cissell

Pants Topper

Model B - EXC

OWNER'S MANUAL

CISSELL MANUFACTURING COMPANY
HEADQUARTERS
831 SOUTH FIRST ST.
P.O. BOX 32270
LOUISVILLE, KY 40232-2270

PHONE: (502) 587-1292
FAX: (502) 585-2333
SALES FAX: (502) 585-3625
SERVICE/PARTS FAX: (502) 584-4070

THIS MANUAL MUST BE GIVEN TO THE EQUIPMENT OWNER.

MAN309X 2/98 3C WB Part No. D0108

WARRANTY

The Cissell Manufacturing Company (Cissell) warrants all new equipment (and the original parts thereof) to be free from defects in material or workmanship for a period of one (1) year from the date of sale thereof to an original purchaser for use, except as hereinafter provided. With respect to non-durable parts normally requiring replacement in less than one (1) year due to normal wear and tear, including, but not limited to, cloth goods, valve discs, hoses, and iron cords, and with respect to all new repair or replacement parts for Cissell equipment for which the one (1) year warranty period has expired, or for all new repair or replacement parts for equipment other than Cissell equipment, the warranty period is limited to ninety (90) days from date of sale. The warranty period on each new replacement part furnished by Cissell in fulfillment of the warranty on new equipment or parts shall be for the unexpired portion of the original warranty period on the part replaced.

With respect to electric motors, coin meters and other accessories furnished with the new equipment, but not manufactured by Cissell, the warranty is limited to that provided by the respective manufacturer.

Cissell's total liability arising out of the manufacture and sale of new equipment and parts, whether under the warranty or caused by Cissell's negligence or otherwise, shall be limited to Cissell repairing or replacing, at its option, any defective equipment or part returned f.o.b. Cissell's factory, transportation prepaid, within the applicable warranty period and found by Cissell to have been defective, and in no event shall Cissell be liable for damages of any kind, whether for any injury to persons or property or for any special or consequential damages. The liability of Cissell does not include furnishing (or paying for) any labor such as that required to service, remove or install; to diagnose troubles; to adjust, remove or replace defective equipment or a part; nor does it include any responsibility for transportation expense which is involved therein.

The warranty of Cissell is contingent upon installation and use of its equipment under normal operating conditions. The warranty is void on equipment or parts; that have been subjected to misuse, accident, or negligent damage; operated under loads, pressures, speeds, electrical connections, plumbing, or conditions other than those specified by Cissell; operated or repaired with other than genuine Cissell replacement parts; damaged by fire, flood, vandalism, or such other causes beyond the control of Cissell; altered or repaired in any way that effects the reliability or detracts from its performance, or; which have had the identification plate, or serial number, altered, defaced, or removed.

No defective equipment or part may be returned to Cissell for repair or replacement without prior written authorization from Cissell. Charges for unauthorized repairs will not be accepted or paid by Cissell.

CISSELL MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY, STATUTORY OR OTHERWISE, CONCERNING THE EQUIPMENT OR PARTS INCLUDING, WITHOUT LIMITATION, A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OR A WARRANTY OF MERCHANTABILITY. THE WARRANTIES GIVEN ABOVE ARE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. CISSELL NEITHER ASSUMES, NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT, ANY OTHER WARRANTY OR LIABILITY IN CONNECTION WITH THE MANUFACTURE, USE OR SALE OF ITS EQUIPMENT OR PARTS.

For warranty service, contact the Distributor from whom the Cissell equipment or part was purchased. If the Distributor cannot be reached, contact Cissell.

TABLE OF CONTENTS

ILLUSTRATED PARTS

SPECIFICATIONS

Electric Motor.....	1/3 H.P., 115V. or 230V., 60 Cycle, AC, 1 Phase
.....	220V., 50 Cycle, AC, 1 Phase
Operating Steam Pressure.....	100 P.S.I.G. (5.8 Bars) Maximum
Boiler Horsepower (Approx.).....	3/4 (7.3 kw)
Steam Supply Line.....	1/2" Pipe (1.3 cm)
Steam Return Line.....	1/2" Pipe (1.3 cm)
Air Supply Connection.....	1/8" Pipe (.32 cm)
Air Supply Requirement.....	80 P.S.I.G., 6 C.F.M. (4.4 Bar, 2 C.M.M.)
Net Weight.....	230 Pounds (104.5 kg)

Note: Specifications are subject to change without prior notice.

GENERAL INFORMATION

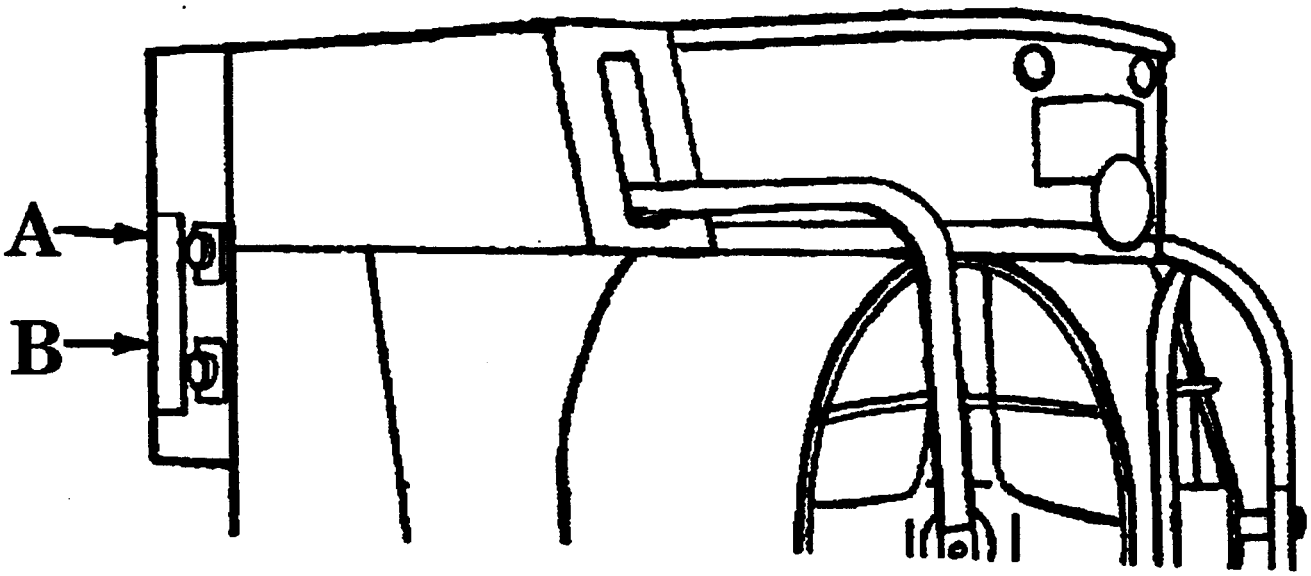
IMPORTANT: The air line filter was removed from the machine for shipping. When installing the unit, fasten the air line filter to the regulator as shown in the "Air Line Assenbly" drawing in the Parts section of this manual.

UNCRATING: Set crate upright, remove sides and top. Remove the two rear base bolts and lift from crate.

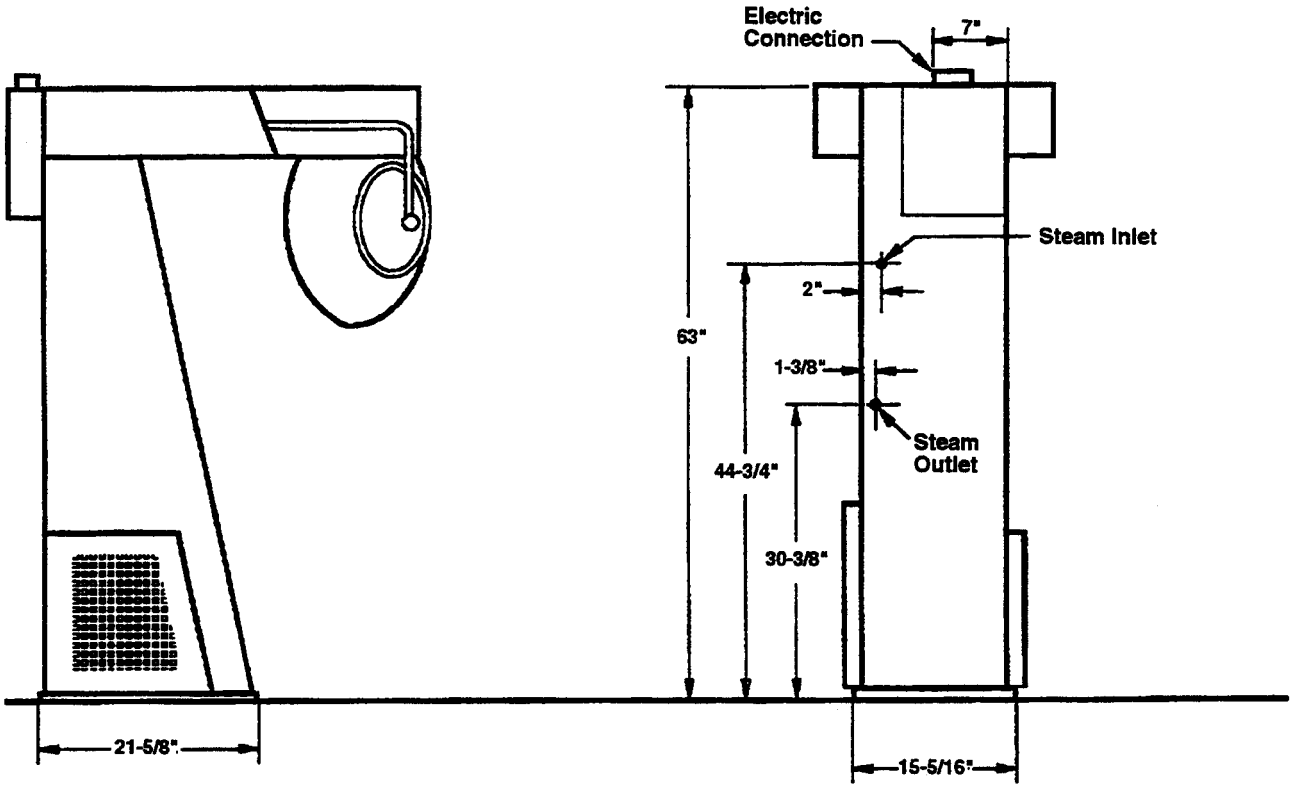
PROTECTIVE PLASTIC COVER: Do not remove plastic cover from the nylon pants topper bag until machine is installed and is ready for operation.

AUTOMATIC STEAM TIMER: The Automatic Steam Timer (A) is adjustable from 0 to 60 seconds, and is set at the factory for 4 seconds normal steaming. Adjust as required.

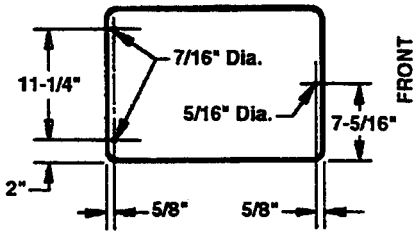
AUTOMATIC AIR TIMER: The Automatic Air Timer (B) is adjustable for 0 to 60 seconds and is factory set for 25 seconds for normal drying. Adjust as required.



PANTS TOPPER - MODEL B - DIMENSION DRAWINGS



BASE MOUNTING HOLES



Dimensions given in inches plus/minus 1/2" and are subject to change without prior notice

STEAM CONNECTIONS

Make Steam Supply and Steam Return connections as shown in Figure 2.

All horizontal runs must drain by gravity to respective Steam Header. Portions that connot drain to Header must drain by gravity to machine, without water pockets.

Each Steam Header must drain, by gravity, to boiler or condensate return tank.

To prevent condensate draining from Steam Headers to machine, make steam connections (to each respective Header) with a 12 inch or more vertical riser. Do not make steam connections to a Header with a horizontal or downwardly facing tee or elbow.

Water pockets, or an improperly drained steam line (or header), will provide wet steam, causing unnecessary wetting-out of buck padding.

Before installing check valve, trap and strainer, connect steam supply to machine from globe valve (A). Open globe valve (A) to flush any foreign matter that may be in castings or pipes; open globe valve (C) to flush foreign matter from return connections, then connect steam return from valve (C) to machine with check valve, trap, and strainer as shown. If steam is gravity returned to boiler, omit trap.

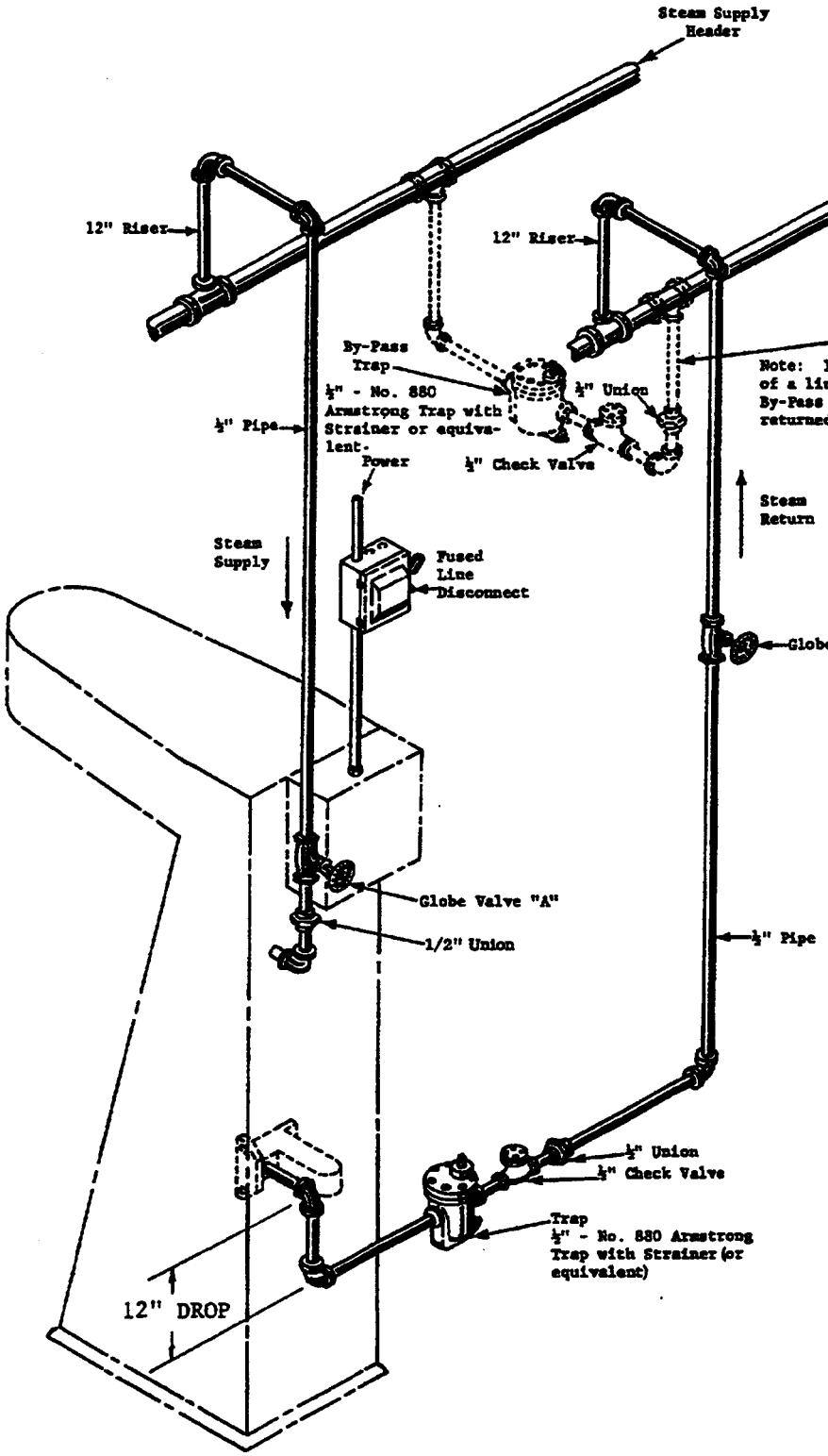
NOTE: For successful operation of machine, install trap as close to floor and as near machine as possible. Inspect trap carefully for inlet and outlet marks and install according to manufacturer's instructions.

IMPORTANT: A separate steam trap must be used with each machine.

CAUTION

BEFORE OPERATING PANTS TOPPER, OPEN GLOBE VALVES IN STEAM LINES. CHECK CAREFULLY FOR STEAM LEAKS, AND SEE THAT TRAP IS OPERATING PROPERLY. UNDER NO CIRCUMSTANCES SHOULD MACHINE BE OPERATED UNTIL HOT. OPERATING THE MACHINE COLD WILL WET THE NYLON BAG AND PADDING.

TO DRY A WET BAG OR PAD, DEPRESS THE "ON" MANUAL AIR SWITCH. AIR WILL OPERATE CONTINOUSLY UNTIL "OFF" AIR SWITCH IS DEPRESSED.



Water line of boiler of a gravity return system must be 1 to 2 ft. below return connection of machine.

ELECTRICAL CONNECTIONS

THE STANDARD Pants Topper has single phase motors. Before installation, check nameplates on motor and control box for rated voltage and current specifications.

MAKE ELECTRICAL CONNECTIONS as indicated on wiring diagram attached to inside cover of electrical junction box on Topper. Voltage and current of power line must be the same as the Electrical Specifications of the motor, timers, relays, and solenoid.

FOR SINGLE PHASE CURRENT, connect power leads, L1 and L2, to an approved fused disconnect switch in power line.

TO CONNECT STANDARD, SINGLE PHASE MACHINE TO THREE PHASE CURRENT, connect power leads, L1 and L2, to any two terminals of an approved fused disconnect switch in the three phase power line.

FOR THREE PHASE CURRENT, connect power leads L1, L2, and L3 to the three terminals of an approved fused disconnect switch in the three phase power line. The motor must rotate clockwise when facing the belt and pulley. If rotation is incorrect, transpose any two leads connecting the power line, and rotation of motor will reverse.

IMPORTANT: Consult your local electrical code before making any electrical connections; be certain that the electrical installation conforms with all local requirements.

Always check wiring before closing the disconnect switch.

MAINTENANCE INSTRUCTIONS

IMPORTANT - Shut-off steam and electric power before performing Maintenance Operations. Compressed air should also be cut off.

ELECTRIC MOTOR LUBRICATION:

SLEEVE BEARINGS: Motors with wool-packed sleeve bearings are oiled at the factory for two years normal operation. After two years normal operation, add annually 1/2 teaspoon electric motor oil or SAE-10 to each bearing. For 24 hours per day operation, add one teaspoon of oil annually.

BALL BEARING: Motors having ball bearings are packed with sufficient grease for approximately TEN YEARS of normal operation. After ten years of normal operation, the bearings and housing should be cleaned thoroughly. Repack each bearing and the cavity back of the bearing 1/3 full with G. E. Ball Bearing grease.

CHECK VOLTAGE AND CURRENT:

Your Topper is wired for a given voltage and current as stamped on name plate. Motor, Timers, Relays and Solenoid are for Single Voltage and Single current only. If machine is to be operated on any voltage and current, other than apecified above, **THE MOTOR, RELAYS, TIMERS AND SOLENOID MUST BE REPLACED WITH UNITS CORRESPONDING TO THE VOLTAGE AND CURRENT ON WHICH THEY ARE TO BE OPERATED.**

GENERAL CLEANING:

Every six months remove top cover, rear panel, front panel, blower and belt guards and clean thoroughly with a vacuum cleaner or air hose.

AIR LINE OIL LUBRICATOR

Check Air Line Oil Lubricator and refill when less than half full. Use #10 weight oil.

POSITIONING PANTS ON TOPPER

Install waist expander as shown.

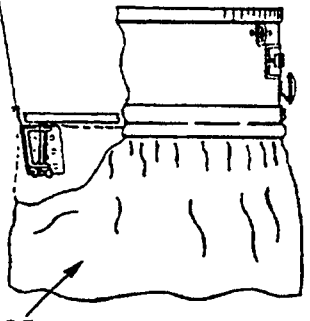


FIG. 1

Position Waist Band (At front of Pants) $\frac{1}{4}$"-$\frac{1}{2}$" below Bag Retainer

For small or regular size Pants, position Waist Band, (at rear of pants), at top of Expander

For large pants, (or pants with tight crotch line), lower waist band on Expander to eliminate tightness and wrinkles in crotch area.

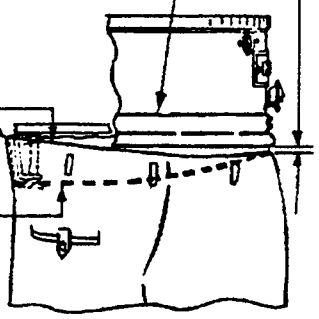


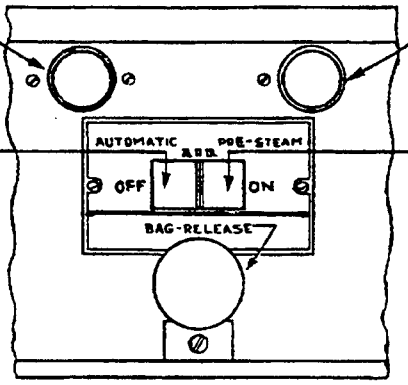
FIG. 2

Push for Automatic Steam and Air

Push for Four seconds Pre-Steam

OFF

ON



"Half Down" - Manual Air Off
"Full Down" - Automatic Off

"Down"- Continuous Air

OPERATING INSTRUCTIONS

(A) At "Start-Up" (or after "Idle Periods" of operation) preheat before operating:
a. Lower pleat clamps onto padded buck; Operate Topper on "Manual Air" continuously for about one (1) minute.

(B) Either PRE-STEAM or AUTOMATIC Steam-Air cycle may be cancelled by pushing "OFF" Air Switch fully down.

(C) For Suede, Chamois or leather trimmed trousers, use manual air switch to provide air "while steaming", as full air pressure is required to hold pants taut during steaming cycle.

(D) Tops Trousers, slacks, shorts (Lightweight or Heavyweight) sizes 28 to 50.

NOTE: Top small sizes, (including boys pants and small size ladies slacks) on 1M Puff Iron.
Top large sizes on end of utility press.

OPERATING INSTRUCTIONS

CAUTION: Timer Adjustments

STEAM: Must not be greater than 6 seconds (Average setting 4-5 Seconds)

AIR: Must not be less than 20 seconds (Average Setting 25 Seconds)

NOTE: Straighten Pockets; Button Pocket Flaps; Button or Snap front of Waistband if you desire, But Do Not Close Zipper.

1. Step on foot switch and the waist expander moves forward automatically.

2. Lift trousers onto form, placing back center of waist band high onto waist expander. Pull trousers forward holding taught at fly.

3. Continue to hold forward tension on trousers, step off foot switch. Allow automatic tension of waist expander to draw front of trousers onto face of buck.

4. Lower waist clamp, clamp trousers to buck.

5. Adjust and center pants to highest position on buck. Align crotch; do not raise pants too high as crotch must remain loose in buck opening to prevent wrinkling of crotch area.

6. To soften pleats (Before making respective pleat lays), push PRE-STEAM BUTTON. Steam Timer controls pre-steaming automatically.

   NOTE: Excessive moisture will de-lusterize Rayon acetates. This may be minimized by using "air" while steaming; or shortening of steam cycle by depressing fully "off" air switch. Omit pre-steaming operation.

7. Smooth out material and lay each pleat separately, working from fly toward pleat being layed. Align pleat with leg crease; close pleat holder. If too much material is encountered during laying of pleats, trousers are too high on the buck and too low on the rear expander. If too little material is available to lay the pleat properly, the trousers may be too low on the buck and too high on the expander.

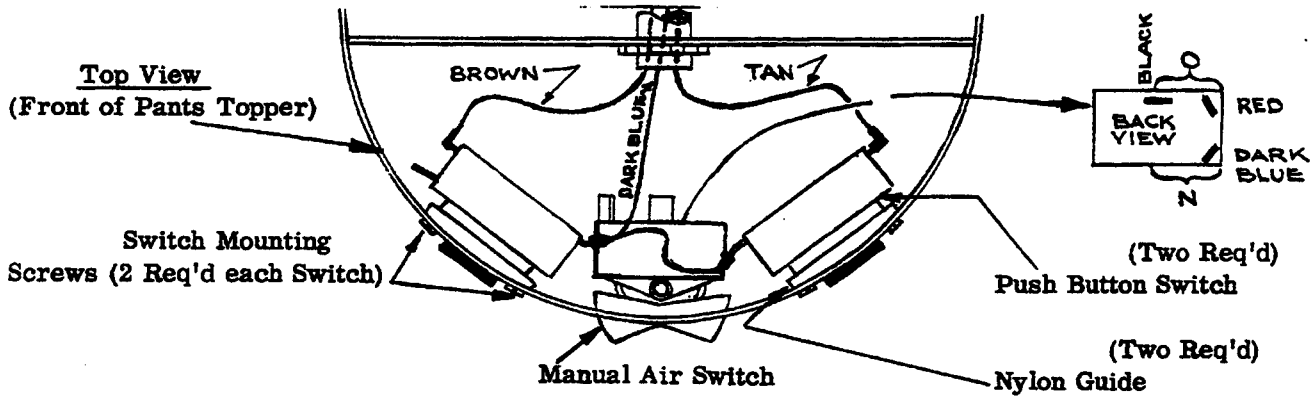
8. Push AUTOMATIC Button. Steam and Air Timers control steam followed by air automatically.

9. Leg-out during the final phase of the automatic cycle of the Topper. To remove trouser from buck step on foot switch again.

10. Place creased trousers on hanger and make necessary touch-ups on Puff Iron before placing pants on finish rail.

REPLACING THE CONTROL SWITCHES

1. Refer to illustration.
2. Cut off steam and electrical supply. Allow machine to cool.
3. Remove top panel.
4. Disconnect switch leads.
5. Remove switch mounting screws.
6. Remove old switches and nylon spacers.
7. Install new switches and spacers in reverse order.



AIR PRESSURE CONTROL OPERATION

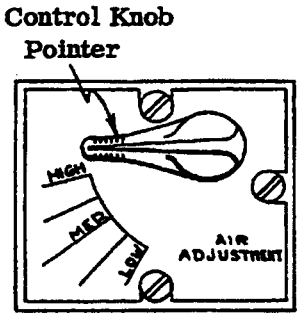


FIG. 1

Normally, set the air pressure control knob horizontally in the position illustrated, (Fig. 1).
For light weight materials (which may be stretched), set the control knob in the LOW position, (or to any intermediate position), to give the desired air pressure. If desired, the topper may be operated continuously with the control knob set in a postion providing the air pressure found most suitable by the operator.

INSTRUCTIONS FOR OPERATING AIR PRESSURE CONTROL

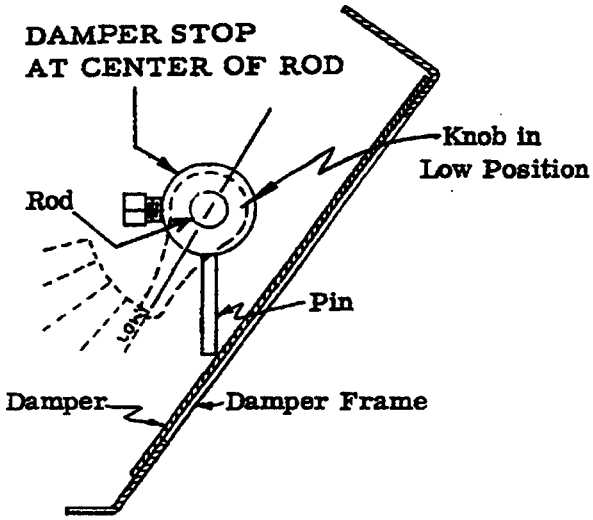


FIG. 2

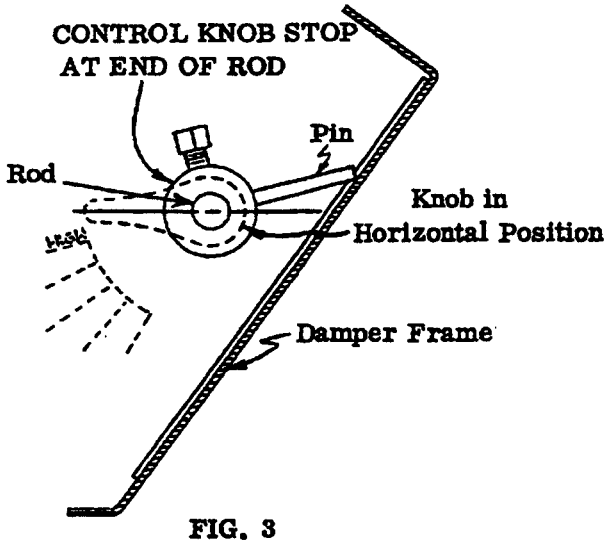


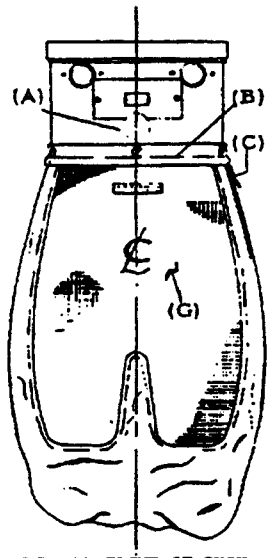
FIG. 3

1. Turn off electric power and remove Top Cover.
   Note: Check to see that the set screw of the Knob is tighten securely against the flat on the end of the rod.

2. Place the pointer of the control knob at the low position (Fig. 2), with damper fully closed, push the pin on the damper stop (in center of rod) down until it hits the damper, tighten set screw securely.

3. Rotate the pointer upward until the knob is in a horizontal position (Fig. 3), push the pin on the control knob stop (on the end of rod) against the damper frame as shown in Fig. 3. Tighten set screw securely.

INSTALLATION OF BAG & BOOTS



OUTSIDE FRONT OF BUCK
Fig. 1

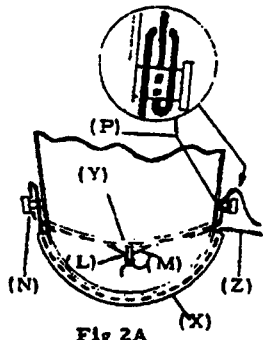


Fig 2A
Side Tie-Off
For SN 1397 & Up

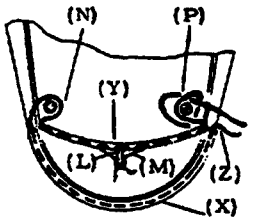
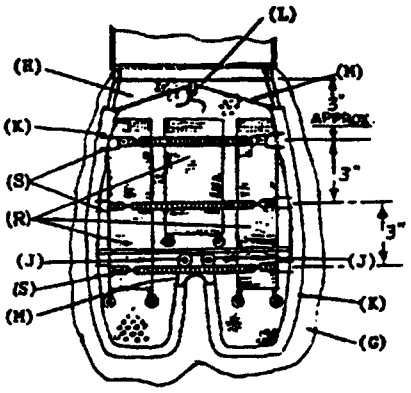


Fig. 2
Bottom Tie-Off
For SN 1396 & Below



INSIDE BAG. VIEW OF BUCK
Fig. 3

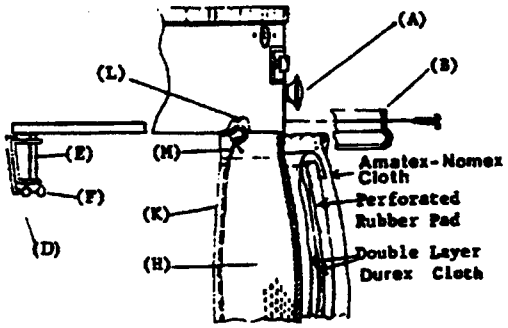


Fig. 4

1. Place bag in position on buck, Fig. 1. Center top edge of Pants Topper bag with center of waist clamp (A). Install retainer (B) over drawstring sheath (X), Fig. 2 or 2A. Tighten three sheet metal screws. Open zipper (C) Fig. 1.

2. Loop drawstring over spool (N) Fig. 2 or 2A. Place drawstring sheath in groove (Y). Loop drawstring around spool (P) as shown; pull loose ends of drawstring tightly and tie-off at(Z).

3. Place expander assembly (D) Fig. 4 inside of bag on slide stud (E) and fasten securely with wing nut (F).

4. Align Pants Topper Bag (G) on buck (Fig. 1). Slip drawstring (M) over spool (J)Fig. 3. Pull drawstrings tight toward top of buck so that drawstring sheath (K) is equally distributed around outer edges of perforated metal buck (H). Holding strings tight, tie-off to eyelet (L).

5. Install Buck springs (S) by placing hooks over drawstring through sheath (K) as illustrated in Fig. 3.

INSTALLATION OF BOOTS

Pull boots (R) Fig. 3 up for removal. To install new boots, pull down over frames. See that boot frames are tight against buck.

PANTS TOPPER BAG

KEEP BAG CLEAN. In operation, bag collects dust, lint, etc., greatly reducing its efficiency. Launder bag at frequent intervals as determined by its soiled condition.

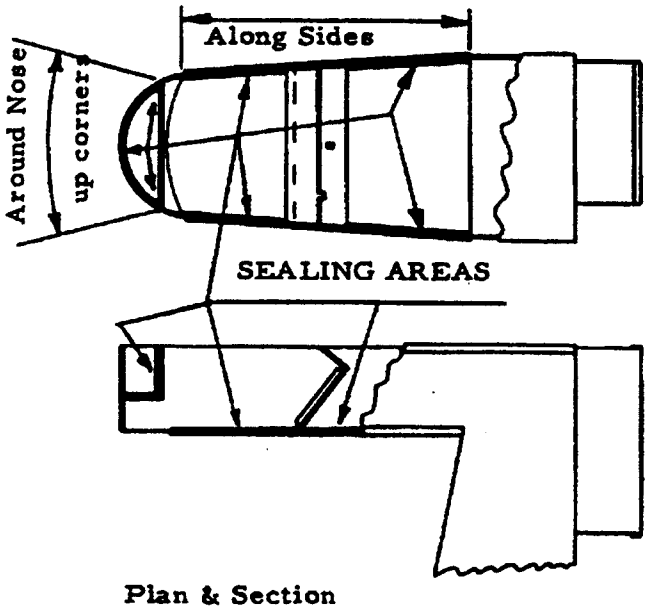
The Cissell Pants Topper bag has a double liner to extend pad life and to distribute steam uniformily.

REPAIR HOLES OR WORN SPOTS in bag to extend its useful life: REPLACE when worn beyond repair. A defective or worn bag will cause topper to operate unsatisfactorily. KEEP A SPARE BAG IN STOCK.

CAUTION

Use only genuine CISSELL bags. The fabric for the Cissell Bag is especially woven (and cut to an exact pattern) to give the correct porosity and shape for proper steaming and drying. Rember, your CISSELL PANTS TOPPER depends on the bag for proper operation.

Correct padding is necessary to obtain proper finishing. The Cissell buck pad is constructed of a high, heat-resisting synthetic air foam, and perforated for rapid steaming and full air flow through entire buck area. Replace a worn-out pad only with a Cissell perforated pad. Keep a spare pad in stock. Do not use more than 1 pad.



Plan & Section

RESEALING EDGES FOR STEAM & CONDENSATE LEAKS

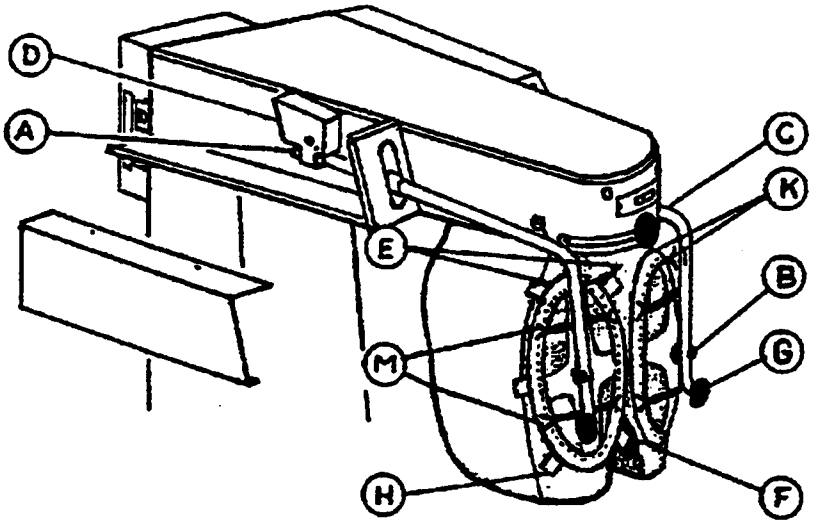
When leak appears:

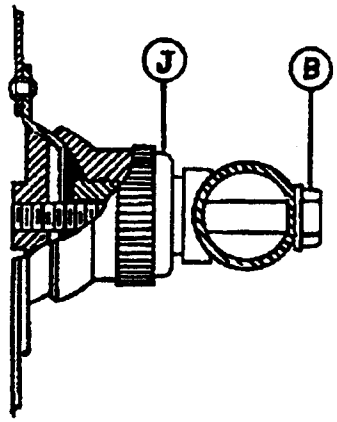
1. Remove top.
2. Using sealing compound Permatex #2 or equivalent; (3 oz. tubes available from factory).
   Generously apply sealing compound evenly along area of "Leak". Allow sealing compound to set and air dry for approx. 2 hours before putting topper back in service. Sealing compound will not harden. If necessary, remove switches from control box in Nose, when fixing leaks in this area.

PLEAT SETTER COVER ASSEMBLY INSTALLATION

1. Place cover over pleat clamp (E), pull draw strings (K) tight and tie. See illustration below.

2. Hook one end of each pleat clamp spring (M) on left side of cover, pull tight and hook on right side.





Adjustable Clamp Support

OVAL PLEAT CLAMP ADJUSTMENT WITH ADJUSTABLE CLAMP SUPPORT

REFER TO ILLUSTRATION ABOVE.

1. Remove cover from side of unit. Loosen cap screw (A) in arm expander and cap screw (B) in adjustable support.

2. Rotate and slide arm (C) in counterweight (D) to position pleat clamp (E) on buck. Place pleat clamp in vertical position and align inside edge of pleat clamp with edge of buck crotch (F).

3. Apply pressure on arm knob (G) to provide pressure between pleat clamp (E) and buck. Hold pressure and retighten cap screw (A) of arm expander.

4. With a thin card (H) check uniformity of pressure between edges of pleat clamp (E) and buck. If unequal, rotate pleat clamp slightly to obtain a uniform pressure around all edges.

5. Re-tighten nut (B) of adjustable support. Note: Whenever tightening nut (B), do not apply pressure to knob (G) or arm (C), as this will distrub the pleat clamp setting.

6. Top a pair of trousers.

    A. If pleat clamp (E) makes an impression (too tight), loosen cap screw (B) and rotate adjustment nut (J) counter-clockwise to reduce pressure. Retighten cap screw (B).

    B. If pleat clamp does not hold pleat (too loose), loosen cap screw (B) and rotate adjustment nut (J) clockwise to increase pressure. Retighten cap screw (B).

NOTE: Each pleat clamp must engage the padded buck uniformily with a slight pressure. Heavy pressure may produce a hard finish and show seam imprinting. A very light pressure may allow pleat lay to shift during the air cycle, and show wrinkles with an improperly shaped pleat. Adequate holding of the pleat lay during the air cycle is aided by the surface texture of the pleat clamp and the buck cover.

PLASTIC SLEEVE, BEARING ADJUSTMENT

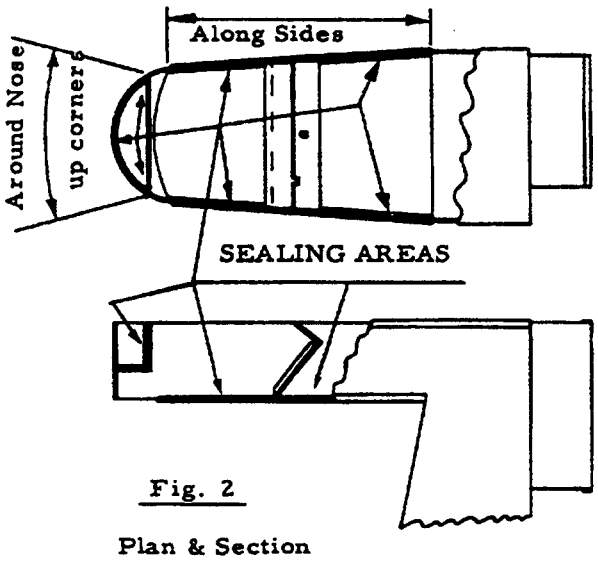


Fig. 2

Plan & Section

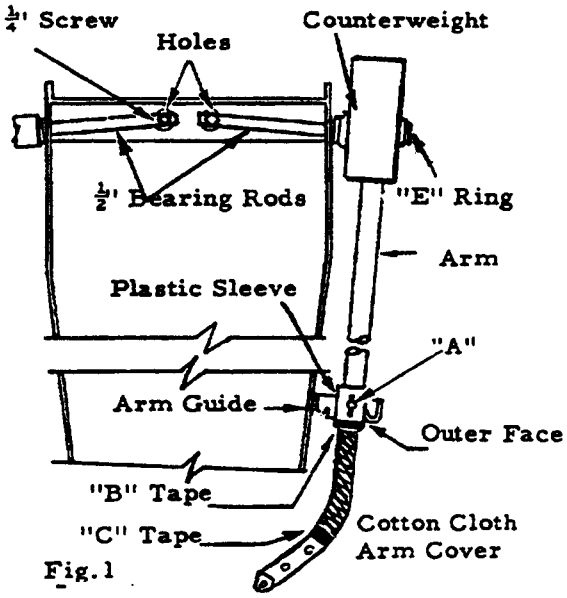


Fig. 1

PLASTIC SLEEVE POSITION AND TAPING FIG. 1

1. Position plastic sleeve on arm in center of arm guide, and align slot with hole in arm. Fasten plastic sleeve securely with #8 Tap Tight Screw at "A" (Fig. 1).
2. Position end of cloth arm cover in contact with end of plastic sleeve.
3. Using Scotch Brand pressure sensitive Tape #471 or equivalent;
   (Tape available from Factory)
   Tape Plastic Sleeve at "B" securely attaching end of Sleeve to cloth arm cover.
   (Minimum 2-3 wraps)
   Pull end of cloth arm cover at "C" to remove slack.
   Tape cloth arm cover at "C" securely attaching end of cover to arm.

BEARING ADJUSTMENT FIG. 1

To Adjust Bearing:

1. Remove Top
2. Loosen 1/4" machine screw holding the bearing rod to the metal bracket.
3. Slide screw in hole of bracket to bring the plastic sleeve into contact with the outer face of the arm guide.
4. Hold the "E" Ring on the Bearing Rod against outer face of counterweight and retighten 1/4" screw.
5. Re-install top on machine.

RESEALING EDGES FOR STEAM & CONDENSATE LEAKS FIG. 2

When Leak Appears:

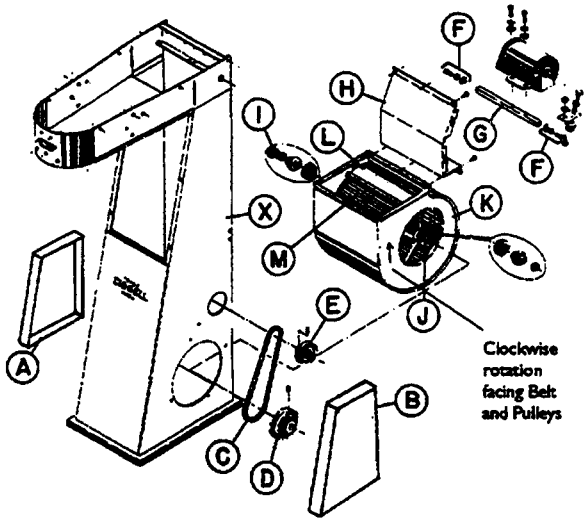
1. Remove Top
2. Using sealing compound Permatex #2 or equivalent:
   (3 oz. tubes available from factory)
   Generously apply sealing compound evenly along of "Leak".
   Allow sealing compound to set and air dry for approx. 2 hours before putting Topper back in service.
   Sealing compound will not harden.
   If necessary, remove switches from control box in Nose, when fixing leaks in this area.

MOTOR AND BLOWER ASSEMBLY REMOVAL

IMPORTANT: Before performing service, turn off power, close steam lines and allow machine to cool.

1. Remove Blower Guard (A) and Belt Guard (B).
2. Remove Belt (C) and Sheaves (D) & (E).
3. Remove wires from motor.
4. Remove Screw, Lockwasher, and Washer (F) from both ends of Motor Support (G). Remove Motor and Support from Housing (X).
5. Remove Rear Access Panel (H).
6. Remove Thrust Collar (I) from Blower Shaft (J).
7. Remove Blower Housing (K).
8. Remove Cut-Off Panel (L) and lift Blower Wheel (M).

NOTE: To re-install, reverse procedure. When placing Blower Wheel in Housing, be sure blades are cupped towards rectangular opening. Be sure that the two sheaves have the set screws facing the outside.



BELT TENSION ADJUSTMENT AND PULLY ALIGNMENT

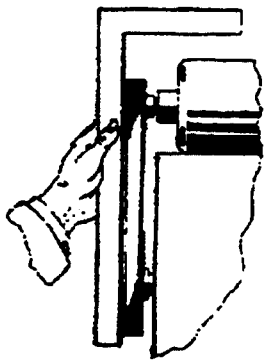
Improper belt tension or misalignment of pulleys may cause bearing and/or belt failures

The illustration at the right indicates recommended belt tension, determined by grasping the belt as shown and when normal pressure is applied, a deflection of approximately one inch will occur.

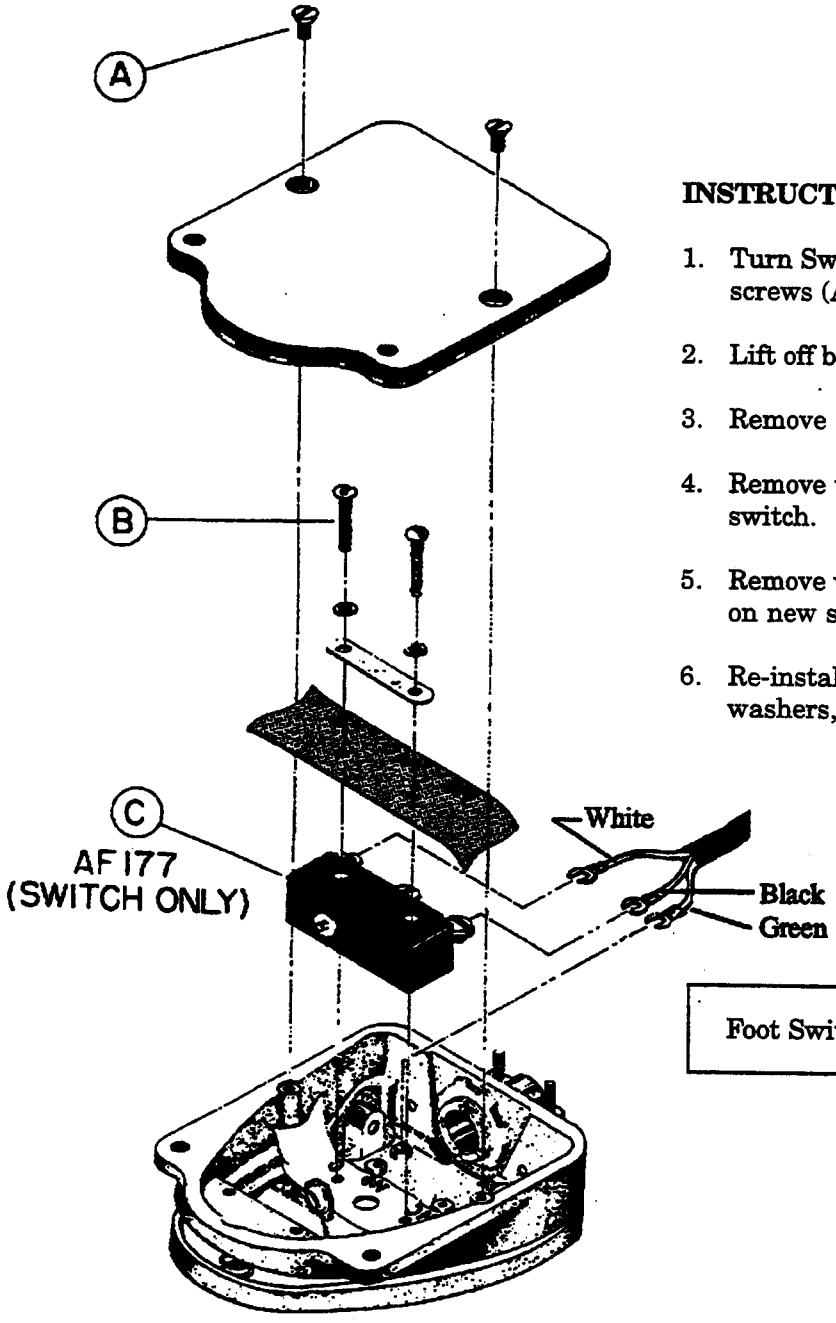
If the deflection is much more than indicated, slippage may occur and wear out the belt.

If deflection is less than indicated, the belt is too tight and will shorten the life of the bearings. Excessive tension will actually pull the shaft through the oil film and allow metal to metal contact. Noisy blower operation will also occur.

The illustration at the right shows the preferred method for checking correct alignment of the pulleys. Excessive misalignment produces increased belt wear and can produce lateral motion of the wheel and shaft to the point that considerable noise can develop.



FOOT SWITCH REPLACEMENT (Part No. AF177)

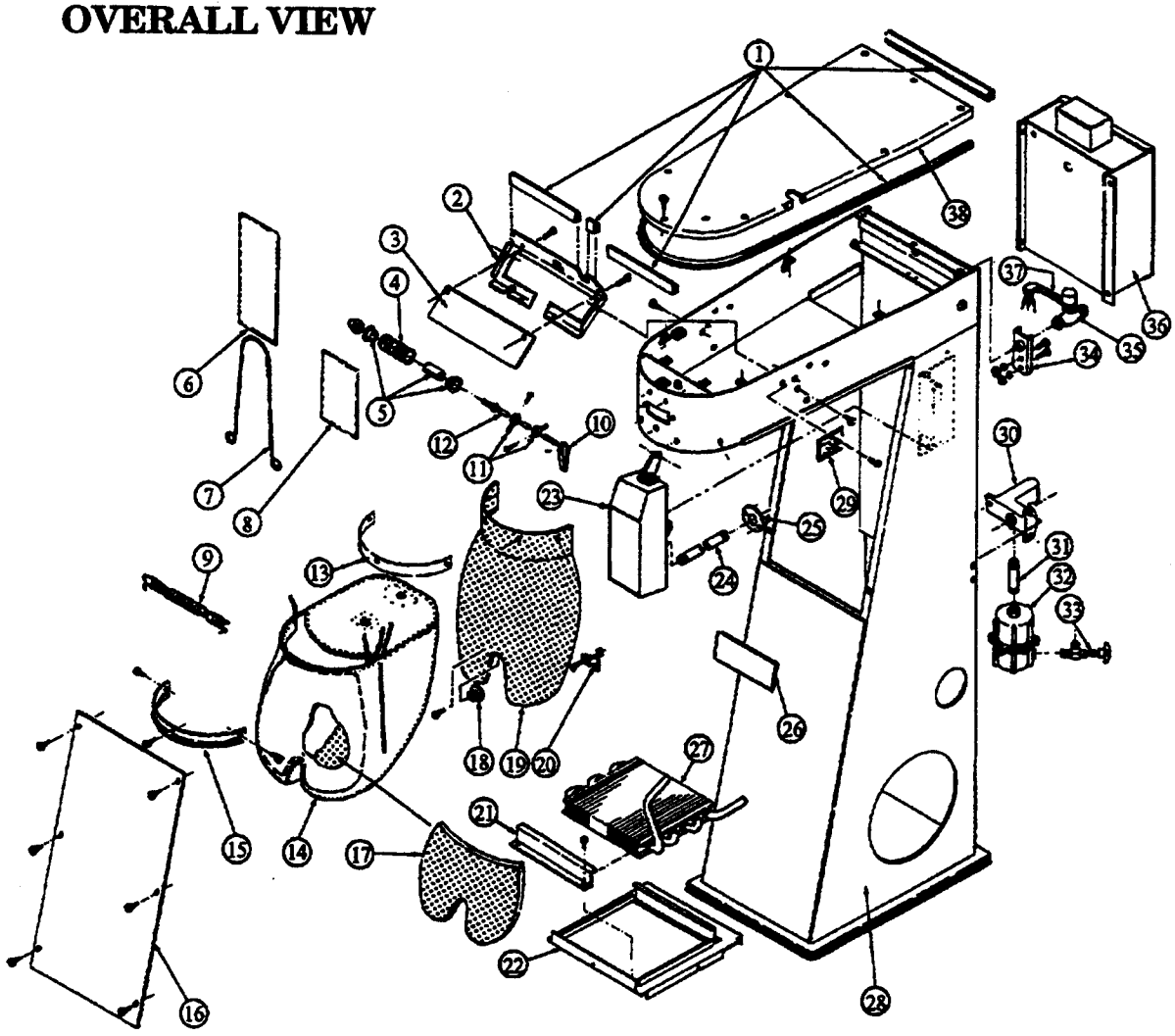


INSTRUCTIONS - Refer to illustration.

1. Turn Switch upside down and remove screws (A).
2. Lift off base plate pad.
3. Remove screws (B).
4. Remove washers, plate, insulation, and switch.
5. Remove wires from old switch and install on new switch.
6. Re-install switch, insulation, plate, washers, screws, base plate, screws.

Foot Switch Assembly - Part No. PT527

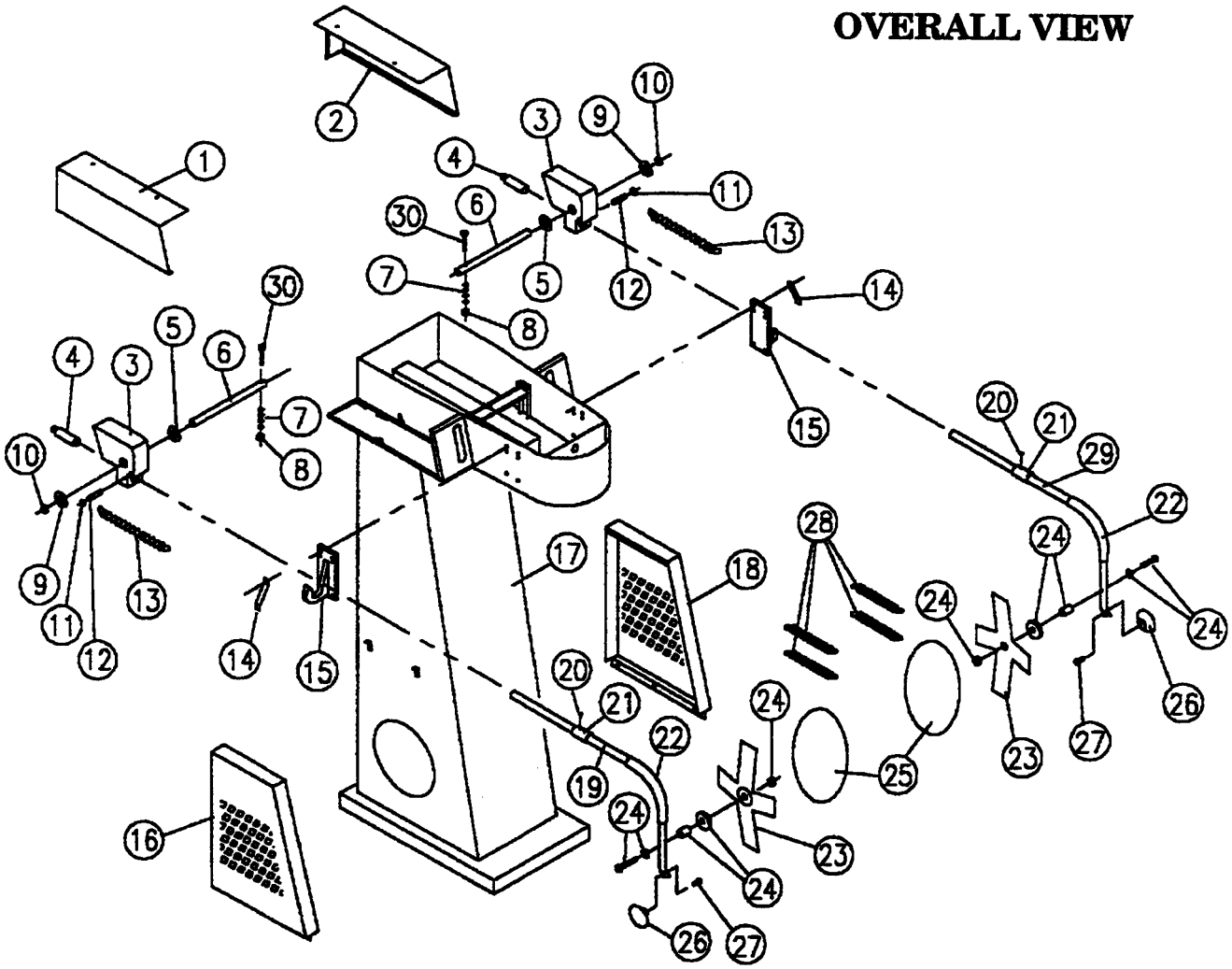
OVERALL VIEW



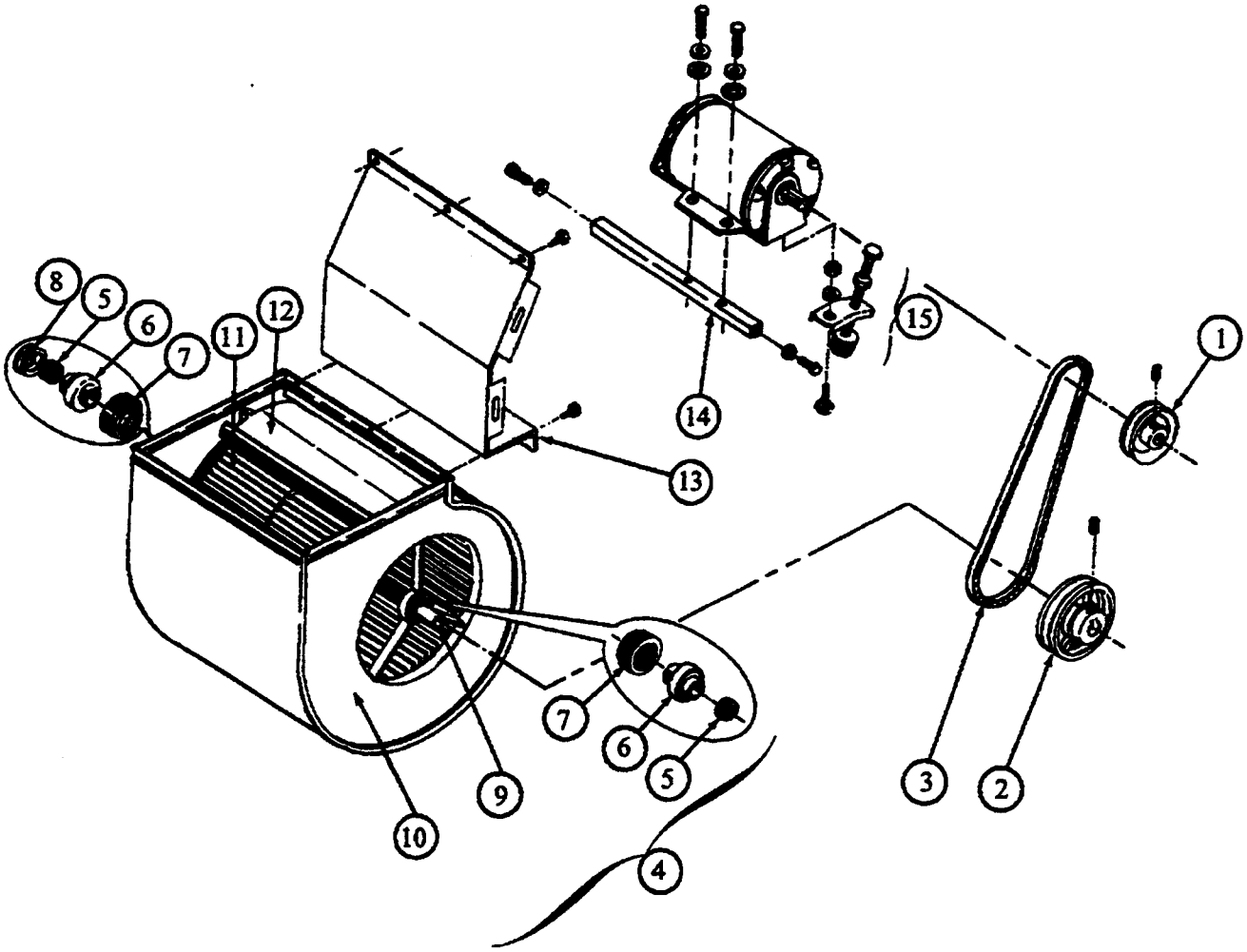
Ref. No.	Part No.	Description
1	PT143	Steam Seals
2	PT500	Damper Frame
3	PT499	Damper
4	V345	Spring
5	PT116	Spring Glands & Sleeve
6	PT22	Large Steam Boot
7	PT20	Large Boot Rod
8	PT548	Small Steam Boot
9	PT52	Spring
10	PT146	Damper Adjustment Knob
11	PT113	Damper Stop w/screw
12	PT144	Damper Adjustment Rod
13	PT127	Steam Shield
14	PT531	Bag/Pad Assembly
15	PT75	Bag Retainer
16	PT3	Front Panel
17	PT59	Padding for Bag
18	PT8	Spool Guide
19	AT348	Buck
20	PT23	Coil Clamp
21	PT6	Coil Holder

Ref. No.	Part No.	Description
22	PT153	Steam Coil Support
23	PT97	Steam Chamber
24	F226	Pipe, 1/2" x 7"
25	F225	Spacer Ring
26	TU8013	Cissell Nameplate
27	PT29	Steam Coil
28	PT602	Housing, Model B
	PT596	Housing, Model A
29	PT109	Air Adjustment Plate
30	PT24	Steam Manifold
31	LB20	Pipe. 1/2" x 3"
32	SGC2	Condenser
33	OP302	Valve Assembly
34	PT108	Valve Bracket
35	PT326	Solenoid Valve, 120V
	PT327	Solenoid Valve, 240V
36	PT124	Control Box, 120V
	PT431	Control Box, 240V
37	PT398	3\8" x 5" cable
38	PT2	Housing Top

OVERALL VIEW

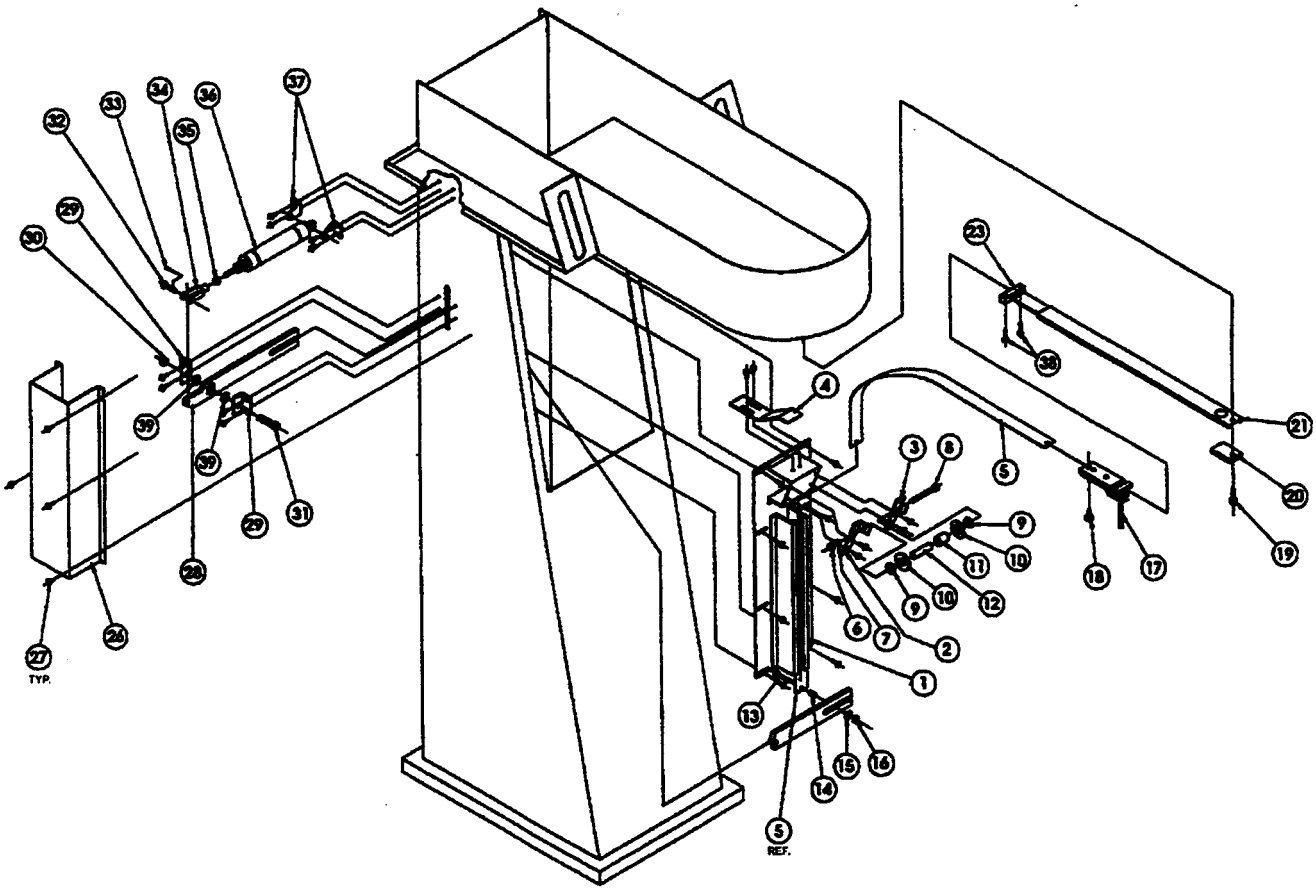


Ref. No.	Part No.	Description
1	PT549	Left Arm Cover
2	PT613	Right Arm Cover
3	PT551	Counterweight
4	PT57	Arm Expander
5	PT563	Pivot Spacer
6	PT552	Shaft
7	P104	Washers
8	TU4934	1/4" Hex Nut
9	IB76	Bearings
10	PT211	"E" Ring
11	SG053	"E" Ring
12	PT595	Pin
13	PT594	Spring
14	TU2105	Activator Spring
15	PT624	Arm Latch
16	PT558	Blower Guard
17	PT602	Housing, Model B
	PT596	Housing, Model A
18	PT559	Belt Guard
19	PT557	Left Arm
20	TU7733	#8 x 1/2" Screw
21	PT31	Plastic Sleeve
22	PT589	Arm Cover
23	TP165	Long Spider
24	PT166	Support Assembly
25	PT32	Oval Pleat Clamp
26	PT42	Arm Knob
27	601603103	1/4 - 28 x 1/2" Hex Screw
28	PT52	Clamp Spring
29	PT588	Right Arm
30	FG267	1/4 - 20 x 1 1/4" Hex Screw



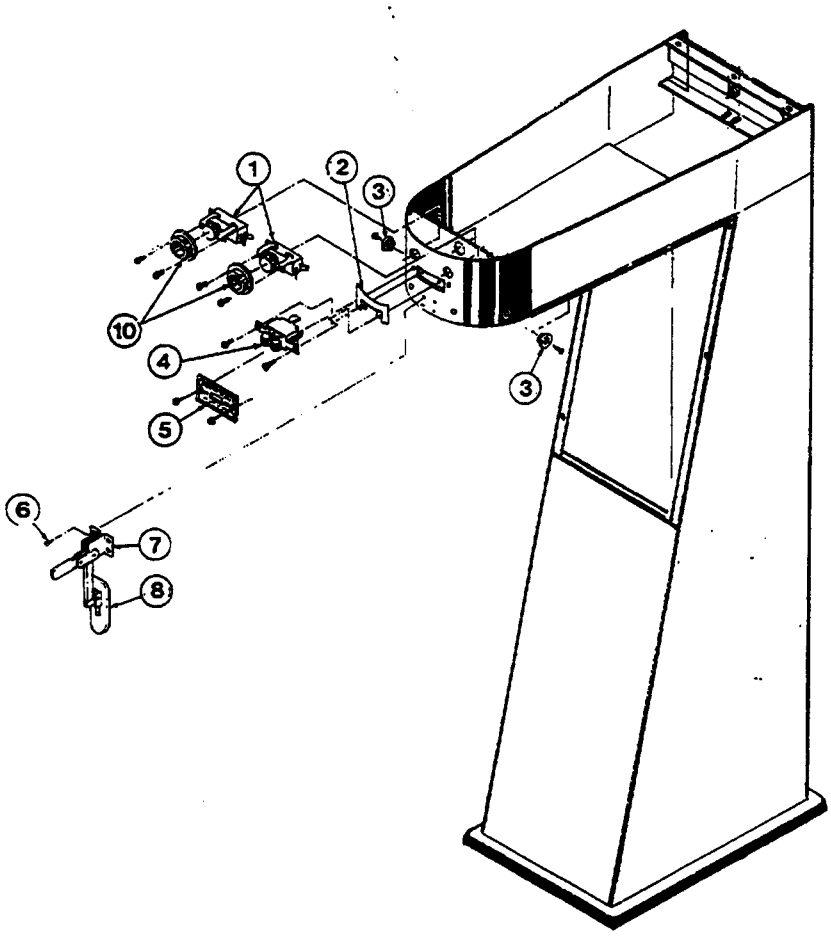
MOTOR AND BLOWER ASSEMBLY

Ref.No.	Part No.	Description
1	TU2318	Motor Sheave
2	TU2323	Gear Sheave
3	PT87	V-Belt
4	PT80	Blower Assembly
5	F374	Thrust Washer
6	F371	Bearing Assembly
7	F373	Bearing Insulator Cup
8	F372	Thrust Collar
9	F366	Shaft, 3/4" x 16 1/2"
10	PT89	Blower Housing
11	F368	Blower Wheel
12	F367	Cut-Off Assembly
13	PT180	Rear Access Panel
14	PTA47	Motor Support
15	F365	Belt Adjustment Assembly



AIR CYLINDER - PT671

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
1	PT636	Weldment Slide	20	PT657	Slide Channel
2	PT653	Roller Weld Support (Left)	21	PT27	Track
3	PT654	Roller Weld Support (Right)	23	PT645	Track Support
4	PT639	Band Stop	26	PT652	Air Cylinder Cover
5	PT646	Slide Band	27	TU7733	Self-Tapping Screw
6	TU4934	1/4" - 20 Nut	28	PT642	Pivot Bar Assembly
7	TU2846	1/4" Lockwasher	29	PT644	Pivot Arm Support
8	AT322	1/4" - 20 x 2-1/4" Bolt	30	TU4787	3/8" - 16 Nut
9	CBA42	Spring Gland	31	TU3246	3/8" - 16 x 1" Bolt
10	PT667	Upper Roller (Brass)	32	SF48	Yoke Pin
11	PT660	Upper Roller Spacer	33	FB201	1/16" x 3/4" Cotter Pin
12	PT152	Spacer Bearing	34	PT647	Forged Yoke
13	TU3486	#10 - 24 x 1" Hex Hd. Screw	35	V56	5/16" - 24 Nut
14	PT658	Slide Bushing	36	PT660	Air Cylinder
15	TU4820	Cut Flat Washer	37	PT664	Mounting Brackets (Pkg. 2)
16	FB185	#10 - 24 Hex Nut	38	TU3416	#8 x 1-1/4" Screw
17	PT28	Slide Assembly	39	TU3243	3/8" Int. Tooth Lockwasher
18	PT62	Spring Lock Pivot Screw	40	PT332	5/16" x 3" Adj. Belt
19	PT357	1/4" - 20 x 3/4" Bolt	41	PT670	Belt Adj. Support

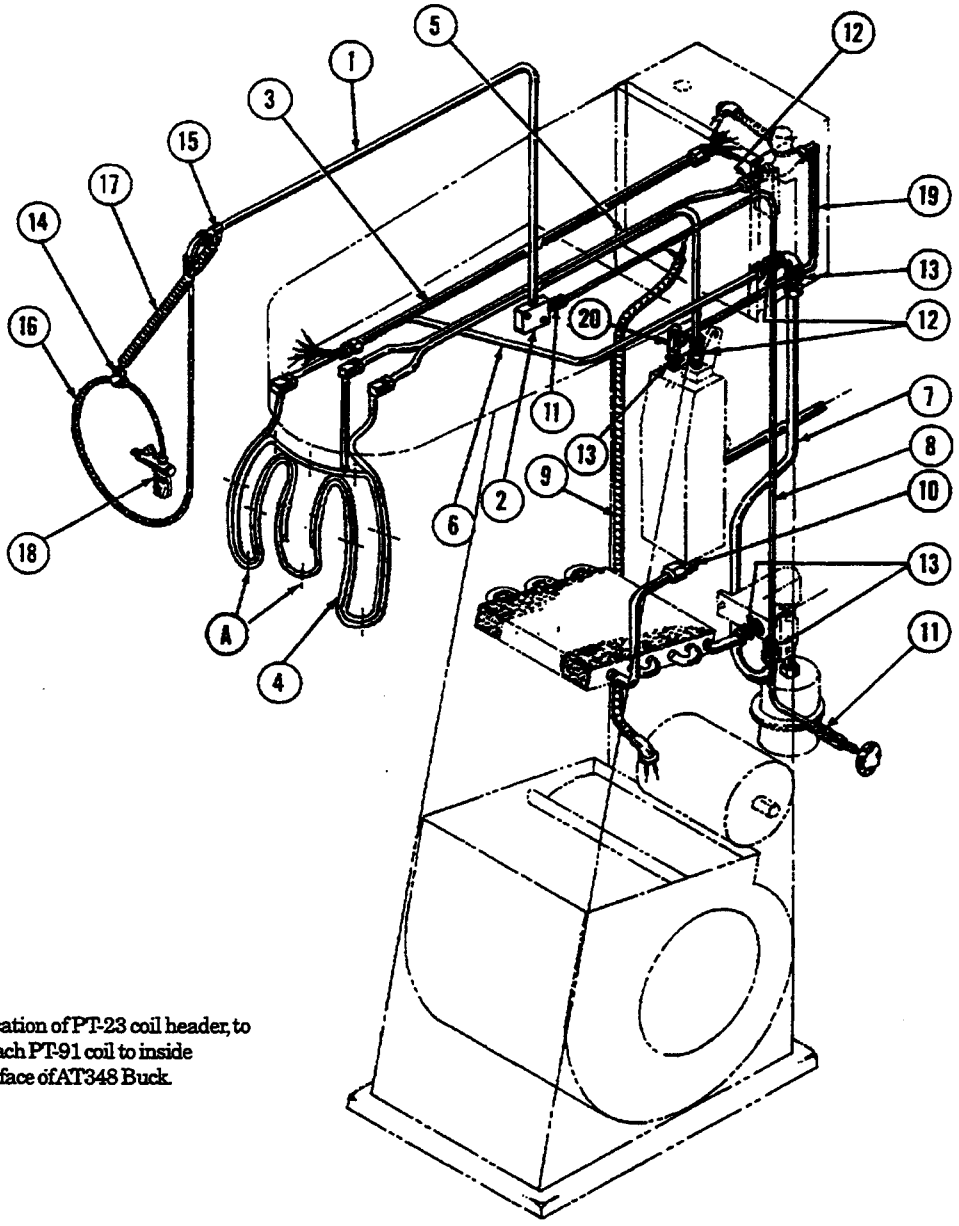


CONTROL SWITCHES

Ref.No.	Part No.	Description
1	TU9028	Push Button Switch
2	PT518	Support Plate
3	PT164	Drawstring Tie Off
4	PT74	Manual Air Switch
5	PT517	Control Plate
6	TU7733	#8 x 1/2" Self-Drill Screw
7	PT526	Waist Clamp Arm Assembly
8	PT524	Waist Clamp
	PT530	Cloth Cover
9	PT34	Wing Nut
10	PT107	Switch Spacer

PIPING AND TUBING

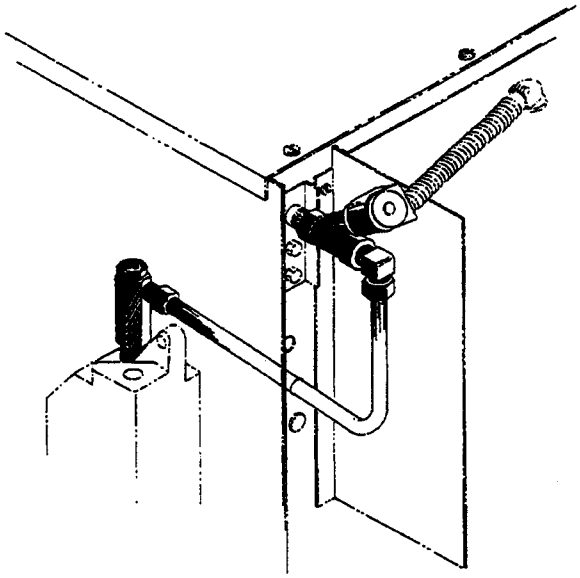
Ref. No.	Part No.	Description
1	PT9	Spray Bin Pipe w/Elbow & Adapter
2	PT17	Spray Gun Manifold
3	PT45A	Control Switch Conduit w/Connectors
4	PT91	Buck Steam Coil Assembly
5	PT92	3/8" Upsteam & Preheat Tube
6	PT533	3/8" Pre-Steam Return Tube
7	PT94	1/2" Steam Return Tube
8	PT95	1/4" Water Supply Tube
9	PT98	Motor Cable
10	PT99	1/2 x 1/2 Elbow Fitting
11	OP297	1/8 x 1/4 Straight Conn. (2)
12	SF59	1/4 x 3/8 Straight Conn. (3)
13	FB75	3/8 x 1/2 Straight Conn. (4)
14	J3	Small Hose Clamp
15	OP329	Large Hose Clamp
16	SG37	Water Hose Assembly (5')
17	SG38	Suspension Spring
18	SGP42	Spray Gun-Pistol Type
19	PT923	1/2" Copper Tube
20	PT136	Strainer Assembly
	PT130	Strainer Body
	PT131	Strainer Cap
	PT132	Strainer Gasket
	PT133	Strainer Screen



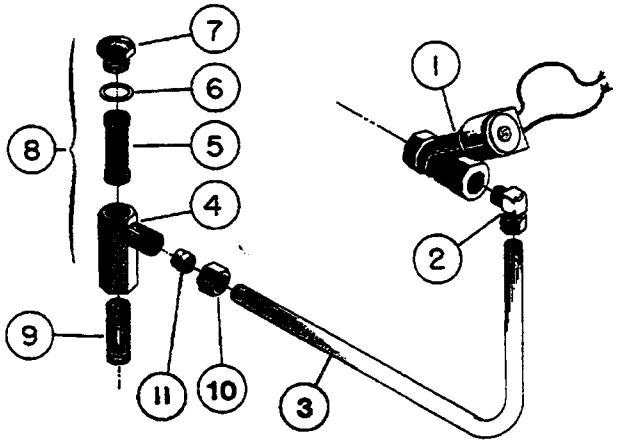
Note "A": Location of PT-23 coil header, to attach PT-91 coil to inside surface of AT348 Buck.

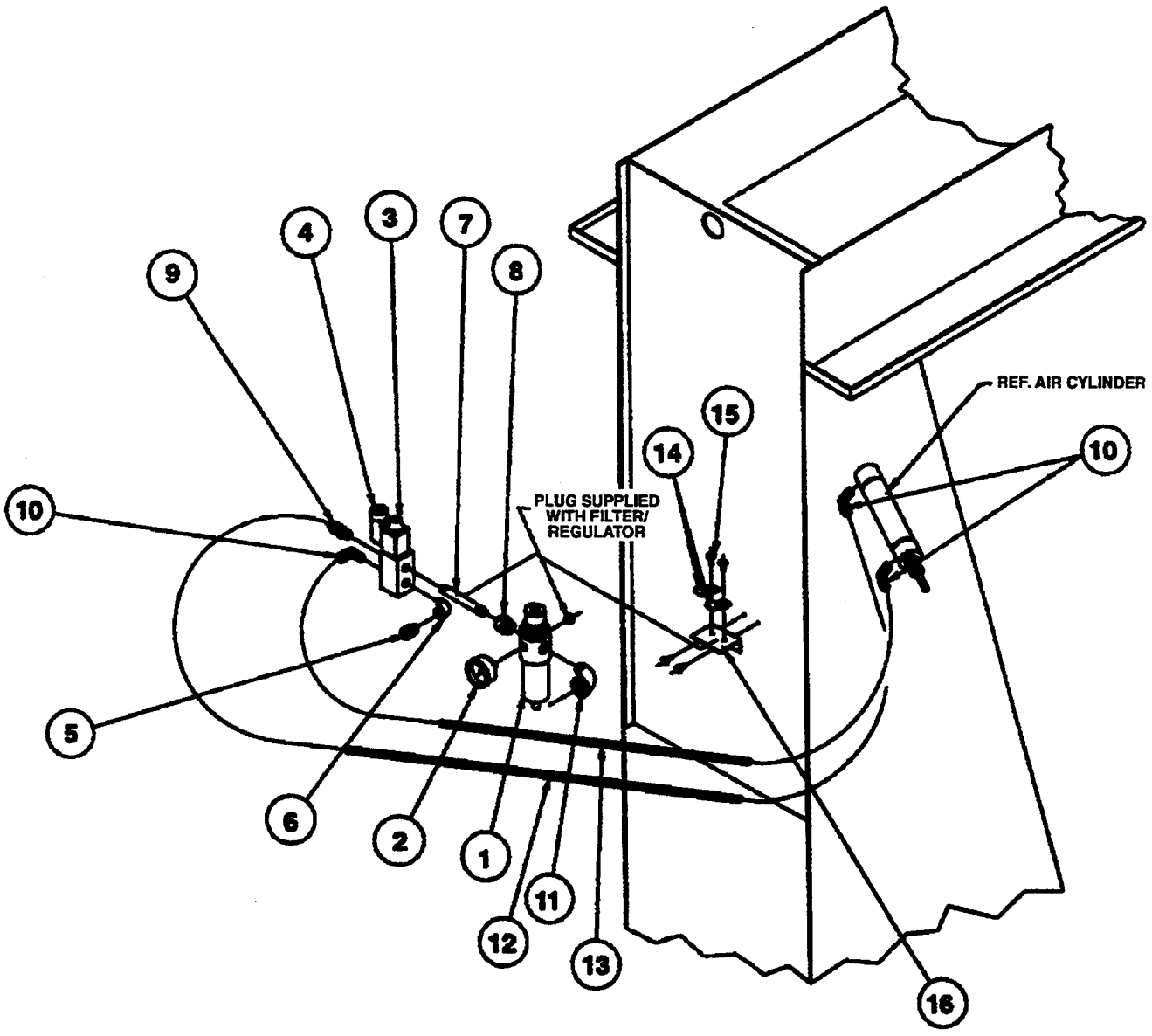
SOLENOID VALVE PARTS

Ref.No.	Part No.	Description
1	PT326	Valve w/Coil - 120V, 50/60 Hz.
	PT422	Coil Replacement - 120V.
	PT327	Valve w/Coil - 240V, 50/60 Hz.
	PT423	Coil Replacement - 240V.
2	PT344	Elbow - 3/8" M.P.T. x 1/2" O.D.T. w/Fittings
3	PT340	1/2" O.D. Tube
4	PT342	Strainer Body
5	PT133	Strainer Screen
6	PT132	Strainer Gasket
7	PT131	Strainer Cap
8	PT343	Strainer (Complete)
9	PT345	Pipe Nipple - 2" x 3/8"
10	P279	1/2" Compression Nut
11	FB145	1/2" Compression Bead



INSTALLATION & LOCATION



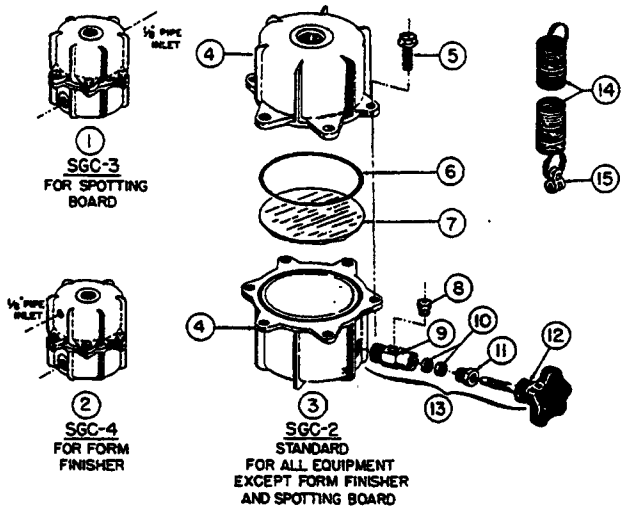


AIR LINE ASSEMBLY - PT669

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
1	PT663	Filter/Regulator	9	OP436	Fitting
2	OP433	Pressure Gauge	10	OP437	90° Fitting
3	PT659	Solenoid Valve (110V)	11	PU135	90° Street 1/4" Elbow
4	PT662	Conduit Connector	12	136158394	36" Tubing
5	PT661	Speed Control Muffler	13	136158394	31" Tubing
6	FG142	90° Street Elbow (1/8")	14	P23	Coil Clamp
7	PT666	3" Lg. 1/8" Blk. Pipe Nipple	15	TU7733	Self-Tapping Screw
8	BR61	1/4" to 1/8" Red. Bushing	16	PT665	Support Air Supply

CISSELL CONDENSERS
FOR WATER SPRAY GUNS

PARTS COMMON TO ALL CONDENSERS



Ref.No.	Part No.	Description
1	SGC-3	Aluminum Condenser, Complete (Less Valve) , Used on Stream Spotting Board (Only)
2	SGC-4	Aluminum Condenser, Complete (Less Valve) , Used on Form Finisher (Only)
3	SGC-2	Aluminum Condenser, Complete (Less Valve) , Standard Model, Used on all equipment except Spotting Board and Form Finisher
4	SGC-8	Lower Section of Condenser
5	SG-116	5/16" - 3/4" Taptite Bolts
6	SG-77	"O" Ring (3-7/16" I.D.) (BetweenUpper and Lower Sections)
7	SG-79	Strainer
8	SGV-35	Adapter
9	SGV-31	Valve Body (includes SGV-35 Adapter
10	V-30	Small Pack Rings
11	SGC-7	Upper Section of Condenser
12	SGV-8	Control Knob
13	SGV	Valve (Complete)
14	SG-38	Suspension Spring
15	J-3	Hose Spring Clamp
16	SGC-6	Upper Section of Condenser w/ 1/8" pipe inlet

INSTALLATION
CISSELL WATER-SPRAY GUNS

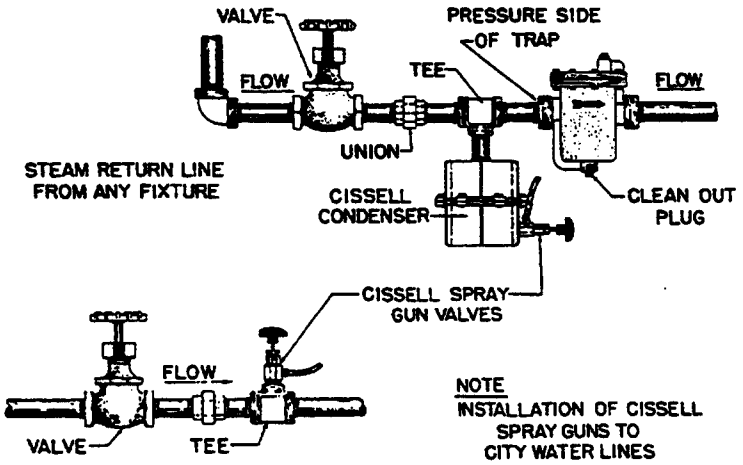
Install the Water-Spray Gun either to the water supply line or steam return line as shown in illustration.

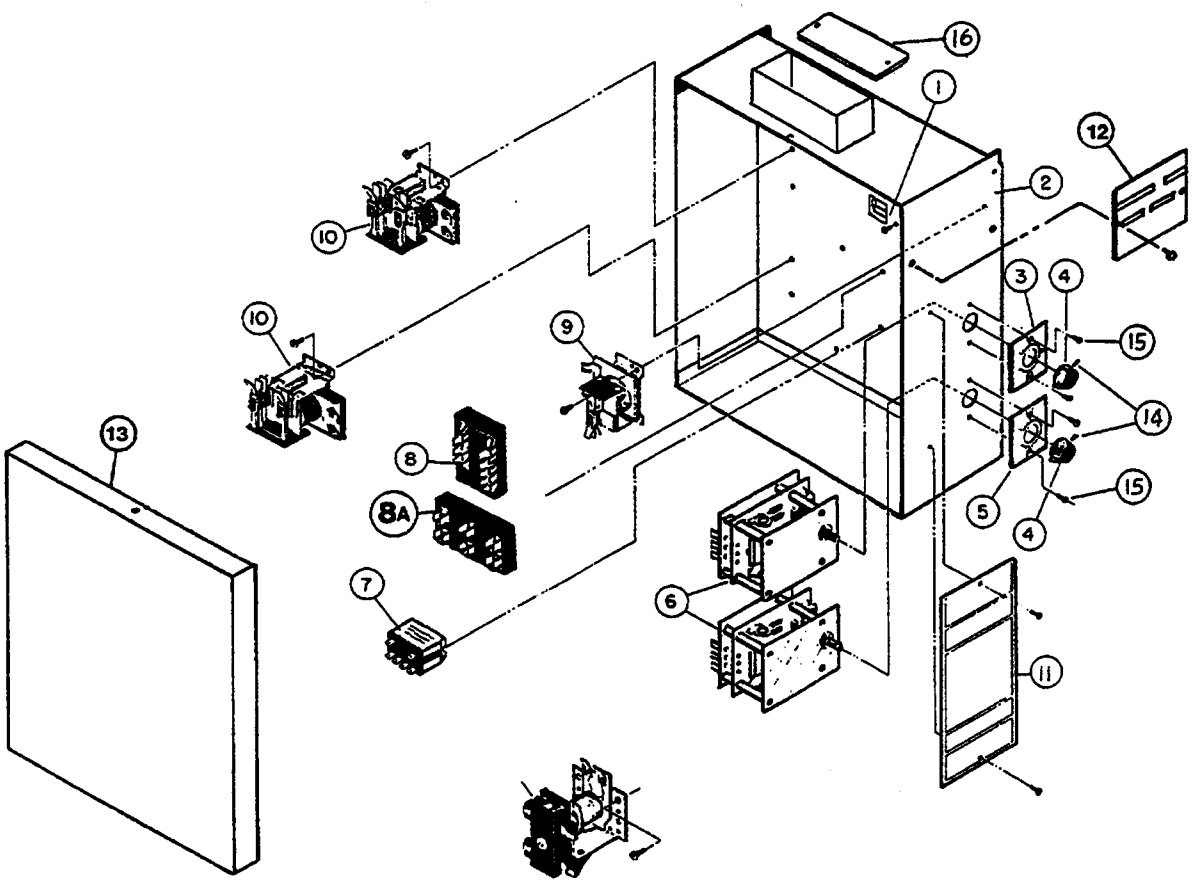
Before connecting water hose assembly to spray gun valve, open valve and allow water to run freely to flush sediment from line or condenser.

Check hose connection to valve and gun and see that SG-25 Gaskets are in place. Also, see that strainer is properly installed in hose connection of gun.

The Cissell Water-Spray Gun will operate on any pressure from 40 to 100 lbs. without adjustment. It may be connected to a water supply line, or to a Cissell Steam Condenser installed on the pressure side of a steam trap in the steam return line.

When the City water pressure is less than 40 lbs, the Cissell Steam Condenser must be used. Recommended operating pressure, 70 lbs.





ELECTRIC CONTROL BOX

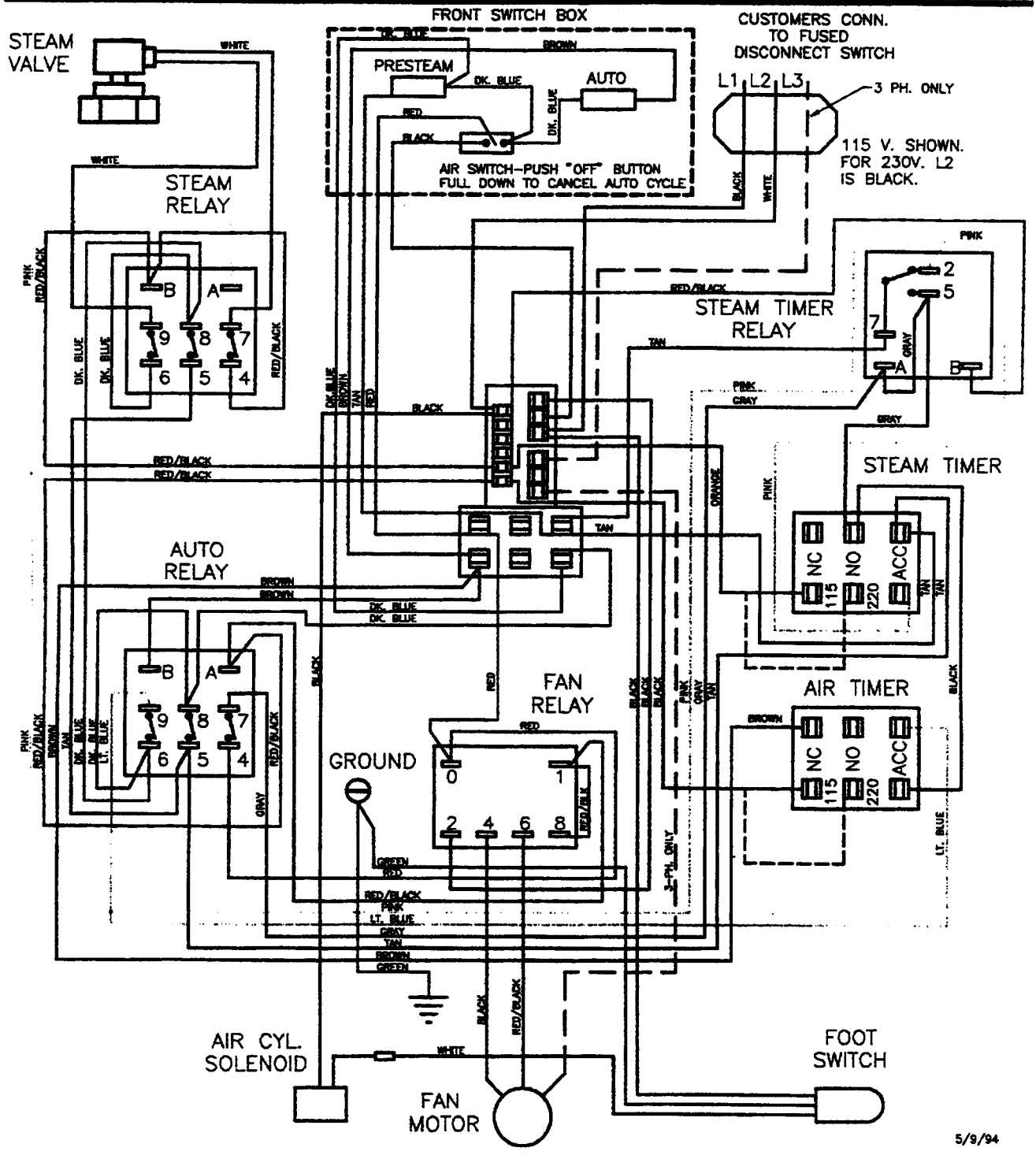
Ref.No.	Part No.	Description
1	PT185	Earth Sign (Ground)
2	PT515	Control Box
3	PT351	Steam Timer Plate
4	PT118	Timer Knob (2 req'd)
5	PT348	Air Timer Plate
6	FG453	Timer (2 req'd)
7	TU13224	Fan Relay (110V)
	TU13225	Fan Relay (220V)
8	TU9343	Terminal Block
8A	TU9342	Terminal Block
9	PT182	Steam Timer Relay (115V)
	PT183	Steam Timer Relay (230V)
10	PT121	Steam of Automatic Relay (120V)
	PT122	Steam or Automatic Relay (240V)
11	PT37	Timer Nameplate
12	PIU94	Rating Nameplate
13	PT5	Control Box Cover
14	C196	Set Screw
15	LB291	#6-32 x 3/8" Screw
16	SB180	Junction Box Cover
	PT547	Wire Harness (Not Shown)

Cissell
LOUISVILLE, KENTUCKY

WIRING DIAGRAM

PTW 29

PANTS TOPPER "B"
120 OR 240V 1PH., OR 240V 3PH.
(PARTS MUST MATCH SUPPLY VOLTAGE)



PANTS TOPPER SERVICE CHART

	PROBLEM	CAUSE	REMEDY
(1)	No steam	Steam supply valve "OFF"	Open gate valve in steam supply line.
(2)	Steam solenoid valve does not operate	Contacts of steam relay do not close	Inspect - if badly burnt, replace relay.
		Steam valve coil open	Replace coil.
		Steam valve coil partially shorted - hums, won't operate	Replace coil.
		Steam valve hums, won't operate - 220V coil on 110V machine	Replace 220 volt coil with 110 volt coil.
(3)	Steam leaks continuously through buck	Leaking stem solenoid valve	Inspect needle stem and teflon seat. Replace defective part.
		Leaking fittings on pre-heater tubes	Remove top, check fittings and tighten.
		Loose teflon seat in steam solenoid valve	Tighten seat in valve, or replace seat if teflon ring is loose in holder.
(4)	Water drips from buck or from support above bag	Leaking fittings on pre-heater tubes	Remove top, check fittings and retighten.
		Ventilating fan moving air over buck and support	Relocate fan or shield air stream so that it will not cool buck or support.
		Slightly leaking steam solenoid valve	Inspect needle stem and teflon seat - replace defective part.
	IMPORTANT	Steam cycle too long	Reset steam timer - steam perior must not exceed 6 seconds.
		Loose teflon seat in steam solenoid valve	Tighten seat in valve, or replace seat if teflon ring is loose in holder.
(5)	Wet steam	Trap not operating	Correct trap problems - trap must operate briskly when machine is idle - trap must not be oversized.
		Check-valve sticking or installed incorrectly	Inspect check-valve and make required corrections.
		Return line valve "OFF"	Open gate valve in steam return line.
		No risers installed in steam supply, and steam return line	Install risers as specified on installation sheet.

PANTS TOPPER SERVICE CHART

	PROBLEM	CAUSE	REMEDY
(5)	Wet steam line (continued)	Supply line to topper has "loop" or "fall" in horizontal run that is below inlet connection to machine	Eliminate "loop" or install a by-pass trap from lowest point of "loop" or "fall".
		Heavy condensate in supply header - does not drain rapidly to boiler	Install a by-pass trap in supply header to "drain-off" condensate before reaching topper steam supply connections.
		More than one machine connected to trap for topper	Install a separate trap for each machine.
		Back pressure in steam return line	Inspect traps of all machines to determine whether one or more traps are standing "open"; or whether trap of another machine is discharging towards return line connection of Pants Topper. Correct trap installations, and perform steps necessary to eliminate back pressure in return line. Return line must drain by gravity to condensate return tank, and return tank must be adequately vented.
(6)	NO STEAM Steam relay SR does not operate, when pre-steam pushbutton is operated.	6a. Operating circuit relay SR open at contact (Steam Timer Relay STR)	Inspect contact, clean contracts.
		6b. Operating circuit relay SR open at either contact (manual air switch), or contact (pre-steam pushbutton switch)	Test contacts; replace defective switch, or pushbutton.
		6c. Coil, relay SR open	Replace relay SR.
		6d. Relay SR hums; when energized, does not operate - coil partially shorted	Replace relay SR.
		6e. Relay SR hums; when energized, does not operate - 220 volt relay on 110 volt control	Replace 220 volt relay SR with 110 volt relay.
		6f. Relay SR hums; when energized, does not operate; armature or relay contacts binding	Inspect relay SR - free armature. If armature cannot be freed, replace relay.

PANTS TOPPER SERVICE CHART

PROBLEM	CAUSE	REMEDY
(7) NO STEAM (or air) Steam relay SR does not operate when automatic pushbutton is operated NOTE: Items 6a, 6c, 6d, 6e and 6f apply to this symptom.	7a. Operating circuit relay SR open at contrast (automatic relay AR)	Inspect contract - clean contracts.
	7b. Operating circuit relay AR open at either contact (manual air switch), or contact (automatic pushbutton switch)	Test contracts; replace defective switch or pushbutton
	7c. Coil relay AR open	Replace relay AR
	7d. Relay AR hums; when energized, does not operate - coil partially shorted	Replace relay AR
	7e. Relay AR hums; when energized, does not operate - 220 volt relay on 110 volt control	Replace 220 volt relay with a 110 volt relay.
	7f. Relay AR hums; when energized, does not operate - armature binding	Inspect relay AR - free armature. If contacts or armature are badly out of adjustment, replace relay.
(8) NO STEAM Steam timer relay STR remains energized - preventing operation of steam relay SR - when pre-steam pushbutton is operated	8a. Contact (pre-steam pushbutton) does not open	Replace pre-steam pushbutton.
	8b. Contact (automatic pushbutton) does not open	Replace automatic pushbutton.
	8c. Contact (steam relay SR) does not open when coil of realy SR is de-energized	Inspect contact. Clean contact.
	8d. Contact (automatic relay AR) does not open when coil of relay AR is de-energized	Inspect contact. Clean contact.
	8e. Defective air timer AT - timer does not "time-out"; may have defective timer motor, or contact may be welded "closed"	Replace air timer AT.
	8f. Air timer does not "time-out" - 220 volt timer on 110 volt control	Replace 220 volt air timer AT, with a 110 volt timer.

PANTS TOPPER SERVICE CHART

PROBLEM	CAUSE	REMEDY
(9) TIMED STEAM STOPS when pre-steam pushbutton is released NOTE: Timed steam obtained as long as pre-steam pushbutton is held operated.	9a. Holding circuit for steam relay SR open at contact (relay SR)	Inspect contract, clean contract and re-adjust as per relay instructions.
	9b. Holding circuit for steam relay SR open, defective wire terminal connections	Inspect terminal connections, dark blue and tan wires, pre-steam pushbutton; terminal block; contact (steam relay SR); contact (steam timer ST); tighten all loose connections.
(10) TIMED STEAM (AND TIMED AIR) Stops - when automatic pushbutton is released NOTE: Timed steam followed by timed air obtained as long as automatic pushbutton is held operated, repeating cyclically - steam, air steam, etc.	10a. Holding circuits for relays SR and AR open, defective wire terminal connections on the dark blue wire extending from the pre-steam pushbutton to the terminal block in control box	Inspect terminal connections on dark blue wire - tighten all loose terminal connections.
	10b. Holding circuit for steam relay SR open at contact (relay SR), and the holding circuit for relay AR open at contacts (automatic relay AR) or (air timer AT)	Inspect contacts. Clean contacts. Test contact (air timer AT), replace air timer if contact is defective.
(11) TIMED STEAM - BUT, NO TIMED AIR When automatic pushbutton is operated NOTE: Timed air is obtained after timed steam, by holding the automatic pushbutton operated	11a. Holding circuit for automatic relay AR open at contact	Inspect contact, clean contact.
	11b. Holding circuit for automatic relay AR open at contact (air timer AT)	Replace air timer AT.
	11c. Holding circuit for relay AR open - defective wire terminal connections	Inspect terminal connections, dark blue, light blue, brown and tan wires - pre-steam pushbutton; terminal block; contact (relay AR); contact (air timer AT); coil terminal (relay AR) - tighten all loose terminal connections.
(12) TIMED STEAM - BUT, NO AIR When automatic pushbutton is operated	12a. Coil open, fan relay FR	Replace fan relay FR.
	12b. Contact (automatic relay AR) does not close, when relay AR is energized	Inspect contact, clean and re-adjust as per relay instructions.

PANTS TOPPER SERVICE CHART

	PROBLEM	CAUSE	REMEDY
(12)	TIMED STEAM - BUT, NO AIR (etc.) (continued)	12c. Contacts of fan relay FR do not close when fan relay FR is energized	Inspect contracts, if badly burned or do not close properly - replace fan relay FR.
		12d. Fan motor will not run	Inspect wire connections - if OK, replace fan motor or have motor repaired by an authorized G. E. Motor Service Station.
(13)	TIMED STEAM - BUT, AIR DOES NOT SHUT OFF AUTOMATICALLY	13a. Defective air timer AT - may have a defective timer motor, or contact may be "welded" closed	Replace Air Timer AT.
		13b. Manual air switch operated in "ON" position	Push "OFF" lever of manual air switch.
		13c. Fan relay FR does not release when energized - contacts "welded" closed.	Replace fan relay FR.
		13d. Contacts (Automatic pushbutton switch does not open)	Replace automatic pushbutton.
(14)	STEAM DOES NOT SHUT OFF AUTOMATICALLY	14a. Steam timer relay (STR) does not operate - coil open	Replace relay STR.
		14b. Steam timer relay (STR) does not operate - contact of steam timer ST does not close; timer may have defective motor or defective contract	Replace steam timer ST.
		14c. Operating circuit for steam relay SR does not open at contact (steam timer relay STR)	Inspect contact, if "welded", release and clean; re-adjust contact as per relay instructions.
		14d. Steam relay SR does not release - armature binding or contacts bent	Inspect relay SR, free armature and re-adjust contacts as per relay instructions. If contacts or armature are badly out of adjustment, replace relay SR.
(15)	CONTROL DOES NOT SHUT OFF AUTOMATICALLY - operates cyclically, timed steam to timed air, then back to timed steam, etc.	15a. Contact (automatic relay AR) does not open	Inspect contact, re-adjust contacts as per relay instructions.
		15b. Light blue terminal of contact (automatic relay AR) is bent against the dark blue terminal	Separate light blue and dark blue terminals by bending the light blue terminal upward, away from the dark blue terminal.