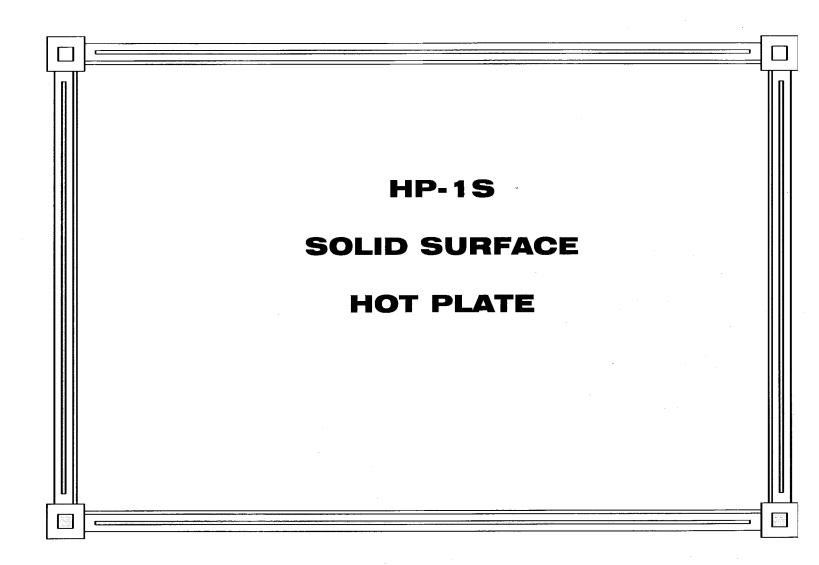
OPERATIONS AND MAINTENANCE MANUAL REPLACEMENT PARTS LIST FOR:





DIVISION OF LOW TEMP INDUSTRIES, INC. 9192 TARA BLVD. – JONESBORO, GA 30236 PO BOX 795 – JONESBORO, GA 30237 TELEPHONE: (770) 478-8803

INSPECTION

UPON RECEIPT, INSPECT SHIPPING CONTAINER FOR VISUAL DAMAGE. ANY DAMAGE SHOULD BE REPORTED IMMEDIATELY TO DELIVERING CARRIER. AFTER UNCRATING INSPECT THE UNIT FOR ANY HIDDEN DAMAGE. REPORT ANY DAMAGE IMMEDIATELY TO THE DELIVERING CARRIER.

INSTALLATION INSTRUCTIONS

THE LOW TEMP MODEL HP-1S SOLID HOT PLATE IS DESIGNED TO BE INSTALLED IN THE TOP OF A COUNTER. THIS TOP MAY BE MADE OF METAL OR WOOD. IT IS RECOMMENDED THAT THE TOP BE SEALED TO THE COUNTER TOP TO ENSURE SEALING FROM SPILLAGE AROUND THE EDGE OF THE TOP.

THE CONTROL BOX IS PROVIDED WITH A ONE (1) PIECE MOUNTING BRACKET. THAT ATTACHES TO THE UNDERSIDE OF THE TABLE WITH FOUR (4) #8 x ½" SCREWS. THIS BRACKET IS DESIGNED SO THAT THE CONTROL BOX WILL SLIDE INTO THE CHANNELS AND LOCK IN PLACE.

TO REMOVE THE CONTROL BOX SIMPLY LIFT THE TAB UP AND SLIDE THE BOX OUT OF THE CHANNELS.

CONNECT THE POWER SUPPLY CORD TO A 120V/15A/1PH SUPPLY (NEMA 5-15).

OPERATING INSTRUCTIONS

IMPORTANT: BEFORE YOUR SOLID ELEMENTS ARE USED FOR THE FIRST TIME, THEY MUST BE CURED. TO CURE THE ELEMENTS, HEAT ALL ELEMENTS WITHOUT A PAN FOR 3 TO 5 MINUTES ON A MEDIUM-HIGH SETTING. NEW ELEMENTS ARE SHIPPED WITH A PROTECTIVE COATING THAT NEEDS TO BE BURNED INTO THE ELEMENT. A NON-TOXIC SMOKE WILL OCCUR DURING THIS CURING PROCESS. IF AN ELEMENT IS NOT CURED, THE COATING CAN STICK TO THE BOTTOM OF THE PAN, AND THE ELEMENT SURFACE WILL BE PERMANENTLY DAMAGED.

NOTE THE EXTERIOR TOP SURFACE OF THE UNIT WILL BE HOT AND IS MARKED "CAUTION HOT SURFACE". THIS SURFACE CAN CAUSE BURNS WHEN THE UNIT IS OPERATED AT THE $\underline{MAXIMUM}$ SETTING.

CLEANING

HEATING ELEMENT

BECAUSE SOLID ELEMENTS ARE SECURED TO THE COOK TOP SURFACE, THERE IS NO NEED FOR MESSY DRIPS BOWLS THAT MUST BE TAKEN APART, CLEANED AND REPLACED. TO PROTECT YOUR SOLID ELEMENT FROM SPILLS, USE A PAN SLIGHTLY LARGER THAN THE ELEMENT. ACCIDENTAL SPILLS OR RUN OVERS WILL THEN FLOW ONTO THE COOLER, EASIER TO CLEAN COOK TOP SURFACE. FOR NORMAL CLEANING, WIPE THE ELEMENT WITH A DAMP CLOTH, THEN TURN THE ELEMENT ON TO A LOW-MEDIUM SETTING FOR ONE MINUTE TO DRY.

FOR LIGHT SOILED, USE POWERED CLEANERS SUCH AS COMET, SOFT SCRUB, BON-AMI OR AJAX. FOLLOW THE CIRCULAR PATTERNS OF THE GROOVES ON THE ELEMENT.

CLEANING (CONT.)

WHEN THE ELEMENTS ARE CLEAN, RINSE AND DRY THE ELEMENT THROUGHLY. FINISH BY WIPING LIGHTLY WITH SALT-FREE COOKING OIL OR GEMLINE CE340 COLLO ELECTROL.

FOR HEAVY SOILS, THE ELEMENT SHOULD BE SLIGHTLY WARM (USE A LOW SETTING) TO EASE THE CLEANING PROCESS. SCRAPE ANY BURNED-ON MATERIAL OFF, THEN USE A POWERED CLEANER OR SCOURING PAD SUCH AS SOS, BRILLO OR SCRUBBEES. FOLLOW THE CIRCULAR GROOVES ON THE ELEMENTS WHEN CLEANING. RINSE AND DRY THE ELEMENT THROUGHLY. FINISH BY WIPING LIGHTLY WITH SALT-FREE COOKING OIL OR GEMLINE CE340 COLLO ELECTROL.

THE STAINLESS STEEL SEAL RING ON THE ELEMENT PREVENTS SPILLS FROM RUNNING UNDER THE ELEMENT AND ELIMINATES THE NEED FOR MESSY DRIP BOWLS. MADE OF STAINLESS STEEL, THE SEAL RING WILL EVENTUALLY TURN A GOLDEN COLOR AS THE ELEMENT IS HEATED REPEATEDLY. THIS CHANGE IN COLOR IS A NORMAL CHARACTERISTIC OF STAINLESS STEEL AND WILL NOT AFFECT THE SOLID ELEMENTS PERFORMANCE OR DURABILITY. A STAINLESS STEEL CLEANER CAN BE USED TO RETURN THE SEAL RING TO ITS ORIGINAL SILVER COLOR.

DIRECTIONS FOR APPLYING VEGETABLE OIL & GEMLINE CE340 COLLO ELECTROL TO RESTORE BLACK LUSTER TO SOILED ELEMENTS.

BEFORE APPLYING VEGETABLE OIL, HEAT ELEMENT ON MEDIUM FOR 30 SECONDS, THEN TURN IT OFF. POUR A VERY SMALL AMOUNT OF OIL ONTO A DRY CLOTH OR PAPER TOWEL. DO NOT POUR OIL DIRECTLY ONTO THE ELEMENT. RUB THE OIL ONTO THE ELEMENT EVENLY AND WIPE OFF ANY EXCESS. HEAT ELEMENT FOR ONE MINUTE ON A MEDIUM SETTING TO CURE. IF TOO MUCH OIL IS USED OR EXCESS OIL IS NOT REMOVED, YOUR ELEMENT SURFACE MAY BECOME BLOTCHY OR TACKY. IF THIS HAPPENS USE THE PROCEDURES RECOMMENDED FOR CLEANING HEAVY SOILS. A SPRAY VEGETABLE OIL (PAM) IS ALSO A QUICK LUSTER RESTORER.

BEFORE APPLYING COLLO ELECTROL, HEAT ELEMENT ON A MEDIUM FOR 30 SECONDS, THEN TURN OFF. APPLY A VERY THIN COATING OF THE POLISH TO THE ELEMENT. SPREAD THE POLISH EVENLY WITH A PAPER TOWEL OR CLOTH. THE MORE THE POLISH IS RUBBED IN, THE BETTER IT WILL PENETRATE THE CAST IRON SURFACE OF THE ELEMENT. TURN THE ELEMENT ON HIGH FOR 3 TO 5 MINUTES TO BAKE IN THE POLISH. SOME SMOKE WILL OCCUR. THIS IS NORMAL AND NONTOXIC. WHEN THE ELEMENT IS COMPLETELY COOL RUB LIGHTLY WITH A PAPER TOWEL TO REMOVE ANY EXCESS POLISH. NOTE THIS PRODUCT IS NOT A CLEANER IT IS A COSMETIC POLISH.

STAINLESS STEEL SURFACES

SEE THE FOLLOWING SECTION HOW TO CLEAN STAINLESS STEEL

*** WARNING ***

DO NOT USE HARSH CHEMICALS, ACIDS OR ALKALIS IN CLEANING THE STAINLESS STEEL TOP SURFACE. WITH ANY CLEANERS, READ INSTRUCTIONS CAREFULLY AND DILUTE AS INSTRUCTED BEFORE APPLYING TO STAINLESS STEEL EQUIPMENT.

CONTROL KNOB

TO CLEAN THE THERMOSTAT KNOB, PULL THE KNOB OUTWARD TO REMOVE IT FROM THE SHAFT. WASH THE KNOB WITH MILD SOAP AND WATER, RINSE AND DRY WITH A SOFT CLOTH. DO NOT USE ABRASIVE CLEANERS ON THE PLASTIC SURFACES OF THE KNOB.

HOW TO CLEAN STAINLESS STEEL

THE FOLLOWING INFORMATION WAS TAKEN FROM A PAMPHLET BY MR. RICHARD E. PARET, STAINLESS STEEL SPECIALIST, AMERICAN IRON AND STEEL INSTITUTE.

STAINLESS STEEL IS ONE OF THE EASIEST MATERIALS TO CLEAN AND KEEP CLEAN.

THE REASONS FOR STAINLESS STEEL'S EASE OF CLEANING ARE EASY TO SEE; THEY LIE IN THE NATURE OF THE METAL ITSELF.

- 1. IT'S HARD, TOUGH SURFACE. STAINLESS STEEL WILL WORK HARDEN, THAT IS, THE MORE IT IS USED, THE MORE RESISTANT TO WEAR IT BECOMES. STAINLESS STEEL WILL NOT DEVELOP ROUGH SPOTS THAT HARBOR BACTERIA AND SOIL.
- 2. HIGH CORROSIVE RESISTANCE. STAINLESS STEEL IS PRACTICALLY UNTOUCHED BY THE CORROSIVE ATTACKS OF MOISTURE, DETERGENTS, FOOD ACIDS, BLOOD SALTS AND OTHER CORRODENTS CONNECTED WITH FOOD PREPARATION. THIS MEANS THAT STAINLESS STEEL ALWAYS HAS A BRIGHT SURFACE FREE FROM OXIDES THAT CAN AFFECT THE FLAVOR OF FOODS.

THE SECRET OF MAINTAINING STAINLESS STEEL IS FREQUENT, SCHEDULED CLEANING THAT WILL PREVENT BUILD UP OF SURFACE DEPOSITS. SURFACE DEPOSITS, IF ALLOWED TO REMAIN FOR LONG PERIODS OF TIME CAN HARM STAINLESS STEEL. STAINLESS STEEL THRIVES ON EXPOSURE TO AIR; UNDER CERTAIN CONDITIONS, THE LENGTHY DEPRIVATION OF OXYGEN BY HEAVY SOIL DEPOSITS CAN CAUSE LOCALIZED PITTING OR STAINING.

NEGLECTING THE MATERIAL IN THIS MANNER IS **DEFINITE ABUSE** WHICH EVEN STAINLESS STEEL IS NOT IMMUNE.

TWO BASIC RULES:

- 1. CLEAN FREQUENTLY, AND ON A FIXED SCHEDULE.
- 2. SELECT THE SIMPLEST METHOD.

TO REMOVE ORDINARY DIRT AND FOOD RESIDUE FROM STAINLESS STEEL EQUIPMENT THAT OPERATES AT LOW TEMPERATURES, USE ORDINARY SOAP AND WATER AND APPLY WITH A SPONGE, FIBER BRUSH OR CLOTH. TO HASTEN ACTION, ADD EITHER SODA ASH, BAKING SODA, BORAX OR ANY OF SEVERAL NON-ABRASIVE COMMERCIAL CLEANSING AGENTS.

TO REMOVE SPLATTER OR CONDENSED VAPOR WHICH HAVE "BAKED" ONTO THE EQUIPMENT, THE TREATMENT OUTLINED ABOVE IS OFTEN SUFFICIENT. IN OTHER CASES A GENTLE TO VIGOROUS POLISHING ACTION MAY BE NECESSARY.

FIRST TRY A PASTE MADE WITH WATER AND AMMONIA AS THE LIQUID AND EITHER MAGNESIUM OXIDE, FINELY POWDER PUMICE OR FRENCH CHALK AS THE SOLID. YOU CAN ALSO USE ONE OF SEVERAL COMMERCIAL CLEANERS LISTED IN THE FOLLOWING TABLE.

RUB AS GENTLY AS POSSIBLE IN THE DIRECTION OF THE POLISHING MARKS ON THE STEEL, USING A SOFT CLOTH. FOR MORE RESISTANT DEPOSITS, USE A STAINLESS STEEL SCOURING SPONGE OR STAINLESS STEEL WOOL OF THE FINEST POSSIBLE TEXTURE.

HOW TO CLEAN STAINLESS STEEL (CONT.)

WHAT NOT TO DO:

DO NOT USE COMMON STEEL WOOL, SCOURING PADS, SCRAPERS, WIRE BRUSHES, FILES OR OTHER STEEL TOOLS, SINCE THESE CAN MAR THE STAINLESS STEEL. THESE PARTICLES WILL EVENTUALLY RUST AND STAIN THE SURFACE, AND YOU MAY HAVE TO REFINISH IT.

SLIGHTLY DARKENED AREAS SOMETIMES APPEAR ON STAINLESS STEEL SURFACES WHERE HEAT HAS BEEN APPLIED DURING FABRICATION OR IN SERVICE.

THESE ARE CAUSED BY THICKENING OF THE PROTECTIVE SURFACE OF STAINLESS STEEL, AND ARE NOT HARMFUL. REMOVAL CALLS FOR ENERGETIC SCOURING, AGAIN USING A STAINLESS STEEL WOOL OR SCOURING PAD, COMBINED WITH A SCOURING POWDER OR ONE OF THE HEATTINT REMOVERS LISTED IN THE TABLE.

THREE RULES WILL PREVENT HEAT TINTING:

- 1) USE ONLY ENOUGH HEAT TO DO THE JOB EFFICIENTLY.
- 2) DO NOT APPLY HEAT TO EMPTY EQUIPMENT.
- 3) AVOID CONCENTRATING HEAT ON A SMALL AREA.

*** CAUTION IS ADVISED ***

IN STERILIZING STAINLESS STEEL EQUIPMENT, PAY PARTICULAR ATTENTION TO AGENTS CONTAINING CHLORINE COMPOUNDS SUCH AS POTASSIUM HYPOCHLORITE. THESE COMPOUNDS MAY BREAK DOWN AND RELEASE FREE CHLORINE, OR HYDROLYZE TO FORM HYDROCHLORIC ACID.

STAINLESS STEEL RESISTS ATTACK BY SUCH COMPOUNDS FOR UP TO TWO HOURS. SEVERE LOCALIZED PITTING MAY OCCUR FROM LONGER EXPOSURE. FOR SAFE USE OF THESE AGENTS, KEEP CONTACT TIME SHORT, FLUSH THOROUGHLY WITH WATER, AND OPERATE EQUIPMENT NORMALLY BETWEEN APPLICATIONS. USING THESE PRECAUTIONS, THE STERILIZATION PROCESS CAN BE REPEATED ANY NUMBER OF TIMES.

CLEANERS AND THEIR EFFECT ON STAINLESS STEEL

Effect on finish Cleaning agent Method of Application 1. Tightly adhering deposits of "baked on" spatter, oil, grease, weather stain, dyes or other light discoloration may be removed with any of the following cleaners. Grade FFF Italian pumice scour or rub with damp cloth satisfactory for all whiting or bon ami finishes use light pressure on no.7 Liquid NuSteel scour with small amount on dry cloth satisfactory for all finishes if rubbing pressure is light Paste NuSteel or Temp scour with small amount on dry cloth satisfactory for no. 4 finish. Will scratch no.7 Rub with damp cloth Will scratch no. 4 House hold cleaners such as Old Dutch, Sunbrite, Wyandotte, finish slightly Bob-O, Gold Dust and Sapolio Grade F Italian Pumice Rub with damp cloth Will scratch no.4 finish slightly Cooper's stainless steel polish Rub with damp cloth satisfactory for no.4 finish Scractches considerably Allen stainless steel polish Rub with damp cloth but leaves mirror reflection Best Effect Chemical Co. cleaner May scratch no.4 Rub with damp cloth & Passivator finish slightly 2. Heat tint or heavy discoloration with the following (see notes below) Allen stainless polish Small amount on damp cloth **Excellent heat tint** remover Birdsall's "Staybright" Very good for heat Rub with damp cloth not scratch no.4finish tint removal. Does but does scratch no.7

Wyandotte or Bob-O

Rub with damp cloth

Good for heat tint

removal

Oxalic acid (use warm) Or15% nitric acid

Swab or immerse. Always follow with a 5% sodium carbonate or neutralizer rinse

Good discoloration

remover

Best Effect Chemical Co. cleaner & Passivator

Rub with damp cloth

May scratch no 4 but leaves clean

surface

CLEANERS AND THEIR EFFECT ON STAINLESS STEEL

(Cont.)

Cleaning agent

Effect on Finish

3. The following detergents and solvents are excellent removers of grease, oil and fatty acids, where swabbing or rubbing is not practical.

4 to 6% solution of (sodium Metasillcate) (Trisodium Phosphate) (Sodium Metaphosphate) (Sodium Pyrophosphate) All excellent removers of grease, oil, and milkstone

5-15% caustic soda (hot or cold)

Will remove grease and milkstone

4. The following organic solvents may be used for removing oils and grease deposits:

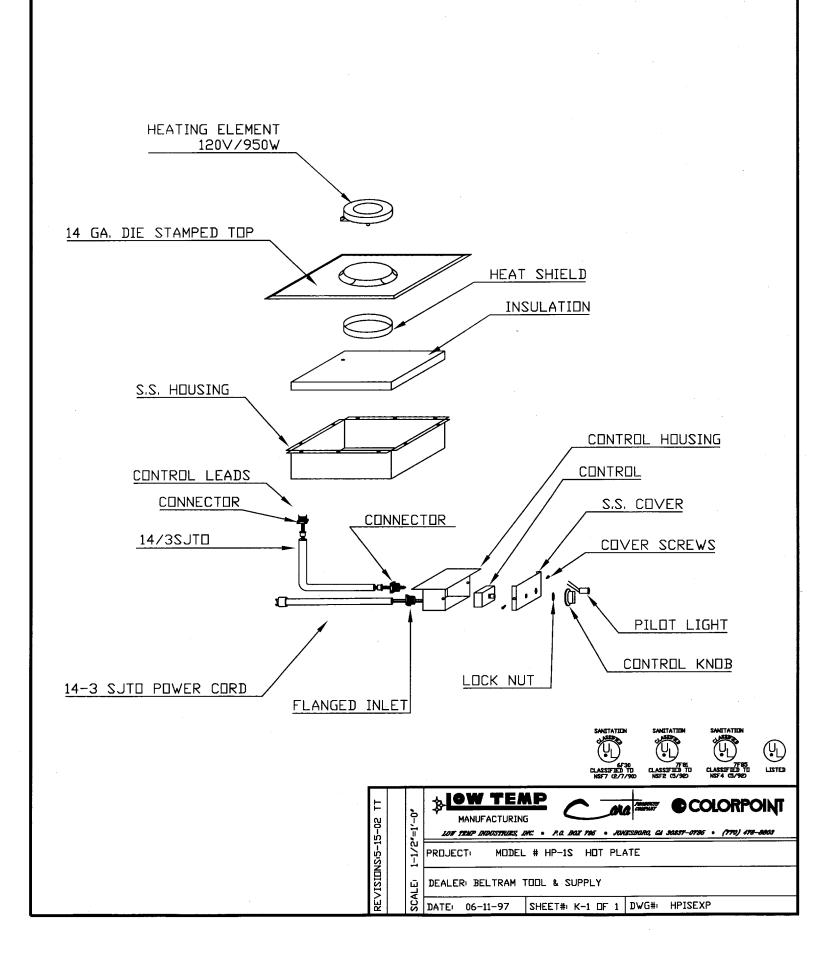
Carbon-tetrachloride, Naphtha, Trichlorethylene Acetone, Kerosene, Gasoline, Ether, Alcohol, Benzene No affect on finish, however, take all precautions against fire.

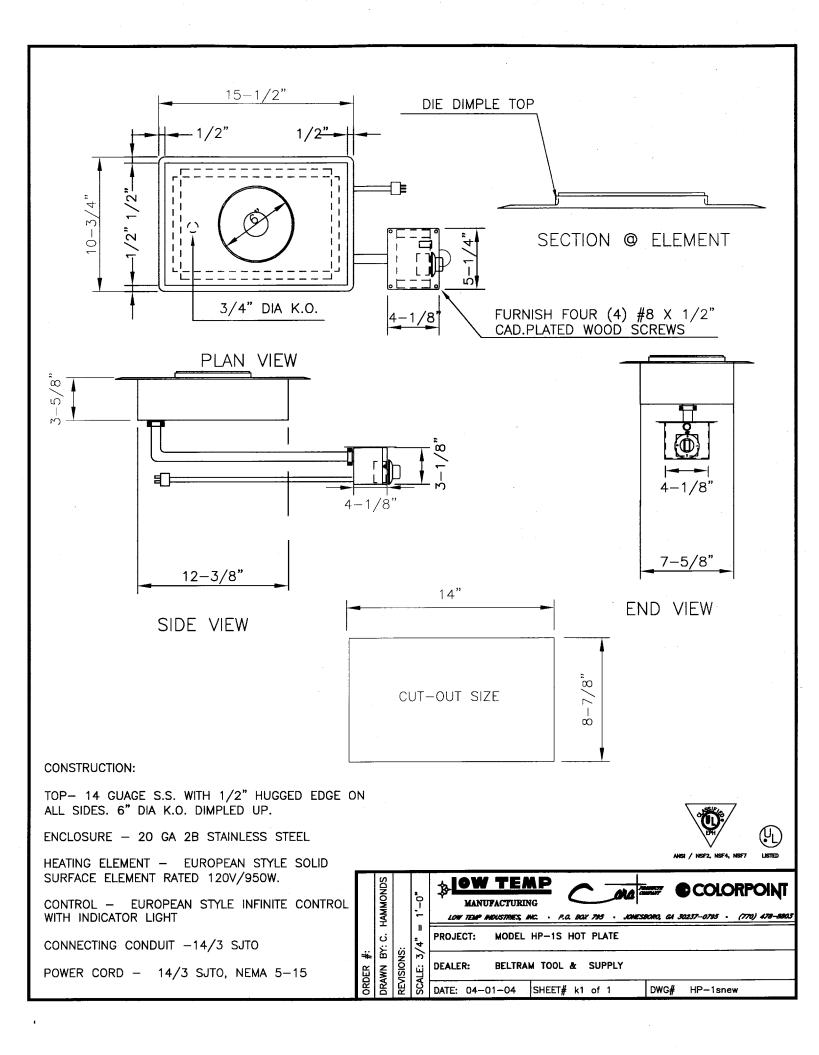
Notes: ordinary wool or steel brushes should never be used on stainless steel surfaces. Particles of steel may become imbedded in the stainless steel surface, and rusting of these particles will eventually appear as stains. Use stainless steel wool or sponge on stainless steel equipment. Heat tint removers will usually scratch stainless steel surfaces. This, however, is necessary in removing heat tint by hand. Oakite, a fibrous material, may be used in place of metal sponges or cloth pads for applying cleaners and polishes. This material is effective in aiding in removal of milkstone.

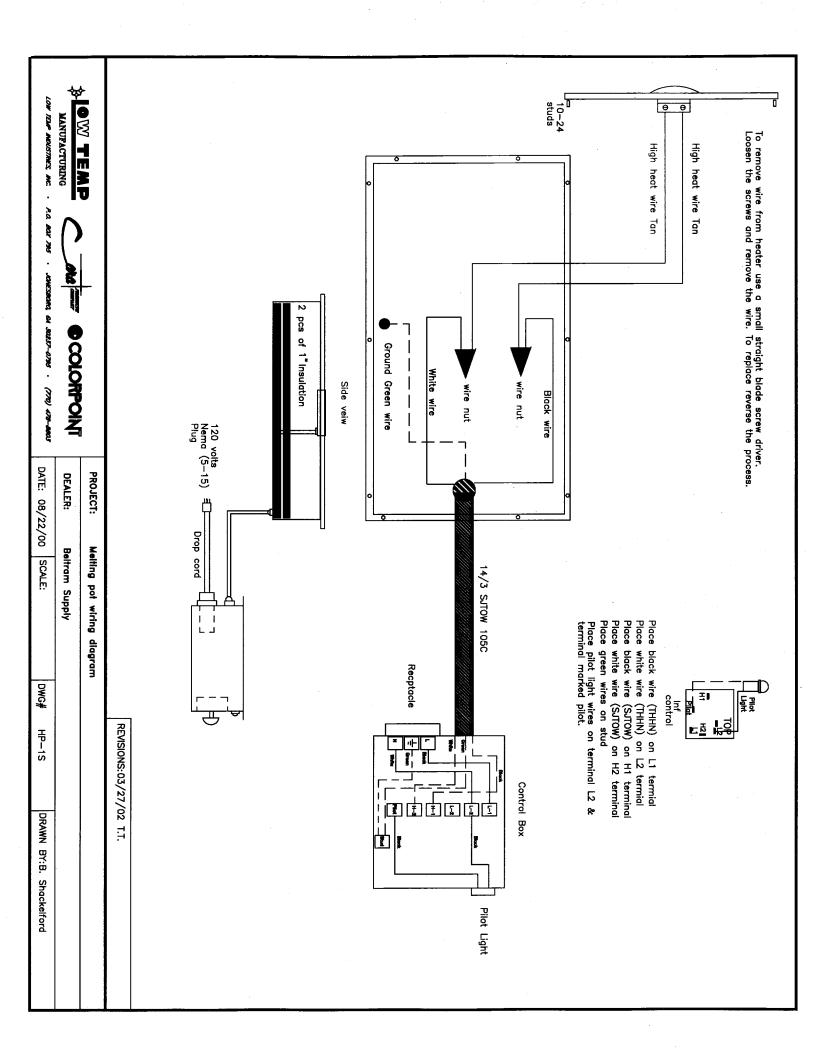
For heavy hard water deposits, 15-20% (by volume) nitric acid is very effective. Acid treatment should be followed by a thorough water rinse.

The action of soldering fluxes should be neutralized immediately with a 5% sodium carbonate solution.

Soap and water followed by a water rinse will not harm stainless steel.







*** WARNING ***

IN ORDER TO PREVENT ANY ELECTRICAL ACCIDENTS, THIS EQUIPMENT SHOULD BE INSTALLED AND SERVICED BY QUALIFIED MAINTENANCE PERSONNEL ONLY PER NATIONAL ELECTRICAL CODE STANDARDS.

PARTS LIST

ITEM NO.	DESCRIPTION	STOCK NO.	MODEL NO.
1	HEATING ELEMENT	195345	EG0 # 12.14253.205 950W/120V
2	HEAT SHIELD	195346	EGO # 17.12001.000
3	CONTROLLER W/ KNOB	190500	EGO # 50.37061.000
4	FLANGE INLET	340550	HUBBEL #H320B
5	CORD ASSY. 36"	251230	EMF
6	CORD ASSY. 60"	251232	EMF
7	CORD ASSY. 72"	251235	EMF
8	CORD ASSY. 84"	251234	EMF
8	CONN. BODY	340560	HUBBEL #H320C

TROUBLE SHOOTING

<u>SYMPTOM</u>	<u>CAUSE</u>	<u>SOLUTION</u>
1. UNIT WILL NOT HEAT		
A. NO POWER TO UNIT	BREAKER TRIPPED	RESET BREAKER
B. NO POWER OUT OF	UNIT NOT PLUGGED IN	PLUG UNIT IN
CONTROL.	BAD CONTROL	REPLACE CONTROL
C. POWER AT ELEMENT BUT WILL NOT HEAT		REPLACE ELEMENT

WARRANTY

ALL LOW TEMP INDUSTRIES FOOD SERVICE EQUIPMENT IS FULLY WARRANTED BY THE MANUFACTURER AGAINST DEFECTS IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF PURCHASE BY THE ORIGINAL USER AND ONLY TO THE ORIGINAL PURCHASER PROVIDED IT IS INSTALLED AND OPERATED IN ACCORDANCE WITH THE INSTRUCTIONS SUPPLIED WITH THE UNIT. ALSO, IT MUST NOT BE MISUSED, ALTERED OR NEGLECTED AND USED ONLY ON CIRCUITS AND VOLTAGES REQUIRED FOR THAT UNIT.

OUR OBLIGATION UNDER THIS WARRANTY SHALL BE LIMITED TO ONE OF THE FOLLOWING PROCEDURES. SELECTION OF A PROCEDURE SHALL BE AT THE SOLE DISCRETION OF LOW TEMP INDUSTRIES INC.

- A. REPLACEMENT OF DEFECTIVE PARTS, SHIPPED F.O.B. FACTORY, IN EXCHANGE FOR THE RETURNED DEFECTIVE PART, SHIPPED PREPAID FREIGHT.
- B. FREE REPLACEMENT OF DEFECTIVE PART, SHIPPED F.O.B. FACTORY.
- C. DEFECTIVE PART SHIPPED PREPAID FREIGHT TO FACTORY, REPAIRED AND RETURNED, SHIPPED F.O.B. . FACTORY.
- D. ALL **LABOR COSTS** SHALL BE COVERED FOR A PERIOD OF (1) ONE YEAR FROM THE DATE OF PURCHASE.

LOW TEMP INDUSTRIES INC. SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY FIRE, FLOOD, WINDSTORM, OR ANY OTHER ACT OF GOD; WAR, WHETHER DECLARED OR UNDECLARED NOR SHALL WE BE RESPONSIBLE FOR THE LOSS OF FOOD OR OTHER PRODUCTS DUE TO POWER OR MECHANICAL FAILURE. THIS WARRANTY SHALL NOT COVER ANY DAMAGE CAUSED DURING SHIPMENT WHICH SHOULD BE REPORTED TO THE DELIVERING CARRIER.

LOW TEMP MANUFACTURING COMPANY

A DIVISION OF LOW TEMP INDUSTRIES INC. 9192 TARA BOULEVARD JONESBORO, GEORGIA 30236 (770) 478-8803