Contract To Perform Heating Controls Work at 250 Cabrini Boulevard New York, New York

Contractor agrees to perform heating controls work at 250 Cabrini Boulevard in New York, New York for the sums shown below, to be paid by the Owner. (Note: these prices will hold for thirty days from the date of the Contractor's signature). Prices given are inclusive of any applicable sales tax.

The work is specified in the attached pages of this Contract. The Work does not include asbestos abatement. Any changes to the Work resulting in extra costs will require a change order, to be signed by both the Owner and the Contractor. No substitution of specified equipment or materials shall be allowed without the prior written approval of the Construction Manager. Contractor shall have general-liability and workman's compensation insurance. The Owner and Jonathan Flothow shall each be named as additionally insured parties. All labor and materials will be warranted for a period of one year commencing with receipt of all signoffs. All equipment shall be installed in strict conformance with the manufacturers' recommendations, requirements, and instructions. The work shall conform to all applicable laws, codes, and standards. Contractor is responsible for confirming all site conditions, and for immediately reporting all problems, discrepancies, errors, or omissions relating to the site or this specification to the Construction Manager.

A COPY OF THE ATTACHED SPECIFICATION SHALL BE MAINTAINED ON THE JOBSITE AT ALL TIMES THAT WORK IS BEING PERFORMED!

COST FOR ALL WORK: **$**_____

Offered By: Accepted By:

_____ _____ _____ _____

Date Date

("Contractor") ("Owner")

Averaging Thermostat

Description

Install an averaging thermostat with eight wireless sensors by TRS Systems of Chicago. Equipment can be purchased from Leonard Powers, or directly from TRS Systems at (952) 745-4510 www.trssys.com

Materials

Thermostat shall include the following components, programmed by TRS to work together:

- One RC2105 controller, set up for eight sensors
- Eight WT 2630A wireless temperature sensors
- Three RR2552B repeaters
- One OST2630 outdoor air sensor

Also provide eleven 3V lithium batteries (Duracell DL123A or equal).

Installation

- Install the controller onto the panel in the boiler room. Supply 24VAC to it.
- Wire the controller's **COMMON-AUTO** terminals into the limit circuit, in place of the Heat-Timer. Also connect the **MANUAL** terminal, in parallel with the **AUTO** terminal.
- Locate the outdoor air sensor in a shaded location near the boiler room. The sensor is wireless.

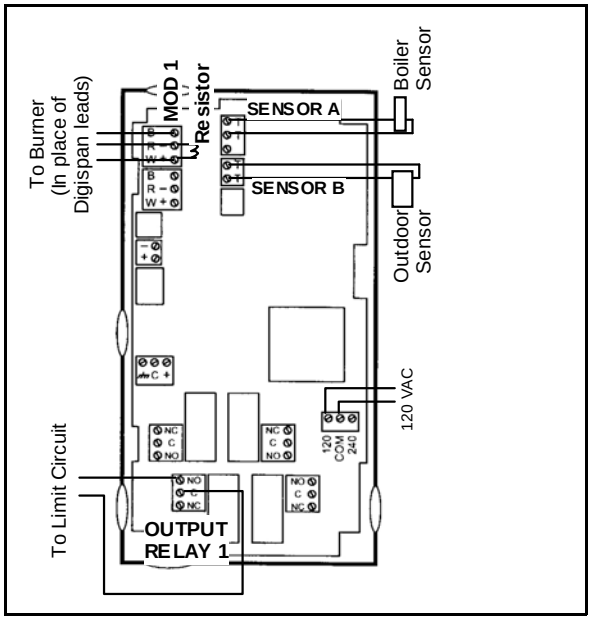
Apartment Sensors and Repeaters

- The repeaters can run on battery power for about four hours. During this time, the repeaters and apartment sensors can be moved around until they all communicate with each other. Once a component is communicating successfully, its **DATA-LINK** light stops blinking.
- In each repeater, make sure the Network ID matches the Controller's Network ID, by looking at the dipswitches on the bottom.
- In each repeater, remove the jumper from **24VAC**, and move it to **BATTERY**.
- In each repeater, install two batteries.
- Temporarily install the repeaters in or near the "C" stairwell, using blue painter's tape. Install them high. Put one at the bottom of the stairwell, one at the top, and one at the middle floor where the apartment sensors will be located. Check to make sure that the repeaters' **DATA-LINK** lights have all stopped blinking, indicating that the repeaters are communicating with the controller.
- In the apartments, use blue painter's tape to temporarily affix temperature sensors to walls at good locations (see below). Install four on the top floor, and four on a middle floor.
- Move the sensors and repeaters as needed until all the **DATA-LINK** lights have stopped blinking.
- Once good locations are selected, supply 24VAC to the repeaters. Tap off the stairwell light wiring, and install transformers.
- If the repeaters are located in the hallways, install them immediately below the plastic cable chase, and run the 24VAC leads through it. Owner to remove chase cover.
- In the repeaters, remove the jumpers from **BATTERY**, and move them back to **24VAC**.

Guidelines for Apartment Sensor Locations

- Owner shall specify rooms for sensors.
- Install sensors at the same height as the light switches.
- Do not install them onto exterior walls, in kitchens or bathrooms, directly over heaters, or in other locations that are unusually hot or cold.

Steam Pressure Reset Control



Description & Materials

A Honeywell T775 will control the burner modulation. As outdoor temperature decreases, the pressure setpoint will increase. (The T775 will detect steam temperature, which will correspond to a pressure range of 1-10 PSI.)

Part numbers are T775R2019 and T775-SENS-OAT

Wiring

- Install a Honeywell T775R2019 controller, and supply power to it (24VAC, 120VAC, or 240VAC).
- Install one of the included sensors into the boiler's new thermal well. Connect it to the **SENSOR A** terminals.
- Install a Honeywell T775-SENS-OAT outdoor-sensor, and connect it to the T 775's **SENSOR B** terminals. Reuse the existing Heat-Timer sensor enclosure, or install a new one in a shaded location, lifted away from the wall.
- Connect the **MOD 1** output terminals to the burner, in place of the leads from the L91.
- Install the included 340-ohm resistor across **MOD 1**'s terminals **R** & **W**.
- Wire the **NO** terminals of **OUTPUT RELAY 1** into the burner's limit circuit.

Settings

Note: the **SETUP** Mode is entered by pressing the **MENU** button for five seconds.

SETUP:	OUTPUTS:	OPTIONS:	USE SCHED:	NO
SETUP:	OUTPUTS:	MOD 1:	TYPE:	SERIES 90
			MIN OUT %:	0 [default]
			INTEGRAL:	400 SEC [default]
			DERIVATIV:	0 [default]
			RESET:	YES-BOILER
SETUP:	OUTPUTS:	# RELAYS:	1	
SETUP:	OUTPUTS:	RELAY 1:	RESET:	YES-BOILER
SETUP:	SENSORS:	SENSOR A:	LABEL:	BOILER
		SENSOR B:	LABEL:	OUTDOOR
MENU:	PROGRAM:	MOD 1:	BOILER MAX:	240°
			OUTSD MIN:	0°
			BOILER MIN:	216°
			OUTSD MAX:	55°
			THROT RNG:	5°
			HEAT/COOL:	HEAT
MENU:	PROGRAM:	RELAY 1:	OFFSET:	+5°
			DIFFERENTL:	10°
			HEAT/COOL:	HEAT

Existing Pressuretrols

Set the operating control to 12 PSI, and the manual reset control to 15 PSI.