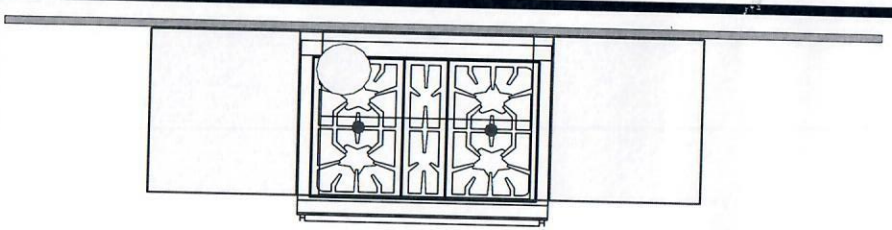
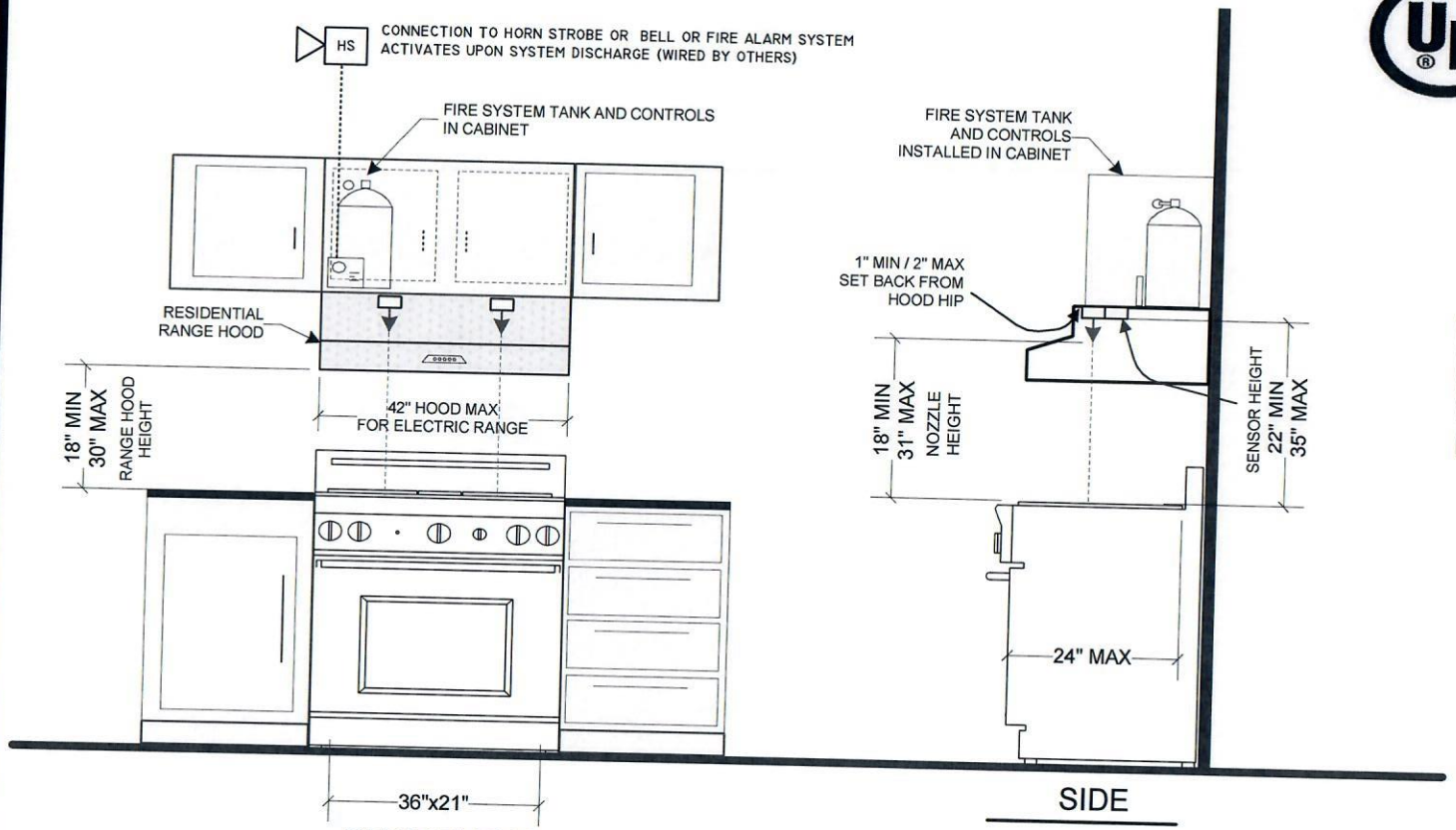
G300-B

GUARDIAN
SAFETY SOLUTIONS INTERNATIONAL, INC.

MODEL G300-B
Wet Chemical Extinguisher Unit
UL FILE NO. EX 3940



PLAN



RESIDENTIAL ELECTRIC RANGE

ELEVATION

SIDE

NOTE: FIRE SYSTEM WILL SHUT OFF ELECTRIC UPON DISCHARGE

SIZE	DWG NO	DWG	REV
SCALE N/A		SHEET 1 OF 7	

APPLICATION AND LIMITATION

GENERAL INFORMATION

- The Guardian III is designed to fit in standard kitchen range hoods and 12" or taller kitchen cabinets above the range.
- Guardian III Systems can be installed in range hoods of either a duct-free or ducted design.
- The extinguisher kit and flex hose shall be installed within a cabinet or other protected space in accordance with these instructions.
- Only components identified by part numbers in this manual are authorized for use unless expressly stated otherwise.

RESIDENTIAL RANGE-TOP USE ONLY

- Guardian III Systems are designed and tested for residential appliances and applications only.
- Guardian III Systems are not intended for protection of commercial or restaurant-style appliances or cooking areas.
- The maximum range top cooking surface protected by the Guardian III Systems is 864 square inches (gas stoves) measuring 24" X 36" and 1,008 square inches (electric stoves) measuring 24" X 42".
- Guardian III Systems are not designed or intended to protect against or extinguish fires on nearby countertops or inside range ovens.
- Guardian III Systems are not designed or intended to protect against or extinguish fires on ranges that incorporate char broilers, deep-fat fryers, rotisserie attachments or similar components.
- Guardian III Systems are not designed or intended to protect against or extinguish fires which may occur in electric or gas skillets, crock pots, deep-fat fryers or other commercial-type cooking appliances.

PACKING LIST

Check contents for *missing* or *damaged* parts *(see* FIGURES 1, 2, 3 & 4). Check fire extinguisher for proper operating pressure. Needle should point in the operable (green) zone. Report any damage or missing parts to the manufacturer before starting installation.

CAUTION:
DO NOT REMOVE SAFETY PIN FROM FIRE EXTINGUISHER AT THIS TIME!!!

NOTE:

Additional equipment or components necessary to install the system in accordance with the instructions and limitations listed are to be provided by the authorized installer if not purchased with the basic system (i.e., electrical Wire, wire mold, shut-off components, etc.). Additional equipment and components may be obtained from an Guardian Safety Solutions International distributor or the manufacturer.

CLEAN UP AND MAINTENANCE

After the system has discharged, disconnect electrical appliances sprayed by the chemical. For electric ranges, breaker to range should be turned off. Use rubber gloves to protect skin. Use a sponge and warm soapy water to wipe off excess chemical. A damp cloth should be used in the final cleaning process. Do not use a water vacuum type cleaner.

CAUTION: WHEN CLEANING THE KITCHEN RANGE HOOD OR WHEN YOUR GUARDIAN III SYSTEM IS REMOVED, THE SAFETY PIN SHOULD BE REINSERTED INTO THE FIRE EXTINGUISHER VALVE ASSEMBLY. TO REARM THE SYSTEM, REMOVE THE SAFETY PIN. (See FIGURE 26)

Weekly, Sonic Receiver is **Not Supervised**. Perform signal test to insure system functions as required. See System Checkout on Page 16.

Monthly, check nozzles for visual signs of obstruction Check pressure gauge. If the needle points to the "recharge" or "overcharged" zone, contact an authorized Guardian Safety Solutions representative immediately for service.

Annually, inspect all components, including fire extinguisher unit, appliance nozzles, sensor, distribution assembly and shutoffs. Replace battery in the central processing unit control board and the "Optional Gas Sonic Shutoff" part # 306-A unit annually from the date of installation. Keep the Guardian III system free of cooking grease residue.

Every **Twelve (12) years** empty and hydrostatically test the fire extinguisher cylinder and flexible hose assembly to the marked pressure, per NFPA 17A. Replace the liquid chemical with new agent (P/N 79372) **DO NOT** combine chemicals.

NOTE: Before replacing the liquid chemical agent, the extinguisher cylinder, valve assembly, valve piping adapter, piping kit and nozzles must be thoroughly cleaned by flushing with water. It is recommended to wear approved type eye protection and rubber gloves when cleaning parts.

A complete system inspection and servicing must be accomplished immediately following a kitchen range top fire. Consult an authorized fire equipment company for service or proper procedure.

CENTRAL PROCESSING UNIT (CPU) CONTROL BOARD (P/N G302)

The CPU control board is housed / attached inside the system enclosure. A 9V DC battery powers the control board's circuitry.

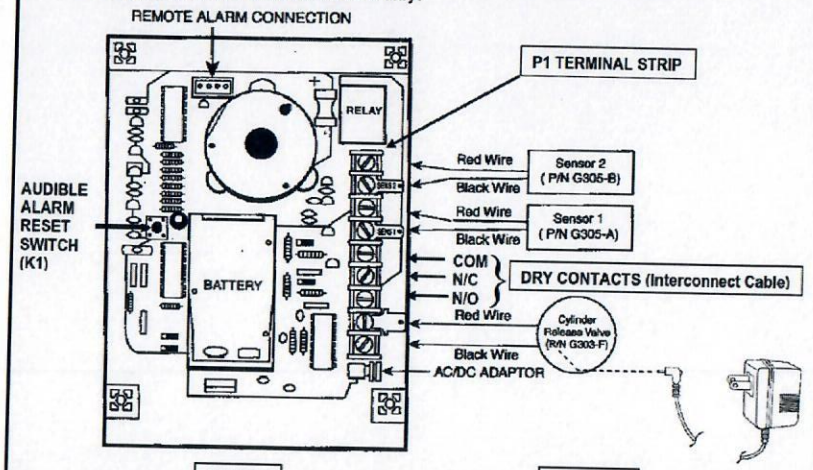


FIGURE 3

FIGURE 3A

SUPERVISED CIRCUITRY: The supervised circuitry is designed with a continuous beeping alarm to give an indication of defective electronics or loose terminal sensors.

SYSTEM OPERATION LIGHT: The red "power" light will blink approximately every 45 seconds to confirm the system is operating.

AUDIBLE ALARM: The system alarm is designed to sound once a stovetop fire has activated the system. The system operation light (red LED) will blink once every second during system activation. In addition the alarm will sound continuously until the reset button is manually pushed, and then the system operation light will again blink approximately every 45 seconds.

REMOTE ALARM CONNECTION: This connection is provided where an optional remote alarm is required.

AC/DC Adaptor: A connection (J2) is provided for an optional AC/DC wall adaptor for continuous AC power supply with battery backup. The wall transformer is a recognized component with a maximum input rating of 120VAC 60 Hz 4.85 w 300 MA with an output rating of 9VDC (See **FIGURE 3A**).

LOW BATTERY WARNING: The audible alarm on the CPU control board will "chirp" approximately every 45 seconds when a low battery condition exists. If this condition exists, 9V DC battery must be replaced immediately to insure proper system operation. If the "chirp" continues there is possible trouble in the electronic supervised circuitry in which case an authorized Guardian Safety Solutions service center should be contacted.

AUXILIARY OUTPUTS: The auxiliary output terminal strip P1 position 5 (COM),6 (N/C), & 7 (N/O), provide a set of dry contacts that switch with a (1) second impulse every ten (10) seconds. These contacts are used with the standard electric or gas shutoff interconnect cable. The Interconnect cable is connected to 5 (COM) and 7 (N/O). The contact rating for these terminals is 5 AMP 24 VAC. (See **FIGURE 3**)

NO ADJUSTMENTS REQUIRED: The CPU control board's sensitivity / operating levels are preset and factory tested for optimum performance.

		SIZE	DWG NO	DWG	REV
		SCALE N/A		SHEET 2 OF 7	

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SYSTEM COMPONENTS

Each system consists of a pre-assembled enclosure extinguisher assembly, sensor assembly, and distribution/nozzle assembly and one (1) shutoff for electrical or gas stoves, ready for installation in the kitchen cabinet and range hood over the stove.

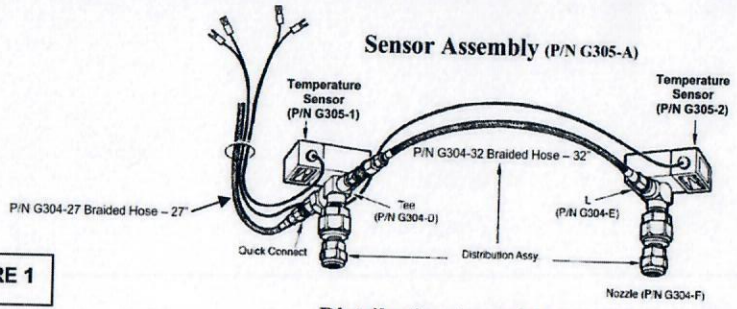
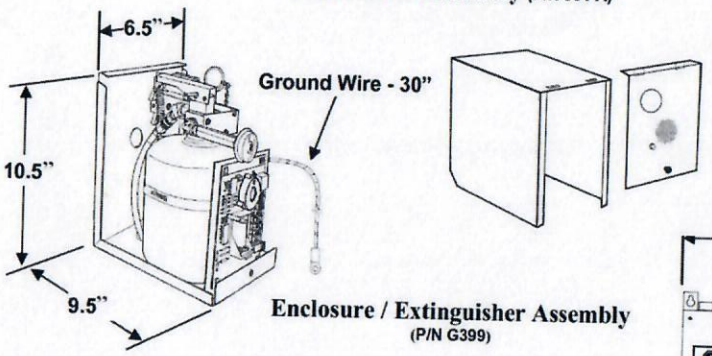
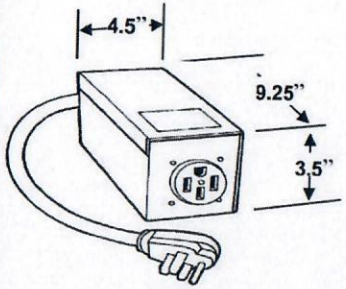


FIGURE 1

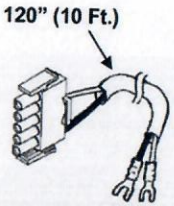
Distribution Assembly (P/N 304-A)



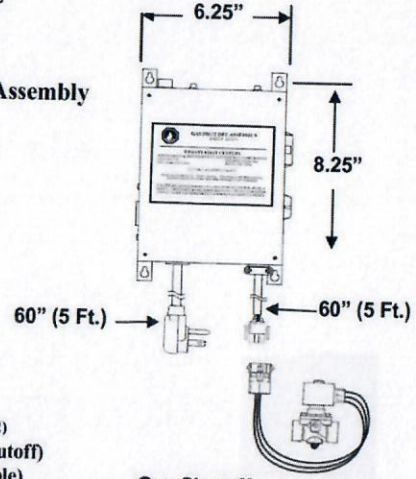
Enclosure / Extinguisher Assembly
(P/N G399)



Electric Shutoff (P/N G319)
(4 prong Standard-3 prong available)



Interconnect Cable (P/N G322)
(Standard with Electric and Gas Shutoff)
(Sonic Receiver Accessory available)



Gas Shutoff (P/N G316-A)
(8.25" x 6.25" x 2.67")

Operation: In the event of a stovetop fire, the sensors will activate at a pre-set temperature and signal the main CPU board. The main CPU automatically sends a signal to release the extinguisher valve assembly, releasing the extinguishing agent and simultaneously activates the CPU-mounted alarm and remote alarm if installed, which in turn shuts off the power supply, gas or electricity, to the range.

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		SIZE	DWG NO	DWG	REV
		SCALE N/A		SHEET 3 OF 7	

SENSOR ASSEMBLY (P/N G305)

The sensor assembly, which is temperature activated, consists of two (2) metal housed detector assemblies with two (2) different wire lengths. Sensor one (1) is 30" long (**P/N G305-1**) sensor two (2) is 54" long (**P/N G305-2**). (See **FIGURE 4**)

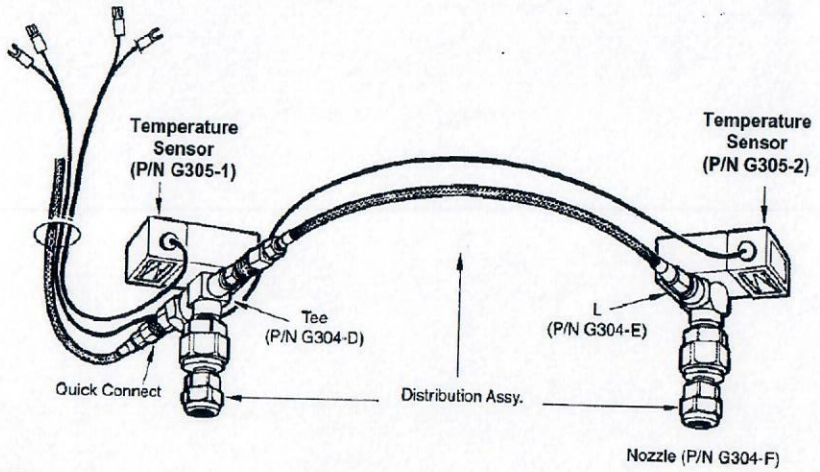


FIGURE 4

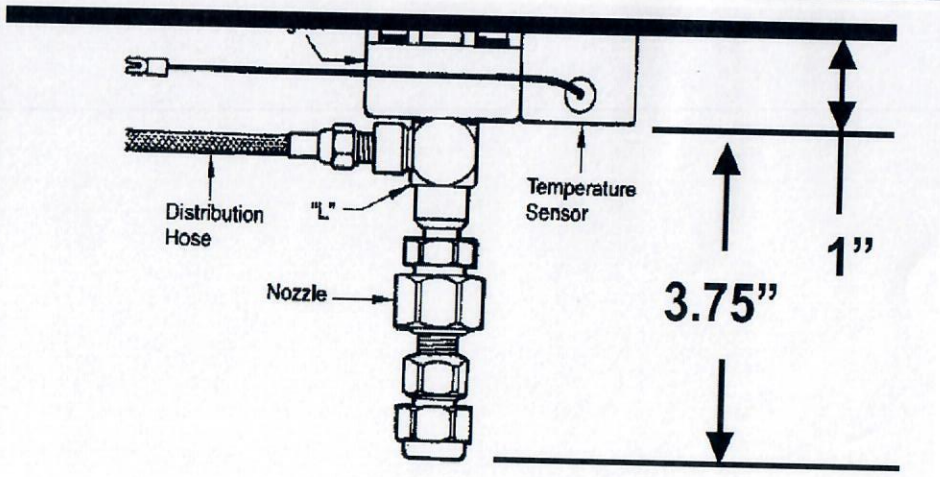
DISTRIBUTION ASSEMBLY (P/N G304-A)

The distribution assembly consist of two (2) Teflon lined stainless steel braided hoses and two (2) magnetic based adjustable nozzle assemblies. The hose assembly from the extinguisher has a length variation of 22"- 30". In addition, the hose assembly between the nozzles ranges in length from 27"- 36".

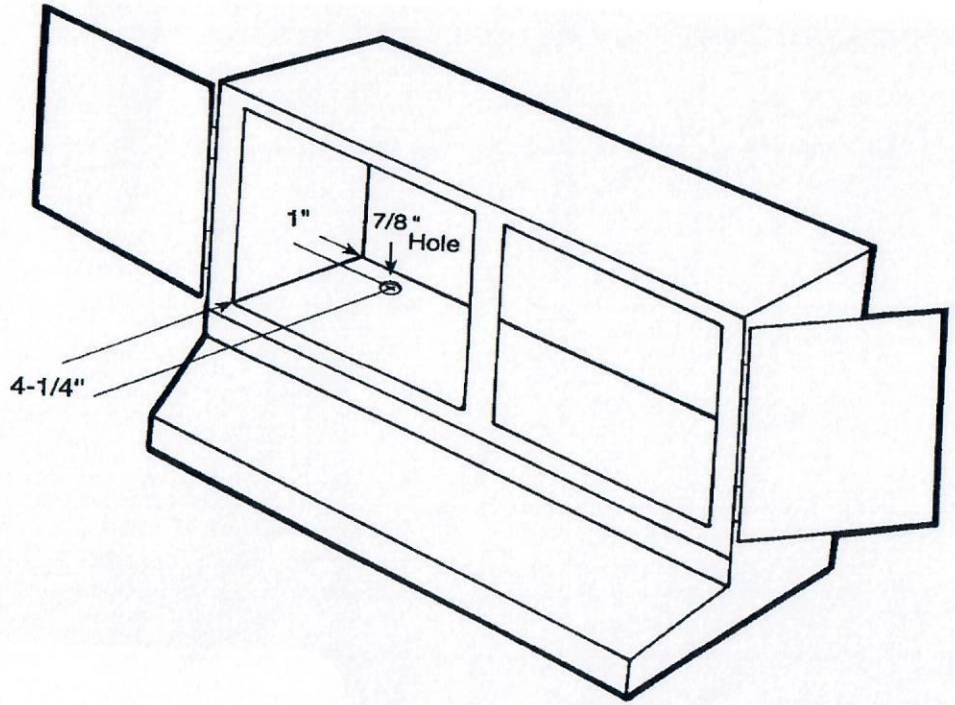
The assembly is installed on the underside of the range hood connecting to the hose from the cylinder extending through the 7/8" hole via the quick connect fitting to the tee. One magnetic base nozzle assembly is placed on each under portion of the range hood, left and right.

Note:
Magnetic base with tee assembly shall be on the same side of the range hood as the system enclosure, i.e., if the magnetic base with "T" is installed on the left side of the range hood, enclosure shall be mounted inside the cabinetry above the range hood on the far left side or vice versa for the right side. (See **FIGURE 4**)

		SIZE	DWG NO	DWG	REV
		SCALE N/A		SHEET 4 OF 7	

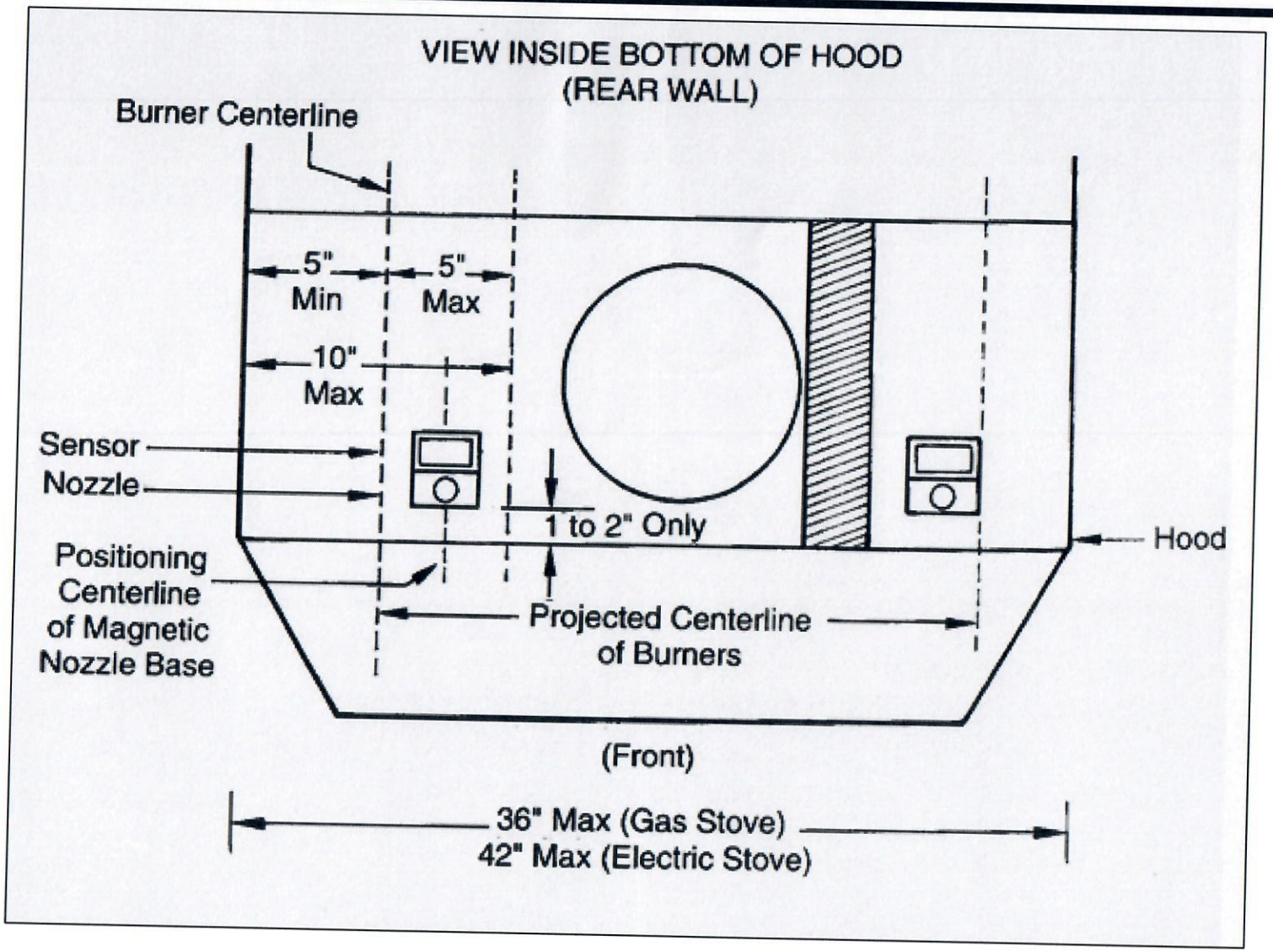


NOZZLE / SENSOR HEIGHT DETAILS



CABINET MOUNTING / LOCATION

SIZE	DWG NO	DWG	REV
SCALE N/A		SHEET 5 OF 7	



NOZZLE AND SENSOR POSITIONS

	SIZE	DWG NO	DWG	REV
	SCALE N/A		SHEET 6 OF 7	

AIMING NOZZLES

AIMING THE SPRAY NOZZLES AND PLACEMENT OF TEMPERATURE SENSORS

1. Locate the centerline of the magnetic base nozzle assemblies directly over the burner centerline (front to back) as illustrated in **FIGURE 23**. If needed, the magnetic assemblies can be placed up to 5" inside the burner centerline to the inside of the hood. The magnetic bases are also to be between 1" Min. and 2" Max. back from the inside of the hood hip of the range hood. (See **FIGURES 23** & **25**)

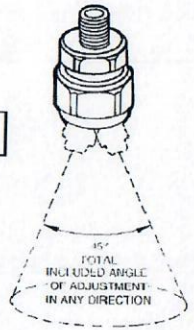
2. Using a 1" box end wrench and a crescent wrench loosen the locking nut on the adjustable ball fitting a point 1/2 way between the center of the front and back burners.

Each nozzle shall be aimed at the respective center point along the burner centerline, between the front and back burner. (Left nozzle -left aim point; right nozzle right aim point.) To adjust the nozzles see **FIGURE 24 & 25**. Be sure to re-tighten the locking nut after aiming is completed, being careful not to change nozzle positions from the correct aim point.

3. After retightening the swivel locking nut of each nozzle, recheck nozzles are aimed correctly.

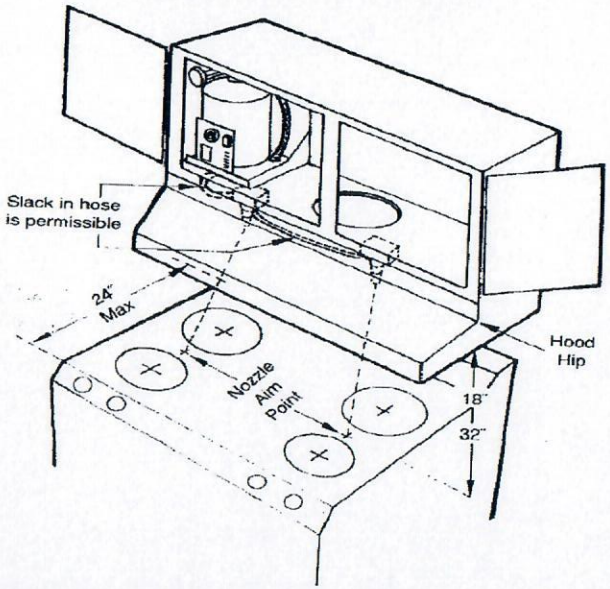
4. Attach the temperature sensors to the side of each Magnetic nozzle base, with the diodes pointed downward towards the stove top.

FIGURE 24



TARGET AREA FOR SPRAY NOZZLES

FIGURE 25



	SIZE	DWG NO	DWG	REV
	SCALE N/A		SHEET 7 OF 7	