher velocity air that wipes the front of the cooking equipment and extends, like an air blanket, from the front edge of the cooking equipment to the air inlet of the ventilator. As the air moves through the ventilator at a high speed, it is forced to make a series of turns around three baffles. As the high velocity air turns around each baffle, the heavier-than-air particles of grease, dust and lint are thrown out of the airstream by centrifugal force. The extracted grease, dust and lint are collected in the interior of the ventilator, remaining out of the airstream until removed daily by the wash cycle.

Baffle #1

This baffle, located at the air entrance of the ventilator, is a three position damper. Position 1 is the exhaust on mode as shown in Figure 1 below, position 2 is the wash mode, and position 3 is the fire mode. When the **"Start Fan"** button is pushed on the control cabinet, the damper opens to the exhaust mode (position 1) to become the preliminary grease extraction baffle. There is a small sloped grease collecting gutter on the back side of the damper which drains off liquefied grease, preventing it from re-entraining into the airstream.

Baffle #2

This baffle is located on the interior back wall of the ventilator and is a stainless steel pipe, equipped with brass spray nozzles on 8" to 10" centers. (Refer to Figure 1) During the wash cycle, hot detergent water is released through the nozzles. If the ventilator's automatic fire control system is activated, fire smothering water spray is also released through the spray nozzles.

Baffle #3

This baffle is located on the back of the inspection doors. This baffle is also a grease collecting gutter, collecting grease, dust and lint extracted by the ventilator - preventing the contaminants from dropping back into the high velocity airstream.

Particulate Separator

Once the largest particles of grease have been captured through inertial impaction by the baffles. The smaller particles of grease will be arrested in the particulate separator using the principles of diffusion and inertial impaction. These collected particles wil be washed away each day by the automatic wash.

UV Lamps

Once the baffles and particualte separator have collected the grease particles larger than 1 micron. The UV lights will be able to break down the remaining grease by direct exposure to 254nm light and by the Ozone, Hydroxyl Radicals and Anionic oxygen created by the 187nm UV light. This will carry down the ductwork and continue to break down the grease, particulate and odor molecules keeping the ductwork much cleaner. The byproducts of this process are CO_2, H_20 and the base minerals from the grease and particulate matter coming off of the cooking surface. There will be a light gray dust that collects on the lamps which will be washed away each day during the wash. The ductwork will need to be inspected per NFPA-96 schedules but, will need much less frequent cleaning.

NOTE: Some ventilators may be equipped with optional "Custom Air" baffles (shown dotted) which reduces the exhaust volume where the baffle occurs.

NOTE: Some ventilators may be equipped with optional continuous cold water mist. Refer to Page 27 for details.

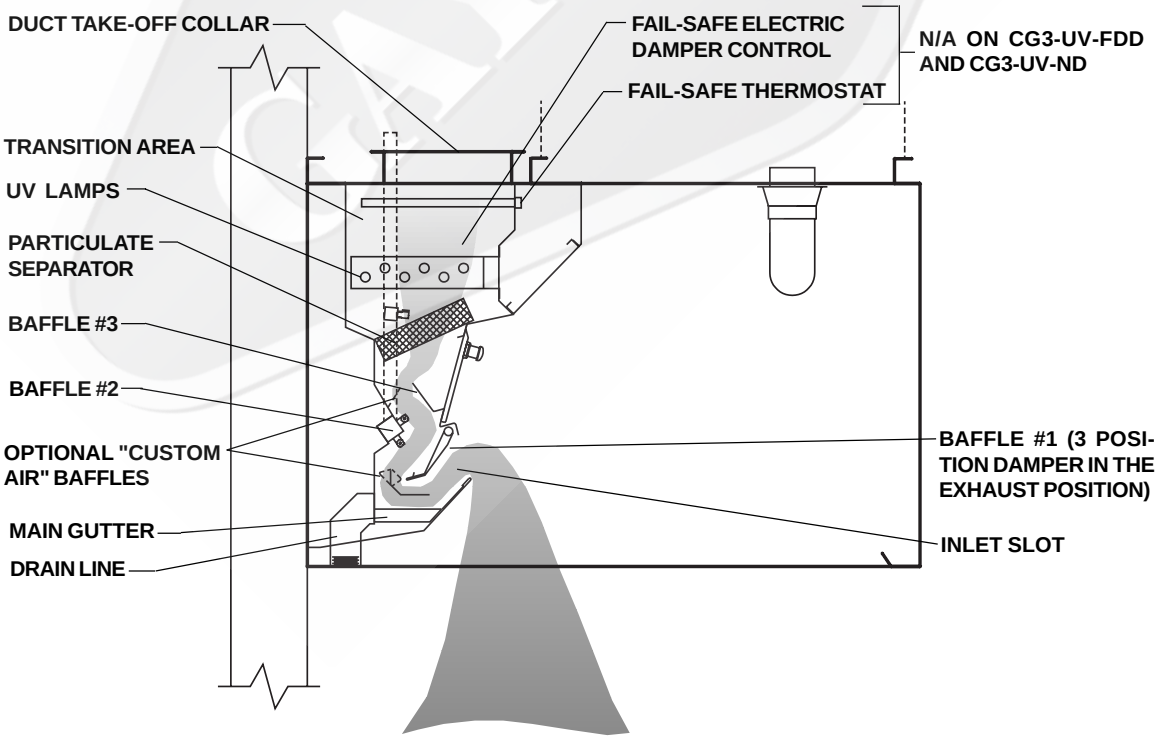


FIG. 1
GREASE EXTRACTION

WASH CYCLE

The wash cycle is activated each time the exhaust fan is shut off by pushing the **"Start Wash"** button on the Command Center or as programmed on the clock. When activated the UV lamps shut off, the exhaust and supply fans shut off, the damper control is energized and the damper begins closing forward to the wash position, and once closed the hot water wash sprays come on.

This hot detergent water washes the day's grease, dust and lint accumulation from the interior of the ventilator flushing it down to the main gutter which slopes to a pre-flushed drain which leads to the building drain system. Spray nozzles are located on 8" to 10" centers on the wash manifold mounted on the interior back wall of the ventilator. At the end of the wash cycle, the water automatically shuts off, and the interior of the ventilator is clean - ready for the next day's operations. The damper remains in the wash position until the exhaust fan is restarted. This is to prevent conditioned air from going up the exhaust system during off hours.

The length of the wash cycle may be set between 3 minutes and 9 minutes. The length of time is dependent upon the type of cooking equipment being used. Typical settings are 3 minutes for light-duty equipment, 5 minutes for medium-duty equipment, and 9 minutes for heavy-duty equipment. However, adequate cleaning is dependent upon water pressure, water temperature, daily grease accumulation, the length of the wash cycle, frequency of wash cycle and the type of detergent being used. It may be necessary to increase the wash time to achieve proper cleaning. Refer to page 17 for details on setting the wash time.

FIG. 2
VENTILATOR CONTROL CABINET
MODEL GPC-6000-UV SERIES

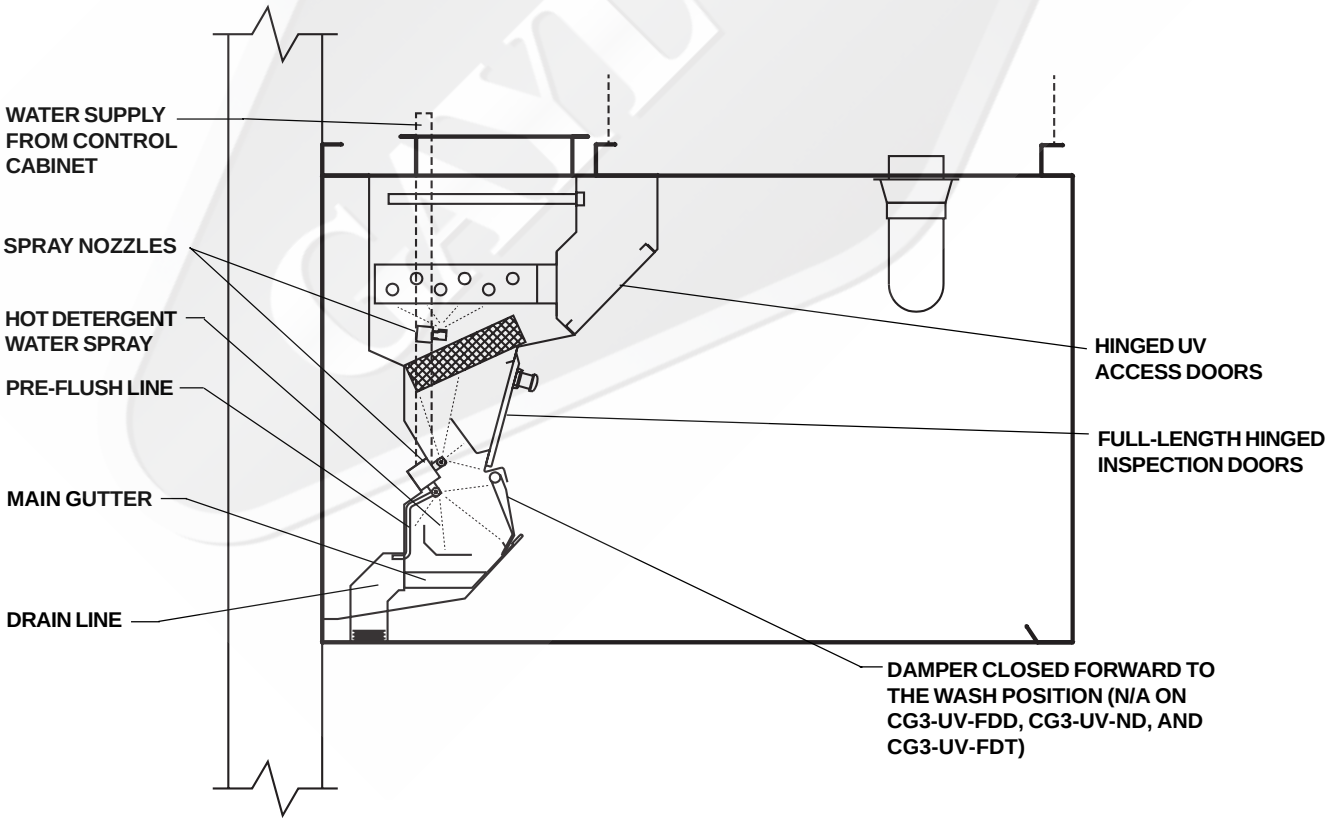


FIG. 3
WASH CYCLE

INTERNAL FIRE MODE—For CG3-UV and CG3-UV-FDT only!

Automatic internal fire protection is accomplished by the action of the thermostat(s), which are located at the point where the ductwork joins the ventilator. When the temperature of the conveying airstream, which must pass over the thermostats, reaches 250°F, the system is activated, and the following occurs:

1. The damper begins closing back to the fire position, position 3 as shown in Fig.4—stopping the combustion-supporting, natural draft through the ventilator and creating a fire barrier to contain the fire in the kitchen. (N/A on CG3-UV-FDT)
2. The UV lamps are shut off.
3. The exhaust fan serving the ventilator is shut off. The supply fan is also shut off.
4. Fire-smothering water spray is released into the interior of the ventilator through the spray nozzles.
5. The digital display reads "Fire In Hood, Fan Off, Wash On" for approximately 5 seconds.
6. Then the digital display reads "Fire In Hood, Damper Closing" for approximately 5 seconds.
7. Then the digital display reads "Fire In Hood, Notify Fire Department". This display stays on until the thermostat cools down below 250°F.
7. A red light on the Command Center illuminates.
8. On the C-6000-UV control: dry contacts A1 & A2 will CLOSE and dry contact Q1 & Q2 will OPEN.
9. Upon cooling of the thermostat below 250ºF, the Cool Down Cycle starts. The water continues to spray during the Cool Down Cycle (2 minutes). The damper moves to the exhaust position. (N/A on CG3-UV-FDT)
10. While in the cool down cycle the digital display reads "Cool Down Cycle, xxx sec. to end". xxx is the countdown in seconds until the wash turns off. The damper moves to the exhaust position.
11. At the end of the cool down cycle the wash turns off and the digital display reads "Fan Off 12:00 (actual time), Start Fan>F1". The damper closes to the wash position. (N/A on CG3-UV-FDT)

NOTE: The water may be shut off prior to the end of the 2 minute cool down cycle by pushing the **"Exit"** button on the C-6000-UV Command Center. After the water has shut off, the damper remains in the wash position until the **"Start Fan"** button is pushed.

Starting the Exhaust Fan

CAUTION:

In case of severe fire the thermostats located in the plenum will activate. As a precautionary measure, it is recommended that the thermostats be replaced.

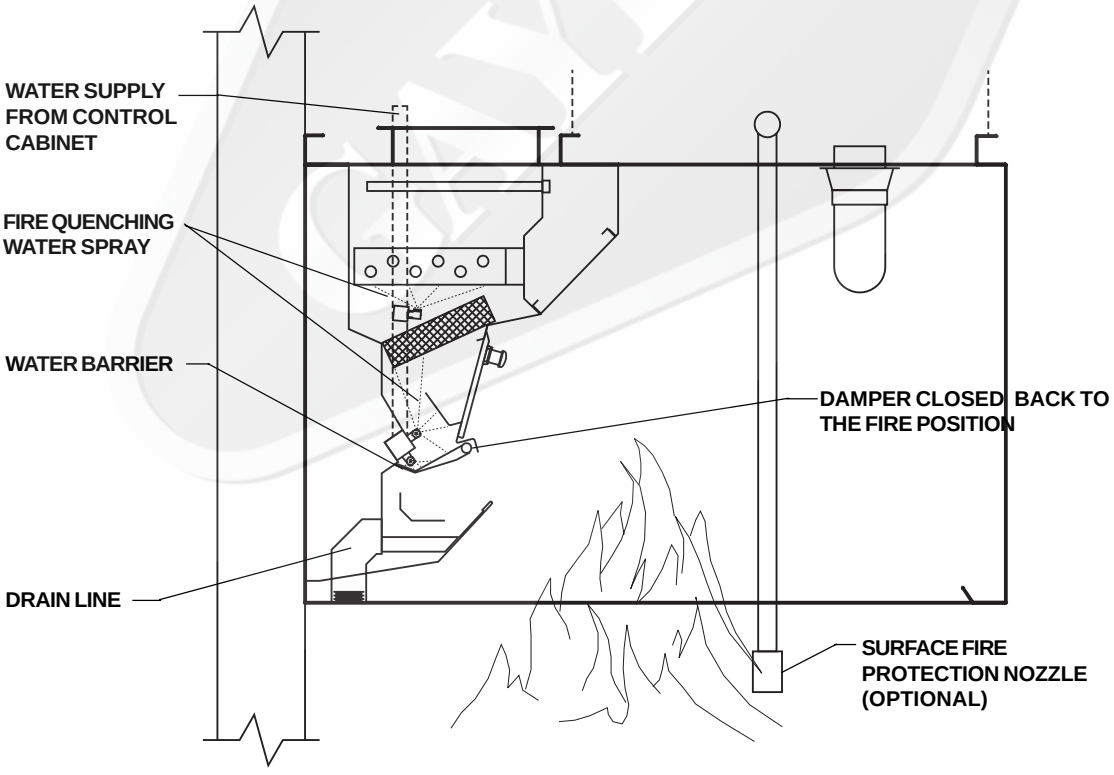


FIG. 4
FIRE CYCLE

EXTERNAL FIRE MODE

An External Fire Mode is activated by the Ventilator's Surface Fire Protection (Duct, Plenum, Surface/Appliance) system's microswitch or contacts and/or an optional break glass fire switch (see Figure 5). Note: The Surface Fire Protection system must be UL listed for such application and is separate from the ventilator's water-wash system. Terminals 4 & FS are used for the External Fire Mode, refer to the wiring diagram for details. The break glass fire switch, if used, would normally be located at the exit of the kitchen. When the External Fire Mode is activated the following occurs:

1. The Exhaust Fan comes on immediately if it was off to help remove smoke, heat, etc.
2. The Supply Fan shuts off immediately.
3. The digital display reads "Ext.FireActive" and alternates between "Reset FireSwitch" and "Fan On, Wash On".
4. A red light on the Command Center flashes.
5. After a 60-second delay, a water spray is released into the interior of the ventilator through the spray nozzles. The 60-second delay allows the ventilator's fire suppression system time to put out the fire, before starting the water spray.

If the fire intensifies and the thermostat reaches 250°F, the fire damper would then close and the exhaust fan would shut off. See Internal Fire Mode.

To resume normal operations, open the fire switch and flip the toggle switch to the position marked "normal". Replace the glass rod and close the cover. Push either the **"Start Fan"** or **"Start Wash"** button.

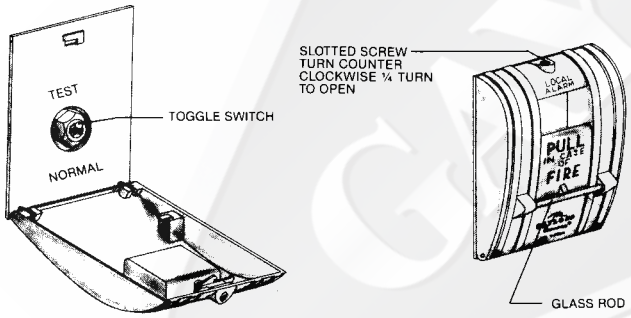


FIG. 5
BREAK GLASS FIRE SWITCH
C-1357A SERIES

TESTING INTERNAL FIRE MODE –
FOR CG3 AND CG3-UV-FDT ONLY!

To test the Internal Fire Mode, a fire detected by the ventilator's thermostat(s), push and hold the "Fire Test Switch" button for 20 seconds. It is located inside the electrical compartment of the control cabinet. Pushing this switch duplicates thermostatic action. *CAUTION: Before any Fire Tests are performed, check with the building superintendent to see if the Gaylord control cabinet or Surface Fire Protection system is wired to the building alarm, monitoring system, and/or the fire department.*

TO RESUME NORMAL OPERATION

1. To discontinue the 2 minute cool down cycle at any point during the cycle, push the **"Exit"** F5 button on the C-6000-UV Command Center.
2. Push the **"Start Fan"** F1 button on the Command Center.

SURFACE FIRE PROTECTION

The National Fire Protection Association, NFPA-96 document requires fire extinguishing equipment over all grease producing cooking equipment such as griddles, ranges, fryers, broilers, and woks. In addition, the system must protect the interior of the ventilator and the exhaust duct.

The most common fire system is either a wet chemical type or the Gaylord Quencher water spray system. In the event of a fire, this system would normally be activated and discharged prior to the ventilator's water spray being activated. If the fire is unusually severe or the surface fire protection system malfunctions, the thermostat(s) in the ventilator would activate the ventilator's water spray. Surface fire protection systems may be wired to the ventilator control cabinet to activate the External Fire Mode.

INTERNAL & EXTERNAL FIRE MODES AT THE SAME TIME

It is possible that both the Internal and External Fire modes can be activated at the same time. If this occurs the Internal Fire Mode will override the External Fire mode until the thermostat(s) cool below 250°F. At this point the Cool Down Cycle will start counting down for 2 minutes. After the Cool Down Cycle, the External Fire mode will start.

Special Note: If the control is in the Cool Down Cycle when the External Fire mode is activated, the Cool Down Cycle will finish counting down for 2 minutes, before switching to the External Fire Mode.

Summary of Both Fire Modes at the Same Time

1. Internal Fire Mode (until thermostat temperature drops below 250°F)
2. Cool Down Cycle (for 2 minutes)
3. External Fire Mode (until the External Fire Switch is reset)

FIRE MODE SUMMARY:

Note: The Damper Position does not apply to CG3-UV-FDL, CG3-UV-FDD or CG3-UV-ND	INTERNAL FIRE	COOL DOWN CYCLE (for Internal Fire Mode only!)	EXTERNAL FIRE
Exhaust Fan	OFF	OFF	ON
Supply Fan	OFF	OFF	OFF
Damper Position	FIRE	EXHAUST	EXHAUST
Water Spray	ON	ON	ON
UV Lamps	OFF	OFF	ON

DAILY OPERATION

All functions of the ventilator, such as starting the exhaust fan, starting the wash cycle, etc., are controlled by the Command Center located on the control cabinet. Refer to Pages 16 through 19 for detailed instructions on the operation of the Command Center.

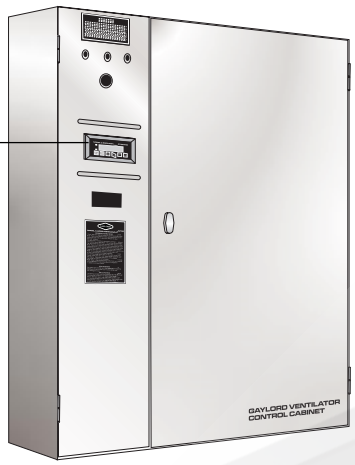


FIG. 6
VENTILATOR CONTROL CABINET
MODEL GPC-6000-UV SERIES

To start the exhaust fan push the **"Start Fan"** button on the Command Center. If the Command Center is programmed to start the fan automatically, then the start button does not need to be pushed. It is important to start the exhaust fan before turning on the cooking equipment.

When the exhaust fan is activated the following occurs:

1. The damper begins opening on to the exhaust position. (N/A on CG3-UV-FDD and CG3-UV-ND)
2. A green light on the Command Center illuminates.
3. The supply fan comes on.
4. The digital display reads "Starting Fan & Damper Opening" for approximately 5 seconds. Then the digital display reads "Starting Fan, xx Seconds to Fan On". xx is the countdown in seconds until the exhaust fan comes on.
5. After the damper fully opens (elapsed time approximately 45 seconds), the exhaust fan comes on.
6. The red "UV Saftey Interlock Activated" and the "UV Audible Alarm Cancel Button" lights will illuminate until the exhaust fans reaches operating speed.
7. Once the exhaust fan reaches operating speed, the UV lamps in the ventilator and the green "UV System On" light on the ventilator and the GPC-6000-UV cabinet will turn on.
8. The digital display then reads "Fan On 12:00" (current time) and "Start Wash> F2".

Stopping the Exhaust Fan and Starting the Wash Cycle

***CAUTION**: The cooking equipment must be shut off prior to shutting off the exhaust fan. Failure to do this will cause excessive heat buildup and could cause the surface fire protection system to discharge.*

To start the wash cycle push the "**Start Wash**" button on the Command Center. If the Command Center is programmed to start the wash automatically, then the start button does not need to be pushed. When the wash cycle is activated the following occurs:

1. The UV lamps shut off.
2. The exhaust and supply fans shut off.
3. The damper begins closing forward to the wash position. (See Figure 3, page 7). This action takes approximately 45 seconds. (N/A on CG3-UV-FDD and CG3-UV-ND)
4. The digital display reads "Starting Wash, Damper Closing" for approximately 5 seconds, then the digital display reads "Starting Wash, Wash On in xx seconds". xx is the countdown in seconds to until the wash starts.
5. After the damper closes to the wash position, the hot, detergent injected, water sprays come on to wash away the grease collected during the days operation. The wash cycle stays on for the length of time programmed in the Command Center. The length of the wash cycle may be set between 3 minutes and 9 minutes. Typical settings are 3 minutes for light-duty equipment, 5 minutes for medium-duty equipment and 9 minutes for heavy-duty equipment. Refer to page 17 for details on setting the wash time.
6. During the wash cycle, the digital display reads "Wash On, Wash #1 xxx seconds". xxx is the coundown in seconds until the wash system shuts off.
7. Upon completion of the wash cycle, the damper stays in the closed wash position until the exhaust fan is re-started. This is to prevent conditioned air from going up the exhaust stack during off hours.(N/A on CG3-UV-FDD and CG3-UV-ND)
8. The digital display now reads "Fan Off 12:00" (current time) and Start Fan>F1.

After the wash cycle is completed, wipe the exposed front surface of the damper at the air inlet slot, as well as other exposed exterior surfaces. (Refer to Figure 7, Page 11).

In very heavy cooking operations it may be necessary to wash the ventilator(s) more than once a day. This can be done manually by pushing the **"Start Wash"** button

NOTE: For proper operation of the wash system there must be adequate water pressure and temperature. There is a pressure/temperature gauge inside the control cabinet.

Water Pressure 40 psi min. - 80 psi max.

Water temperature 140°F min. - 180°F max.

NOTE: Some control cabinets are equipped with a low detergent switch. If so equipped, the green light will flash if the detergent tank is empty or if the detergent pump is malfunctioning and detergent is not pumping. The digital display reads "Low Detergent" and the text alternates from "Fill Tank" and "Check Pump". If the detergent tank is filled with water the detergent switch will activate as if there is no detergent.

NOTE: The ventilator wash system is designed to remove daily accumulations of grease within the extraction chamber. If the ventilator is not washed a minimum of once during a cooking day, a grease buildup could accumulate which the wash system cannot remove. If this occurs, it is recommended that the ventilator be put through several wash cycles by pushing the **"Start Wash"** button on the Command Center. If this does not remove the grease, it will be necessary to remove the grease manually by using a scraping tool, such as a putty knife, or retain the services of a commercial hood cleaning service to steam clean or pressure wash the system.

WARNING: Some commercial hood cleaning services blow a fire retardant chemical into hood and duct systems. Fire retardant chemicals should never be applied to any portion of The Gaylord Ventilator. If retardant is applied to the ventilator, it must be removed.

PREVENTIVE MAINTENANCE

Some of the required maintenance can be performed by the operator. However, direct exposure to UV light is hazardous to your Skin and Eyes and contact with live electrical components poses a significant risk up to and including death. Therefore, a trained, qualified and certified technician must perform most of the maintenance.

The following should be checked periodically in order to keep the Gaylord Ventilator and UV System operating at design efficiency:

Daily

1. Make sure the green "UV System On" lamp on the hood and control cabinet is on when the fan is on. If not follow the UV Troubleshooting procedures on pages 33-34.

Weekly

1. The detergent tank should be checked at least weekly and kept full with a recommended detergent. (Refer to Page 15)

Monthly

1. The detergent system fittings should be checked at least monthly. This is an airtight system and fittings should be tight. (For complete details refer to the Detergent Pump section on Page 14.)
2. At least monthly, at the conclusion of a wash cycle, open the inspection doors of the ventilator and check to ensure that the interior has been cleaned of grease, dust, and lint. (Refer to Figure 7) If overall cleaning appears to be inadequate, refer to “Troubleshooting of the Wash System”, Page 29.
3. The main grease gutter of the ventilator should be checked at least monthly to remove any foreign material such as paper towels, order chits, etc.
4. Check the Particulate Separators to ensure they are being cleaned of grease, lint and dust. If the cleaning is inadequate:
   1. Remove the particulate separators through the inspection (wash access) door and run them through a dishwasher and replace
   2. The wash system needs adjustment. Refer to "Trouble shooting the Wash System", page 29.

Every Six Months

1. Exhaust fan(s) should be checked every six months for belt tightness, belt alignment, and lubrication of necessary moving parts.

   NOTE: A blue lithium based grease is best suited for high heat and speed bearing lubrication.
2. Check for proper velocity at air inlet slot. Refer to Pages 24 through 26 for method of checking velocity.
3. Test the "Internal Fire Mode" to check for proper damper closure. Refer to Page 9 for instructions.
4. Detergent tank and foot valve should be cleaned every six months.

INSPECTION AND CLEANING REQUIREMENTS

NFPA-96 (Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations) require that hoods, ducts and exhaust fans be inspected by a properly trained, qualified and certified company or person(s) in accordance with the following table.

Upon inspection, if found to be contaminated with deposits from grease-laden vapors, the entire exhaust system shall be cleaned by a properly trained, qualified, and certified company or person(s) acceptable to the authority having jurisdiction in accordance.

When a vent cleaning service is used, a certificate showing date of inspection or cleaning shall be maintained on the premises. After cleaning is completed, the vent cleaning contractor shall place or display within the kitchen area a label indicating the date cleaned and the name of the servicing company. It shall also indicate areas not cleaned.

EXHAUST SYSTEM INSPECTION SCHEDULE	
Systems serving solid fuel cooking operations	Monthly
Systems serving high-volume cooking operations such as 24-hour cooking, charbroiling or wok cooking	Quarterly
Systems serving moderate-volume cooking operations	Semi-annually
Systems serving low-volume cooking operations, such as churches, day camps, seasonal businesses, or senior centers	Annually

Factory trained service agencies are certified by Gaylord Industries, Inc. to perform these inspections. For the name and phone number of your nearest agent visit our web site at www.gaylordusa.com, email at info@gaylordusa.com, or call 1-800-547-9696.

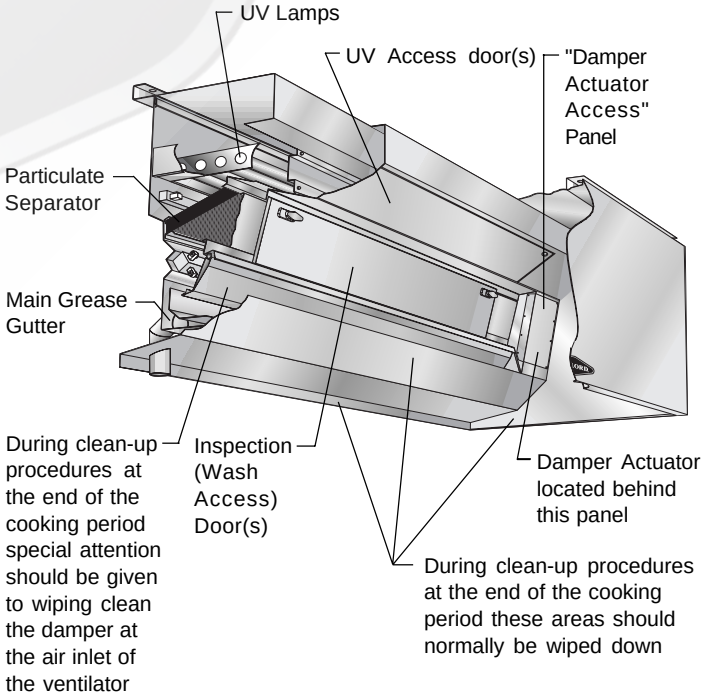


FIG. 7

UV PREVENTIVE MAINTENANCE

CERTIFIED SERVICE AGENT MAINTENACE WARNING!

Warning: Do NOT defeat the purpose of the interlocks during cleaning and maintenance!

These items will need to be performed by a trained and qualified Certified Service Agency (CSA) on the same schedule as the exhaust system inspection schedule described in NFPA-96 and on the previous page in this tech manual. These tasks involve potential exposure to high doses of UV light and live electrical components. There is risk of injury to skin and eyes and in the case of electrical shock, injury or death! For a list of CSAs go to www.gaylordusa.com and go to "Service Agencies" for a list of companies nearest you.

1. Inspection of the Lamps and Ballasts

a. Check the lamps for proper operation
   1. Turn on the fan and look for the green "UV System On" light on each hood section
      a. If it is not on refer to "UV Troubleshooting", pages 33-34.
   2. Open the UV Access door with the key
   3. Turn on fan
   4. Close inspection (wash access) doors
   5. Depress the UV Access door safety switch
   6. Check all indicator LEDs, 6 green and 3 red, to ensure that they are all on. If they are not all on go to "UV Troubleshooting", pages 33-34.

2. Inspect the Upper Wash chamber (around the UV lamps)

a. Disconnect the UV module power cord
b. Remove the nuts holding the UV module to the ventilator with a nut driver
c. Remove the UV module from the ventilator
d. Check for build-up of deposits of grease, dust and/or lint.
e. Clean as necessary with a mild dteregent, water and a rag
f. If the area is not clean refer to "Troubleshooting the Wash System", on page 29.
g. Reinstall the UV module.

3. Test the Safety Interlock switches

a. Open the inspection (wash access) door with the fan on
   - The UV lamps should shut off
   - An audible alarm on the C-6000-UV should come on
   - The Red “UV Safety Interlock Activated” light on the ventilator and C-6000-UV control should come on

b. Open the UV Access door with the fan on
   - The UV lamps should shut off
   - An audible alarm on the C-6000-UV should come on
   - The Red “UV Safety Interlock Activated” light on the ventilator and C-6000-UV control should come on

c. Turn off the breaker to the Exhaust Fan. Press the “Start Fan” button on the C-6000-UV control
   - The UV lamps should shut off (stay off)
   - An audible alarm on the C-6000-UV should come on
   - The Red “UV Safety Interlock Activated” light on the ventilator and C-6000-UV control should come on

4. Check all gaskets for damage

a. Replace any gaskets that are worn or damaged

5. Check the Hour Meter

a. Record the hours.
b. Determine the approximate hours between inspection intervals.
c. Determine when the 8000-hour life of the lamps will occur and inform the operator of the approximate date when the lamps will need to be replaced

Replacing UV Lamps

Danger!

These items will need to be performed by a trained and qualified Certified Service Agency (CSA). These tasks involve potential exposure to high doses of UV light and live electrical components. There is a risk of serious injury to skin and eyes from UV light. There is risk of shock, injury, and/or death from electrical. For a list of CSA’s go to www.gaylordusa.com and go to the “Service Agencies” for a list of certified companies nearest you.

1. Secure all power to the C-6000-UV control
2. Secure all circuits that provide power to the UV lamps
3. Open the UV Access door with the key
4. Disconnect the UV module power cord
5. Remove the nuts holding the UV module to the ventilator with a nut driver
6. Remove the UV module from the ventilator
7. Remove the bolts on each end of the UV module (2 on each end) that hold the end caps on
8. Disconnect the lamp connector(s) on the UV lamp(s) to be replaced
   - Each lamp connector should be labeled from 1 to 6 on both ends
   - Lamp #1 is at the Front of the ventilator when the UV module is installed
   - Lamp #6 is at the Back of the ventilator when the UV module is installed
   - Be sure to re-label the lamp connectors if necessary
9. Lubricate the lamps around the grommets on each end of the UV lamp with a small amount of G-510 or similar detergent
10. Slide the UV lamp out one end, CAREFULLY!
11. Inspect the grommets around the lamps
    - Replace any grommets that show cracks, checking, or any other damage
12. Check all wires for damage
    - Replace any wires showing damage
13. Lubricate each of the new UV lamp(s) before installing with a small amount of G-510 or similar detergent
14. Re-connect the lamp connectors on both ends of the UV lamps
    - Each lamp connector should be labeled from 1 to 6) on both ends
    - Lamp #1 is at the Front of the ventilator when the UV module is installed
    - Lamp #6 is at the Back of the ventilator when the UV module is installed
15. Re-install the UV module end caps and torque the bolts to 7-10 in-lbs.
16. Re-install the UV module in the ventilator
17. Tighten all nuts holding the UV module to the ventilator
18. Re-connect the UV module power cord
19. Check for proper operation of UV lamps

As with many types of technology if it is not used properly and/or proper precautions are not taken there is the potential for injury or harm. This is especially true with UVC light due to the fact that it does not physically hurt at the time of exposure. While UVC is very effective at breaking down grease molecules, direct exposure to large amounts is harmful to skin and eyes. The amount of UVC generated in these hoods is greater than that what results from direct exposure to the sun. Under no circumstances is it acceptable to view the lighted lamps without proper eye protection or expose bare skin directly to the light. All interlocks and safety precautions called for in this manual must be followed to avoid the potential for harm to service personnel and/or operators. In addition, only trained and authorized personnel may perform some maintenance See previous page for details.

Personal Protective Equipment

1. Eye protection that prevents 100% of UVC being transmitted through the lens must be worn at all times when performing service work on any Ultima Vent that is energized and/or has the potential to be energized and expose personnel to UVC light.
2. Whenever service work is performed it is recommended that long sleeve pants and shirts be worn to minimize the potential for inadvertent exposure of the skin to UVC.

Safety Interlocks

This product comes equipped with the following sensors to verify that all access doors are in place and that the exhaust fan is running:

1. Mechanical door switch on the UV Access door to ensure that the door is closed
2. Proximity Switch on the Inspection (wash access door) to ensure that the door is closed.
3. Air Pressure switch to verify air flow and exhaust fan operation

All of these devices must be working and/or adjusted properly in order for the system to operate properly.

DETERGENT PUMP OPERATION

The Gaylord Ventilator detergent pump is an integral part of the wash-down system of The Gaylord Ventilator. The pump is located within the control cabinet unless otherwise specified. (Refer to schematics on Pages 38 through 40.)

OPERATION

The detergent pump is started when the wash cycle begins. The pump draws detergent up from the detergent tank, pushing it through the copper tubing and into the hot water line serving the ventilator.

NOTE: Some control cabinets are equipped with a low detergent switch. If so equipped, the green light will flash if the detergent tank is empty or if the detergent pump is malfunctioning and detergent is not pumping. The digital display reads "Low Detergent" and the text alternates from "Fill Tank" and "Check Pump". If the detergent tank is filled with water the detergent switch will activate as if there is no detergent.

Initial Operation

To prime and operate the pump for the first time, it is recommended that water be used instead of detergent to prevent detergent from spilling in case of leaks at the system's fittings.

Priming The Pump

The detergent pump is self-priming. Push the pump test switch, located on the junction box of the motor, and hold down until liquid climbs up the vinyl tubing and fills the pump head. The pump will be operating properly when both upper and lower poppet checks can be seen moving up and down slightly. If the pump does not self-prime, an air lock may have developed within the pump head and the following action should be taken:

1. Hold down pump test switch and loosen top cap slightly to allow air to be pushed out. Repeat as necessary until liquid climbs up tube and fills pump head.

   Note: Do not overly tighten cap or damage to the pump head will occur.

2. If the pump still does not work properly, check the following:

   A. Foot valve should be clean and immersed in the liquid.

   B. Check all fittings to ensure an airtight system.

   C. Poppet checks within the foot valve, pump head and brass check valve should be clean and operating freely.

   D. Detergent lines should be free and clear.

DETERGENT FLOW

Detergent flow is initially factory set according to the pipe size of the control cabinet (refer to chart). Generally, the factory setting will be sufficient to provide adequate cleaning of the ventilator. However, adequate cleaning is dependent upon a number of factors:

1. Temperature of hot water
2. Water pressure
3. Daily grease accumulation
4. Wash cycle time
5. Frequency of wash cycle
6. Type of detergent

Depending upon these factors, it may be necessary to adjust the detergent flow. Adjustment may be accomplished by changing the cam to a different size. To change the cam:

1. Loosen Allen set screw on brass cam.
2. Remove cam and replace with next size as required.
3. Cam #1 minimum setting. Cam #4 maximum setting.

NOTE: Cams are available from Gaylord Industries or your Gaylord Certified Service Agency.

PREVENTIVE MAINTENANCE

As with any piece of fine equipment, a reasonable amount of care must be taken to keep it in good working order:

1. Caution should be taken not to spill detergent on the exterior of the pump.
2. A periodic check should be made of all fittings to guarantee their tightness.

NOTE: The detergent pump motor has sealed bearings and will not require lubrication.

DETERGENT CONSUMPTION CHART
(Imperial)

Control Cabinet Pipe Size	Factory Cam Setting	Oz. Per Min.	Wash Cycle Length					
			3 Minutes		5 Minutes		9 Minutes	
			Oz. Per Day	Gal. Per Mo.	Oz. Per Day	Gal. Per Mo.	Oz. Per Day	Gal. Per Mo.
1/2"	#1	3.2	9.6	2.1	16.0	3.5	28.8	6.3
3/4"	#2	5.1	15.3	3.3	25.5	5.6	45.9	10.0
1"	#3	6.0	18.0	3.9	30.0	6.6	54.0	11.8
1 1/4" & 1 1/2"	#4	6.3	18.9	4.1	31.5	6.9	56.7	12.4

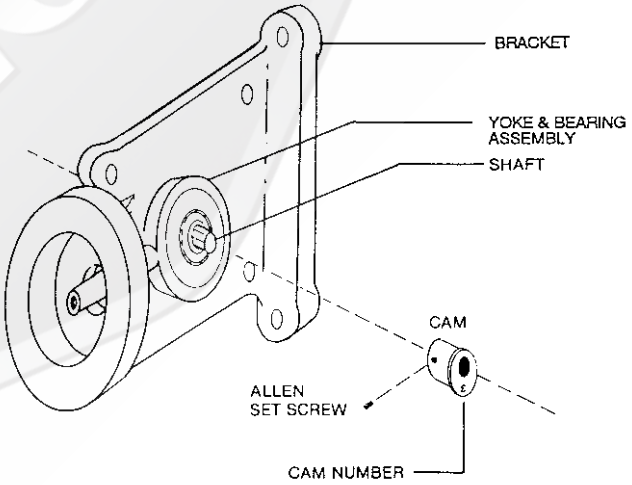


FIG. 8

DETERGENT FOR THE WASH SYSTEM

FORMULA G-510 is the only cleaner recommended by Gaylord Industries for use in the washdown system of The Gaylord Ventilator. FORMULA G-510 is a concentrated colloid cleaner specially formulated to remove the daily accumulation of grease inside The Gaylord Ventilator without damaging the rubber and synthetic parts of the detergent pumping system. FORMULA G-510 is biodegradable, safe for kitchen personnel, and has a variety of uses.

DILUTION OF FORMULA G-510 FOR VENTILATOR CLEANING

Normal Cleaning

For ventilators covering cooking equipment such as broilers, griddles, fryers, or any other heavy grease producing equipment, fill the detergent tank with full strength FORMULA G-510.

Light-Duty Cleaning

For ventilators covering light grease producing equipment such as ovens, kettles, steamers and ranges, fill the detergent tank with a mixture of one part FORMULA G-510 to one part water.

Cleaning the Ventilator Exterior

Mix one part FORMULA G-510 to twenty parts water in hand spray bottle. Spray on and wipe off. **NOTE:** Once a day, this same solution should be used to clean the front of the fire damper and main grease extracting baffle.

FOR OTHER CLEANING JOBS

The colloidal action of FORMULA G-510 makes it a cleaner especially well-suited for use in kitchens. The colloids break up dirt and grease into millions of tiny particles that constantly repel each other. These particles cannot recombine or redeposit on a surface and are, therefore, easily washed away. FORMULA G-510 is biodegradable and contains no harsh chemicals, yet offers outstanding performance on the toughest cleaning jobs.

Use a mixture of one part FORMULA G-510 to twenty parts water for:

VINYL/PLASTIC/WALLS...Removes dirt, grease, food deposits and fingerprints.
REFRIGERATORS...Removes dirt, spilled milk, blood, mildew and objectionable odors.
RESTROOMS...Add a disinfectant to clean all fixtures, walls, floors, etc.

Use a mixture of one part FORMULA G-510 to five parts water for extremely heavy grease build-up, such as on the floor and on equipment around deep-fryers. Spray on and rinse or wipe off. For extremely soiled areas, gentle agitation, followed by a soaking period, will result in more thorough cleaning.

DON'T be afraid to experiment with FORMULA G-510 because it contains no phosphates, nitrates, enzymes, sulfates, sulfonates or silicates.

LIMITED WARRANTY

G-510 CHEMICAL DIVISION warrants that FORMULA G-510 will not cause cleansing agent damage to the rubber and synthetic parts of the injection pump ("O" rings, diaphragms, washers, tubing, and other such parts) used with The Gaylord Ventilator, Heat Reclaim Unit, or Pollution Control Equipment. G-510 CHEMICAL DIVISION'S obligation under this warranty and any warranties implied by law shall be limited to repairing or replacing, at its option, any of said parts which G-510 CHEMICAL DIVISION'S examination shall disclose to its satisfaction to have been damaged by the use of FORMULA G-510 for the life of the detergent pumping system. This warranty shall not cover damages caused by any other detergent. The use of any other detergent shall void this warranty.

All repairs and replacement parts under this warranty shall be F.O.B. G-510 CHEMICAL DIVISION'S factory. The owner shall pay the necessary freight and delivery charges; also removal and installation costs. Any federal, state or local taxes are also extra. Requests for repairs or replacement parts should be made to 20/10 Products Inc., PO Box 7609, Salem, OR 97303.

This is the sole warranty with respect to FORMULA G-510. G-510 CHEMICAL DIVISION MAKES NO OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE AFORESAID OBLIGATION ARE HEREBY DISCLAIMED AND EXCLUDED FROM THIS AGREEMENT. G-510 CHEMICAL DIVISION SHALL NOT BE RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM A BREACH OF THIS WARRANTY.

IMPORTANT

If a cleansing agent other than FORMULA G-510 is used with The Gaylord Ventilator injection pump, it is recommended that a warranty similar to the above be obtained from the manufacturer of said product.

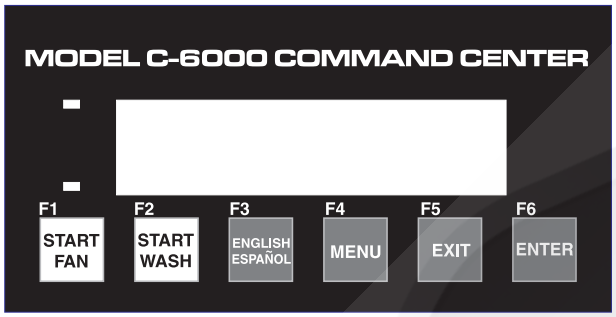
For name and address of the nearest FORMULA G-510 distributor contact:

20/10 Products Inc.
P.O. Box 7609
Salem, OR 97303
Phone: 800-286-2010
FAX: 503-363-4296
E-Mail: twentyten@juno.com

General Description:
The C-6000 Command Center is designed to start and stop the exhaust fan and wash up to 5 groups of ventilators in sequence with a delay period between each group. A sequence wash may be necessary if the building's hot water system is not capable of supplying the required volume of water at one given time.

The exhaust fan and wash sequence may be started **Manually** by pushing the "**Start Fan**" or "**Start Wash**" buttons, or may be programmed for **Automatic** operation.

Programmed operations may include:
1. Starting the exhaust fan once within a 24-hour period.
2. Stopping the exhaust fan and starting the wash cycle sequence once within a 24-hour period



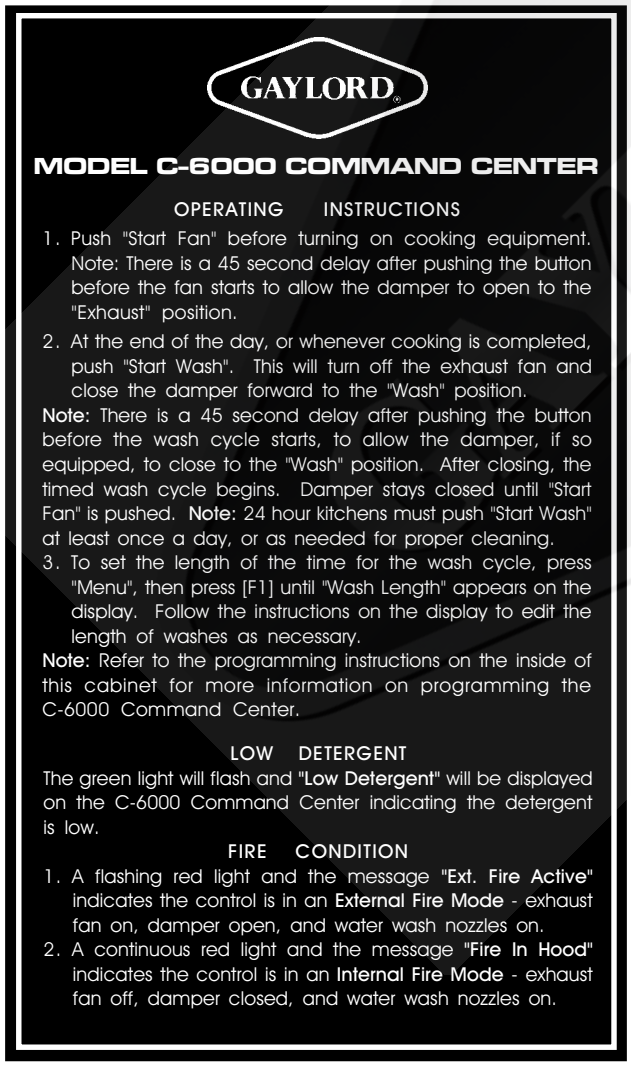


FIGURE 9
C-6000 COMMAND CENTER

3. Programming the length of the wash cycles and delay periods between the wash cycles. The maximum length of a wash cycle is 9 minutes. The maximum length of the delay period is 99 minutes.
4. Skipping a day so the exhaust fan and wash cycle do not operate for holidays or specific days within a 7-day week when the kitchen is not operating.

The C-6000 Command Center provides information and programming for various functions by accessing nine different menu catagories. An overview of the nine menu items are as follows:

1. **Service** - Displays Gaylord's website address: gaylordusa.com
2. **Detergent** - Displays Toll-Free Number to order detergent: 800-286-2010
3. **Wash Length** - Sets length of each wash cycle from 3 to 9 minutes
4. **Delay Time** (for sequence wash units only) - Sets delay between washes from 1 minute to 99 minutes
5. **Set Clock** - Day, hour and minutes
6. **AutoMode [M or A]** - Sets the C-6000 to Manual or Automatic modes. In Automatic mode, the C-6000 will start the Fan and Wash at the preset times that were set using the Set Wash Times option.

   A = Automatic / M = Manual

   Also allows individual days (Mon, Tues., etc.) to be set ON or OFF when Automatic mode is selected.
7. **Set Wash Times** - Sets Start Times for Automatic start of Fan and wash when C-6000 is set to Automatic mode.
8. **Wash Test** - Runs through a complete Wash Cycle with decresed times

   Damper Closing Time = 10 sec.
   Wash Times = 10 sec.
   Water Heating Time = 10 sec.
   Exits menu when finished.
9. **Number of Washes** - Preset at factory and protected with a password. Allows the number of washes to be changed from 1 to 5 (S1 to S5).

Spanish (Español) Instructions:
The C-6000 Command Center has the ability to display its commands and messages in either English or Spanish (Español).

Press the **"ENGLISH / ESPAÑOL"** [F3] button to toggle the language displayed from English to Spanish (Español) or from Spanish (Español) to English.

NOTE: All messages displayed by pressing the **"MENU"** [F4]button only appear in English. They will not appear in Spanish (Español).

Using the Menu:
To Enter the Menu, press the **MENU** button [F4].

To navigate the Menu:

- Press [F1] to go to the Next menu item
- Press [F2] to go to the Previous menu item

- Press [F5], the **EXIT** button to exit the Menu
- Press [F6], the **ENTER** button to select a Menu item

1. Service
- Press [F6] [**ENTER**] to display Gaylord's web site address: gaylordusa.com
- Press [F5] [**EXIT**] to return to the menu

2. Detergent
- Press [F6] [**ENTER**] to display the Phone Number to order Detergent: 800-286-2010
- Press [F5] [**EXIT**] to return to the menu

3. Wash Length
- Press [F6] [**ENTER**] to display the Length of Wash #1
- Press [F3] to Increase the Wash Time up to 9 Minutes (Maximum)
- Press [F4] to Decrease the Wash Time down to 3 Minutes (Minimum)
- Press [F1] to adjust the Length of Wash #2 (if applicable)
- Press [F5] [**EXIT**] to return to the menu
- Note: Press [F1] to advance through all washes (ex.) "-S2" has 2 washes)

4. Delay Time
- Press [F6] [**ENTER**] to display the Delay Time between washes (Not used if there is only one wash)
- Press [F3] to Increase the Delay Time up to 99 Minutes (Maximum)
- Press [F4] to Decrease the Delay Time down to 1 Minute (Minimum)
- Press [F5] [**EXIT**] to return to the menu

5. Set Clock
- Press [F6] [**ENTER**] to display the current Day of the Week (1=Sunday)
- Press [F3] to change to the next Day of the Week (1=Sun, 2=Mon, 3=Tues, etc.), keep pressing [F3] to cycle around if necessary
- Press [F1] to go to the current Hour
- Press [F3] to increase the Hour, keep pressing [F3] to cycle around if necessary
- Press [F1] to go to the current Minute
- Press [F3] to increase the Minute, keep pressing [F3] to cycle around if necessary
- Press [F5] [**EXIT**] to return to the menu

6. AutoMode [A or M]
- Used to select [M]anual or [A]utomatic mode. If [A] is displayed, the C-6000 is set to operate in Automatic mode. If [M] is displayed, the C-6000 is set to operate in Manual mode.
- Press [F6] [**ENTER**] to display the "Set Mode" screen
- Press [F6] [**ENTER**] again to toggle between [M]anual or [A]utomatic mode

Setting Which Days of the Week to Run:
- Press [F1] to select which days to run the C-6000 in Automatic mode
- "Sun ON" or "Sun OFF" will display
- Press [F3] to set a day to "ON". Set a day to "ON" in order for the C-6000 to run on that day
- Press [F4] to set a day to "OFF". Set a day to "OFF" in order for the C-6000 NOT to run on that day
- Press [F1] to cycle through each day of the week [Sun – Sat.]
- Press [F5] [**EXIT**] to return to the menu

7. Set WashTimes
- Only used when C-6000 is set to Automatic mode
- Press [F6] [**ENTER**] to display the Start time for the Fan on Sunday (**Sun. Fan**)
- Press [F3] to increase the Hour
- Press [F4] to increase the Minutes
- Press [F1] to go to the Start time for the Wash on Sunday (**Sun.Wash**)
- Set the time, using the same method described above
- Press [F1] to cycle through for each day of the week, for the Start Times for the Fan and Wash
- Press [F5] [**EXIT**] to return to the menu

8. Wash Test
- Press [F6] [**ENTER**] to run the C-6000 through a complete Wash cycle with decreased times
- After the Wash Test is complete, the C-6000 will return to the Fan Off mode

9. Number of Washes
- Pressing [F6] [**ENTER**] will prompt for a password It is not necessary to change this value. It is preset at the Factory.

TIME CLOCK OPERATION

AutoMode is used to have C-6000 start the exhaust/supply fans automatically, once per day. The AutoMode also stops the fans and starts the wash cycle, once per day.

To use the AutoMode:

1. Set Wash Length(s) (Menu item #3)

   Set length of each wash cycle, from 3 minutes to 9 minutes

2. Set Delay Time between washes, if control has more than one wash solenoid (Menu item #4)

   Set amount of time to wait between washes, from 1 minute to 99 minutes

3. Set Clock (Menu item #5)

   Please note that the clock is a 24-hour clock.
   Example: 1:00 PM = 13:00

   Set the current day of the week.
   Example: 1 = Sun. 2 = Mon. 3 = Tues, etc.

4. Turn AutoMode ON (Menu item #6)

   Pressing (F6) Enter will toggle between [A]utomatic and [M]anual modes

   After it is set to [A]utomatic mode, set which days of the week the Exhaust/Supply Fan will run - setting a day to "ON" means the Exhaust/Supply Fan will start on that day, and the Wash will run.

   Example: Sun ON
   Mon OFF
   Tues ON

5. Set Wash Times, set start times for Fans & Wash (Menu item #7).

   Set the time for the Fans to Start for each day of the week.

   Example: Sun. Fan 5:00
   Mon.Fan 5:00

   Set the time for the Wash to Start for each day of the week.

   Example: Sun.Wash 22:00
   Mon.Wash 22:00

MODEL C-6000 SERIES MENU FUNCTIONS

MENU FUNCTION	DISPLAY READS
1. Service - To obtain website address for a list of service agencies Press [F1] until "(1) Service" appears.	(1) Service F1>Next F2>Prev (Toggles with) F5>Exit F6>Enter
Press [F6] [**ENTER**] to display Gaylord's web site address: gaylordusa.com	For Service: gaylordusa.com (Toggles with) F5>Exit
Press [F5] [**EXIT**] to return to the menu	
2. Detergent - To obtain phone number of G-510 Press [F1] until "(2) Detergent" appears	(2) Detergent F1>Next F2>Prev (Toggles with) F5>Exit F6>Enter
Press [F6] **[ENTER]** to display the Phone Number to order Detergent: 1-800-286-2010	For Detergent: 1-800-286-2010 (Toggles with) F5>Exit
Press [F5] **[EXIT]** to return to the menu	
3. To Set Wash Length Press [F1] until "(3) Wash Length" appears	(3) Wash Length F1>Next F2>Prev (Toggles with) F5>Exit F6>Enter
Press [F6] **[ENTER]** to display the Length of Wash #1	Wash1 Time: 3MIN (Range from 3 Min. to 9 Min.)
Press [F3] to Increase the Wash Time up to 9 Minutes (Maximum) or Press [F4] to Decrease the Wash Time down to 3 Minutes (Minimum)	F3>Up F4>Down (Toggles with) F1>Next F5>Exit * Pressing F1>Next goes to Next Wash #2, etc. if control is set up as a Sequential control
Press [F1] to adjust the Length of Wash #2 (if applicable)	
Press [F5] **[EXIT]** to return to the menu	
4. To Set Delay Time Press [F1] until "(4) Delay Time" appears	(4) Delay Time F1>Next F2>Prev (Toggles with) F5>Exit F6>Enter
Press [F6] **[ENTER]** to display the Delay Time between washes (Not used if there is only one wash)	Delay Time: 1Min (Range from 1 Min. to 99 Min.)
Press [F3] to Increase the Delay Time up to 99 Minutes (Maximum or Press [F4] to Decrease the Delay Time down to 1 Minute (Minimum)	F3>Up F4>Down (Toggles with) F5>Exit
Press [F5] **[EXIT]** to return to the menu	
5. To Set Clock Press [F1] until "(5)Set Clock" appears	(5) Set Clock F1>Next F2>Prev (Toggles with) F5>Exit F6>Enter
Press [F6] **[ENTER]** to display the current Day of the Week (1=Sunday)	Day 6 1=Sunday F3>Up F5>Exit (Toggles with) F1>Next F2>Prev
Press [F3] to change to the next Day of the Week (1=Sun, 2=Mon, 3=Tues, etc.), keep pressing [F3] to cycle around if necessary	
Press [F1] to go to the current Hour	Hour: 7
Press [F3] to increase the Hour, keep pressing [F3] to cycle around if necessary	F3>Up F5>Exit (Toggles with) F1>Next F2>Prev
Press [F5] **[EXIT]** to return to the menu	

MENU FUNCTION	DISPLAY READS
6. AutoMode [A or M] - Used to select [M]anual or [A]utomatic mode. If [A] is displayed, the C-6000 is set to operate in Automatic mode. If [M] is displayed, the C-6000 is set to operate in Manual mode. Press [F1] until "(6) Auto Mode" appears	(6) AutoMode [M] F1>Next F2>Prev (Toggles with) F5>Exit F6>Enter
Press [F6] **[ENTER]** to display the “Set Mode” screen	Set Mode [M] (Can be either "M" for Manual or "A" for Automatic)
Press [F6] **[ENTER]** again to toggle between [M]anual or [A]utomatic mode	F6>[A]uto/[M]an (Toggles with) F1>Next F5>Exit
Setting which day of the week to run	
Press [F1] to select which days to run the C-6000 in Automatic mode “Sun ON” or “Sun OFF” will display	
Press [F3] to set a day to “ON”. Set a day to “ON” in order for the C-6000 to run on that day Press [F4] to set a day to “OFF”. Set a day to “OFF” in order for the C-6000 NOT to run on that day	
Press [F1] to cycle through each day of the week [Sun – Sat.]	
Press [F5] **[EXIT]** to return to the menu	
7. Set Wash Times - Used only when C-6000 is set to Automatic mode. Press [F1] until "(7) Set Wash Time" appears	(7) SetWashTimes F1>Next F2>Prev (Toggles with) F5>Exit F6>Enter
Press [F6] **[ENTER]** to display the Start time for the Fan on Sunday **(Sun. Fan**)	Sun. Fan [14:24]
Press [F3] to increase the Hour Press [F4] to increase the Minutes	F3>Hour F4>Min. (Toggles with) F1>Next F5>Exit
Press [F1] to go to the Start time for the Wash on Sunday **(Sun.Wash**) Set the time, using the same method described above	Sun.Wash [14:24]
Press [F1] to cycle through for each day of the week, for the Start Times for the Fan and Wash	F3>Hour F4>Min. (Toggles with) F1>Next F5>Exit * Pressing **F1>Next** - goes to Next Start Fan time, etc
Press [F5] **[EXIT]** to return to the menu	
8. Wash Test Press [F1] until "(8) Wash Test" appears	(8) Wash Test F1>Next F2>Prev (Toggles with) F5>Exit F6>Enter
Press [F6] **[ENTER]** to run the C-6000 through a complete Wash cycle with decreased times	* Pressing **F6>Enter** - Starts the Wash Test
9. Set Number of Washes Press [F1] until "(9) # of Washes" appears	(9) # of Washes F1>Next F2>Prev (Toggles with) F5>Exit F6>Enter
Press [F5] **[EXIT]** to return to the menu	

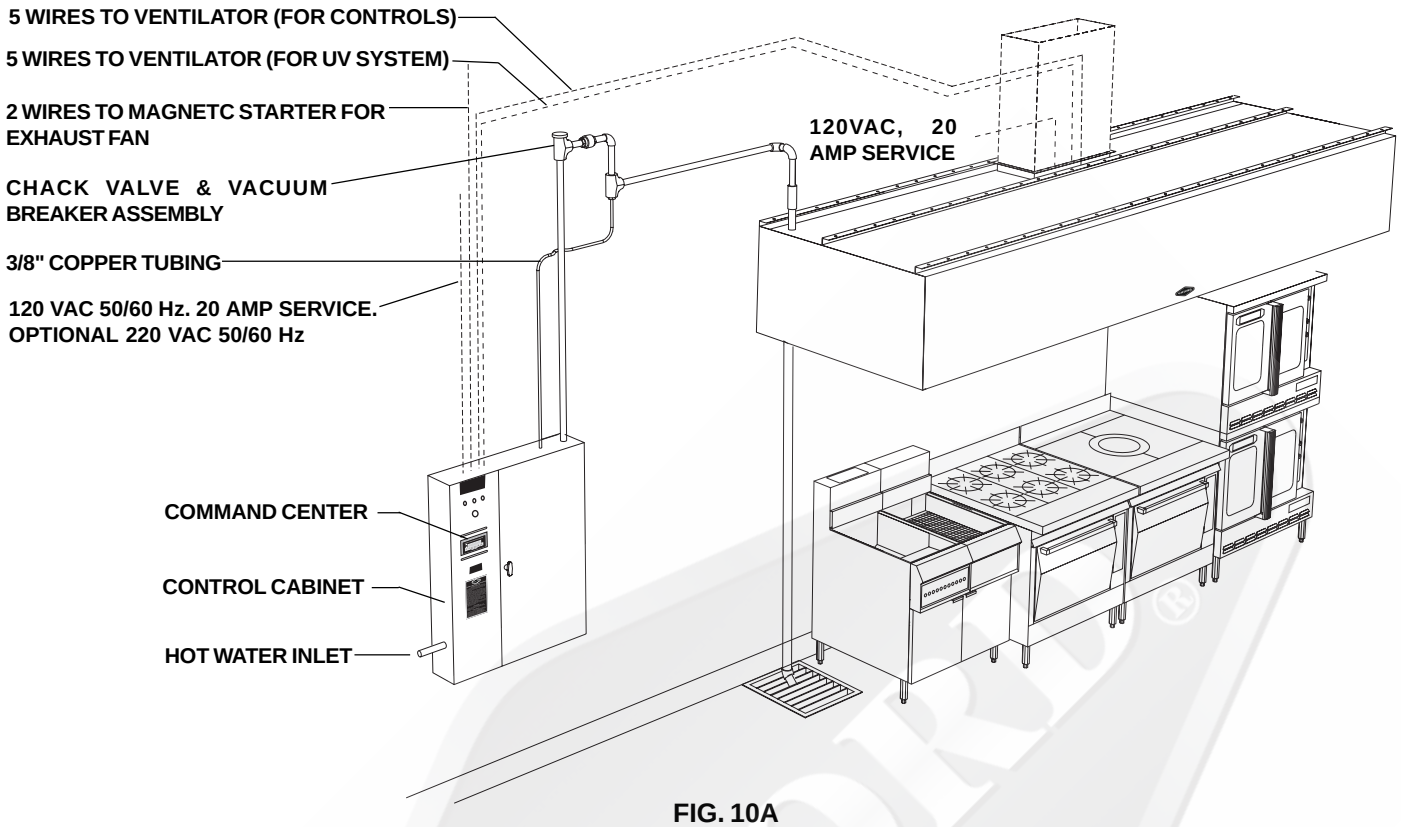


FIG. 10A
TYPICAL ARRANGEMENT WITH VACUUM BREAKER/CHECK VALVE FOR BACKFLOW PREVENTION

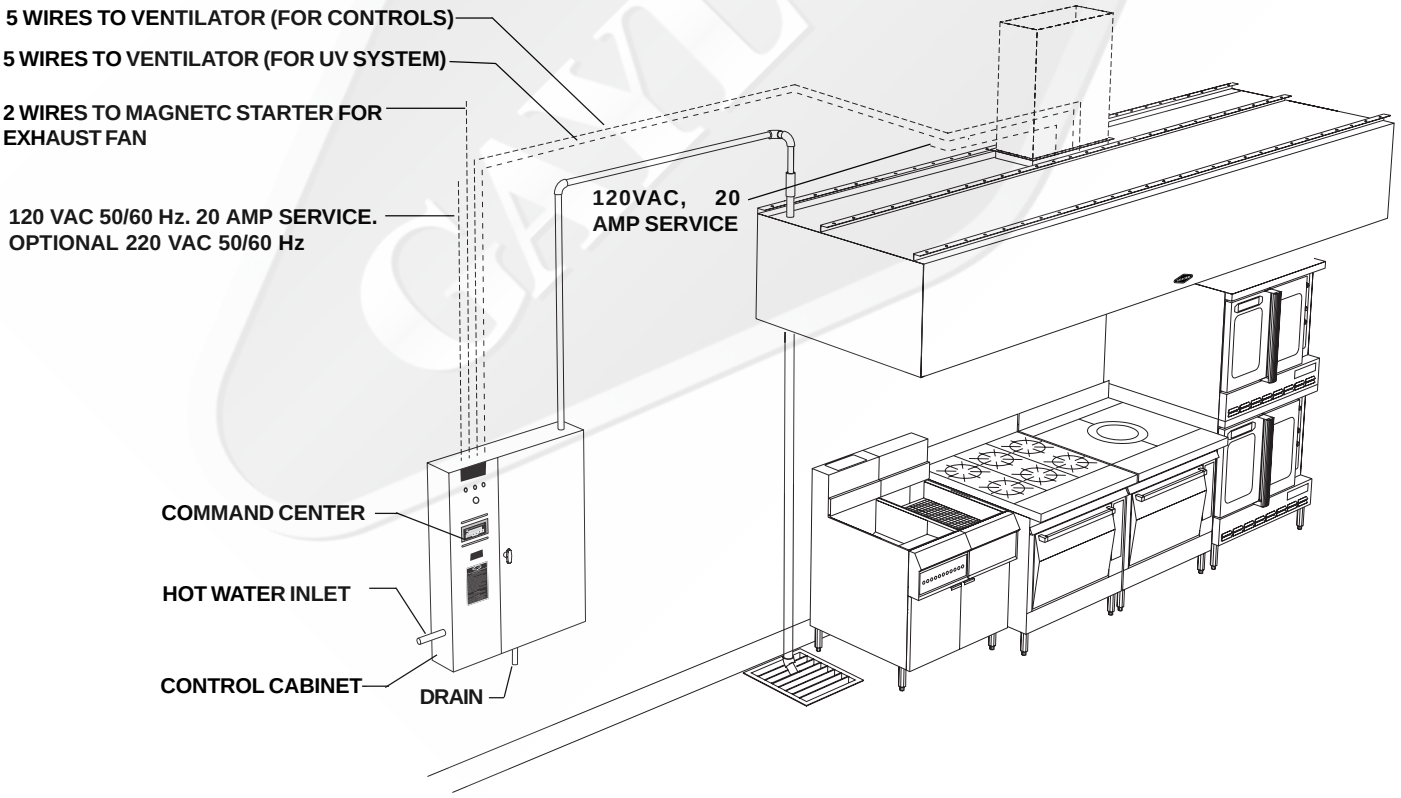


FIG. 10B
TYPICAL ARRANGEMENT WITH BUILT-IN "RP" DEVICE FOR BACKFLOW PREVENTION

Each Gaylord Ventilator is engineered to properly ventilate the specific cooking operation. The exhaust air volume is engineered as a specific volume per lineal ft. of ventilator and is determined by the type of cooking equipment being ventilated. The following Air Volume Chart lists the various volumes per lineal ft. designs.

AIR VOLUME CHART (Imperial)		
	Desired CFM Per Lineal Foot	Static Pressure At Duct Collar
Model AB, BD, BDL Series	150*	1.33
	250	1.33
	285	1.65
	300	1.70
	400	1.65
	405	1.70
	450	2.00
	470	2.15
	500	2.40
Model BDL-DS Series	Total Both Slots	
	400	1.65
	500	2.15

* With Custom Air Baffles

A ventilator may be designed to operate at two different air volumes. For example, half the ventilator may operate at 150 CFM/Lin. Ft. by utilizing “Custom Air” Baffles, and the other half at 250 CFM/Lin. Ft.

Refer to “Measuring Inlet Slot Velocity” on Page 24 for instructions on how to determine the designed Air Volume/Lin. Ft.

The total exhaust volume for each ventilator is stamped on the ventilator nameplate. (Refer to Figure 13 on Page 26.)

DUCT VELOCITY
Based between 1700 FPM - 1900 FPM

WATER TEMPERATURE REQUIREMENTS
140°F Min. - 180°F Max.

HOT WATER PRESSURE REQUIREMENTS
40 PSI Min. - 80 PSI Max.

HOT WATER CONSUMPTION
1.14 GPM/Lineal Ft. @ 40 PSI Average
1.67 GPM/Lineal Ft. @ 80 PSI Average

The length of the wash cycle may be set between 3 minutes and 9 minutes. The length of time is dependent upon the type of cooking equipment being used. Typical settings are 3 minutes for light-duty equipment, 5 minutes for medium-duty equipment, and 9 minutes for heavy-duty equipment. However, adequate cleaning is dependent upon water pressure, water temperature, daily grease accumulation, the length of the wash cycle, frequency of wash cycle and the type of detergent being used. It may be necessary to increase the wash time to achieve proper cleaning. Refer to page 17 for details on setting the wash time.

ELECTRICAL REQUIREMENTS
Standard voltage 120 volt, 50/60 Hz. Provide 24 hour, 20 amp service.

Optional voltage 220 volt, 50/60 Hz. 220 volt. All controls are marked with their operating voltage. See pages 48 through 51.

START-UP PROCEDURES

Before using the Ultima Vent a complete and thorough start-up of the Ultima Vent system must be performed by a qualified, and authorized service technician. Because of this the UV modules will be shipped separate from the hood to an Certified Service Agent(CSA). Contact Gaylord Industries to arrange for this service. It is normally included in the purchase price of the hoods.

Start-up requirements and activities

At the time of shipment a Certified Service Agent (CSA)will be selected to perform the installation of the UV modules and the start-up for the Ultima Vent system.

The Service agent should confirm the following prior to going to the job site:

1. The Exhaust and Supply fan(s) are connected to the ductwork
2. The fans have electricity and will run
3. The C-6000-UV control panel is mounted and has the following;
   a. Power to the C-6000-UV
   b. Hot water to the C-6000 UV and then to the hood
   c. All necessary electrical connections between the C-6000-UV and the hood, surface fire protection system, building alarm(s) and fans.
4. The drain is connected to the hoods and if needed the interconnections made for drains on multi-section hoods with a single drain
5. All lighting wiring is connected to the hoods and light switch
6. There is a 120 Volt, 20 Amp power circuit going to each hood section, for UV lamps
7. Any personnel (Fire Marshal, owners rep., GC, FP contractor, air balancer, etc) required to witness the start up would need to be notified of time and date for start-up.

Field Start up directions

Allow about 1 hour per hood section, at the job site, for the activities described below:

1. Check for power to the C-6000-UV and wiring between the C-6000-UV and the hoods
2. Check for water to the C-6000-UV and the hood
3. Check the drains to see they are connected and free of obstructions
4. Check for the Particulate Separators in the hood
5. Start the exhaust fan by pressing “Start Fan” on the C-6000-UV control. Both supply and exhaust fans should run after the delay. The green “UV System On” light should be on. If this does not occur refer to "UV Troubleshooting" on pages 33-34.
6. Press, "Start Wash". Then immediately press exit to stop the wash. This will shut off the fan without completing the wash cycle.
7. Open the UV Access door and remove the blank plate from the UV light opening.
8. Install the UV light modules in the hood. Connect the plug on the UV module to the hood.
9. Start the exhaust fan and check for the green “UV System On” light at the hood(s) and control panel. Make sure that all access doors are closed.
10. Check the air velocity at the inlet slot
11. Record the data on the start up form. Determine the correct inlet slot velocity and record that in the design velocity location. Then determine the percentage of design that the actual air velocity represents
12. Check the Inspection door (Wash access door) interlock
    a. Open the door with the fan on. The red “Safety Interlock Activated” lamp should come on and an audible alarm sound.
13. Check the UV Access door interlock
    a. Open the UV Access door with the fan on.The red “Safety Interlock Activated” lamp should come on and an audible alarm sound.
14. Check the wash system. (See page 14 for details)

    Caution: Before any Fire tests are performed, check with the building superintendent to see if the Surface Fire Protection system is wired to the building alarm, monitoring system, and/or fire department.
15. If the FP contractor is there have them trip the micro switches on the FP system to verify that C-6000-UV control and hoods go in to an external fire mode. Refer to page 9 for details.
16. Once all is working correctly demonstrate the following to the end user
    a. Start wash, explain the delay in the wash starting
    b. Start fan, explain the delay in the fan starting.
    c. Where the detergent goes
    d. How to prime the detergent pump
    e. How to use the wash test feature
    f. How to set the clock
    g. How to set the automatic start fan and wash
    h. How to set the wash and delay times
    i. How to toggle between English and Spanish
    j. Perform a fire test if the hood is fully featured by pressing the fire test button.This will activate the Internal Fire Mode. Be sure to notify the building to silence any alarms. N/A on FDD and ND model hoods.
    k. If the hood is interlocked with the FP system. Have the FP contractor test it and confirm that the External fire mode works properly.
    l. Instruct them that if for any reason they can see the UV light directly they must shut off the hood immediately and call a CSA.
    m. Check for proper damper operation if this is a fully-featured hood
    n. How to remove, clean and replace the Particulate Separator
    o. That they need to perform the required end user maintenance described in the tech manual and hire CSA to perform the UV maintenance as described in the tech manual and have the duct system inspected/or cleaned per the requirements of NFPA-96.
    p. The frequency will need to be adjusted based on the type, amount and duration of cooking done at this site.
    q. Fill out the start up form completely with comments
    r. Notify the Dealer/customer if the air volumes are more than 5% low or 10% high and give the dealer and GC a copy of the Start-up report.
    s. Send a copy of the Start-up report to Gaylord and keep a copy for your records.

RP DEVICE

The reduced pressure principle device (RP) is required to prevent contaminated water from backflowing upstream to potable water. The unit provided in the Gaylord control cabinet is manufactured by Watts Regulator Co.

1. **Initial Start-up** - To avoid water hammer or shock damage perform the following initial start-up procedures:

   A. Close the outlet hand valve.

   B. Open the inlet hand valve slowly, fill the valve and bleed the air through test cock number 2, 3, and 4.

   C. When the valve is filled, open the outlet hand valve slowly and fill the remaining supply system. The initial start-up procedure is now complete.

The reduced pressure principle device type backflow preventer (Refer to Figure 11A &11B) consists of two primary chambers with spring loaded check valves and a secondary chamber with a spring loaded relief valve. This device prevents backflow by opening and closing the check valves if the pressure from the inlet side to the outlet side of the device varies.

1. **Intermittent Discharge** - Intermittent discharge of water through the relief valve is fairly common and usually occurs if there is inlet pressure fluctuations of more than 3 psi and when the solenoid valve closes after a wash cycle.

2. **Continuous Discharge** - If there is continuous discharge of water out the relief valve when the ventilator is not in a wash cycle, do the following:

   A. Leave the inlet hand valve open and close the outlet hand valve. If there is still continuous discharge it indicates that foreign material is preventing the first check valve from closing. If flushing will not clear the unit, remove and clean the first check valve.

   B. If there is continuous discharge of water out of the relief valve during a wash cycle, there is foreign material preventing complete closing of the relief valve. Flushing the relief valve may correct this condi tion.

Repeat procedure if necessary. If flushing does not stop discharge with flow through the device, remove and clean relief valve.

In no case should the relief valve outlet port be plugged, closed off or restricted.

This device should be inspected occasionally for continual discharge from the relief valve, which indicates a need for maintenance. It is recommended that the RP device be inspected and tested once a year.

NOTE: Some regulations require annual inspection and testing by a company certified to perform such duties.

See Instruction Manual IS-TK-DP, obtainable from your Watts installer or distributor. For the name of your nearest installer or distributor, call Watts Regulator at (978) 688-1811.

FIGURE 11A
REDUCED PRESSURE PRINCIPLE DEVICE
BACKFLOW PREVENTER

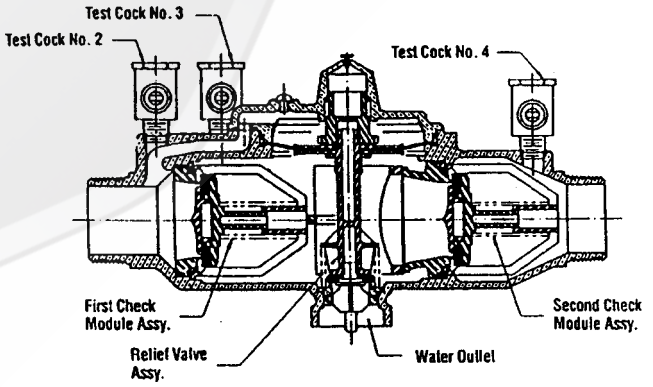


FIGURE 11B
REDUCED PRESSURE PRINCIPLE DEVICE
BACKFLOW PREVENTER

MEASURING INLET SLOT VELOCITY

Smoke capture and grease extraction efficiency are dependent upon the proper air velocity at the inlet slot of the ventilator.

The "Air Velocity Chart" below gives the optimum inlet slot velocity and the minimum and maximum allowed velocities. If the slot velocity is below or above the minimum or maximum, the exhaust fan must be adjusted accordingly.

NOTE: The height of the inlet slot can vary depending upon the design of the ventilator. It is, therefore, important to first measure the inlet slot and compare it to the chart below to determine the required average inlet slot velocity. The designed air volume per lineal foot is related to the velocity as shown on the chart below. The total air volume for the ventilator can be found on the ventilator nameplate. (Refer to Figure 13).

Air velocity readings less than what is specified on the "Air Velocity Chart" may allow smoke and grease to escape the confines of the ventilator and/or reduce grease extraction efficiency. This can result in grease deposits which lead to sanitation problems or fire hazards if left uncorrected. If the air velocity readings are higher than the maximum allowed, it will require more energy to operate the exhaust fan, excessive noise levels will result, and grease can be pulled through the extractor depositing in the duct and fan.

Higher or lower velocities than the allowed will normally put the entire heating and ventilating system out of balance.

AIR VELOCITY CHART

FOR ALL "CG3" SERIES EXCEPT "DS" SERIES

Nominal Height of Inlet Slot	Without Custom Air Baffles				With Custom Air Baffles			
	Designed CFM per Lineal Ft.	Average Inlet Slot Velocity (FPM)			Designed CFM per Lineal Ft.	Average Inlet Slot Velocity (FPM)		
		Min.	**Optimum**	Max.		Min.	**Optimum**	Max.
3" (std.)	250	1300	**1380**	1450	150	760	**800**	880
	270	1360	**1435**	1500	160	790	**830**	870
	285	1425	**1500**	1575	170	810	**855**	900
	300	1465	**1545**	1625	180	845	**880**	935
4" (Enl)	400	1690	**1780**	1870	250	1040	**1095**	1150

FOR "DS" SERIES VENTILATORS*

Designed CFM Per Lineal Ft.			Required Average Inlet Slot Velocity (FPM)					
Total Both Slots	Front Slot	Rear Slot	Front Slot			Rear Slot		
			Min.	**Optimum**	Max.	Min.	**Optimum**	Max.
300	150	150	760	**800**	880	595	625	655
400	250	150	1375	**1450**	1520	595	625	655

*The nominal height of the front inlet slot on "DS" series ventilators is always 3".

MEASURING INLET SLOT VELOCITY

The standard instrument used for measuring the inlet velocities on a Gaylord Ventilator is a Pacer, Model DA40 or DA4000 Digital Anemometer. This instrument is the easiest, most accurate and the best suited for measuring ventilator inlet slot velocities. To take accurate air velocity readings, follow the instructions at right.

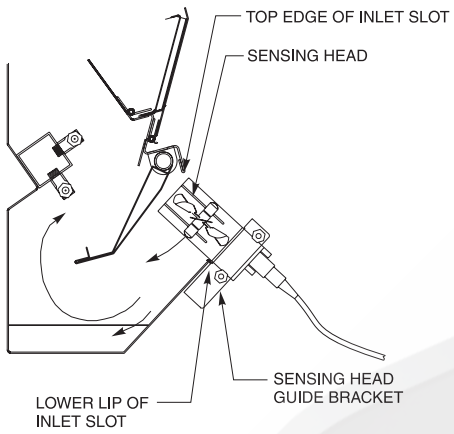


FIG. 12A

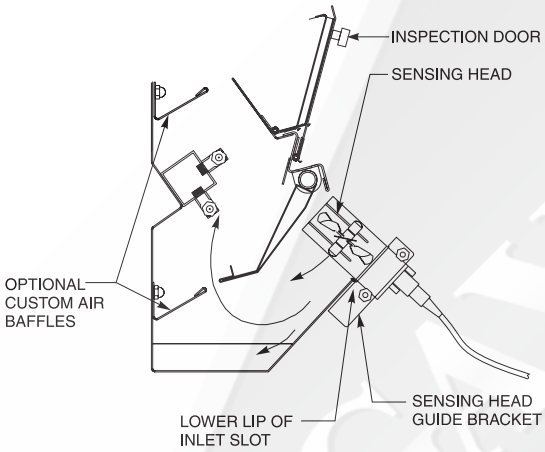


FIG. 12B

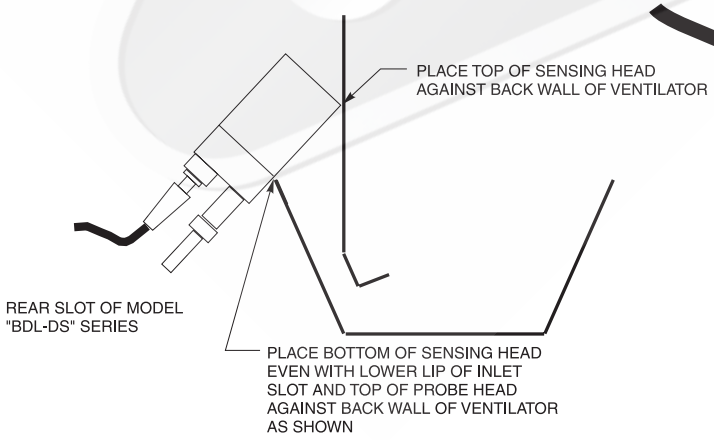


FIG. 12C

CROSS SECTION OF TYPICAL VENTILATOR INLET SLOTS

Instructions

1. It is first necessary to determine if the ventilator includes Custom Air baffles as shown in fig. 12B. If shop drawings are available, and if equipped, the custom baffles and their location will be noted on the front elevation. If not available, to determine if Custom Air baffles are provided, open the inspection door and look for the top custom air baffle, as shown in Fig. 12B.

2. If the ventilator includes Custom Air baffles, it will be necessary to take two sets of readings - one for the section of ventilator that includes Custom Air baffles and one where it does not.

3. Attached the sensing head guide bracket, Gaylord Part Number 18408, to the sensing head.

4. Attach the cable from the sensing head to the meter and the handle sections to the sensing head.

5. Place the sensing head guide bracket against the lower lip of the inlet slot as illustrated.

6. Using the 16 second averaging feature on the meter, slide the sensing head along the slot, back and forth, for a 3'-0" to 4'-0" distance, and record the velocity at the end of the 16 second mark. Continue this process for the full length of the ventilator. Note: Place sensing head in airflow and allow the anemometer reading to stabilize, before pressing the "16 Sec" Average button.

Imortant Note: If the ventilator includes custom air baffles as illustrated in Fig. 12B, always take separate readings on the section of the ventilator that includes custom air from the section that does not have the baffles. Non custom air and custom air readings must be recorded seperately. Do not average them together.

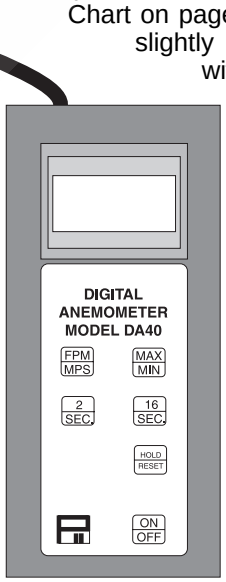
Important Note: On the rear slot of a Model BDL-DS Series, do not use the guide bracket. Refer to Figure 12C.

7. Record the velocity (fpm) on the start up inspection report form. A sample report form, which can be photocopied, is provided on page 54.

8. The designed, or optimum velocity, is noted on the shop drawings and the Air Velocity Chart on page 24. Two velocities will be noted if the ventilator includes custom air baffles.

9. Compare the recorded air velocity to the designed air velocity shown on the shop drawings or the Air Velocity Chart on page 24. The recorded velocity may be slightly lower or higher providing that it is within the minimum and maximum range as shown on the Air Velocity Chart .

If the air velocity is outside the minimum/maximum range, the performance of the ventilator will be affected and therefore the exhaust fan **must** be adjusted.



GAYLORD®

c UL us LISTED 370Y

EXHAUST HOOD WITH EXHAUST DAMPER

THIS EXHAUST HOOD IS ALSO LISTED AS AN EXHAUST HOOD WITHOUT EXHAUST DAMPER WHEN EQUIPPED WITH FIRE DAMPER LOCKOUT PART NUMBER FDL.

FOR USE ONLY WITH GAYLORD INDUSTRIES LISTED SUB-ASSEMBLY CONTROL CABINET MODEL NUMBER GPC-5000-99 OR GPC-6000 SERIES

THIS EXHAUST HOOD HAS BEEN TESTED TO STANDARD UL 710 "EXHAUST HOODS FOR COMMERCIAL COOKING EQUIPMENT"

THIS EXHAUST HOOD IS LISTED UNDER UL FILE NUMBER MH11403

THIS EXHAUST HOOD MEETS ALL REQUIREMENTS OF THE LATEST EDITION OF NFPA-96 AND THE IMC (INTERNATIONAL MECHANICAL CODE)

PATENT PENDING

WORLD HEADQUARTERS
GAYLORD INDUSTRIES, INC.
10900 S.W. AVERY STREET
TUALATIN, OR 97062-8549 USA

PHONE: 1-503-691-2010
FAX: 1-503-692-6048
EMAIL: info@gaylordusa.com

UL-CG31001

ENGINEERING DATA

1. MINIMUM TOTAL EXHAUST VOLUME FOR THIS HOOD SECTION	C.F.M.	TOTAL EXHAUST CFM HERE
2. MAXIMUM TOTAL SUPPLY VOLUME FOR THIS HOOD SECTION	C.F.M.	TOTAL SUPPLY CFM HERE
3. EXHAUST STATIC PRESSURE AT DUCT COLLAR	W.G.	
4. SUPPLY STATIC PRESSURE AT DUCT COLLAR	W.G.	

5. THIS HOOD SECTION SUITABLE FOR APPLIANCES WITH MAXIMUM COOKING SURFACE TEMPERATURE OF:

°F	FOR		LINEAL FT. OF HOOD
°F	FOR		LINEAL FT. OF HOOD

6. REFER TO GAYLORD VENTILATOR TECHNICAL MANUAL FOR INLET SLOT VELOCITY REQUIREMENTS AND METHOD OF CHECKING VELOCITY

7. ELECTRICAL RATING OF LIGHT FIXTURES: 120 VOLT, 60 HZ. OR 220 VOLT, 50 HZ. OVERALL RATING - 12 AMPS OR LESS

8. VENTILATOR ELECTRICAL CONTROL CIRCUIT MUST BE FUSED SEPARATELY

9. IF HOOD IS EQUIPPED WITH INTEGRAL MAKE-UP AIR WITH FUSE LINK OPERATED FIRE DAMPER USE ONLY 165° F, RATED 30 LBS. MIN. UL LISTED FUSIBLE LINKS FOR REPLACEMENT

10. DUCTWORK AND EXHAUST FAN
    A. STATIC PRESSURE OF DUCT SYSTEM MUST BE ADDED TO VENTILATOR STATIC FOR TOTAL SYSTEM STATIC
    B. ALL DUCTWORK MUST BE WELDED LIQUIDTIGHT

❑ SUPPLIED WITH FACTORY INSTALLED UL LISTED GRINNELL CORP. EA-1, 1/4" ORIFICE, 65 DEGREE DEFLECTOR SPRINKLER(S) FOR THE PROTECTION OF UNLIMITED LENGTH OF GREASE DUCT HAVING A MAXIMUM DUCT PERIMETER OF 50 INCHES PER SPRINKLER. CONNECT TO NFPA 13 SPRINKLER SYSTEM WATER SUPPLY ONLY.

SERIAL NO:
MODEL NO:

HOOD MOUNTING REQUIREMENTS

MINIMUM DISTANCE FROM COOKING SURFACE TO FRONT LOWER EDGE OF HOOD	
MAXIMUM DISTANCE FROM COOKING SURFACE TO FRONT LOWER EDGE OF HOOD	
MINIMUM OVERHANG FROM FRONT OF HOOD CAVITY TO FRONT OF COOKING SURFACE	
MAXIMUM SETBACK FROM FRONT OF HOOD CAVITY TO FRONT OF COOKING SURFACE	
MINIMUM OVERHANG FROM SIDE OF HOOD TO EDGE OF COOKING SURFACE	

FIG. 13
VENTILATOR NAME PLATE

OPTIONAL CONTINUOUS COLD WATER MIST

GENERAL

Continuous cold water mist is an option on all "CG3" Series ventilators and is typically used on ventilators that cover solid fuel burning appliances such as mesquite broilers.
Continuous cold water mist ventilators incorporate a water manifold with spray nozzles, located at the lower edge of the air inlet slot. (Refer to Figure 14) When the exhaust fan is started, the solenoid valve in the cold water loop in the Gaylord control cabinet opens (refer to illustration on Page 41), turning on the mist nozzles which remain on as long as the exhaust fan is on. The nozzles produce a very find mist and are located so that the entire air stream passes through the mist. The purpose of the mist is to knock down any hot embers, produced by the solid fuel, that may be drawn up into the ventilator and to cool down the exhaust air.

ENGINEERING

1. **Pipe Size** - 1/2" cold water supply required to the control cabinet.
2. **Water Pressure** - 40 psi flow pressure. The control cabinet is equipped with an adjustable pressure regulator.
3. **Water Consumption** - .66 gph/lineal ft. of ventilator.

MAINTENANCE

Every six months check the following:

1. **Water Pressure** - Turn on the exhaust fan, opening the control cabinet door and check the water pressure gauge in the cold water loop. Water flow pressure should be at 40 psi. If it is not, adjust the pressure regulator until 40 psi is achieved.
2. **Mist Nozzles** - Turn on the exhaust fan, look into the air inlet slot and check each mist nozzle for proper spray. Remove and clean the nozzle if necessary.

TROUBLESHOOTING

1. If the mist nozzles do not come on when the fan is started, check the following:
   A. Open the electrical compartment of the control cabinet and check to ensure that the cold water mist override switch is in the "On" position.
   B. Check the cold water mist hand valve in the control cabinet to ensure that it is in the "Open" position.
   C. Check the cold water mist solenoid coil for voltage. Also check the coil for continuity.
   D. Foreign material in the cold water supply line may have clogged the solenoid valve and prevented its opening. If this is the case, a alight tap on the solenoid valve housing should release the valve.
2. If water mist is spraying out of the air inlet slot, check the following:
   A. With the cold water mist on, open the control cabinet and check the pressure gauge to ensure that the flow pressure is not above 40 psi. Adjust the pressure reducing valve if necessary.
   B. With the cold water mist on, check the mist nozzles for even spray. Foreign particles in the nozzle could cause an erratic mist causing it to come out the air inlet slot.

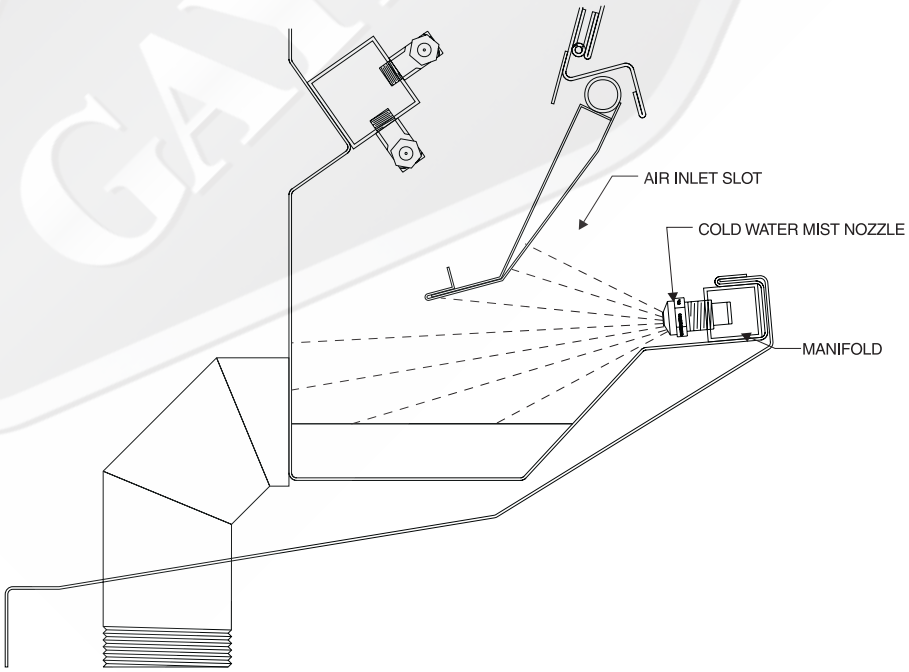
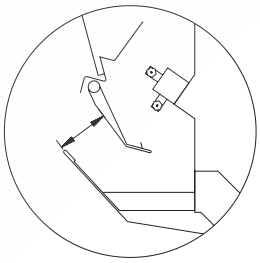


FIG. 14
CONTINUOUS COLD WATER MIST

TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	CORRECTIVE ACTION
SMOKE LOSS		
1. Smoke Loss- Ventilator is not exhausting properly.	A. Low air velocity- Average air velocity through the air entry slot should be in accordance with the Air Velocity Chart on page 24. For proper method of measuring the air velocity, refer to page 25. If the velocity is low check the following.	1. Broken or slipping belt on the exhaust fan. 2. Proper rotation of the exhaust fan wheel. 3. Proper size of exhaust fan (fan must deliver nameplate rating). 4. Ductwork inspection panel left open. 5. Damper not open or in proper position.
	B. The Gaylord Ventilator must have its own exhaust system and no other exhaust, such as dishwasher hoods, should be tied into it .	1. Inspect duct system and verify that there are no other non ventilator systems tied in. If so they must be removed.
	C. Improperly placed make-up air diffusers.	1. Make-up air directed at the ventilator will likely create cross drafts disrupting the air flow into the ventilator. Adjust the louvers to direct the make-up air away from the ventilator. 2. Make-up air should be delivered through registers at ceiling height, and distributed throughout the kitchen area. 3. Make-up air registers located near the ventilator, the louvers should be adjusted to direct the air away from the ventilator. Directing or forcing make-up air at the ventilator typically creates cross drafts resulting in smoke loss.
	D. Inadequate make-up air.	1. Make-up air must be supplied for replacement of air exhausted through all kitchen exhaust systems. 2. A general "rule of thumb" is that 75% to 80% of the replacement air should be fresh, conditioned, (heated or cooled) air brought into the kitchen area, with the remaining 20% to 25% allowed to flow into the kitchen from adjacent areas.
	E. Exhaust fan discharge.	1. There should be no screen over the discharge. If one is found, it should be removed. 2. The direction of discharge should not be into the prevailing winds nor downward onto the roof. A vertical discharge is highly recommended.
	F. Damper not open to correct operating position (N/A on CG3-UV-FDD, CG3-UV-FDT, and CG3-UV-ND) 	1. Check outputs # 17 & 18 on C-6000-UV for voltage. Fan On = 0 VAC Fan Off = 24 VAC 2. Measure the damper opening while in the operating position. 3" Throat - Set to 2 15/16" 4" Throat - Set to 3 3/4"
GREASE EXTRACTION		
1. Poor Grease Extraction.	A. The Gaylord "CG3" Series Ventilator extracts up to 95% of the grease, dust and lint particles from the airstream passing through it, when operated and maintained in accordance with design specifications. If it appears that the ventilator is not extracting properly, typically the exhaust volume is low.	1. Check the inlet slot velocity as described on pages 24 through 26. If the velocity is not within the required range, increase or reduce the fan speed as required.

SYMPTOM	POSSIBLE PROBLEM	CORRECTIVE ACTION
EXHAUST FAN		
1. When the "Start Fan" button is pushed, the green light does not come on, and the damper does not move to the exhaust position.	A. No power in the control cabinet.	1. Check the circuit breaker serving the control cabinet. The "Run" light on the "PLC" should be on at all times. If it is not on it indicates no power is getting to the control. Check all the fuses inside the control cabinet on output module, terminal blocks, and transformer.
	B. The control is in an Internal Fire Mode.	1. Check for continuity between **15** and **GXT**. If there is no continuity between **15** and **GXT**, refer to "Fire Cycle" in the Trouble-shooting section.
2. If when the "Start Fan" button is pushed, the green light comes on and the damper moves to the exhaust postion but the exhaust fan does not come on.	A. Overload protector on magnetic starter tripped.	1. Push the "Reset" button on the magnetic starter and the push the "Start Fan" button on the command center.
	B. If an HOA (Hands On/Automatic) type magnetic starter switch is used, the selector switch may have been moved from the automatic position	1. Check switch and turn selector to the automatic position.
	C. Exhaust fan circuit breaker tripped.	1. Reset circuit breaker
	D. If the system is equipped with a disconnect switch for the exhaust fan, a fuse or fuses may have blown out.	1. Check continuity of fuses and replace if necessary.
3. When the "Start Fan" button is pushed and after the 45 second delay, the exhaust fan comes on but the damper does not open.	A. There may be an incomplete circuit between the damper motor and the C-6000-UV control.(N/A on CG3-UV-FDD, CG3-UV-FDT, and CG3-UV-ND)	1. Check outputs #17 & 19, on C-6000-UV for voltage (24 VAC). 2. Check outputs #17 & 18, on C-6000-UV for voltage. Fan On = 0 VAC Fan Off = 24 VAC 3. Check wiring connections at the ventilator J-boxes following wire numbers as described in A/1 & A/2 above.
	B. There may be a problem with the PLC (Programmable Logic Controller) in the command center.	1. Check the appropriate status light on the PLC (Refer to the PLC status light chart on Page 35.)
	C. If the PLC status lights check out, there may be a problem with the damper motor or the wiring going to the damper motor.	1. If there is more than one ventilator on the system visually check each damper. If only one out of two or more dampers is closed, check the control for mechanical failure. If mechanical components are ok, remove inspection panel and check lines 17 & 19.
WASH SYSTEM		
1. When the "Start Wash" button is pushed, the green light does not come on, and the damper does not move to the wash position.	A. The control is in an Internal Fire Mode.	1. Check for continuity between **15** and **GXT**. If there is no continuity between **15** and **GXT**, refer to "Fire Cycle" in the Trouble-shooting section.
2. The ventilator is not washing properly.	A. Water supply turned off or partially on.	Check the hand valve inside the control cabinet. 1. Check any valves upstream of the control 2. cabinet.
	B. Low water pressure.	Check the water pressure gauge inside the 1. control cabinet. Pressure should be 40 PSI min. while the ventilators are washing.
	C. Low water temperature	Check the temperature gauge inside the control 1. cabinet. The temperature should be between 140°F - 180°F. If below temperature it must be increased.

SYMPTOM	POSSIBLE PROBLEM	CORRECTIVE ACTION
WASH SYSTEM CONT.		
2. The ventilator is not washing properly.	D. Inadequate wash time	1. Increase length of wash time.The length of the wash cycle may be set between 3 and 9 minutes. Recommended times are: 3 minutes for light-duty equipment, 5 minutes for medium duty and 9 minutes for heavy-duty equipment. (Refer to wash timing instructions on Page 17 to adjust the length of wash cycle.)
	E. Clogged spray nozzles.	1. While the wash cycle is on, open the inspection door slightly and visually check spray of nozzles. If a nozzle is clogged, remove, and clean by running a small wire through it.
	F. Detergent pump lost its prime or not pumping properly.	1. Refer to Page 14 for troubleshooting detergent pump.
	G. Detergent tank empty.	1. Check and fill detergent weekly.
	H. Improper detergent.	1. Refer to Page 15 for recommended detergent.
	I. Inadequate wash frequency.	1. Normally only one wash is required in a cooking day. However, if the cooking operation is extremely heavy, such as char broiler and wok cooking it may be necessary to wash twice in a cooking day.
3. Water does not come on when "Start Wash" is pushed, but exhaust fan turns off and damper closes, to the wash position	A. Water supply turned off	1. Check hand valve inside control cabinet. 2. Check any hand valve upstream of control cabinet.
	B. Malfunctioning solenoid valve. If the pump is operating there is a problem with the valve or valve wiring.	1. Coil may be burned out. Check continuity. 2. Foreign material in the hot water supply line may have clogged the solenoid valve and prevented its opening. If this is the case, a light tap on the solenoid valve housing will release the valve. 3. Check wiring diagram for proper wire # 9-13 and check for 120 volts during wash.
	C. Malfunctioning PLC.	1. Check the appropriate status light on the PLC (Refer to PLC status light chart on Page 35). If the appropiate status light is not on, the PLC needs to be reprogrammed or possibly replaced.
	D. Loose connection to solenoid valve.	1. Tighten connection.
4. Water sprays on when the ventilator is not in a wash cycle ("Wash On" not displayed on command center).	A. If "Fire in Hood" is displayed on the C-6000-UV command center and the red light is on continuous. (N/A on CG3-UV-FDD and CG3-UV-ND)	1. The internal fire mode has been activated via thermostats. Refer to "Fire Cycle" in this trouble-shooting section.
	B. If "Ext. Fire Active" is displayed on the C-6000-UV command center and the red light is flashing.	1. The remote fire switch has been pulled. Refer to "Fire Cycle" in this trouble-shooting section.
	C. Debris stuck in solenoid valve.	1. Turn off the water and disassemble solenoid valve. Remove debris and reassemble.

SYMPTOM	POSSIBLE PROBLEM	CORRECTIVE ACTION
FIRE CYCLE		
1. If the ventilator is in an internal fire cycle, "Fire in Hood" is displayed and the red light is on continuous, water sprays on and the damper closes to the fire position, but there is not a fire (N/A on CG3-UV-FDD and CG3-UV-ND)	A. Faulty thermostat, or break in thermostat circuit.	1. Check continuity of thermostats and circuit. Refer to wiring diagram on Pages 48-51. Note: Thermostats are wired in parallel. Replace thermostat(s) if required. Check for jumper between GXT and 15. If GX2 hoods are connected, check for continuity between GXT and 15. If not, trace out circuit and find break.
2. If the ventilator is in an external fire mode "Ext. Fire Active" displayed and the red light flashes, water sprays on and exhaust fan on but there is no fire.	A. The remote Fire Switch (If provided) has been pulled.	1. Open the Fire Switch and flip the toggle switch to the "Normal position". (Refer to Page 9 for illustration) Water sprays will continue to run for 2 minutes unless the "Exit" button on the command center is pushed.
	B. The external fire mode may have been initiated from another source, such as a building alarm system, DDC system, pre-engineered fire system etc.	1. Disconnect wires from terminals 4 and FS to isolate external sources. If external fire mode stops investigate external sources and remove cause.
3. If the damper is in the fire position but the unit is not in an internal fire mode ("Fire in Hood" displayed, water sprays on.) (N/A on CG3-UV-FDD and CG3-UV-ND)	A. There may be a problem with the PLC (Programmable Logic Controller) in the command center.	1. Check the appropriate status light on the PLC (Refer to the PLC status light chart on Page 35). If the output light is not on, the PLC needs to be reprogrammed or possibly replaced.
	B. If the PLC output lights check out, there may be a problem with the damper motor or the wiring going to the damper motor.	1. If there is more than one ventilator on the system visually check each damper. If only one out of two or more dampers is closed, check the control for mechanical failure, etc. If mechanical components are ok, remove damper actuator access panel and check lines 17 and 19 for power. If there is power, then the damper motor must be replaced.
BACK FLOW PREVENTERS		
Model GPC-6000-UV-VB Series control cabinets use a vacuum breaker/check valve assembly for backflow prevention. Model GPC-6000-UV Series control cabinets use a reduced pressure principle device (RP) for backflow prevention. Refer to Pages 38 through 40 for illustrations of each. The type of backflow preventer used is dictated by state, county or city code.		
1. **VACUUM BREAKERS** Vacuum breaker leaks or spits either at the beginning or end of the wash cycle.	A. Improper Installation.	1. Vacuum breaker must be mounted 6" higher than line going to the ventilator. (See illustrations on Page 20 and on Page 38).
	B. Sticking check valve.	1. Remove the top cap of the vacuum breaker and check to make sure the nylon check valve slides up and down on the guide stem properly, and that the stem is straight. Clean stem or straighten as necessary.
	C. Deteriorated check valve washers.	1. Check to make sure that the rubber washer on top of the nylon check seats properly against the machined surface, and that the surfaces of both the rubber washer and the machined surface are smooth. Replace check if necessary.

SYMPTOM	POSSIBLE PROBLEM	CORRECTIVE ACTION
BACK FLOW PREVENTERS CONT.		
RP DEVICE 2. Intermittent discharge of water.	A. Intermittent discharge of water through the relief valve is fairly common and usually occurs if there is inlet pressure fluctuations of more than 3 psi and when the solenoid valve closes after a wash cycle.	1. No action necessary.
3. Continuous discharge of water when ventilator is not in a wash cycle.	A. Foreign material in the check valve.	1. Leave the inlet hand valve open and close the outlet hand valve. If there is still continuous discharge it indicates that foreign material is preventing the first check valve from closing. If flushing will not clear the unit, remove and clean the first check valve. (Refer to illustration on Page 23)
4. Continuous discharge of water out relief valve when ventilator is washing.	A. Foreign material in relief valve.	1. Foreign material preventing complete closing of the relief valve. Flushing the relief valve may correct this condition. Repeat procedure if necessary. If flushing does not stop discharge with flow through device, remove and clean relief valve. In no case should the relief valve outlet port be plugged, closed off or restricted.
DRAINS		
1. If during a wash cycle water oveflows the gutter and comes out inlet slot.	A. Clogged drain outlet (Note: Each ventilator section has its own drain outlet).	1. Reach in through the inlet slot of the ventilator and check to see if foreign material such as rags, paper towels, order chits, etc., have clogged the drain opening.
	B. Drain system clogged (If more than one ventilator system is not draining it indicates that the drain system is clogged.	1. A chemical drain cleaner applied as per instructions may dissolve stoppage. Pour cleaner into main grease gutter at drain opening. 2. Hire a drain rooter service to clear entire system.
	C. Pre-flush line not in drain opening.	1. This line is located in the ventilator and runs from the spray manifold to the ventilator drain. Check to make sure that the pre-flush line is aimed into the drain opening so that it purges the drain properly.
	D. Clogged or full grease trap	1. Some cities and counties have codes which require grease traps.If a grease trap is in use, check to ensure that it is not clogged.
MISCELLANEOUS		
1. "Enter Code" displayed on C-6000-UV Command Center.	1. Enable Code has not been entered at factory.	1. Contact Factory.
2. Wrong language displayed on C-6000-UV Command Center.	2. "English / Espanol" button has been pressed.	2. Press the "English / Espanol" button to toggle the language displayed between English and Spanish (Espanol).

TROUBLESHOOTING UV SYSTEM

Danger!

These items will need to be performed by a trained, qualified and Certified Service Agency (CSA). These tasks involve potential exposure to UV light and live electrical components. There is risk of injury to skin and eyes and in the case of electrical shock, injury or death! For a list of CSA's Go to www.gaylordusa.com and go to Service for a list of companies nearest you.

SYMPTOM	POSSIBLE PROBLEM	CORRECTIVE ACTION
1. After Start Fan button is pressed, fan starts: * Yellow "UV Lamp Failure" light is on * Audible Alarm is on	A. No power to the ventilator section(s).	1. Check for 120 Volts on between L1 & L2 at ventilator. If there is no power at L1 and L2 coming to this ventilator section identify the circuit breaker, correct and re-check.
	B. Loose wire between C-6000-UV and ventilator.	1. Check for 120 Volts between 6U and 5U in the ventilator. If none check CR13 in the C-6000-UV for power and operation. If there is power there check for 120 volts between 1U and 5U. If there is power, check the green lamps for proper operation.
	C. No start signal from C-6000-UV to ventilator section(s).	1. Check Fuse F7 in C-6000-UV.
	D. Fuse is blown on UV Controller in ventilator.	1. Check Fuse F2 on the UV Controller.
	E. The contactor has failed (CR20).	1. If there is power to L1 and L2. Check for power to the contactor coil (CR20). Correct lack of power.
	F. Green "UV System On" light has failed.	1. Check for power to the Green "UV System On" light a. If no power, Check the circuit and locate problem. b. If there is power the Green "UV System On" light has failed and needs to be replaced.
	G. Output from PLC is not working.	1 Check for power on YO-3 on the PLC. It should be on whenever the fan is called to be on. If not the PLC is defective.
2. * Yellow "UV Lamp Failure" light is on * Green "UV System On" light is on * Audible Alarm is on	A. UV Lamp or UV Ballast has failed.	1. Identify ventilator section with Yellow "UV Lamp Failure" light on. 2. With fan running, Open UV Access door 3. Depress the UV Access door switch and identify which Lamp/Ballast's green light is not on 4. Switch the pin connector on that Ballast with another Ballast and check again a. If the alternate Ballast's green light comes on, replace the Ballast b. If the alternate Ballast's green light does not come on, replace the Lamp
	B. The contacts on the UV Controller have closed permanently.	1. Check for continuity between 2A and 3A in ventilator. If there is continuity AND all of the UV lamps are working, (6) green and (3) red lights on at the UV Controller, the UV Controller needs to be replaced.
	C. Relay CR22 in ventilator has failed.	1. With Exhaust fan on, check for continuity across the N.O. contacts of CR22 in the ventilator. If there is continuity AND all of the UV lamps are working, replace relay CR22.
	D. Relay CR12 in C-6000-UV has failed.	1. Check CR12 for proper operation, replace if necessary.
3. Yellow "UV Lamp Failure" light is on ONLY at C-6000-UV control NOT on any of the ventilator sections.	A. Yellow "UV Lamp Failure" light on ventilator has failed.	1. Check the Yellow "UV Lamp Failure" light and see if it is receiving power. a. If no, the problem is in the wiring. Locate and correct the problem b. If yes, replace the lamp.

TROUBLESHOOTING UV SYSTEM

SYMPTOM	POSSIBLE PROBLEM	CORRECTIVE ACTION
4. During the lamp inspection one of the UV Controllers does not have (6) Green & (3) Red indicator lights on and there is no Yellow "UV Lamp Failure" lamp on.	A. The Yellow "UV Lamp Failure" light has failed.	1. Check the Yellow "UV Lamp Failure" light and see if it is receiving power. a. If no, the problem is in the wiring. Locate and correct the problem b. If yes, replace the lamp. 2. If the Yellow "UV Lamp Failure" light has power, replace the light.
	B. The Connection from the 2A on the UV Controller and the terminal blocks is broken or loose.	1. It may be the contacts on the ballast a. Check for power coming out of terminal 2A in the ventilator
	C. The contacts on the UV Controller has failed to close.	1. Check for continuity between 2A and 3A at ventilator. If a UV lamp has failed and there are (6) green and (3) red lights on on the UV Controller, the UV Controller needs to be replaced.
5. Red "UV Safety Interlock Activated" light on AND Audible Alarm on.	A. UV Access Door Switch (DS) has failed or needs to adjusted.	1. Check for continuity between D1 & D2 and D3 & D4 with the door switches depressed. If there is 2. If there is continuity check the UV Pressure Switch and UV Proximity Switch.
	B. UV Proximity Switch (PXS) for Inspection (wash access) door has failed or needs adjustment.	1. Check for continuity between X1 and X2. 2. Check the location of the UV Proximity Switch and the magnet to ensure they are aligned. Adjust if needed. 3. Remove the UV Proximity Switch and place next to a magnet. Make sure there is 120 volts on X1. Check for continuity between X1 and X2. If there is none the Prox switch needs to be replaced.
	C. Pressure switch (PS) has failed or needs adjusting.	1. Check for power to the UV Pressure Switch with the fan on. 2. Check for continuity between P1 and P2. It should be closed with the fan on 3. With the fan on turn the pressure switch adjustment screw Clockwise until there is continuity between P1 and P2. 4. If there is continuity, check the UV Access Door Switch and the UV Proximity Switch
	D. Pilot tube to sense air pressure is plugged.	1. Check the Pitot tube for blockage. Clear and check again. 2. Check all tubing connections to make sure they are tight.
	E. Relay CR23 in ventilator has failed.	1. With Exhaust fan on, close Inspection (wash access) doors and depress UV Access Door switches. Check for continuity across the N.O. contacts of CR23 in the ventilator. If there is continuity, replace relay CR23.
	F. Relay CR11 in C-6000-UV has failed.	1. Check CR11 for proper operation, replace if necessary.
6. Pressing "Cancel Audible Alarm" button on C-6000-UV does NOT silence alarm.	A. Timing Relay TR1 in C-6000-UV is not set correctly or has failed.	1. Check TR1 for proper operation and verify it is set for 1 second.
	B. Relay CR10 in C-6000-UV has failed.	1. Check Yellow "UV Lamp Failure" lights. Identify which ventilator section(s) has the same light on. If it is on, see above for solution.
7. Audible alarm comes on for approximately 60 Seconds each day when "Start Fan" button is pressed.	A. Timing Relay TR2 in C-6000-UV is not set correctly or has failed.	1. Check TR2 for proper operation and verify it is set for 60 seconds.

PLC STATUS LIGHT CHART

The following is a list of how the status lights will appear on the PLC (Programmable Logic Controller) that is operating correctly.

	X (Inputs)	STANDARD (SINGLE OR SEQUENTIAL WASH) DESCRIPTION - PLC
PLC	0	**On** while “Fire Test Switch” is pushed and held, or hood is in Internal Fire Mode. **Off** during "Cool Down Cycle"
	1	**On** when Remote Fire Switch is activated, or when hood is in External Fire Mode.
	2	**On** normally. It shuts **off** if cabinet is equipped with Low Detergent alert feature and the detergent is low.
	3	**Off** normally. **On** when Jumper is installed to disable Wash Solenoids from opening during Internal Fire Mode and External Fire Modes.
	4	Wash permission signal (if so equipped)
	5	Not Used
	6	Not Used
	7	Not Used
	Y (Outputs)	**STANDARD (SINGLE OR SEQUENTIAL WASH) DESCRIPTION - PLC**
	0	**On** when Wash Solenoid # 1 should be open.
	1	**On** during an Internal or External Fire Mode. **On** during "Cool Down Cycle".
	2	**On** when Detergent Pump should be on.
	3	**On** when Exhaust Fan should be on.
	COM	Never comes on
	4	**On** when Supply Fan should be on.
	COM	Never comes on
	5	**On** when damper is in "Wash" position, or while damper is moving to "Wash" position

	Y (Outputs)	(SEQUENTIAL WASH "S2-S5") DESCRIPTION - EXPANSION MODULE
EXPANSION MODULE SEQUENTIAL "S2-S5"	0	**On** when Wash Solenoid # 2 should be open.
	1	**On** when Wash Solenoid # 3 should be open.
	2	**On** when Wash Solenoid # 4 should be open.
	3	**On** when Wash Solenoid # 5 should be open.
	4	Not Used
	5	Not Used
	6	Not Used
	7	Not Used

C-6000-UV Terminal Voltages

TERMINAL	DESCRIPTION	FAN OFF	FAN ON	WASH ON	INT. FIRE	EXT. FIRE
L1	Main Power Connection : Hot	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC
L2	Main Power Connection : Neutral	Common				
1	Output to Supply Fan Motor Starter	0 VAC	120 VAC	0 VAC	0 VAC	0 VAC
2	Output to Detergent Pump	0 VAC	0 VAC	120 VAC	0 VAC	0 VAC
3	Thermostat Return	0 VAC	0 VAC	0 VAC	24 VAC	0 VAC
4	Fused Supply to PLC Outputs & Etc.	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC
5	120 VAC Neutral Leg	High Voltage Common				
8	Output to Exhaust Fan Motor Starter	0 VAC	120 VAC	0 VAC	0 VAC	120 VAC
CM	Output to Cold Water Mist Solenoid	0 VAC	120 VAC	0 VAC	0 VAC	120 VAC
9	Output to Wash Solenoid Valve #1	0 VAC	0 VAC	120 VAC	120 VAC	120 VAC
10	Output to Wash Solenoid Valve #2	0 VAC	0 VAC	120 VAC	120 VAC	120 VAC
11	Output to Wash Solenoid Valve #3	0 VAC	0 VAC	120 VAC	120 VAC	120 VAC
12	Output to Wash Solenoid Valve #4	0 VAC	0 VAC	120 VAC	120 VAC	120 VAC
13	Output to Wash Solenoid Valve #5	0 VAC	0 VAC	120 VAC	120 VAC	120 VAC
SF1 SF2	N.O. Dry Contacts for Supply Fan Remote Control Center	Open	Closed	Open	Open	Open
EF1 EF2	N.O. Dry Contacts for Exhaust Fan Remote Control Center	Open	Closed	Open	Open	Closed
A1 A2	N.O. Dry Contacts that CLOSE during an Internal or External Fire Mode	Open	Open	Open	Closed	Closed
Q1 Q2	N.C. Dry Contacts that OPEN during an Internal or External Fire Mode	Closed	Closed	Closed	Open	Open
FS	Input from Remote Fire Switch	0 VAC	0 VAC	0 VAC	0 VAC	120 VAC
(1) LD	Input from Detergent Flow Switch	NO Low Detergent Sensor (Jumper J1 is present)				
		120 VAC	120 VAC	120 VAC	120 VAC	120 VAC
(2) LD	Input from Detergent Flow Switch	Low Detergent Sensor (Jumper J1 is cut or NOT present)				
		0 VAC	0 VAC	0 VAC	0 VAC	0 VAC
GX	Power for GX2 Damper Actuators	0 VAC	24 VAC	0 VAC	0 VAC	24 VAC
15	Output to Thermostat(s)	24 VAC	24 VAC	24 VAC	24 VAC	24 VAC
17	24 VAC Common	Low Voltage Common				
18	CG3 Damper Drive Signal	24 VAC	0 VAC	24 VAC	0 VAC	0 VAC
19	Power for CG3 Damper Actuators	24 VAC	24 VAC	24 VAC	0 VAC	24 VAC
GXT	Thermostat Return for GX2 Hoods	24 VAC	24 VAC	24 VAC	24 VAC	24 VAC

UV Components

L	Main Power Connection : Hot	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC
N	Main Power Connection : Neutral	Common				
1U	Input from "UV System On" (Green)	0 VAC	*	0 VAC	0 VAC	*
2U	Input from "UV Lamp Failure" (Amber)	0 VAC	*	0 VAC	0 VAC	*
3U	Input from "UV Safety Interlock Activated" (Red)	0 VAC	*	0 VAC	0 VAC	*
5U	120 VAC Neutral Leg	High Voltage Common				
6U	Output to UV Lamps Contactor	0 VAC	120 VAC	0 VAC	0 VAC	120 VAC

(1) 120 VAC - Jumper is installed between LD and #4 or Jumper J1 is present (No LD/Detergent Flow Switch present)

(2) 120 VAC - LD (Detergent Flow Switch) is installed and Detergent Pump is running and Detergent is present
0 VAC - LD (Detergent Flow Switch) is installed and Detergent Pump is running and Detergent is NOT present

* 120 VAC - when light should be on
0 VAC - when light should be off
(Refer to UV Status Light Chart on following page)

UV Status Lights

UV System Mode	UV Status Lights		
	Green "UV System On" light on	Yellow "UV Lamp Failure" light on	Red "UV Safety Interlock Activated" light on
All UV Lamps ON "Normal"	X		
One or more UV Lamps not working	X	X	
UV Module un-plugged	X	X	
No power to the UV Module (All Doors closed)		X	
UV Access Door Open			X
Inspection (Wash Access) Door Open			X
Exhaust Fan is not running at full speed			X

The UV System is designed to run whenever the Exhaust Fan is running.
The UV Status Lights will only activate when the UV System should be on. (Exhaust Fan Running)

"UV System On" (Green) Light
* ON when UV System is energized

"UV Lamp Failure" (Yellow) Light
* ON whenever UV System is energized and one or more of the UV Lamps and/or UV Ballasts have failed or if the UV Lamps do not have power
* The rest of the UV Lamps will continue to run - call a Certified Service Agent for service

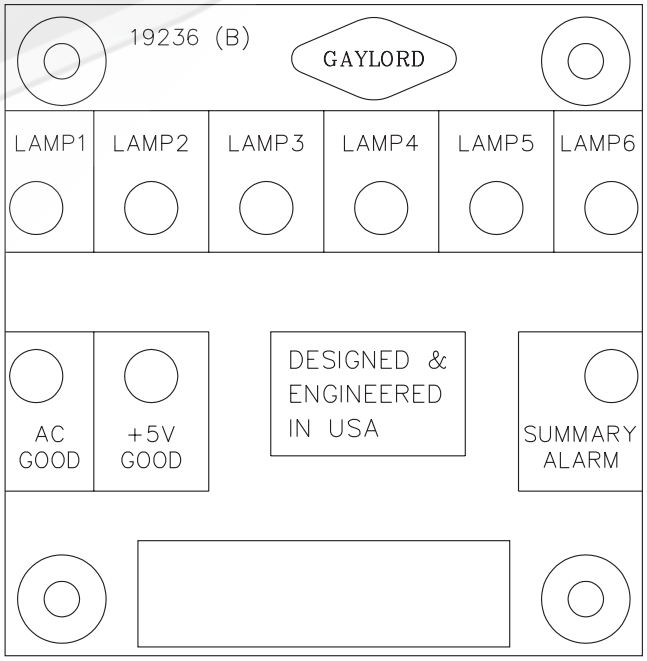
"UV Safety Interlock Activated" (Red) Light
* ON when a UV Access Door is open
* ON when a Inspection (Wash Access) Door is open
* ON when UV Pressure Switch detects that the static pressure is too low
* All UV Lamps will shut off immediately, whenever any of the above happens

UV Controller Status Lights

Normal Operation
- 3 Red lights on
- 6 Green lights on

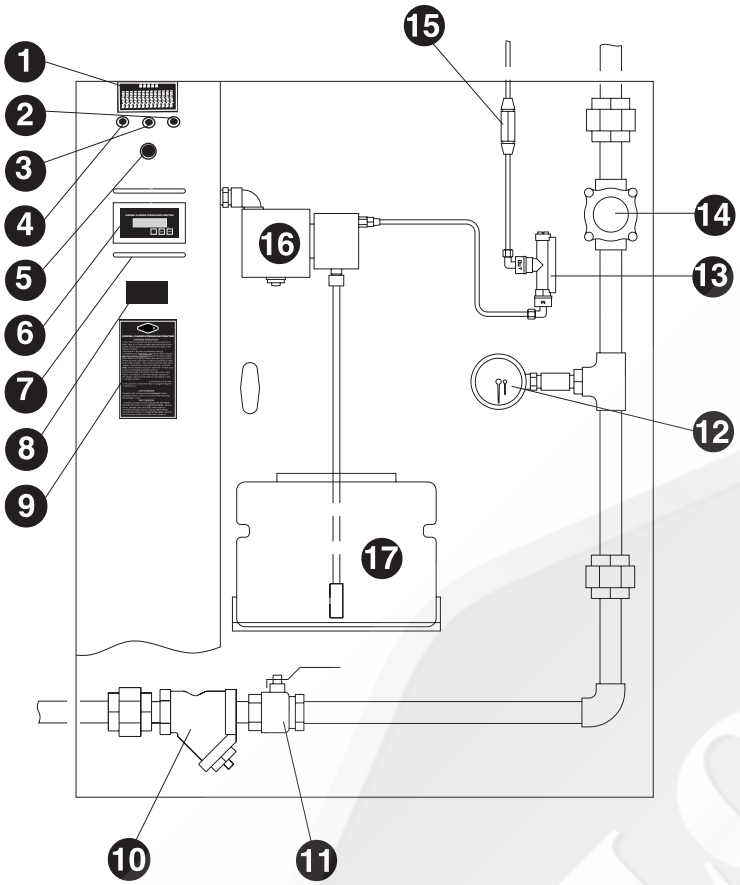
UV Lamp Failure
- "Summary Alarm" light is OFF
- The Green light for the UV Lamp/Ballast that has failed will be OFF

NOTE:
- UV Lamps are numbered 1 to 6 from Front-to-Back
- UV Ballasts are numbered 1 to 6 from Left-to-Right
- The TOP of the UV Module has several long slots cut-out for ventilation

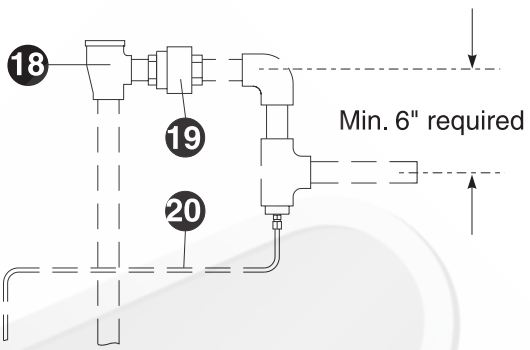


MODEL GPC-6000-UV-VB SERIES CONTROL CABINET

This Control Cabinet Is Used When A Reduced Pressure Principle Device Backflow Preventer Is Not Required And A Vacuum Breaker Is Allowed For Backflow Prevention



MODEL "GPC-6000-UV-VB" SERIES CONTROL CABINET

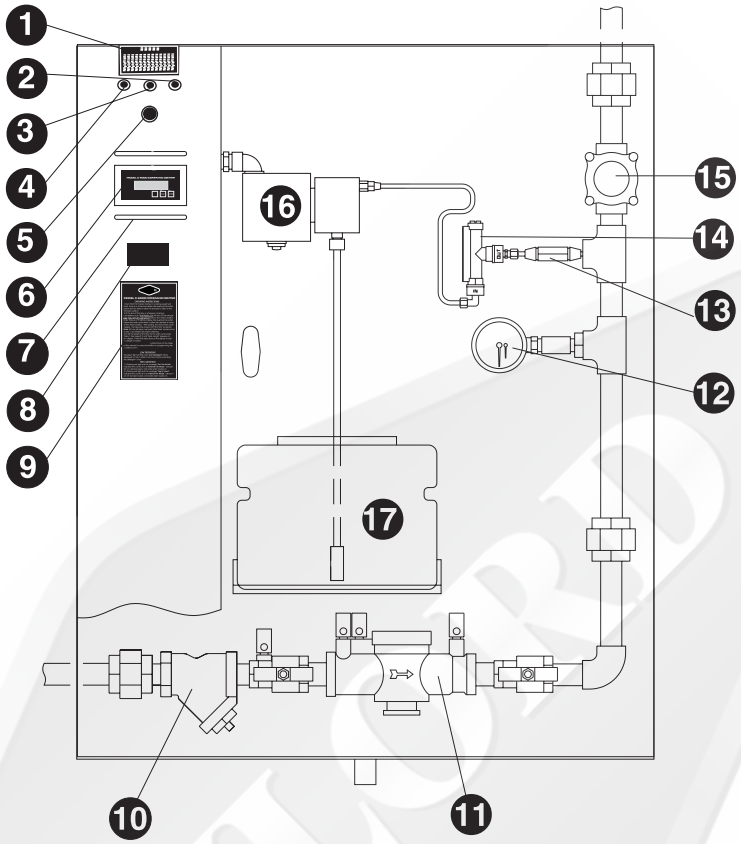


TYPICAL VACUUM BREAKER CHECK VALVE ARRANGEMENT

PC. NO.	DESCRIPTION	GAYLORD PART NO.
1	UV Status Light Label	19397
2	Indicator Light - Red	19162
3	Indicator Light - Yellow	12510
4	Indicator Light - Green	12512
5	Cancel Switch	19076
6	C-6000 Command Center (Operator Interface)	(Refer to Page 42)
7	4" Pull Handle Kit (2)	75587
8	Hour Meter	19164
9	C-6000 Faceplate	18899
10	Line Strainer	(Specify Size)
11	Ball Valve	(Specify Size)
12	Pressure/Temperature Gauge	10175
13	FS-4 Series Detergent Flow Switch (Optional)	16892
14	Solenoid Valve	
	A. Replacement Coil (120 Volt)	10156
	(220 Volt)	10157
	B. Solenoid Valve Repair Kit Pipe Size: 3/4"	14388
	Pipe Size: 1"	14389
	Pipe Size: 1-1/4"	14390
	Pipe Size: 1-1/2"	14391
15	Detergent - Brass Check Valve	10265
16	Detergent Pump (120 Volt)	10222
	(220 Volt)	10223
17	Detergent Tank (2 Gallon)	10221
18	Vacuum Breaker	(Specify Size)
	A. Vacuum Breaker Repair Kit	(Specify Size)
19	Water Check Valve	(Specify Size)
20	3/8" O.D. Copper Tubing	13209

MODEL GPC-6000-UV SERIES CONTROL CABINET

This Control Cabinet Is Used When A Reduced Pressure Principle Device Backflow Preventer Is Required.

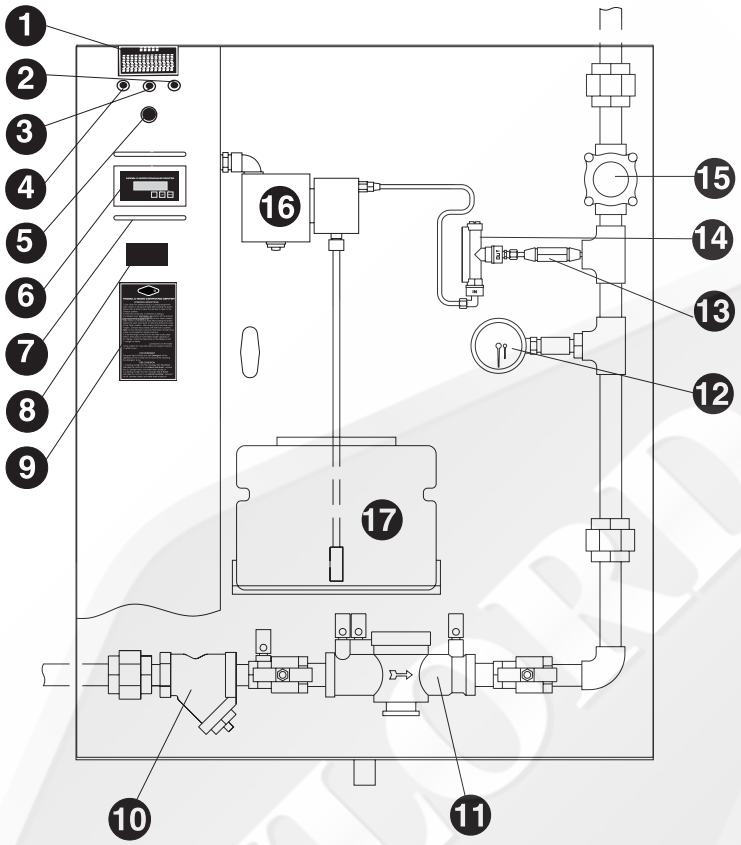


MODEL "GPC-6000-UV"
SERIES CONTROL CABINET

PC. NO.	DESCRIPTION		GAYLORD PART NO.
1	UV Status Light Label		19397
2	Indicator Light - Red		19162
3	Indicator Light - Yellow		12510
4	Indicator Light - Green		12512
5	Cancel Switch		19076
6	C-6000 Command Center (Operator Interface)		(Refer to Page 42
7	4" Pull Handle Kit (2)		75587
8	Hour Meter		19164
9	C-6000 Faceplate		18899
10	Line Strainer		(Specify Size)
11	Backflow Preventer "RP" Device Type		(Specify Size)
12	Pressure/Temperature Gauge		10175
13	Brass Check Valve		10264
14	FS-4 Series Detergent Flow Switch (Optional)		16892
15	Solenoid Valve		
	A. Replacement Coil	(120 Volt)	10156
		(220 Volt)	10157
	B. Solenoid Valve Repair Kit	Pipe Size: 3/4"	14388
		Pipe Size: 1"	14389
		Pipe Size: 1-1/4"	14390
		Pipe Size: 1-1/2"	14391
16	Detergent Pump	(120 Volt)	10222
		(220 Volt)	10223
17	Detergent Tank (2 Gallon)		10221

MODEL GPC-6000-UV-S SERIES CONTROL CABINET

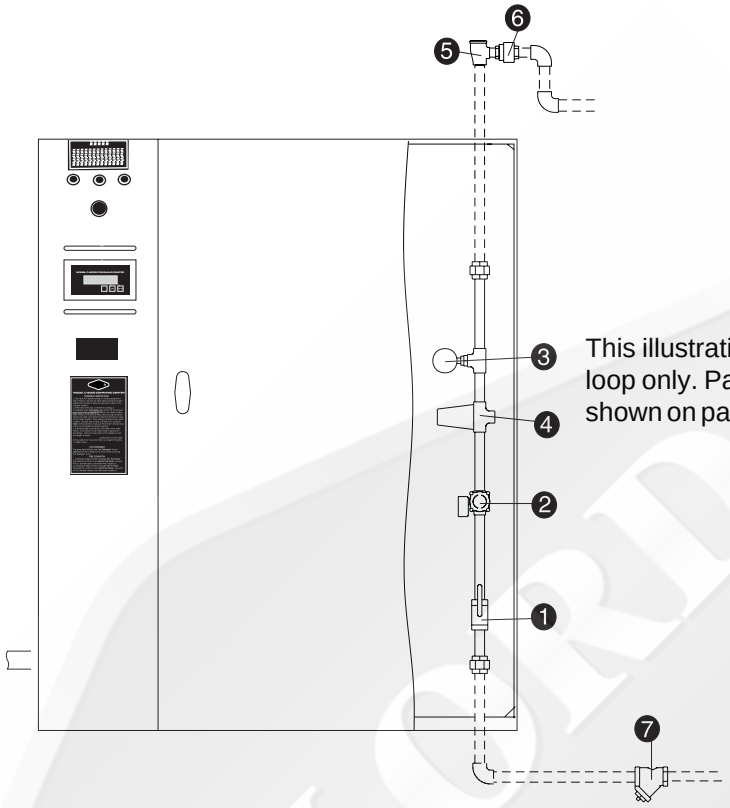
This Control Cabinet Is Used When Ventilators Are Washed In Sequence Groups.



MODEL "GPC-6000-UV-S" SERIES CONTROL CABINET

PC. NO.	DESCRIPTION	GAYLORD PART NO.
1	UV Status Light Label	19397
2	Indicator Light - Red	19162
3	Indicator Light - Yellow	12510
4	Indicator Light - Green	12512
5	Cancel Switch	19076
6	C-6000 Command Center (Operator Interface)	(Refer to Page 42)
7	4" Pull Handle Kit (2)	75587
8	Hour Meter	19164
9	C-6000 Faceplate	18899
10	Line Strainer	(Specify Size)
11	Backflow Preventer "RP" Device Type	(Specify Size)
12	Pressure/Temperature Gauge	10175
13	Brass Check Valve	10264
14	FS-4 Series Detergent Flow Switch (Optional)	16892
15	Solenoid Valve	
	A. Replacement Coil (120 Volt)	10156
	(220 Volt)	10157
	B. Solenoid Valve Repair Kit Pipe Size: 3/4"	14388
	Pipe Size: 1"	14389
	Pipe Size: 1-1/4"	14390
	Pipe Size: 1-1/2"	14391
16	Detergent Pump (120 Volt)	10222
	(220 Volt)	10223
17	Detergent Tank (2 Gallon)	10221

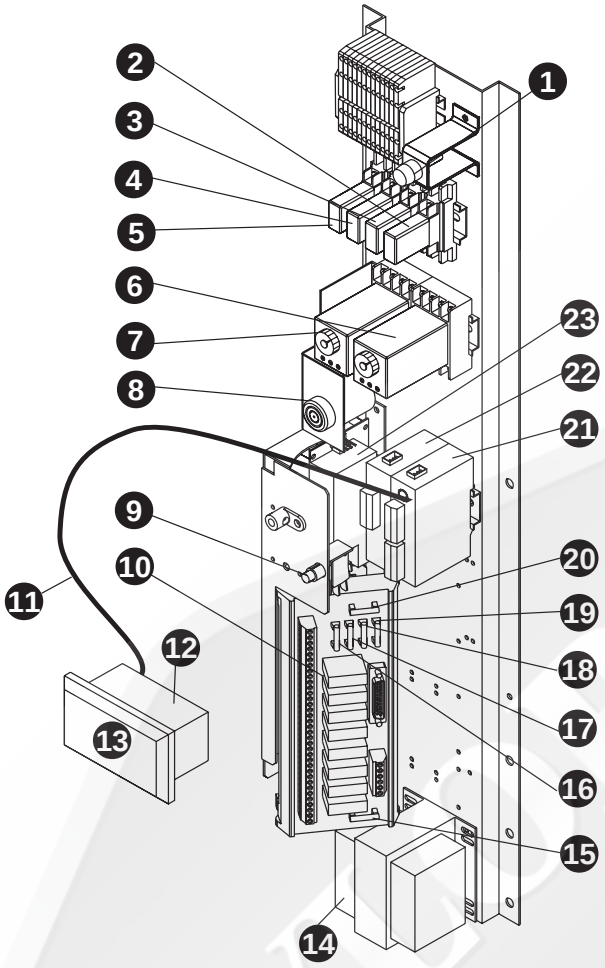
WITH OPTIONAL CONTINUOUS COLD WATER MIST



This illustration shows the cold water mist loop only. Parts for the hot water loop are shown on pages 38-40.

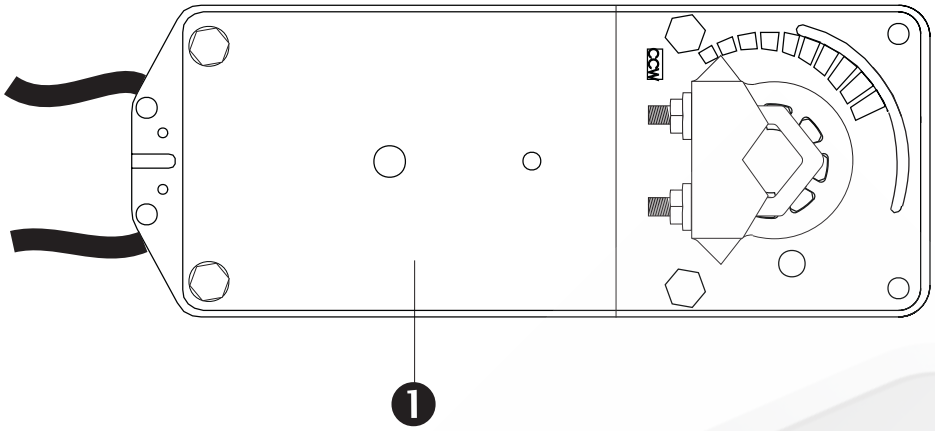
MODEL "GPC-6000-UV-CM" SERIES CONTROL CABINET

PC. NO.	DESCRIPTION	GAYLORD PART NO.
1	1/2" Ball Valve	11258
2	1/2" Solenoid Valve N/C	10135
	A. Replacement Coil (120 Volt)	10156
	Replacement Coil (220 Volt)	10157
	B. Solenoid Valve Repair Kit Pipe Size: 1/2"	14387
3	Pressure Gauge	10276
4	1/2" Water Pressure Reducing Valve	10924
5	1/2" Vacuum Breaker	10177
	A. Vacuum Breaker Repair Kit	10178
6	1/2" Water Check Valve	10195
7	1/2" Line Strainer	10151



PC. NO.	DESCRIPTION	GAYLORD PART NO.	MFG PART NO.
1	Fuse (F7) - 4 Amp	10039	BUSS AGC-4
2	Control Relay [CR10] (Cancel Alarm)	11399	
	Socket	11413	
3	Control Relay [CR11] (Safety Interlock)	11399	
	Socket	11413	
4	Control Relay [CR12] (Lamp Failure)	11399	
	Socket	11413	
5	Control Relay [CR13] (System On)	11399	
	Socket	11413	
6	Timing Relay [TR1] (To Latch the Audible Alarm)	30375	
	Socket	30376	
7	Timing Relay [TR2] (Delays Audible Alarm until Exhaust Fan reaches operating speed)	30375	
	Socket	30376	
8	Sonalert	30528	
9	Fire Test Switch	16894	
10	C-6000-B Output Module	18983	
11	PLC to Operator Interface Cable	18868	
12	C-6000 Command Center (Operator Interface)	75636	
13	C-6000 Command Center (Interface) Mylar Label	19010	
14	100 VA Transformer [**C-6000-10**]	18981	
	250 VA Transformer [**C-6000-20**]	18891	
15	Fuse (F6) - 6 Amp Transformer - Secondary	19020	BUSS AGC-6
16	Fuse (F1) - 2 Amp 24VDC Power Supply	13062	BUSS AGC-2
17	Fuse (F2) - 4 Amp PLC - 120VAC	10039	BUSS AGC-4
18	Fuse (F3) - 1 Amp Supply Fan Mag. Starter	19027	BUSS MDL-1
19	Fuse (F4) - 1 Amp Exhaust Fan Mag. Starter	19027	BUSS MDL-1
20	Fuse (F5) - 2 Amp [**C-6000-10**] Trans. - Primary	13062	BUSS AGC-2
	Fuse (F5) - 4 Amp [**C-6000-20**] Trans. - Primary	10039	BUSS AGC-4
21	Programmable Logic Controller (PLC) w/ Program	75634	
22	Expansion Module (Optional - used for S2-S5)	18867	
23	24VDC Power Supply	18863	
24	C-6000-B Flash Guard (Not Shown)	18980	

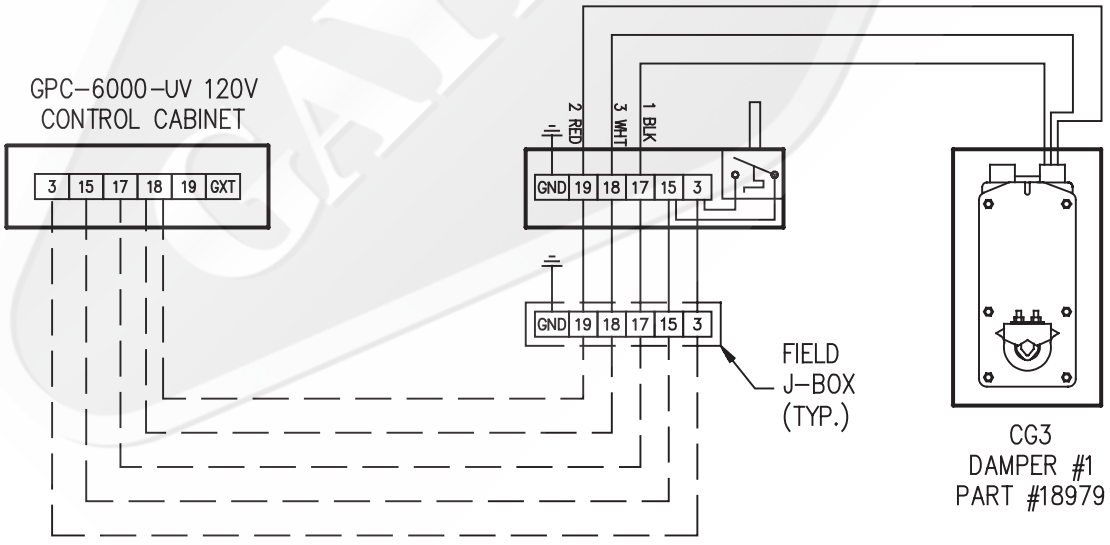
DAMPER CONTROL MOTOR AND CG3-UV-FDL WIRING



Used in CG3-UV, CG3-UV-FDL, and CG3-UV-FDT only

PC. NO.	DESCRIPTION	GAYLORD PART NO.
1	For C-6000-B: Damper Control Motor - AF24-MFT P-10050 (24 Volt) ---------- or AF24-MFT S-0001 (24 Volt) ----------	18979

CG3-UV-FDL WIRING NOTES



CG3-UV-FDL WIRING NOTES w/C-6000-UV

1. ADD FIRE DAMPER LOCKOUT BRACKET, "FDL" BRACKET, TO DAMPER ON VENTILATOR
2. WIRE #'S 18 & 19 FROM ENTILATOR CONNECT TO #18 IN THE GPC–6000–UV CONTROL CABINET.

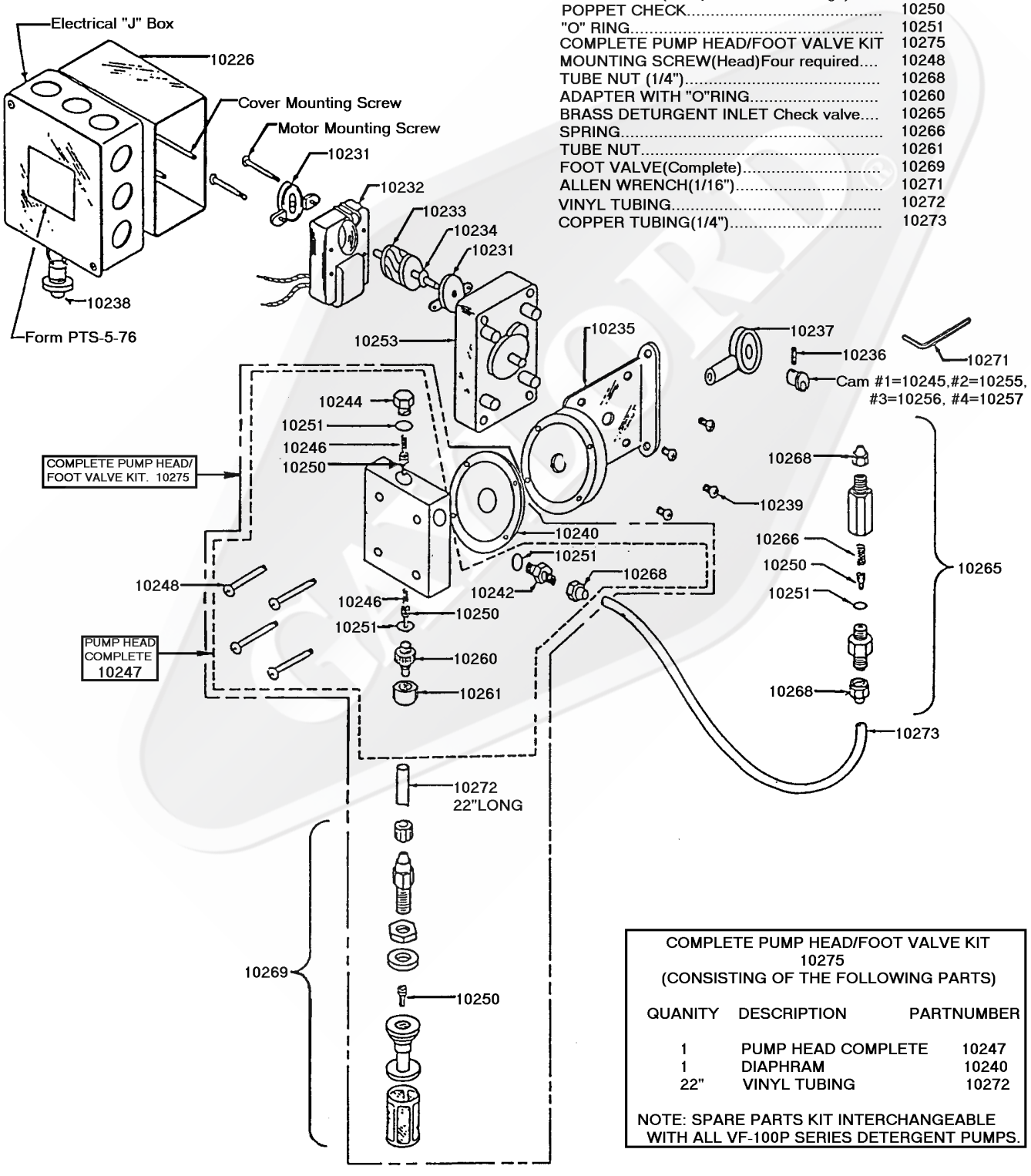
DETERGENT PUMP

DETERGENT PUMP

MODEL NUMBER VF-100P-60B

ITEM.	PART NUMBER
MOTOR COVER	10226
ELECTRICAL "J" BOX	N/A
COVER MOUNTING SCREWS	N/A
MOTOR MOUNTING SCREWS	N/A
ARMATURE BEARING	10231
COIL (115 VOLT)	10232
COIL (220 VOLT)	10259
ARMATURE	10233
ARMATURE SPACER	10234
GEAR BOX ASSEMBLY	10253
BRACKET	10236
SET SCREW	10237

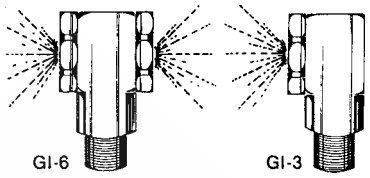
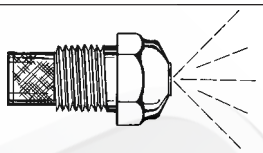
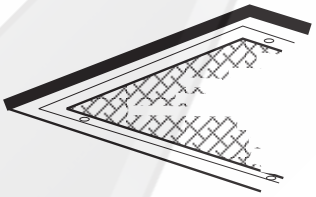
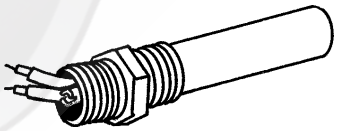
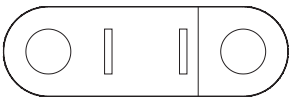
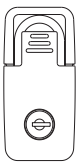
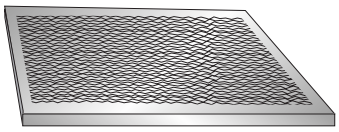
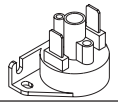
ITEM.	PART NUMBER
YOKE AND BEARING ASSEMBLY	10237
PUSH BUTTON TEST SWITCH	10238
CAM #1	10254
CAM #2	10255
CAM #3	10256
CAM #4	10257
SCREWS FOUR REQUIRED	10239
DIAPHRAGM	10240
BRASS OUTLET	10242
*TOP CAP	10244
SPRING	10246
PUMP HEAD (Complete with all fittings)	10247
POPPET CHECK	10250
"O" RING	10251
COMPLETE PUMP HEAD/FOOT VALVE KIT	10275
MOUNTING SCREW(Head)Four required	10248
TUBE NUT (1/4")	10268
ADAPTER WITH "O"RING	10260
BRASS DETURGENT INLET Check valve	10265
SPRING	10266
TUBE NUT	10261
FOOT VALVE(Complete)	10269
ALLEN WRENCH(1/16")	10271
VINYL TUBING	10272
COPPER TUBING(1/4")	10273



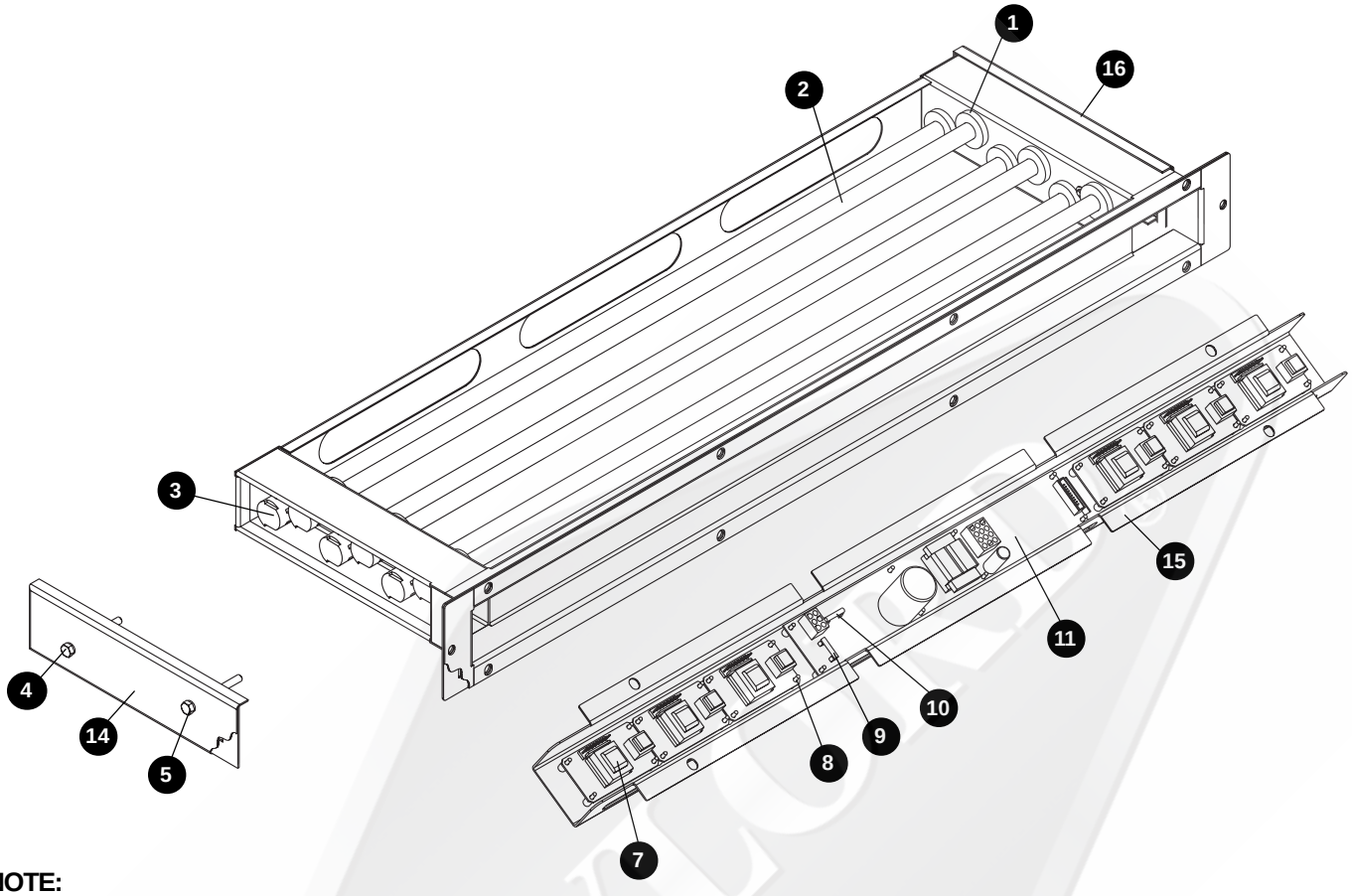
COMPLETE PUMP HEAD/FOOT VALVE KIT 10275 (CONSISTING OF THE FOLLOWING PARTS)		
QUANITY	DESCRIPTION	PARTNUMBER
1	PUMP HEAD COMPLETE	10247
1	DIAPHRAM	10240
22"	VINYL TUBING	10272

NOTE: SPARE PARTS KIT INTERCHANGEABLE WITH ALL VF-100P SERIES DETERGENT PUMPS.

MISCELLANEOUS VENTILATOR PARTS

GAYLORD PART NO.	DESCRIPTION	ILLUSTRATION
	SPRAY NOZZLES	
10303	Single Head	
10304	Double Head	
10305	High Volume (Single Head)	
15330	**COLD WATER MIST NOZZLES**	
	VENTILATOR & CONTROL CABINET DOOR HANDLES	
10308	A. Handle Complete	
10309	B. Tongue Only	
	LIGHT GLOBE	
10119	Kason	
13211	**INCANDESCENT LIGHT LENS & FRAME** 12" x 12" Recessed Light Lens & Retainer	
	FLUORESCENT LIGHT LENS & FRAME	
13210	2 Ft. Recessed Light Lens & Retainer	
10111	3 Ft. Recessed Light Lens & Retainer	
10112	4 Ft. Recessed Light Lens & Retainer	
	EXHAUST DUCT THERMOSTATS	
18781	12" Length 250°F	
18782	15" Length 250°F	
10321	**165°F SUPPLY DUCT FIRE DAMPER FUSE LINK**	
10323	For CG3-UV-FDD and CG3-UV-FDT **280°F EXHAUST DUCT FIRE DAMPER FUSE LINK**	
19351	**UV ACCESS DOOR LATCH**	
19353	**UV-16 - 16" PARTICULATE SEPARATOR (STD)**	
19354	**UV-20 - 20" PARTICULATE SEPARATOR (STD)**	
19380	**UV-EN-16 - 16" PARTICULATE SEPARATOR (ENL)**	
19381	**UV-EN-20 - 20" PARTICULATE SEPARATOR (ENL)**	
19365	**UV PRESSURE SWITCH**	

UV MODULE PARTS



NOTE:

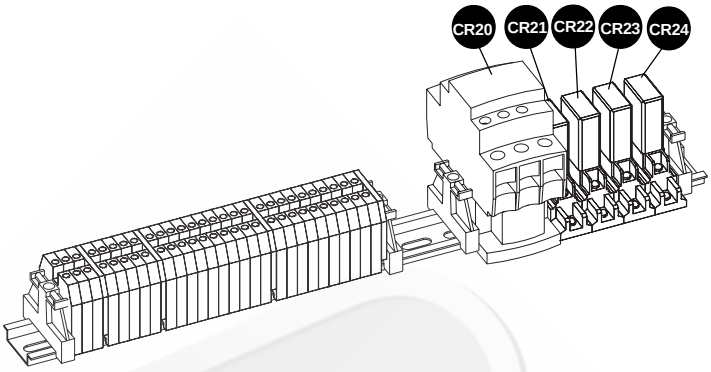
- UV Lamps are numbered 1 to 6 from Front-to-Back
- UV Ballasts are numbered 1 to 6 from Left-to-Right
- The TOP of the UV Module has several long slots cut-out for ventilation

PC. NO.	DESCRIPTION	GAYLORD PART NO.
1	UV Light Grommet	19312
2	UV Lamp - 3 Foot	19296
	UV Lamp - 5 Foot	19301
3	UV Lamp Holder	19313
4	1/4" Nylon Washer	19357
5	1/4"-20 x 2-1/2" Bolt	19356
6	1/4" Retaining Clip (Not Shown)	19358
7	UV Light Ballast	19237
8	Circuit Board Stand-off	19308
9	Fuse (F1) - 500mAmp UV Controller	18153
10	Fuse (F2) - 8 Amp UV Controller - Main	19424
11	UV Light Controller (includes status lights circuit board - not shown)	19236
12	UV Wiring Harness (Not Shown)	19349
13	**UV-3 Gasket Kit** - includes: 1) UV-3 Frame Gasket 2) UV-3 Access Door Gasket 3) Left & Right UV Chase Gaskets for End Caps 4) Plenum Access Gasket	75878
	UV-5 Gasket Kit - includes: 1) UV-5 Frame Gasket 2) UV-5 Access Door Gasket 3) Left & Right UV Chase Gaskets for End Caps 4) Plenum Access Gasket	75879

PC. NO.	DESCRIPTION	GAYLORD PART NO.
14	UV Chase Cover - Left	19290
15	UV-3 Ballast Cover	19300
	UV-5 Ballast Cover	19305
16	UV Chase Cover - Right	19291
17	**UV-3 Light Module Frame -** ALL Sheet Metal parts * Includes: Bolts, Washers, & Retaing Clip * Does NOT include Gaskets or Grommets	19307
	UV-5 Light Module Frame - ALL Sheet Metal parts * Includes: Bolts, Washers, & Retaing Clip * Does NOT include Gaskets or Grommets	19306
18	**UV-3 Light Module (Complete)** - Complete with UV Controller, Ballasts, & UV Lamps, UV Wiring Harness, & Frame Gaskets	75876
	UV-5 Light Module (Complete) - Complete with UV Controller, Ballasts, & UV Lamps, UV Wiring Harness, & Frame Gaskets	75877

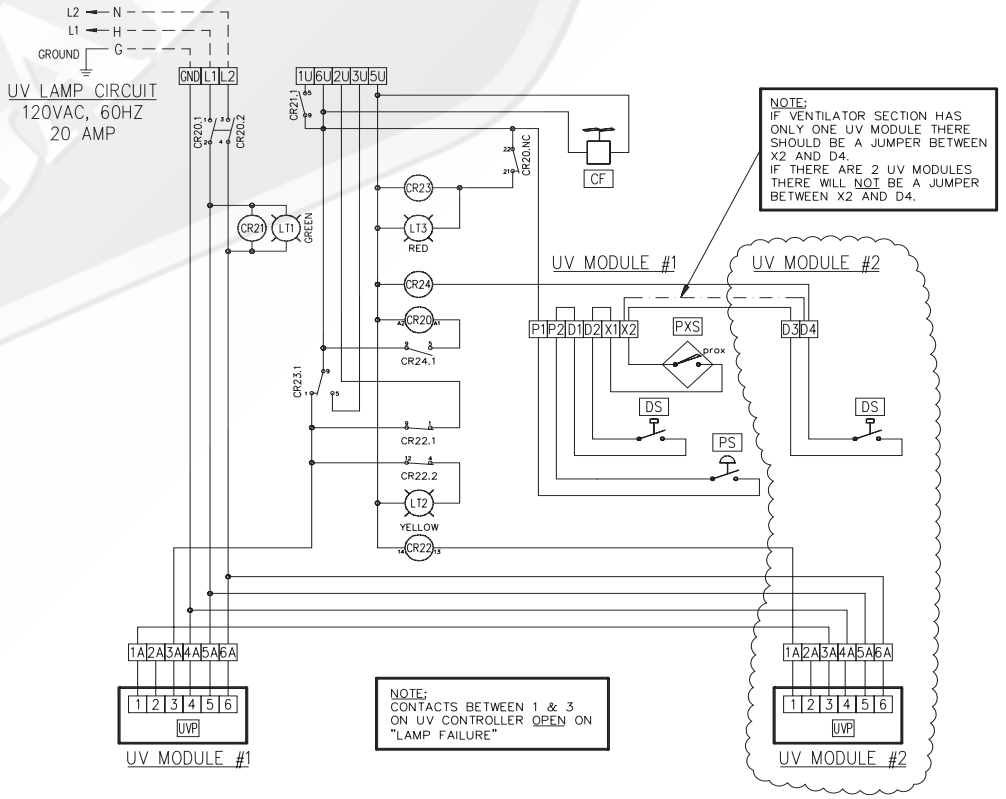
UV HOOD WIRING

PC. NO.	DESCRIPTION	GAYLORD PART NO.
CR20	Contactor	30529
CR21, 23,24	Control Relay	11399
	Socket	11413
CR22	Control Relay	10283
	Socket	10295
LT1	Indicator Light - Green	12512
LT2	Indicator Light - Yellow	19162
LT3	Indicator Light - Red	12510
DS	UV Access Door Switch	19355
PS	UV Pressure Switch	19365
PXS	UV Proximity Switch	19416
UVP	UV Plug - Female	16903
CF	Cooling Fan	30424



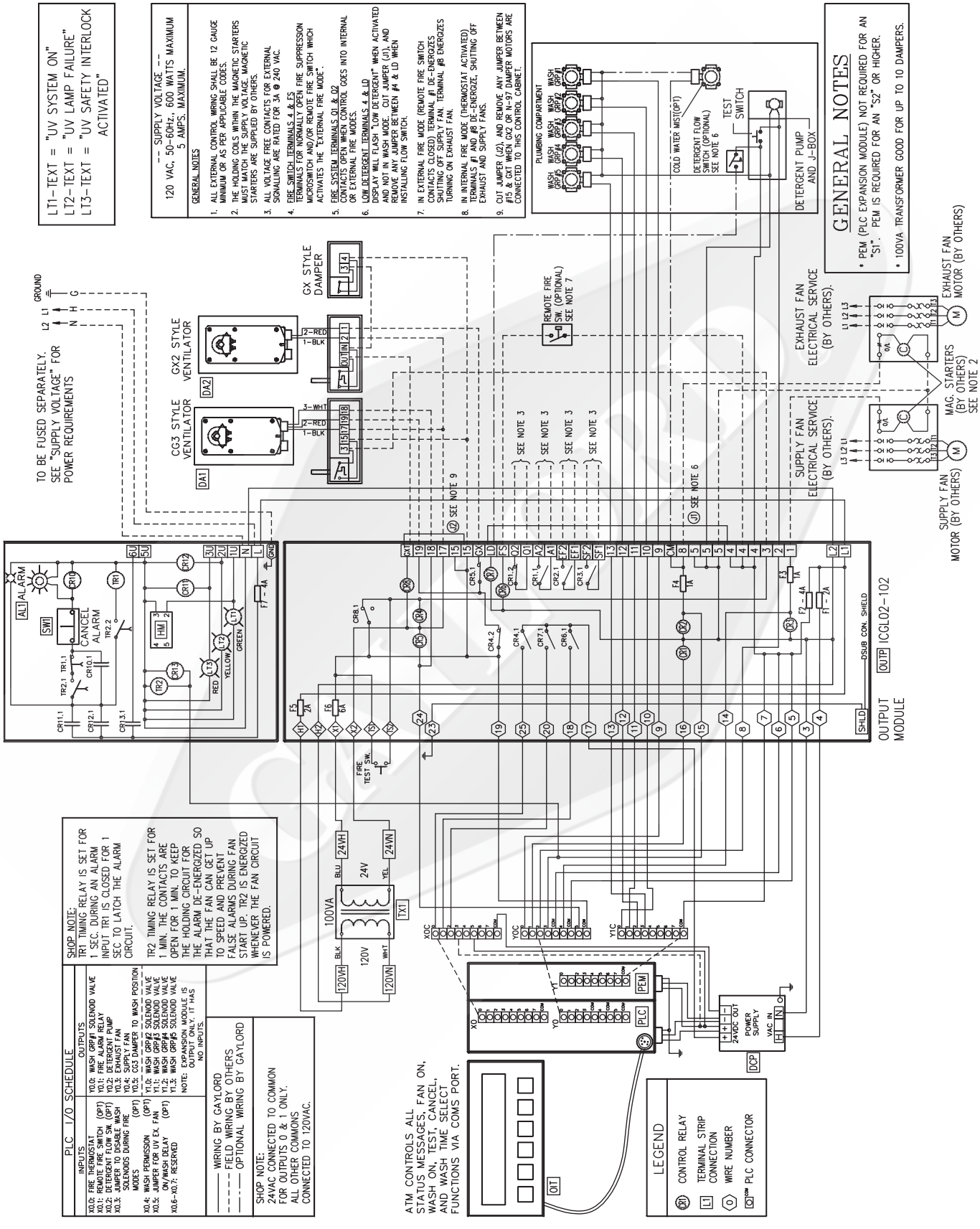
UV Hood Terminal Schedule

Terminal	Description	Type
L1	Main Power Connection : Hot	120VAC
L2	Main Power Connection : Neutral	0 V
1U	Output - "UV System On" (Green)	120VAC
2U	Output - "UV Lamp Failure (Yellow)	120VAC
3U	Output - "UV Safety Interlock Activated" (Red)	120VAC
5U	120VAC Neutral Leg	0 V
6U	Switched Power for UV Lamp Circuit	120VAC
P1,P2	Terminals for Pressure Switch #1	120VAC
D1,D2	Terminals for UV Access Door Switch #1	120VAC
X1,X2	Terminals for UV Proximity Switch	120VAC
D3,D4	Terminals for UV Access Door Switch #2	120VAC
1A	UV Controller - Summary Alarm - N/C	120VAC
3A	UV Controller - Summary Alarm - Common	120VAC
4A	UV Controller - Input Power - Ground	0 V
5A	UV Controller - Input Power - Hot	120VAC
6A	UV Controller - Input Power - Neutral	0 V

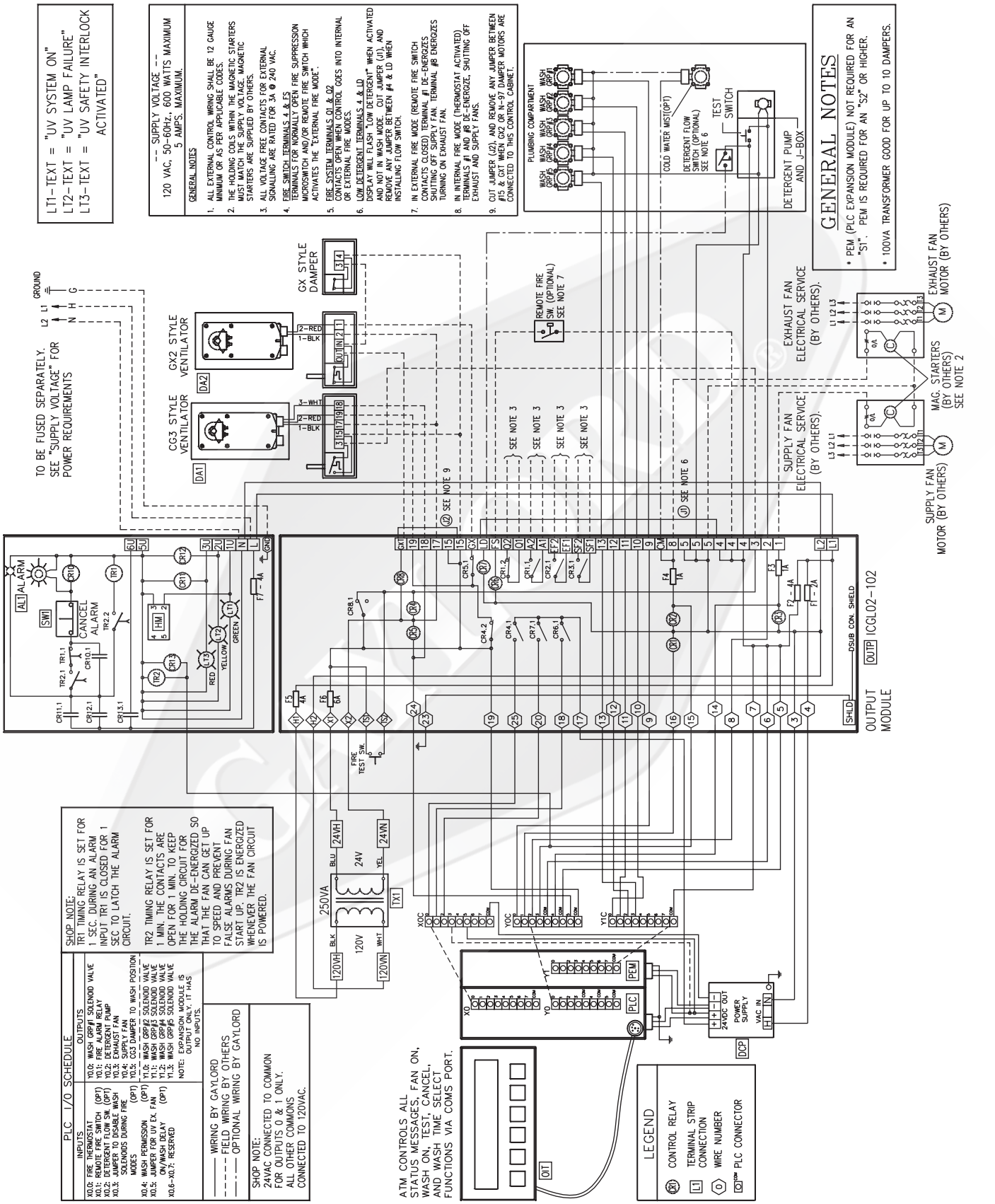


WIRING DIAGRAM FOR MODEL C-6000-UV-10

120 VOLT

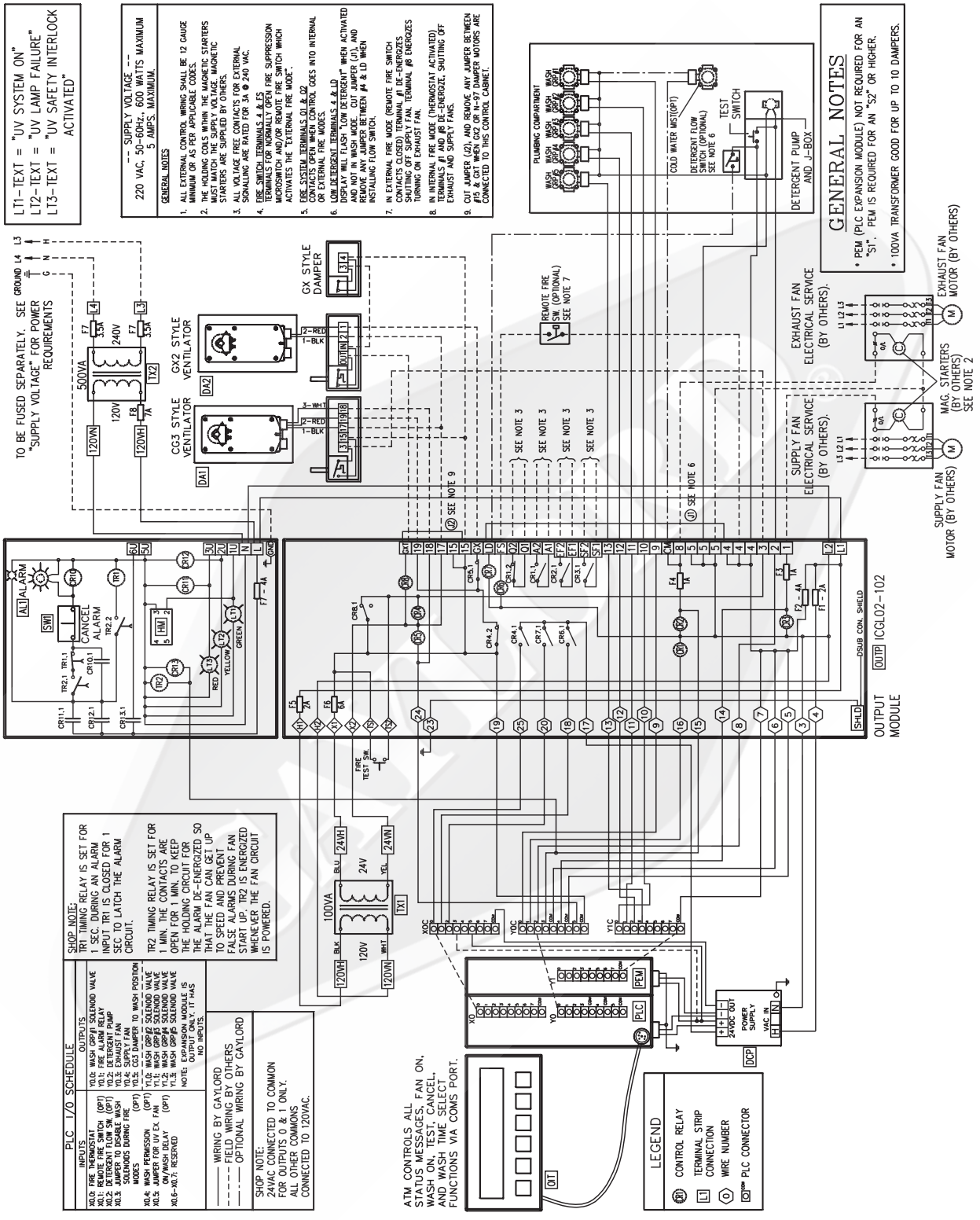


120 VOLT

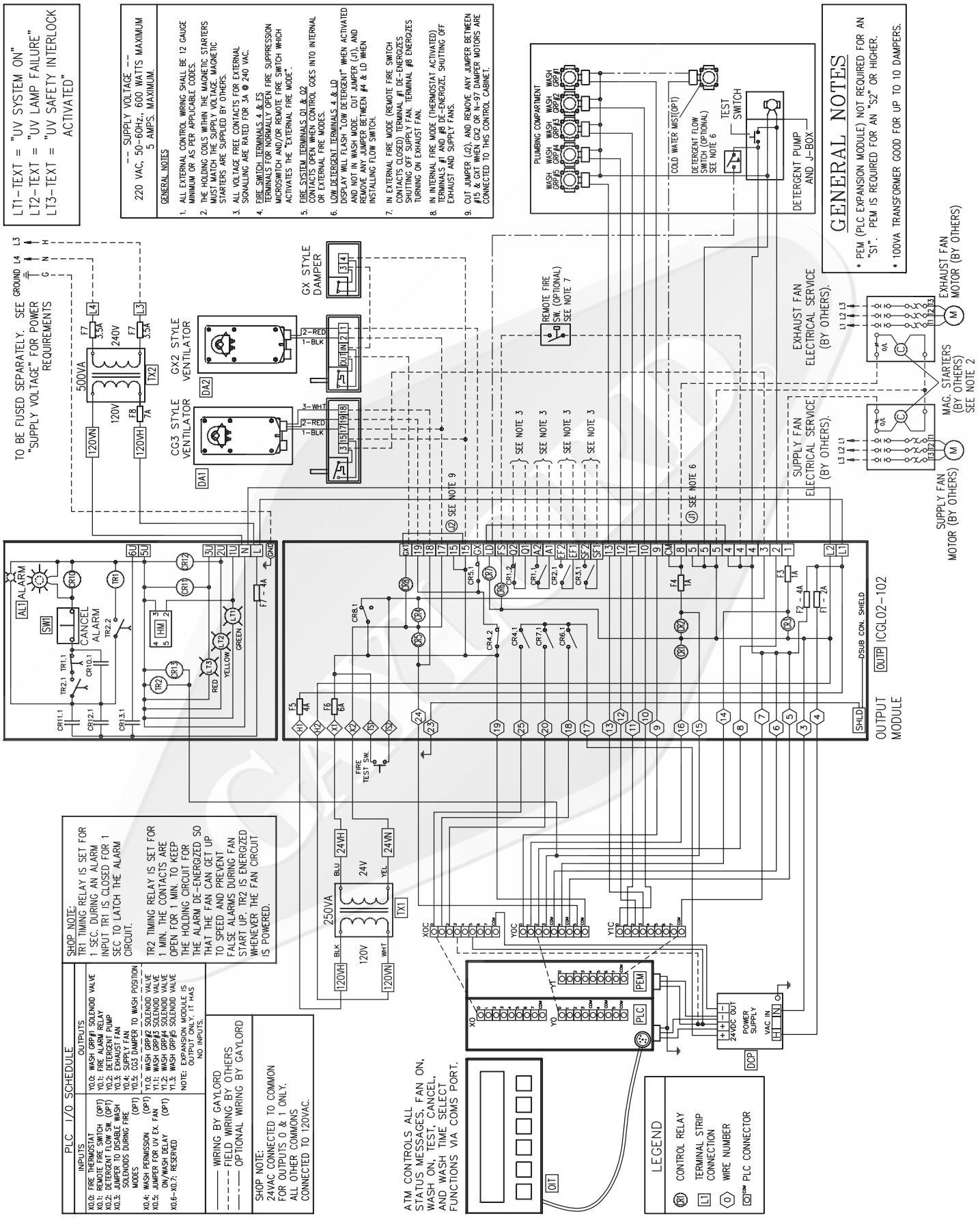

LT1-TEXT = "UV SYSTEM ON"
LT2-TEXT = "UV LAMP FAILURE"
LT3-TEXT = "UV SAFETY INTERLOCK ACTIVATED"
-- SUPPLY VOLTAGE --
120 VAC, 50-60Hz, 600 WATTS MAXIMUM
5 AMPS, MAXIMUM.
GENERAL NOTES
1. ALL EXTERNAL CONTROL WIRING SHALL BE 12 GAUGE MINIMUM OR AS PER APPLICABLE CODES.
2. THE HOLDING COILS WITHIN THE MAGNETIC STARTERS MUST MATCH THE SUPPLY VOLTAGE. MAGNETIC STARTERS ARE SUPPLIED BY OTHERS.
3. ALL VOLTAGE FREE CONTACTS FOR EXTERNAL SIGNALLING ARE RATED FOR 3A @ 240 VAC.
4. FIRE SWITCH TERMINALS 4 & F5 TERMINALS FOR NORMALLY OPEN FIRE SUPPRESSION MICROSWITCH AND/OR REMOTE FIRE SWITCH WHICH ACTIVATES THE "EXTERNAL FIRE MODE".
5. FIRE SYSTEM TERMINALS O1 & O2 CONTACTS OPEN WHEN CONTROL GOES INTO INTERNAL OR EXTERNAL FIRE MODES.
6. LOW DETERGENT TERMINALS 4 & LD DISPLAY WILL FLASH "LOW DETERGENT" WHEN ACTIVATED AND NOT IN WASH MODE. CUT JUMPER (J1), AND REMOVE ANY JUMPER BETWEEN #4 & LD WHEN INSTALLING FLOW SWITCH.
7. IN EXTERNAL FIRE MODE (REMOTE FIRE SWITCH CONTACTS CLOSED) TERMINAL #1 DE-ENERGIZES SHUTTING OFF SUPPLY FAN. TERMINAL #8 ENERGIZES TURNING ON EXHAUST FAN.
8. IN INTERNAL FIRE MODE (THERMOSTAT ACTIVATED) TERMINALS #1 AND #8 DE-ENERGIZE, SHUTTING OFF EXHAUST AND SUPPLY FANS.
9. CUT JUMPER (J2), AND REMOVE ANY JUMPER BETWEEN #15 & GXT WHEN GX2 OR N-97 DAMPER MOTORS ARE CONNECTED TO THIS CONTROL CABINET.
GENERAL NOTES
* PEM (PLC EXPANSION MODULE) NOT REQUIRED FOR AN "S1". PEM IS REQUIRED FOR AN "S2" OR HIGHER.
* 100VA TRANSFORMER GOOD FOR UP TO 10 DAMPERS.
PLUMBING COMPARTMENT
WASH GRP#5
WASH GRP#4
WASH GRP#3
WASH GRP#2
WASH GRP#1
COLD WATER MIST(OPT)
DETERGENT FLOW SWITCH (OPTIONAL) SEE NOTE 6
TEST SWITCH
DETERGENT PUMP AND J-BOX
TO BE FUSED SEPARATELY. SEE "SUPPLY VOLTAGE" FOR POWER REQUIREMENTS
GROUND
L2 L1
N H G
GX STYLE DAMPER
GX2 STYLE VENTILATOR
CG3 STYLE VENTILATOR
REMOTE FIRE SW. (OPTIONAL) SEE NOTE 7
SEE NOTE 3
SEE NOTE 9
SEE NOTE 6
EXHAUST FAN ELECTRICAL SERVICE (BY OTHERS).
SUPPLY FAN ELECTRICAL SERVICE (BY OTHERS).
MAG. STARTERS (BY OTHERS) SEE NOTE 2
EXHAUST FAN MOTOR (BY OTHERS)
SUPPLY FAN MOTOR (BY OTHERS)
OUTPUT MODULE
ICGL02-102
DSUB CON. SHIELD
FIRE TEST SW.
250VA
24V
120V
TX1
PLC
PEM
POWER SUPPLY
24VDC OUT
VAC IN
DCP
OIT
ATM CONTROLS ALL STATUS MESSAGES, FAN ON, WASH ON, TEST, CANCEL, AND WASH TIME SELECT FUNCTIONS VIA COMS PORT.
PLC I/O SCHEDULE
INPUTS
X0.0: FIRE THERMOSTAT
X0.1: REMOTE FIRE SWITCH (OPT)
X0.2: DETERGENT FLOW SW. (OPT)
X0.3: JUMPER TO DISABLE WASH SOLENOIDS DURING FIRE (OPT)
X0.4: WASH PERMISSION (OPT)
X0.5: JUMPER FOR UV EX. FAN ON/WASH DELAY (OPT)
X0.6-X0.7: RESERVED
OUTPUTS
Y0.0: WASH GRP#1 SOLENOID VALVE
Y0.1: FIRE ALARM RELAY
Y0.2: DETERGENT PUMP
Y0.3: EXHAUST FAN
Y0.4: SUPPLY FAN
Y0.5: CG3 DAMPER TO WASH POSITION (OPT)
Y1.0: WASH GRP#2 SOLENOID VALVE
Y1.1: WASH GRP#3 SOLENOID VALVE
Y1.2: WASH GRP#4 SOLENOID VALVE
Y1.3: WASH GRP#5 SOLENOID VALVE
NOTE: EXPANSION MODULE IS OUTPUT ONLY. IT HAS NO INPUTS.
SHOP NOTE: TR1 TIMING RELAY IS SET FOR 1 SEC. DURING AN ALARM INPUT TR1 IS CLOSED FOR 1 SEC TO LATCH THE ALARM CIRCUIT.
TR2 TIMING RELAY IS SET FOR 1 MIN. THE CONTACTS ARE OPEN FOR 1 MIN. TO KEEP THE HOLDING CIRCUIT FOR THE ALARM DE-ENERGIZED SO THAT THE FAN CAN GET UP TO SPEED AND PREVENT FALSE ALARMS DURING FAN START UP. TR2 IS ENERGIZED WHENEVER THE FAN CIRCUIT IS POWERED.
WIRING BY GAYLORD
FIELD WIRING BY OTHERS
OPTIONAL WIRING BY GAYLORD
SHOP NOTE: 24VAC CONNECTED TO COMMON FOR OUTPUTS 0 & 1 ONLY. ALL OTHER COMMONS CONNECTED TO 120VAC.
LEGEND
CONTROL RELAY
TERMINAL STRIP CONNECTION
WIRE NUMBER
PLC CONNECTOR

WIRING DIAGRAM FOR MODEL C-6000-UV-10

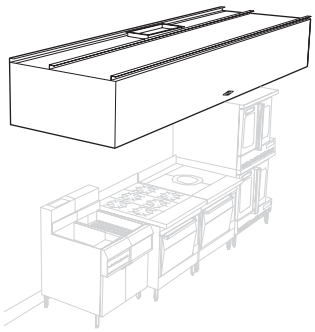
220 VOLT



220 VOLT

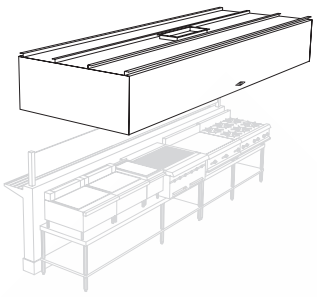

LT1-TEXT = "UV SYSTEM ON"
LT2-TEXT = "UV LAMP FAILURE"
LT3-TEXT = "UV SAFETY INTERLOCK ACTIVATED"
-- SUPPLY VOLTAGE --
220 VAC, 50-60Hz., 600 WATTS MAXIMUM
5 AMPS, MAXIMUM.
GENERAL NOTES
1. ALL EXTERNAL CONTROL WIRING SHALL BE 12 GAUGE MINIMUM OR AS PER APPLICABLE CODES.
2. THE HOLDING COILS WITHIN THE MAGNETIC STARTERS MUST MATCH THE SUPPLY VOLTAGE. MAGNETIC STARTERS ARE SUPPLIED BY OTHERS.
3. ALL VOLTAGE FREE CONTACTS FOR EXTERNAL SIGNALLING ARE RATED FOR 3A @ 240 VAC.
4. FIRE SWITCH TERMINALS 4 & F5 TERMINALS FOR NORMALLY OPEN FIRE SUPPRESSION MICROSWITCH AND/OR REMOTE FIRE SWITCH WHICH ACTIVATES THE "EXTERNAL FIRE MODE".
5. FIRE SYSTEM TERMINALS 01 & 02 CONTACTS OPEN WHEN CONTROL GOES INTO INTERNAL OR EXTERNAL FIRE MODES.
6. LOW DETERGENT TERMINALS 4 & LD DISPLAY WILL FLASH "LOW DETERGENT" WHEN ACTIVATED AND NOT IN WASH MODE. CUT JUMPER (J1), AND REMOVE ANY JUMPER BETWEEN #4 & LD WHEN INSTALLING FLOW SWITCH.
7. IN EXTERNAL FIRE MODE (REMOTE FIRE SWITCH CONTACTS CLOSED), TERMINAL #1 DE-ENERGIZES SHUTTING OFF SUPPLY FAN. TERMINAL #8 ENERGIZES TURNING ON EXHAUST FAN.
8. IN INTERNAL FIRE MODE (THERMOSTAT ACTIVATED) TERMINALS #1 AND #8 DE-ENERGIZE, SHUTTING OFF EXHAUST AND SUPPLY FANS.
9. CUT JUMPER (J2), AND REMOVE ANY JUMPER BETWEEN #15 & GX1 WHEN GX2 OR N-97 DAMPER MOTORS ARE CONNECTED TO THIS CONTROL CABINET.
GENERAL NOTES
* PEM (PLC EXPANSION MODULE) NOT REQUIRED FOR AN "S1". PEM IS REQUIRED FOR AN "S2" OR HIGHER.
* 100VA TRANSFORMER GOOD FOR UP TO 10 DAMPERS.
TO BE FUSED SEPARATELY. SEE "SUPPLY VOLTAGE" FOR POWER REQUIREMENTS
GROUND L4 L3
G N H
500VA
240V
120V
TX2
F7 3.5A
F8 7A
120VH
120VN
CG3 STYLE VENTILATOR
GX2 STYLE VENTILATOR
GX STYLE DAMPER
DA1
DA2
3-WHT
2-RED
1-BLK
PLUMBING COMPARTMENT
WASH GRP#1
WASH GRP#2
WASH GRP#3
WASH GRP#4
WASH GRP#5
WASH GRP#6
COLD WATER MIST(OPT)
DETERGENT FLOW SWITCH (OPTIONAL) SEE NOTE 6
TEST SWITCH
DETERGENT PUMP AND J-BOX
REMOTE FIRE SW. (OPTIONAL) SEE NOTE 7
EXHAUST FAN ELECTRICAL SERVICE (BY OTHERS).
EXHAUST FAN MOTOR (BY OTHERS)
SUPPLY FAN ELECTRICAL SERVICE (BY OTHERS).
SUPPLY FAN MOTOR (BY OTHERS)
MAG. STARTERS (BY OTHERS) SEE NOTE 2
SEE NOTE 3
SEE NOTE 6
SEE NOTE 9
ALT ALARM
SW1
CANCEL ALARM
TR2.2
TR2.1 TR1.1
CR10.1
CR11.1
CR12.1
CR13.1
HM
LT1 GREEN
LT2 YELLOW
LT3 RED
F1 - 4A
F2 - 4A
F3 1A
F4 1A
F5 4A
F6 6A
CR1
CR2
CR3
CR4
CR5
CR6
CR7
CR8
CR9
CR10
CR11
CR12
CR13
CR1.1
CR1.2
CR2.1
CR3.1
CR3.1
CR4.1
CR4.2
CR5.1
CR6.1
CR7.1
CR8.1
OUTPUT MODULE
ICGLO2-102
DSUB CON. SHIELD
FIRE TEST SW.
250VA
TX1
24VH
24V
24VN
BLU
YEL
BLK
WHT
XOC
YOC
Y1C
XO
YO
PLC
PEM
DIT
DCP
POWER SUPPLY
24VDC OUT
VAC IN
ATM CONTROLS ALL STATUS MESSAGES, FAN ON, WASH ON, TEST, CANCEL, AND WASH TIME SELECT FUNCTIONS VIA COMS PORT.
PLC I/O SCHEDULE
INPUTS
X0.0: FIRE THERMOSTAT
X0.1: REMOTE FIRE SWITCH (OPT)
X0.2: DETERGENT FLOW SW. (OPT)
X0.3: JUMPER TO DISABLE WASH SOLENOIDS DURING FIRE MODES (OPT)
X0.4: WASH PERMISSION (OPT)
X0.5: JUMPER FOR UV EX. FAN ON/WASH DELAY (OPT)
X0.6-X0.7: RESERVED
OUTPUTS
Y0.0: WASH GRP#1 SOLENOID VALVE
Y0.1: FIRE ALARM RELAY
Y0.2: DETERGENT PUMP
Y0.3: EXHAUST FAN
Y0.4: SUPPLY FAN
Y0.5: CG3 DAMPER TO WASH POSITION
Y1.0: WASH GRP#2 SOLENOID VALVE
Y1.1: WASH GRP#3 SOLENOID VALVE
Y1.2: WASH GRP#4 SOLENOID VALVE
Y1.3: WASH GRP#5 SOLENOID VALVE
NOTE: EXPANSION MODULE IS OUTPUT ONLY. IT HAS NO INPUTS.
SHOP NOTE:
TR1 TIMING RELAY IS SET FOR 1 SEC. DURING AN ALARM INPUT TR1 IS CLOSED FOR 1 SEC TO LATCH THE ALARM CIRCUIT.
TR2 TIMING RELAY IS SET FOR 1 MIN. THE CONTACTS ARE OPEN FOR 1 MIN. TO KEEP THE HOLDING CIRCUIT FOR THE ALARM DE-ENERGIZED SO THAT THE FAN CAN GET UP TO SPEED AND PREVENT FALSE ALARMS DURING FAN START UP. TR2 IS ENERGIZED WHENEVER THE FAN CIRCUIT IS POWERED.
WIRING BY GAYLORD
FIELD WIRING BY OTHERS
OPTIONAL WIRING BY GAYLORD
SHOP NOTE:
24VAC CONNECTED TO COMMON FOR OUTPUTS 0 & 1 ONLY.
ALL OTHER COMMONS CONNECTED TO 120VAC.
LEGEND
CONTROL RELAY
TERMINAL STRIP CONNECTION
WIRE NUMBER
PLC CONNECTOR

STANDARD VENTILATOR MODELS



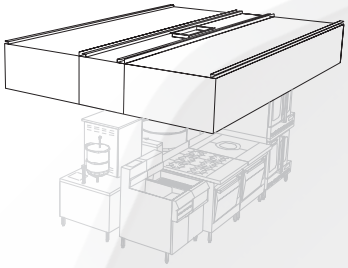
Model CG3-UV-BDL

Application - Wall mounted canopy style for all types of equipment.



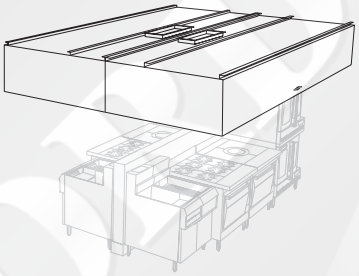
Model CG3-UV-BDL-CL

Application - For single island arrangements



Model CG3-UV-BDL-DS

Application - For island style cooking arrangements where one side of the cooking line is light duty equipment and the other side medium duty equipment.

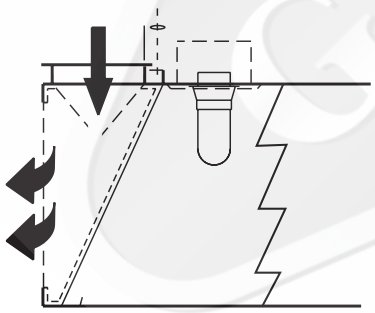


Model CG3-UV-BDL-BB

Application - For island style cooking arrangements over all duties of equipment.

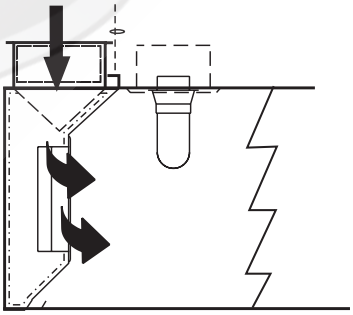
STANDARD MAKE-UP AIR OPTIONS

The make-up air options shown below are available on all BDL Series Ventilators. Except the MAI Series is not available on the CG3-BDL-CL.



MODEL "MAW" SERIES
FRONT FACE DISCHARGE

This method of introducing make-up air into the kitchen is flexible and has many advantages. Make-up air is discharged through stainless steel perforated panels as illustrated (MAW Series) or optional registers. Typical supply volume is 80% of the exhaust or more, depending on air balance desired. Supply air temperatures should range from 60 to 65°F (16 to 18°C), but may be as low as 50°F (10°C) depending on air volume, distribution, and internal heat load.



MODEL "MAI" SERIES
INTERNAL DISCHARGE

This method of introducing air into the hood is typically referred to as the "short circuit" method. This design has very limited applications and the amount of supply air able to be introduced varies considerably with the type of cooking equipment. This air may be untempered air in most areas depending upon climatic conditions and the type of cooking equipment. The difference between the quantity of air being introduced and the amount of air being exhausted must be supplied through a traditional make-up air system.

METRIC CONVERSION CHART

DIMENSIONS (Feet and Inches)

TO CONVERT	TO	MULTIPLY BY
in	mm	25.4
in	cm	2.54
mm	in	0.03937
cm	in	0.3937
ft	cm	30.48
ft	m	0.3048
cm	ft	0.0328
m	ft	3.2808

STANDARD CONVERSIONS

One meter = 10 dm
One meter = 100 cm
One meter = 1000 mm
one in. = 25.40 mm
one ft. = 304.80 mm

AIR VELOCITY

TO CONVERT	TO	MULTIPLY BY
FPM	m/s	0.00508
m/s	FPM	196.85

AIR VOLUME

TO CONVERT	TO	MULTIPLY BY
CFM	m^3/sec	0.000472
CFM	m^3/min	0.02832
CFM	m^3/hr	1.70
CFM	Ltrs/sec	0.472
m^3/sec	CFM	2118.88
m^3/min	CFM	35.31
m^3/hr	CFM	0.5886

STATIC PRESSURE

TO CONVERT	TO	MULTIPLY BY
in. W.G	N/m^2	248.84
N/m^2	in. W.G.	0.004

STANDARD CONVERSIONS

1.00" W.G. = 248.84 N/m^2
or 248.84 Pascals (Pa)
or 2.49 Millibars
1.33" W.G. = 331 N/m^2 or 331 Pa
1.50" W.G. = 373 N/m^2 or 373 Pa
1.65" W.G. = 411 N/m^2 or 411 Pa
1.70" W.G. = 423 N/m^2 or 423 Pa

WATER FLOW/VOLUME

TO CONVERT	TO	MULTIPLY BY
U.S. ounce	Liters	.02958
U.S. gal	Liters	3.785
Liters	U.S. gal	0.2642
GPM	L/s	0.0631
L/s	GPM	15.850

STANDARD CONVERSIONS

one U.S. gal. = 3.785 Liters
one Liter = 0.2642 U.S. Gal.
one GPM/ft. = 0.063 L/s/ft.
or 0.207 L/s/m
one U.S. gal. = 0.833 Imperial Gal.
one Imperial Gal. = 4.546 Liters

WATER PRESSURE

TO CONVERT	TO	MULTIPLY BY
psi	kg/m^2	703.1
psi	kg/cm^2	0.0703
kg/m^2	psi	0.0014
kg/cm^2	psi	14.223

STANDARD CONVERSIONS

40 psi = 2.8 kg/cm^2 = 275.8 Kpa = 2.758 BAR
80 psi = 5.6 kg/cm^2 = 551.6 Kpa = 5.516 BAR

TEMPERATURE

TO CONVERT	TO	USE FORMULA
°C	°F	°F = (°C • 1.8) + 32
°F	°C	°C = ($\frac{°F - 32}{1.8}$)

STANDARD CONVERSIONS

140°F. to 180°F. = 60°C. to 82°C.

WEIGHT

TO CONVERT	TO	MULTIPLY BY
lbs.	N	4.448
lbs.	kg	0.4536
N	lbs	0.2248
kg	lbs	2.2046

PIPE SIZE

U.S. STANDARD PIPE SIZES		STANDARD METRIC EQUIVALENT PIPE SIZE
1/2"	=	15 mm
3/4"	=	20 mm
1"	=	25 mm
1-1/4"	=	32 mm
1-1/2"	=	40 mm
2"	=	50 mm

LEGEND

in.	=	inches	Pa.	=	Pascals	FPM	=	feet per minute
ft.	=	feet	U.S. gal.	=	U.S. gallon	m/s	=	meters per second
mm	=	milimeters	GPM	=	gallons per minute	in. W.G.	=	inches water gauge
cm	=	centimeters	L/s	=	liters per second	N	=	Newtons
dm	=	decimeters	Kpa	=	1000 Pascals	N/m^2	=	Newtons per square meter
CFM	=	cubic feet per minute	psi	=	pounds per square inch	°C.	=	degrees Celsius
m^3/s	=	cubic meters per second	kg/m^2	=	kilograms per square meter	BAR	=	one atmospheric pressure meter
L	=	Liters	°F.	=	degrees Fahrenheit			(1000 millibars = 14.7 psi)

VENTILATOR START-UP INSPECTION REPORT

For Model "CG3" and "GX2" Series Ventilators

Job Name _____

Address _____

_____

City/State Zip

Gaylord Representative _____

Representative Company Name _____

File Number _____ Date _____

Air Volume readings

Push "Start Fan" and take velocities as described in the tech manual. Determine the design velocity by reading the drawings and checking the tech manual. Divide the average velocity by the design velocity to determine percentage of design air flow. 95% to 110% is acceptable. Notify the dealer, GC and owner that any values out of this range must be corrected for proper hood operation.

Item No.	Hood Serial No.	Inlet type	Air Velocities from Left to Right			Average	Design	% Design
K-112		Std - 3"	1338	1390	1311	1346	1380	98%
K-114		Enl - 4"	1700	1755	1731	1728.7	1780	97%
		CA	EXAMPLE					
		MUA						

Item No.	Hood Serial No.	Inlet type	Air Velocities from Left to Right			Average	Design	% Design
		Std - 3"						
		Enl - 4"						
		CA						
		MUA						

Item No.	Hood Serial No.	Inlet type	Air Velocities from Left to Right			Average	Design	% Design
		Std - 3"						
		Enl - 4"						
		CA						
		MUA						

Make Up Air

1. When the start fan button is pressed. There MAY be a 45-70 second delay before the Exhaust fan starts The supply fan will start immediately.
2. Kitchen Make- up air comes on_____ Yes _____ no
3. Type of Make up air
   - ☐ Ceiling Registers
   - ☐ Ceiling Plenum box
   - ☐ Ceiling Linear Diffusers
   - ☐ Built into hood
   - ☐ Other

If ceiling linear diffusers or registers approximate distance from front face of hood_____

UV Section Test

These tests are to be performed only by Trained and Qualified Individuals and only for hoods with UV in the model number.

With the exhaust fan on and the UV modules installed perform the following

1. Green "UV Lights on" light on ___ Yes ___ No
2. Open the Inspection door (wash Access) Red "UV Safety Interlock" light on ___ Yes ___ No
3. Open the UV Access Door Red "UV Safely Interlock" light on ___ Yes ___ No
4. De-energize the fan circuit. This can be done by turning off the circuit breaker that provides power to the fan motor or by removing the wiere in terminal 8 or EF2 Red "UV Safety Interlock" light on ___ Yes ___ No
5. With the fan off. Open the Inspection door (wash access) and verify that all Particulate separators are in place.

Damper Operation

Verify the Damper operates correctly:

1. Start the Exhaust Fan. Damper opens ____ Yes ____ No
2. Turn the Exhaust Fan off (Start Wash). Damper closes ____ Yes ____ No

Note:

* The Damper will not move on CG3-FDD, CG3-ND, CG3-FDT,or GX2-FDD, GX2-ND
* On GX2 and GX2-EDD hoods - remove a cartridge to see the damper operation
* On CG3-EDD hoods - open the Inspection (wash access) door to see the damper operation

Summary of Damper Position

	Normal Operation (Exhaust Fan On)	Exhaust Fan Off (Wash Mode)	Internal Fire (Thermostat)	External Fire (Surface Fire Protection)
CG3, CG3-EDD GX2, GX2-EDD	Open	Closed	Closed	Open
CG3-FDD, CG3-FDT, CG3-ND GX2-FDD, GX2-ND	N/A	N/A	N/A	N/A

Surface Fire Protection Interlock / "External Fire Mode"

Caution: Before any Fire tests are performed, check with the building superintendent to see if the Surface Fire Protection system is wired to the building alarm, monitoring system, and/or fire department.

The Surface Fire Protection system should be wired to the hood(s) and/or GPC-6000 Cabinet, as shown on the wiring diagram.

Verify the following occur during a trip test of the Surface Fire Protection System:

1. Damper remains open (or opens) ____ Yes ____ No
2. Exhaust fan remains on (or comes on) ____ Yes ____ No
3. Supply fan shuts off ____ Yes ____ No

On CG3 Hoods / C-6000 Command Center

4. Flashing red light and "Ext. Fire Active" displayed on C-6000 Command Center ____ Yes ____ No
5. Water spray come on (after 60-second delay) ____ Yes ____ No

Personnel provided with ventilator technical manual_____Yes_____No

Inspection Witnessed By (Print Name)_____

Signature_____Date_____

Comments_____

_____

_____

VENTILATOR START-UP INSPECTION REPORT

For C-6000 Series Controls and C-6000 UV

Job Name _____

Address _____

_____
City/State Zip

Facility Contact Name _____ Phone # _____

Gaylord Representative _____

Representative Company Name _____

File Number _____ Date _____

CSA Contacted _____

Wash Mode Test:

1. Model and Serial number of control cabinet_____
2. Push" Start Wash" on control cabinet. Check the following:
   a. Exhaust fan off ____ Yes ___ No
   b. Damper closes to front of hood after 45 Seconds (CG3, CG3 FDL Only) ____ Yes ___ No
   c. Water wash turned on ____ Yes ___ No
   d. Green light is on and "Wash On" is displayed on C-6000 Command Center ___ Yes ___ No
   e. Detergent pump is primed and pumping ___ Yes ___ No
   f. Wash length set to: ____ Minutes
   g. If sequential, wash delay set to: ____ Minutes
   h. Water pressure: ____ PSI (40 Min)
   i. Water temperature: (140°F Min. 180°F Max.) _____ °F
   j. Any water leaks during wash ____ Yes ____ No
   k. Brand of Detergent used: _____
3. At the conclusion of A thru K above, push the "EXIT" button on the C-6000 Command Center. Check the following:
   a. Did the water shut off ____ Yes ___ No
   b. Did the damper stay closed forward (CG3, and CG3-FDL only) ____ Yes ___ No
   6. Push "START FAN" . Check the following:
   a. Green light comes on and "Fan on" is displayed on C-6000 Command Center___ Yes ___ No
   b. Damper moves to the open position after approx. 45 seconds ___ Yes ___ No (CG3, and CG3-FDLonly)

Fire Mode Test / "Internal Fire Mode"

Caution: Before any Fire tests are performed, check with the building superintendent to see if the Gaylord control panel or Surface Fire Protection system is wired to the building alarm, monitoring system, and/or fire department.

Thermostat test: (for CG3, CG3-FDL, and CG3-FDT)

With the exhaust fan on, open electrical compartment on control cabinet push and hold the "Fire Test button" for 20 Seconds. The following should occur:

1. Damper closed to the rear (N/A on CG3-FDL and CG3-FDT) ____ Yes ____No
2. Water turned on ____ Yes ____No
3. Exhaust fan shut off ____ Yes ____ No
4. Steady Red light on and "Fire in Hood" displayed on C-6000 command center ____ Yes ____No

Note: Water will continue to run for 2 minutes after the "Fire Test" button is released. The water may be shut off prior to the end of the cool down cycle by pushing the "EXIT" button on the C-6000 Command Center.

Upon completion of the thermostat test push the "EXIT" button on the C-6000 command center. The following should occur:

1. Water shut off ___Yes ___ No
2. Damper closes to front ___ Yes ___ No
3. Steady red light on turned off and "Fan Off" displayed on C-6000 command center ___ Yes ___ No

Personnel provided with ventilator technical manual_____Yes_____No

Inspection Witnessed By (Print Name)_____

Signature_____Date_____

Comments_____

_____

_____

_____

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Distribution: WHITE-Gaylord Industries, Inc. YELLOW-Customer PINK-Dealer GOLDENROD-Sales Rep Litho U.S.A.

GAYLORD INDUSTRIES 10900 S.W. Avery Street • Tualatin, OR 97062-1149

PHONE:1-800-547-9696 • FAX: 1-503-692-6048 • email:info@gaylordusa.com

GAYLORD®

THE GAYLORD UV WATER-WASH VENTILATOR LIMITED WARRANTY

October 2004

The Gaylord Ventilator and component parts furnished with The Gaylord Ventilator are warranted to be free from defects of material and workmanship under normal use when installed, operated and serviced in accordance with factory recommendation. Rubber and synthetic rubber parts such as "O" rings, diaphragms, poppet checks, and gaskets are perishable when caustic cleaning solutions are used and, therefore, are not covered by this warranty.

The Manufacturer's obligation under this warranty and any warranties implied by law shall be limited to repairing or replacing at its option any part of said equipment when either Gaylord Industries, Inc. or the Licensed Gaylord Manufacturer's examination shall disclose to its satisfaction to be thus defective, for a period of one (1) year from the date of beneficial use, or eighteen months from date of shipment, whichever occurs first, provided proper and acceptable evidence of such is recorded at the factory. GAYLORD INDUSTRIES, INC. AND THE LICENSED GAYLORD MANUFACTURER SHALL NOT BE RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM A BREACH OF THIS WARRANTY.

In the United States, the labor required to make repairs and replacements under this warranty shall be furnished by Gaylord Industries or the Licensed Gaylord Manufacturer or its authorized representative. Such labor shall only be provided Mondays through Fridays during standard work hours, at straight time rates. Requests for repairs or replacement parts should be made to GAYLORD INDUSTRIES, P.O. Box 1149, Tualatin, Oregon 97062-1149.

Outside the United States, all replacement parts furnished under this warranty shall be F.O.B. Gaylord Industries, Tualatin, Oregon U.S.A. The owner shall pay the necessary freight delivery charges, and necessary labor for removal and installation of parts, and any tariffs, duties or taxes.

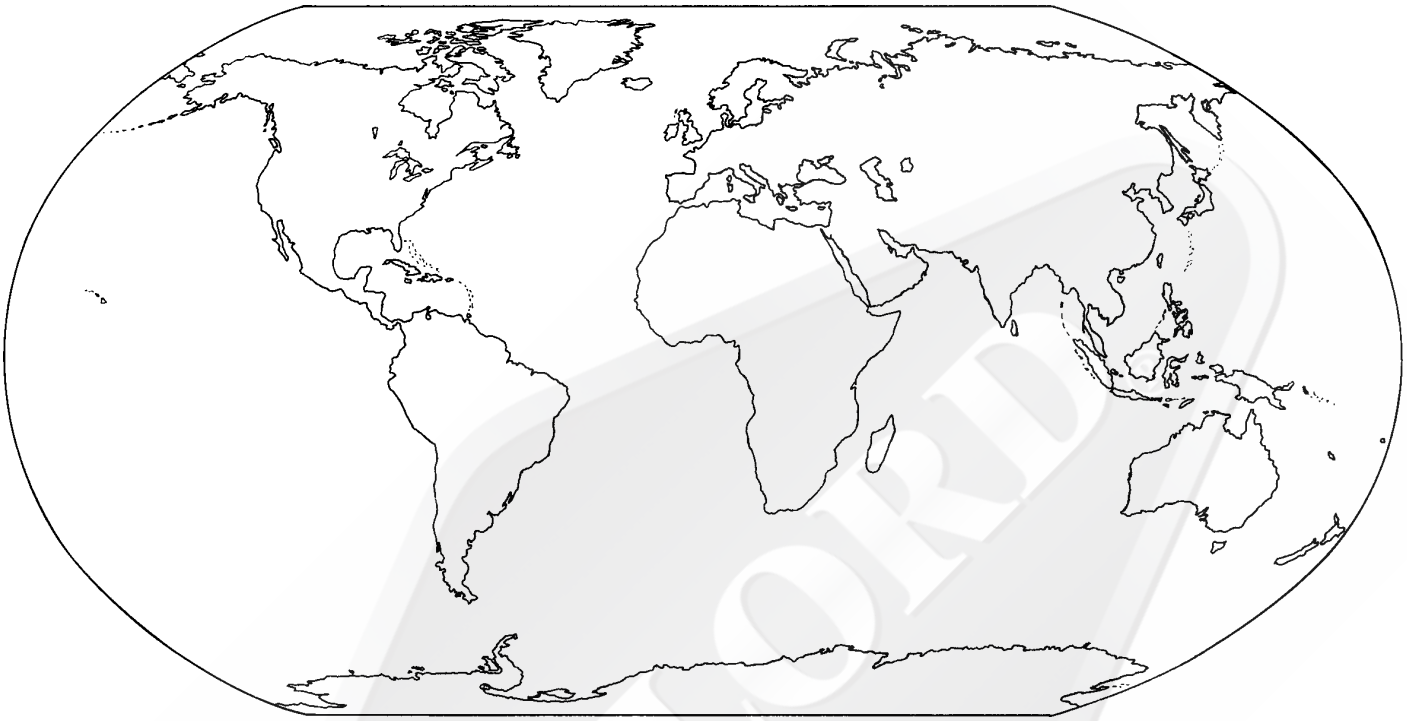
Component parts not manufactured by Gaylord Industries, such as electrical switches, solenoid coils, relays, etc., shall be warranted under the terms and conditions of the warranty published by the manufacturer of said component parts.

This warranty does not cover routine maintenance such as detergent replacement and inspection of the cleaning system and UV system as spelled out in The Gaylord Ventilator Technical Manual. This warranty also does not cover malfunctions or improper operation caused by inadequate hot water, low water pressure, fluctuating electrical power or power surges, waste stoppages, and improper exhaust fan operation and/or a lack of proper maintenance.

This is the sole warranty with respect to the aforesaid items. NEITHER GAYLORD INDUSTRIES OR THE GAYLORD LICENSED MANUFACTURER OR ANY OTHER PARTY MAKES ANY OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE AFORESAID OBLIGATIONS ARE HEREBY DISCLAIMED AND EXCLUDED FROM THIS AGREEMENT.

Service and Warranty Policies

1. No warranty work shall be performed on the product without a PO from Gaylord Industries, if financial reimbursement to be requested.
2. No warranty shall be provided on equipment that has been started up and in operation for more than 90 days unless, a product maintenance schedule has been created and performed per the requirements of this technical manual.
3. Any, and all, wearable parts are not to be considered warranty items, regardless of installation date, unless previously authorized by the factory.



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OR CONTACT US AT:

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10900 S.W. AVERY STREET
TUALATIN, OREGON 97062-1149 U.S.A
Phone: 503-691-2010
1-800-547-9696
Fax: 503-692-6048
email: info@gaylordusa.com

LOCAL SERVICE AGENCY

FORM NO. TM-CG3UV 1104/30793

LITHO IN U.S.A.