



## Service Manual

SERIES 750, 1100 & 2400

Distributed By:

Commercial Refrigeration Service, Inc.

[WWW.CorneliusParts.COM](http://WWW.CorneliusParts.COM)

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MODULAR

FLAKED ICE MAKER

## INTRODUCTION

We have strived to produce a quality product. The design has been kept simple thus insuring trouble-free operation.

This manual has been prepared to assist servicemen and users with information concerning installation, construction and maintenance of the ice making equipment. The problems of the serviceman and user have been given special attention in the development and engineering of our icemakers.

If you encounter a problem which is not covered in this manual, please feel free to write or call. We will be happy to assist you in any way we can.

When writing, please state the model and serial number of the machine.

Address all correspondence to:



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## SERVICE ANALYSIS

1. Unit will not run	On-off switch in "off" position.	Turn switch to "on".
	Defective on-off switch.	Check and replace.
	Blown fuse.	Replace fuse and check for cause of blown fuse.
	Thermostat set too warm for ambient.	Adjust colder.
	Power relay contacts corroded.	Check and clean.
	Defective thermostat.	Check and replace
	Loose electrical connection	Check wiring
	Gearmotor overload protector has cut off machine.	Turn switch to off then to on.
2. Compressor cycles intermittently.	Low voltage	Check line voltage
	Dirty condenser	Clean condenser
	Air circulation restricted	Remove restriction
	Defective condenser fan motor	Check and replace
	Defective relay, overload protector or starting capacitor.	Check and replace
	Loose electrical connection	Check wiring
3. Making wet ice.	Surrounding air temperature too high	Correct or move unit
	High water level in float reservoir	Lower water level, see step 1, page
	Dirty condenser	Clean condenser
	Faulty compressor	Check and replace
	Refrigerant leak	Check and repair
	"O" ring leaking at bottom of evaporator shell	Check and replace
4. Unit runs but makes no ice.	Leak in refrigerant system	Check and repair
	Moisture in system	Check, dehydrate and add drier to system
	No water	Check water supply
	"O" ring leaking at bottom of evaporator shell	Check and replace "O" ring
	Compressor not running	Check and replace "O" ring

## SERVICE ANALYSIS CON'T

5. Water leaks	Worn or bad float valve	Check and replace
	Float and arm assembly stuck	Check and replace
	"O" ring leaking at bottom of evaporator shell	Check and replace
	Storage bin drain and tubing	Check and repair
6. Excessive noise or chattering.	Mineral or scale deposits on inside of evaporator shell	Remove and clean inside surfaces by immersing evaporator shell in ice machine cleaner.
	Intermittent water supply	Check inlet water line
	Water level in float tank too low	Check and adjust water level
	Auger gearmotor end-play or worn bearings	Repair or replace
7. Machine runs with full bin of ice	Air lock in gravity water supply line from float tank to evaporator shell	Check and adjust warmer
	Storage bin thermostat set too cold	Check and adjust warmer
8. Unit off on reset	Bin thermostat thermowell out of path of ice	Adjust thermowell
	Ice jams up in evaporator shell	Clean inside surface of evaporator shell
	Bin thermostat will not shut off machine. Set too cold	Check and adjust or replace
9. Unit goes off on reset.	Auger motor has worn bearings	Check and replace
	Ice chute out of alignment, restricted ice flow out of evaporator section	Re-align
	Ice chute center separator bent restricting ice flow out of evaporator section	Replace ice chute
	Incoming water temperature too cold	Maintain temperature above 50° F
	Bin thermostat does not shut off when bin is full of ice	Replace bin thermostat if necessary
	Mineral or scale deposits on inside of evaporator shell and evaporator	Inspect and clean
	Strips loose or missing on inside of evaporator shell	Inspect and replace evaporator shell if necessary
	Low ambient temperature in room where unit is located	Maintain temperature above 50 degrees
	Gearmotor sticking which causes it to draw excessive amperage (over 3.5 amps)	Check amp draw of gearmotor with an amprobe (2.25 amps)

## SERVICE ANALYSIS CON'T.

### 9. Unit goes off on reset

Plugged capillary tube or expansion valve, causing low back pressure

Check back pressure, replace cap tube or valve, evacuate and re-charge system, replace drier-strainer

Slight leak, causing low back pressure

Check backpressure, find gas leak, repair leak, evacuate system, add drier and recharge

Loose hold-down assy.

Check and tighten or replace

Auger worn excessively on the inside surfaces causing thicker flaked ice to be made

Replace auger

Auger out of line causing excessive wear on the lower outside surface where it rubs against evaporator shell liner at the bottom

Replace auger and evaporator shell

Broken auger

Replace auger

Evaporator surfaces worn or gouged, causing thicker ice to be made

Inspect and replace evaporator if necessary

Auger guide bushing worn down

Replace auger guide bushing (corkscrew type augers only)

Loose gearmotor mounting plate

Check and tighten

Low water level in float tank reservoir

Adjust float arm to maintain correct water level

Worn thrust washer

Replace

# PARTS LIST

## SERIES

ILLUS. NO.	DESCRIPTION	<u>1100</u>	<u>750</u>
1	Shroud, condenser	27597	27594
2	Condenser	26266	23419
3	Bracket, fan motor	27601	3174
4	Blade, condenser fan	23527	23527
5	Motor, condenser fan	35961	23526
6	Coil, condenser	22499	1210
7	Clamp, condenser coil	35987	35987
8	Bracket, coil mounting	36052	36052
9	Drier	21850	21850
10	Valve, water regulating	1211	1211
11	Clip, delay thermostat	25871	25871
12	Thermostat, gearmotor delay	25864	25864
13	Pad	26124	26124
14	Hold-down, evaporator	26123	3492
15	Evaporator	42597	41100
16	O ring	3120	3120
17	Auger	21078	3796
18	Shell	162966001	9182
19	Capillary tube	N/A	N/A
20	Valve, automatic expansion	27653	27653
21	Thrust washer	21711	8043
22	Gearmotor assembly	37449	29516
23	Disc, centering	20956	20956
24	Chute, vertical	27599	27598
25	Float tank assembly	22030	22030
26	Float & valve only	21924	21924
27	Screw, wing	890	890
28	Gasket, chute	8065	8065
29	Chute, inclined ice	20885	9287
30	Compressor	40569	22620
31	Cover, vertical chute	42316	29299
32	Control, high pressure	7024	7024
33	Control, low ambient fan	23838	23838
34	Relay, power	40713	27617
35	Relay, interlock	28510	27618
36	Thermostat, bin	9570	9570
37	Capacitor, compressor run	27765	N/A
38	Capacitor, compressor start	40284	21544
39	Capacitor, gearmotor start	37909	29518
40	Switch, on-off	21870	28513
41	Relay, compressor start	40285	21547
42	Relay, gearmotor start	37154	29520
43	Protector, gearmotor overload	25159	35707
44	Plate, gearmotor mounting	3163	3163
45	Protector, compressor overload	N/A	21543
46	Top panel	27605	27605
	Top panel, stainless steel	27654	27654
47	Front panel	27603	27603
	Front panel, stainless steel	27655	27655
48	Left side panel	27606	27606
	Left side panel, stainless steel	27657	27657
49	Right side panel	27608	27608
	Right side panel, stainless steel	27671	27671
50	Back panel	27604	27604
	Back panel, stainless steel	27656	27656
51	Heater, evaporator	42843	N/A
52.	Compressor cooling fan motor	23308	N/A
53.	Compressor cooling fan blade	9355	N/A

# PARTS LIST

SERIES 2400

Illus. No.	<u>Description</u>	<u>PART NO.</u> <u>1 PH.</u>	<u>PART NO.</u> <u>3 PH.</u>
1.	Base	27916	27916
2.	Condenser A/C	35769	35769
3.	Fan mounting bracket	27384	27384
4.	Fan motor mount	28627	28627
5.	Fan motor	27185	27185
6.	Fan blade	27183	27183
7.	Fan motor retainer clip	35832	35832
8.	Bracket, drier	25947	25947
9.	Drier	21850	21850
10.	Strap (drier)	21852	21852
11.	Receiver	29326	29326
12.	Receiver mounting bracket	25373	25373
13.	Masonite pad	26124	26124
14.	Hold-down	26123	26123
15.	Evaporator	42597	42597
16.	Evaporator O ring	3120	3120
17.	Auger	21078	21078
18.	Shell L.H.	162966001	162966001
19.	Shell R. H.	162966002	162966002
20.	Automatic expansion valve	27653	27653
21.	Thrust washer	21711	21711
22.	Gearmotor	37449	37449
23.	Vertical chute cover	42293	42293
24.	Vertical chute	42328	42328
25.	Water reservoir	35225	35225
26.	Float and valve	27156	27156
27.	Hose	35771	35771
28.	Float mounting bracket	35231	35231
29.	Compressor	27163	35688
30.	Mounting grommet	25219	25219
31.	Compressor mounting sleeve	25220	25220
32.	Thermowell end cap	20421	20421
33.	Low ambient switch	23838	23838
34.	Low ambient switch bracket	1196	1196
35.	Delay thermostat	25864	25864
36.	Delay thermostat clip	25871	25871
37.	Power relay	28881	N/A
38.	Contactors	N/A	35547
39.	Capacitor, compressor start	23832	N/A
40.	Capacitor strap	N/A	29014
41.	Protector, gearmotor overload	25159	25159
42.	Gearmotor start relay	37154	37154
43.	Interlock relay	28510	28510
44.	Gearmotor-compressor control relay	35548	35548
45.	Grommet	311	311
46.	Bin thermostat	9570	9570
47.	On-off switch	21870	21870
48.	Roto-lock valve	27167	27167
49.	Capacitor mounting strap	35772	N/A
50.	Gearmotor start capacitor	37909	37909
51.	Water pressure switch	23668	23668
52.	Compressor run capacitor	27765	N/A
53.	Bracket, mounting low pressure switch	35773	35773

# PARTS LIST CON'T.

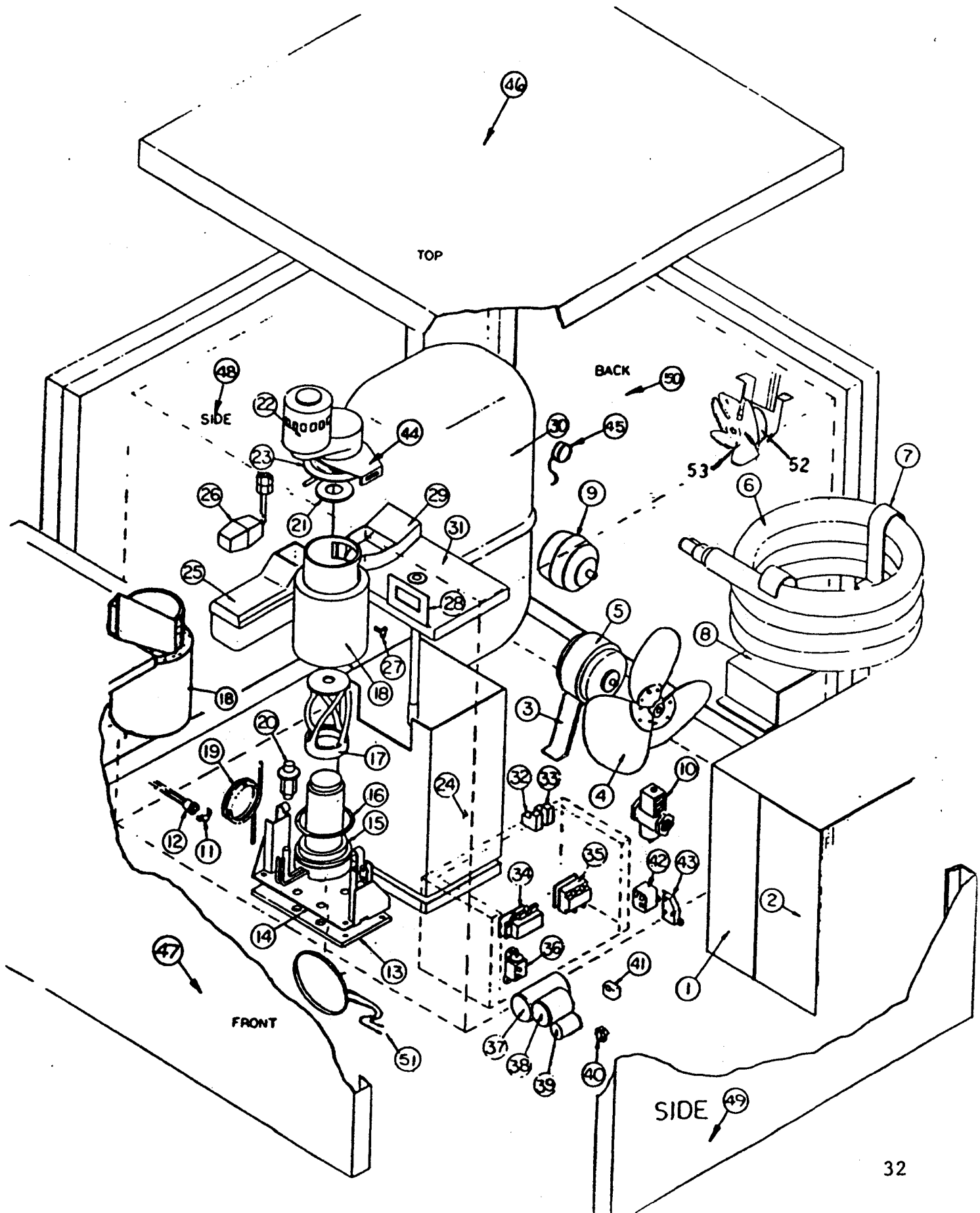
SERIES 2400

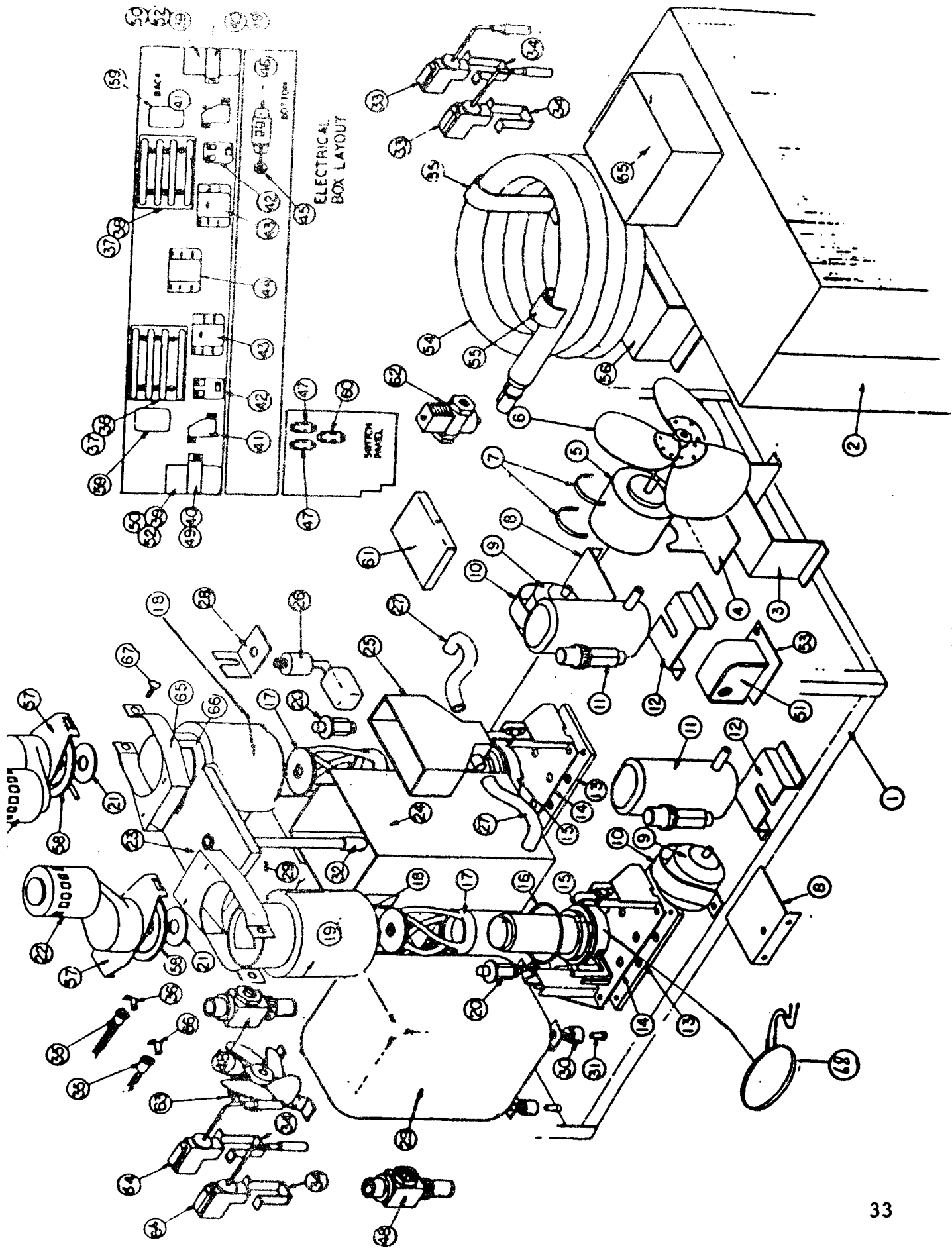
<u>Illus.</u> <u>No.</u>	<u>Description</u>	<u>PART NO.</u> <u>1 PH.</u>	<u>PART NO.</u> <u>3 PH.</u>
54.	Condenser coil W-C	8823	8823
55.	Clamp	27310	27310
56.	Mounting bracket	26085	26085
57.	Gearmotor mounting plate	3163	3163
58.	Centering disc	20956	20956
59.	Compressor start relay	27165	N/A
60.	Main power switch	35546	35546
61.	Reservoir cover	35230	35230
62.	Water regulating valve	1211	1211
63.	Compressor cooling fan motor	23308	23308
	Compressor cooling fan blade	9355	9355
	Compressor cooling fan bracket	260	260
64.	High pressure control	27414	27414
65.	Chute	20885	20885
66.	Chute gasket	8065	8065
67.	Screw, chute mounting	890	890
68.	Heater, evaporator	42843	42843

## CABINET PARTS NOT ILLUSTRATED

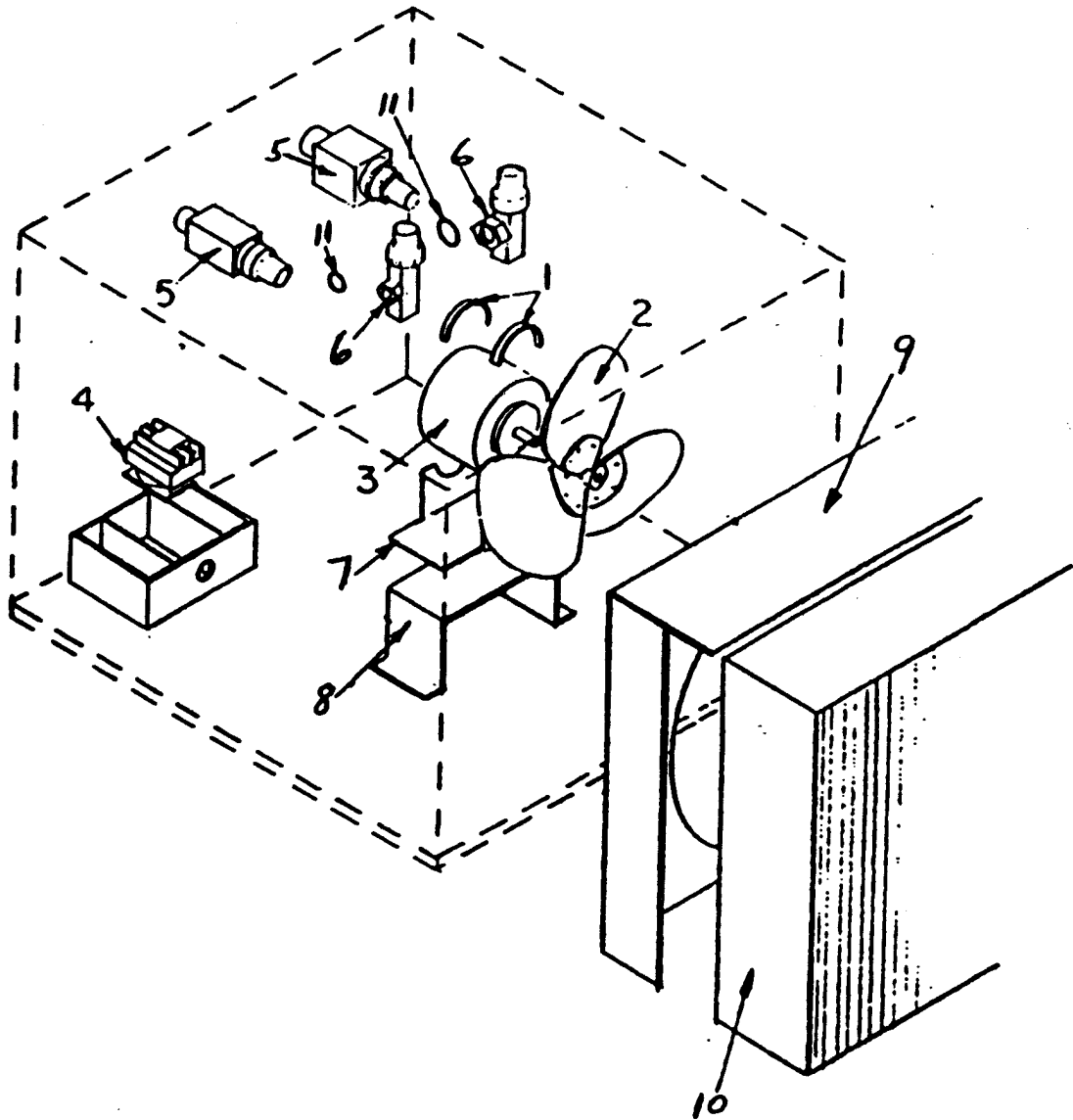
Top cover	27926	27926
Top cover, SS	27939	27939
Front panel	27927	27927
Front panel, SS	27940	27940
Right side panel	27919	27919
Right side panel, SS	27932	27932
Left side panel	27923	27923
Left side panel, SS	27936	27936
Left side panel, W-C	27953	27953
Left side panel, W-C, SS	27954	27954
Rear panel	35655	35655
Rear panel, SS	35656	35656

ILLUSTRATED PARTS BREAKDOWN SERIES 750  
1100





# REMOTE CONDENSER ILLUSTRATED PARTS BREAKDOWN



Illus.  
No.

Part no.

Description

1	35832	Clip, retainer
2	27183	Blade, condenser fan
3	27185	Motor, condenser fan
4	27181	Relay
5	27171	Line valve (male connection 5/8" tube)
6	27173	Line valve (female connection 5/8" tube)
7	28627	Bracket, fan motor mounting
8	27384	Bracket, mounting
9	27150	Shroud, condenser
10	35769	Condenser
11	27176	Seal, line valve for #27171

