

ELECTRO FREEZE®

Replacement Parts Manual with Illustrations

FREEDOM 360°
Series

**Soft Serve Twist Freezer
Models 30T-CMT and 88T-CMT**

184605-01

Replacement Parts Orders

You must have the serial number of your freezer when ordering parts — parts may differ with a particular serial number of the same model.

Parts are listed using terminology that best fits the function of the part. The illustrations in this section will help you to find the correct part number and description.

Place your parts order through your local authorized Electro Freeze Distributor.

Name: _____

Address: _____

Phone: _____

If you require any further assistance, contact H.C. Duke & Son, Inc., *Electro Freeze* as follows:



Phone: (309) 755-4553

FAX: (309) 755-9858

Table of Contents

ILLUSTRATIONS

Figure 1	Head Assembly	2
Figure 2	30T-CMT Beater Shaft Assembly	3
Figure 3	88T-CMT Beater Shaft Assembly	3
Figure 4	Cabinet Parts	4
Figure 5	MTS Hose Assembly	5
Figure 6	Mix Transfer System (MTS)	6
Figure 7	Gear Reducers	7
Figure 8	Panel Assembly	8
Figure 9	Switch Box	10
Figure 10	Switch Assemblies	11
Figure 11	Relay Box — MTS	11
Figure 12	Model 30T-CMT Assembly	12
Figure 13	Model 88T-CMT Assembly	14

OTHER LISTS and INFORMATION

Accessories	16
Air-cooled Remote Unit	17
O-ring Chart	18

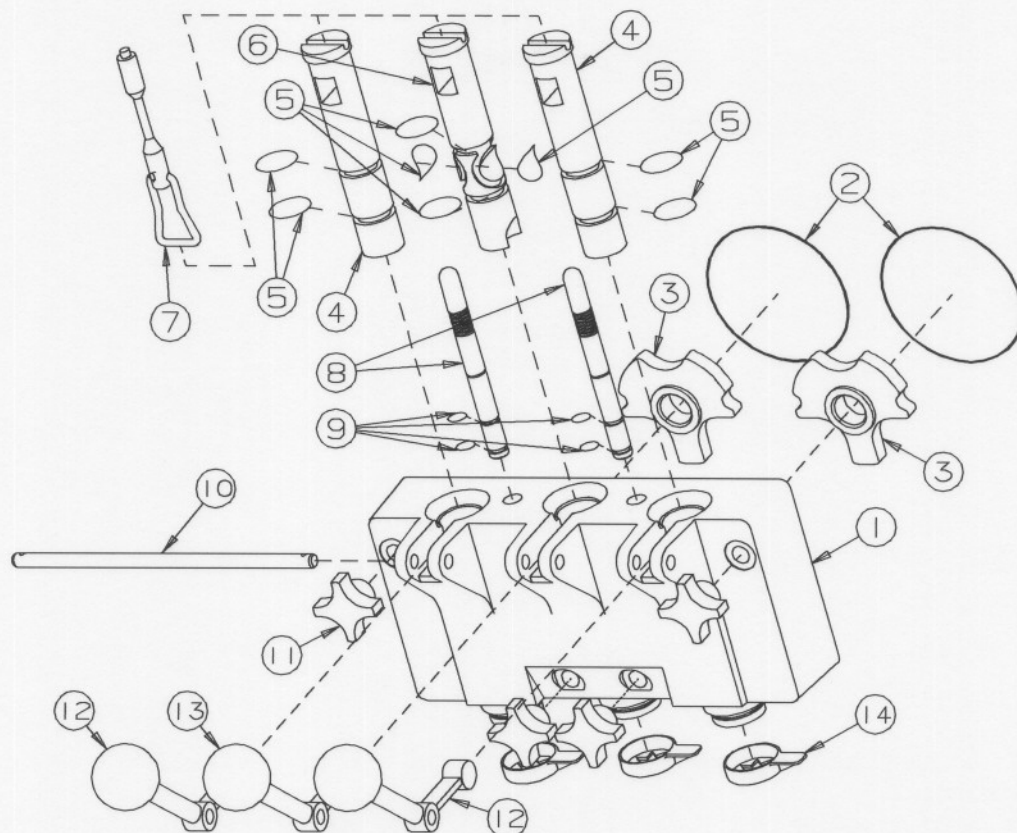
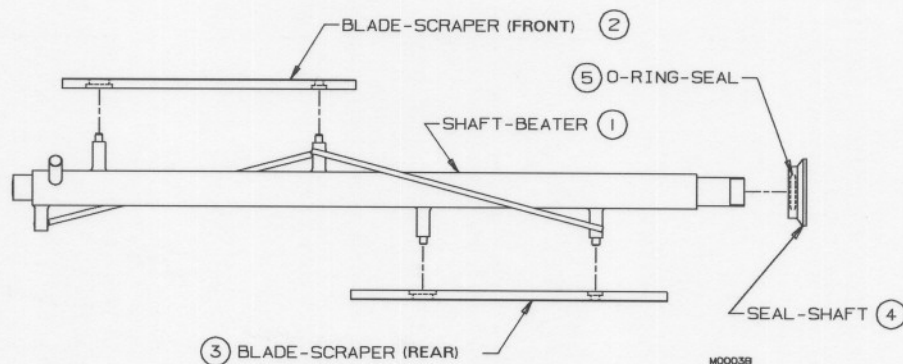
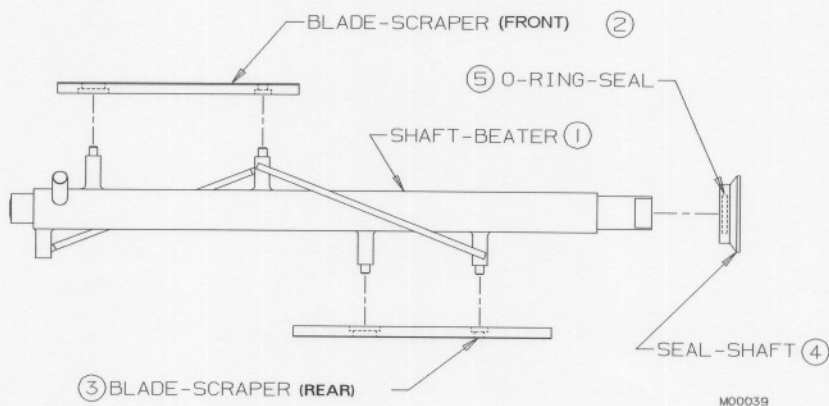


Figure 1 Head Assembly

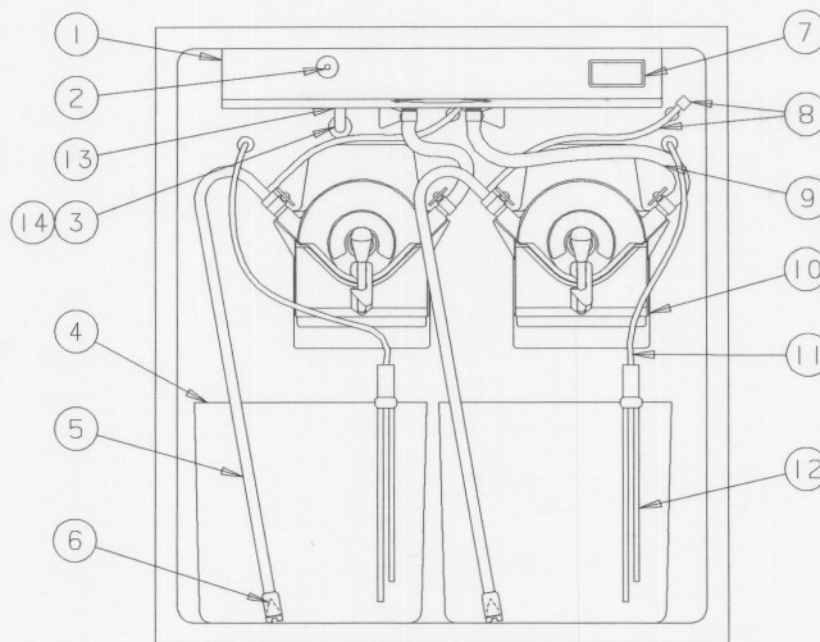
Item	Part No.	Description
*	116042	Head Assembly-Dispensing
1	116041	Head-Dispense
2	159309-01	O-Ring-Head
3	138427	Bushing-Head
4	137174	Plunger-Sides
5	160501	O-Ring
6	138009	Plunger-Center
7	116089	Rod-Plunger
8	138149	Plug-Air Relief
9	160610	O-Ring-Plug
10	160269	Pin-Handle
11	162625	Knob-Hand
12	110007	Handle Assembly-Side
13	114808	Handle Assembly-Center
	162629	Knob-Ball Handle
14	196185	Nozzle-Serrated
	114341-05	Stud Assembly-Cylinder (not shown)

Figure 2 30T-CMT Beater Shaft Assembly

Item	Part No.	Description
1	117079	Shaft-Beater
2	138830	Blade-Scraper Short
3	138831	Blade-Scraper Long
4	111875	Seal-Shaft (w/ O-ring)
4A	160557	Cup-Seal
4B	133098	Bushing-Seal
5	160500	O-ring-Seal

Figure 3 88T-CMT Beater Shaft Assembly

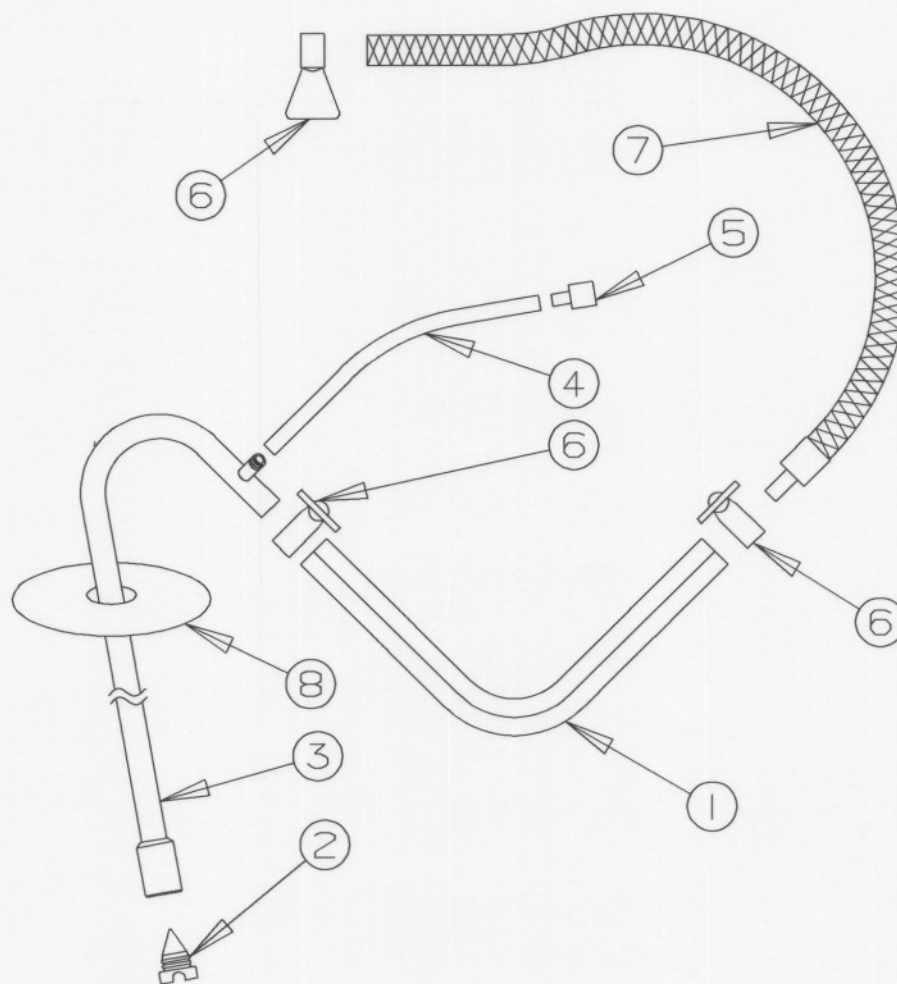
Item	Part No.	Description
1	117080	Shaft-Beater
2	138086	Blade-Scraper Short
3	138839	Blade-Scraper Long
4	111875	Seal-Shaft (w/ O-ring)
4A	160557	Cup-Seal
4B	133098	Bushing-Seal
5	160500	O-ring-Seal



M00053

Figure 4 Cabinet Parts

REF.	PART No.	DESCRIPTION
1	117129	Shroud Assembly
1A	155111	Coil
1B	151102	Motor-Cabinet Fan
1C	151076	Grill
2	150416	Switch-Door
2A	114630	Actuator-Door Switch
3	196068	3/8 ID x 1/2 OD Tubing
4	196092-01	Container-Mix 6 Gal.
4A	196092	Container-Mix 7.5 Gal
4B	113997	Cover Front Container
4C	138165	Cover Rear Container
4D	199033	Seal-Cover
5	116069	Tube Ass'y.-Pick up
5A	116065	Clamp
6	199032	Valve-Duckbill
7	161004	Thermometer-Cabinet
8	138170	Hose-Air
163423 to	163432	Meter-Air #9-31
9	116094	Hose Ass'y.-Braided
9A	138184	Hose-Transfer
9B	116065	Clamp
10		MTS (See Exploded View)
11	150537	Cordset-Mix Level Probe
11A	150536	Receptacle-Level Sensor
12	116439	Probe Ass'y. 6 gal
12A	115397	Probe Ass'y. 7.5 gal
12A	137120	Base-Probe Mounting
	164027	Decal-MTS Hook up
13	160738	Clamp-Drain Hose
14	138919	Tube-Drain Support

**Figure 5 MTS Hose Assembly**

Item	Part No.	Description
1	138184	Hose-Transfer
2	199032	Valve-Duckbill
3	116069	Tube Assembly-Pickup
4	138170	Hose-Air
5	163430	Meter-Air #17
6	116065	Clamp
7	116094	Hose Assembly-Braided
8	199033	Boot-Mix Tube

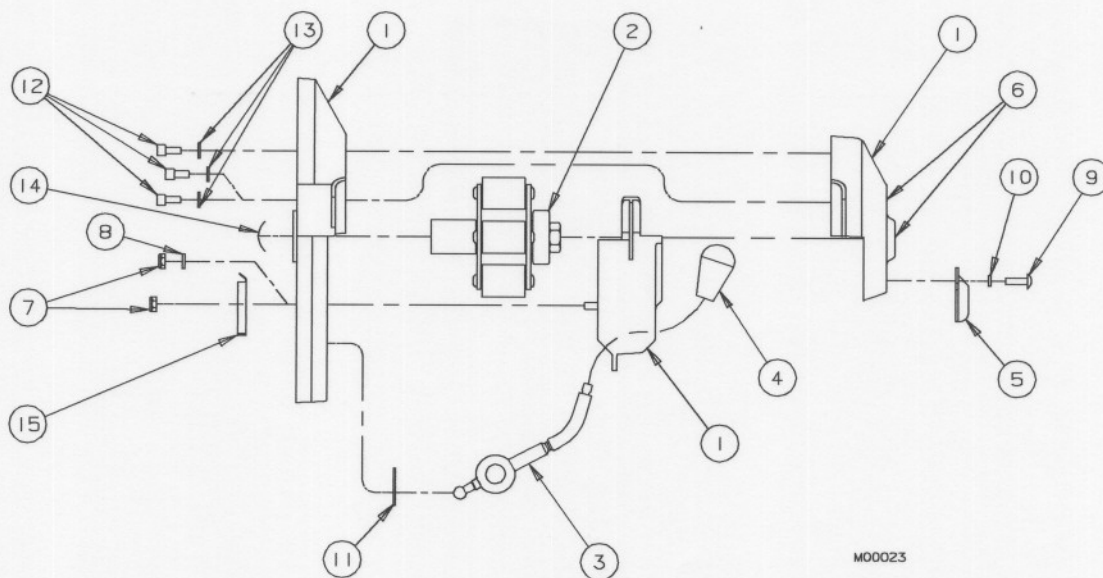
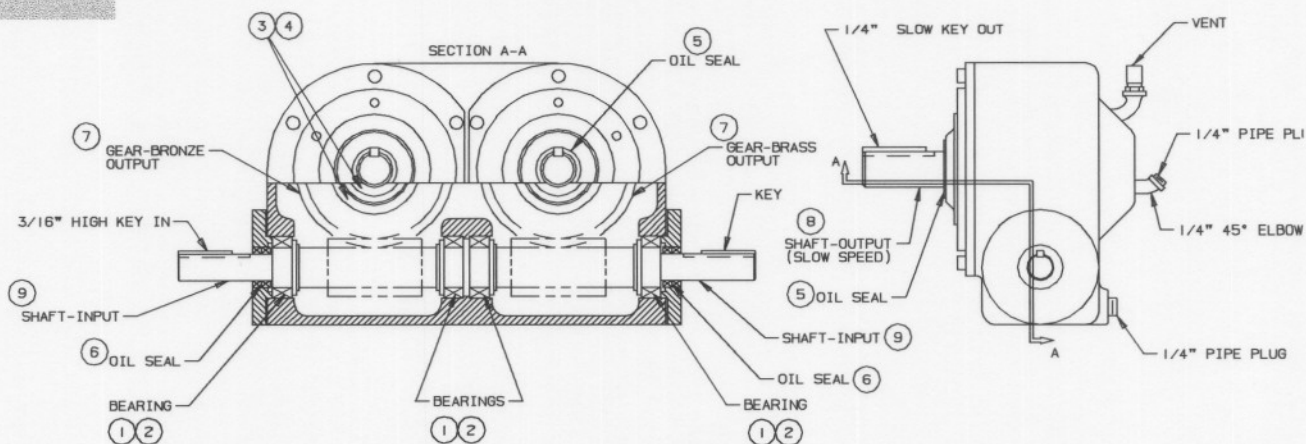


Figure 6 Mix Transfer System

Item	Part No.	Description
*	116012	MTS Assembly-Complete
1	117054	MTS Housing Assembly-w/o roller
2	116009	Roller Assembly-Complete
3	116164	Handle-MTS
4	162627	Knob-Handle MTS
5	138244-03	Lock-Swing MTS
6	165018	Decal-Pump Housing
7	159421	Nut-EL Stop #10-32
8	160157	Washer-Nylon
9	160026	Screw-Swing Lock #10-32 x 5/8
10	160158	Washer-Flat #10
11	138142	Plate-Pivot Cover
12	160307	Screw-SKHM #10-32 x 7/16 SST
13	159962	Washer-Flat #10 SST
14	160145	Washer-Curved Spring
15	117125	Actuator-Slide
	151129	Motor-MTS (not shown)
	138369	Bushing-Alignment (not shown)
	116312	Gauge-Pressure Test (not shown)
	160302	Switch-Slide (not shown)
	116411	Kit-Slide Switch (not shown)

Figure 7 Gear Reducers



(Order by freezer serial number)
Model — Wintwin
 (Used on 30T-CMT only)

153341 Wintwin 10 - 1 Ratio A and B Side

Ref	P/N	Description	
1	153014	Cup-High Speed	2 ea. req. per side
2	153015	Bearing-High Speed	2 ea. req. per side
3	153011	Cup-Slow Speed	2 ea. req. per side
4	153012	Bearing-Slow Speed	2 ea. req. per side
5	153051	Seal-Slow Speed	2 ea. req. per side
6	153053	Seal-High Speed	2 ea. req. per side
7	153349	Gear-Bronze	1 ea. req. per side
8	153350	Shaft-Slow Speed	1 ea. req. per side
	153000	Output-Shaft Assembly (Slow Speed)	
9	153348	Shaft-High Speed	1 ea. req. per side
10	114874	Gasket Set	1 ea. req. per side
11	111964	Coupling-Drive	
	158055	Oil-Gear Reducer 51001 Special Synthetic (Per Quart)	
	153322	Key-3/16" High (in)	
	153323	Key-1/4" Slow (out)	

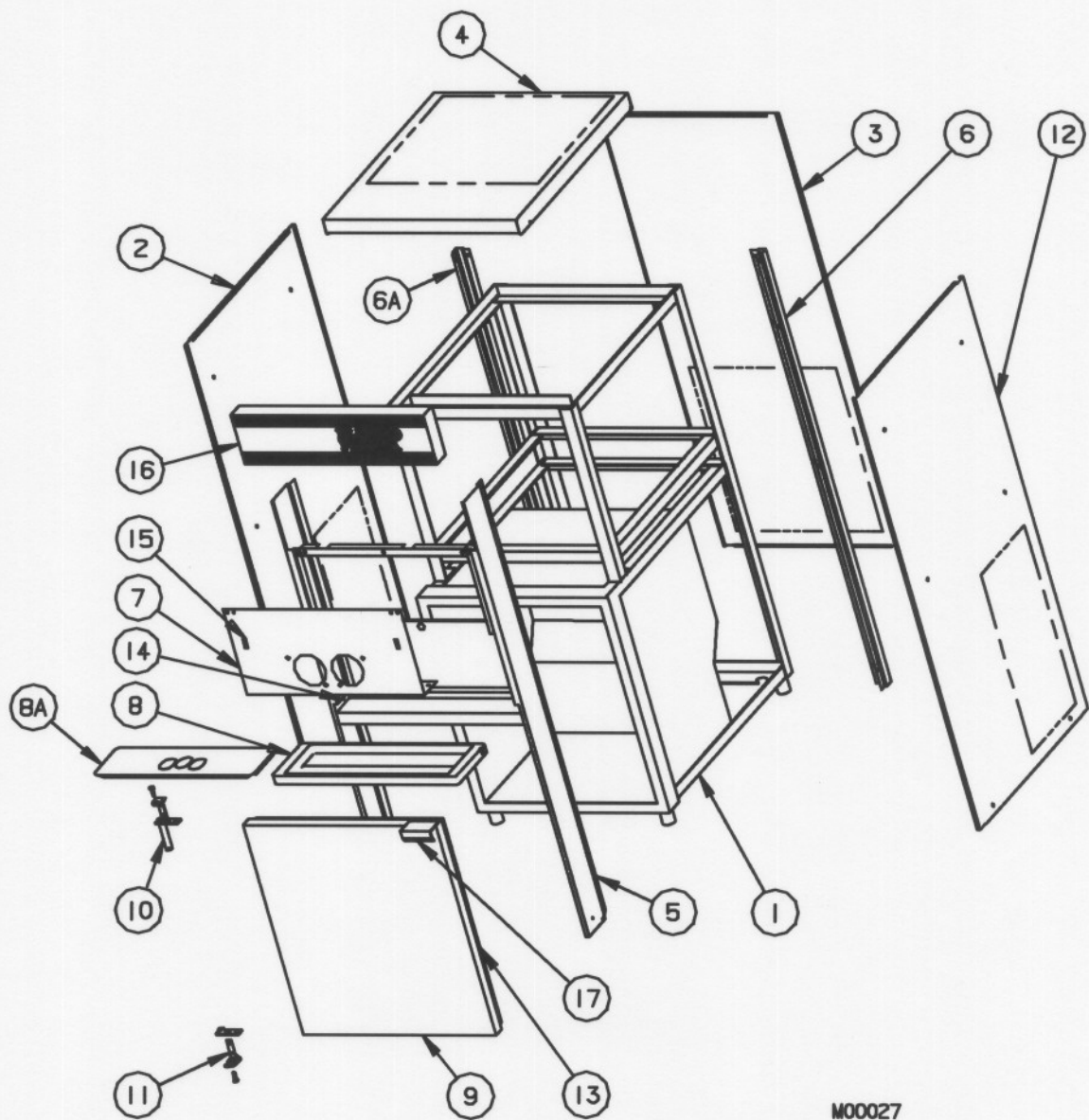
Model — HCD920
 (Used on 88T-CMT Only)

153353 5 - 1 Ratio A Side

153354 5 - 1 Ratio B Side

116537	Kit-Shaft Seals	1 ea. req.
111780	Coupling-Drive	
158055	Oil-Gear Reducer 51001 Special Synthetic (per quart)	

Figure 8 Panel Assembly — sheet 1 of 2



M00027

Figure 8 Panel Assembly — sheet 2 of 2

Item	Part No.	Description
1	116019	Frame Assembly
2	136289	Panel-Side LH
2A	159219	Screw-Side Panel
2B	160117	Nut-Speed Side Panel
3	136313	Panel-Rear
3A	160048	Screw-Rear Panel
4	116567	Panel-Top AC (30T-CMT)
4A	114428	Panel-Top WC (30T-CMT)
	116484	Panel-Top AC (R404A) (88T-CMT)
	115511	Panel-Top AC (R502) (88T-CMT)
	114428	Panel-Top WC (R404A, R502)
5	113985	Panel-Front Assembly
6	130021	Corner-Rear Channel RH
6A	135254	Corner-Rear Channel LH
7	137297	Panel-Dispensing
8	196108	Tray-Drip 26-inch
8A	115132	Insert-Drip Tray 26-inch
8B	199030	Bumper-Rubber Insert
9	114260	Door Assembly (w/hinges)
10	162045	Hinge-Upper
10A	162052	Spring-LH
11	162046	Hinge-Lower
11A	160026	Screw-Hinge
11B	160020	Bolt-Hinge
11C	160139	Washer-Hinge
11D	162108	Pin-Stop (screw in)
12	136216	Panel-Side RH
13	160563	Gasket-Door (V-Groove)
14	159174	Button-Drip Tray
14A	160293	Clip for Button
15	150540	Light-ADD MIX
16	115292	Trimstrip-Switch Box Cover w/EF Label
16A	165188-01	Decal-Electro Freeze Trimstrip
16B	164041	Label-Switches LH
16C	164042	Label-Switches RH
17	136199	Handle-Cabinet Door

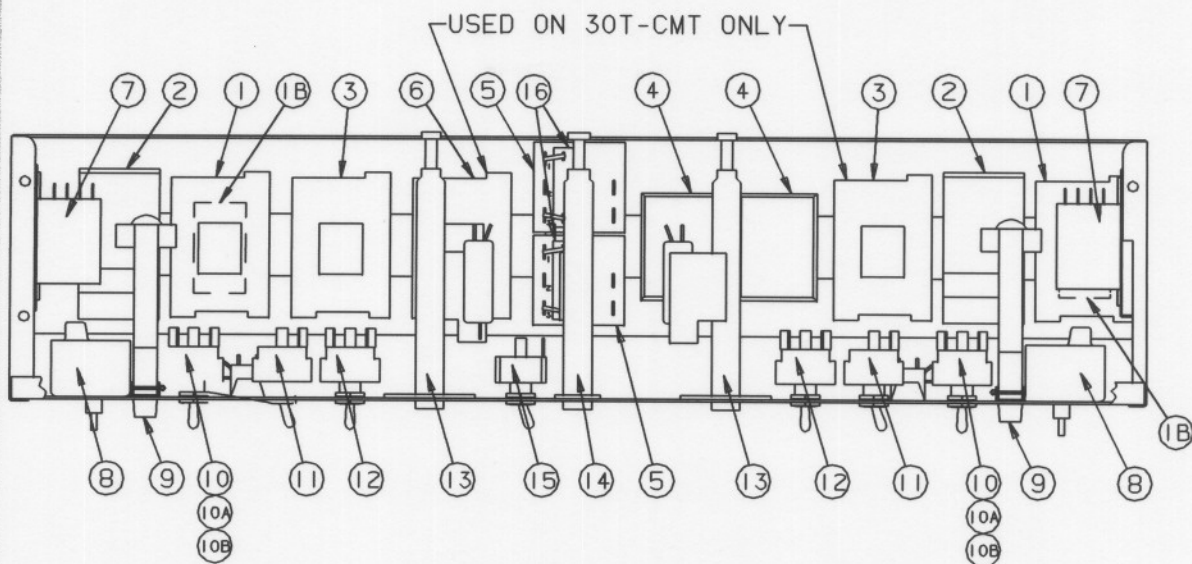
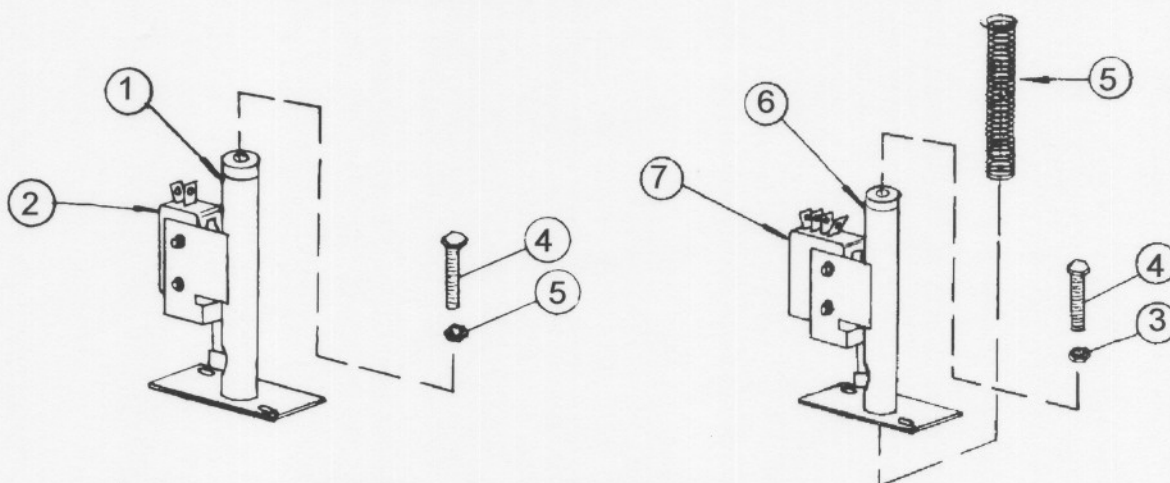


Figure 9 Switch Box

Item	Part No.	Description
1	150106	Contactor-Beater Motor
1A	150108	Coil-Contactor
1B	150103	Adder Deck (used on 88T-CMT only)
2		Overload (order by Freezer SN and Amps)
3	150106	Contactor-Compressor
3A	150108	Coil-Contactor
4*	150202	Indicator-Mix Level
4A	150540	Light-Indicator (not shown)
5	150208	Timer-Solid-State 12 Sec. Delay on Break
6	150106	Contactor-CAB (30T-CMT only)
6A	150108	Coil-Contactor
7	150381	Relay-Control
8	150215	Timer-5 Minute
8A	162604	Knob-Timer
9	115524	Lever Assembly-Reset
9A	159036	Button
10	150465	Switch-Selector (3 PDT) (30T-CMT only)
10A	150436	Switch-Selector (4 PDT) (88T-CMT only)
10B	116125	Filter Assembly
11	159235	Switch-DAY/NIGHT
12	150463	Switch-Mix Transfer System
13	114176	Switch Assembly-Plunger Sides
13A	150477	Switch-Plunger (sides)
14	114178	Switch Assembly-Plunger (center)
14A	150478	Switch-Plunger (center)
15	159235	CAB-Switch
16	116154	Resistor Assembly
17	116188	M.O.V. Assembly (not shown)

IMPORTANT: For all 50-Cycle Freezers Order by Freezer Serial Number

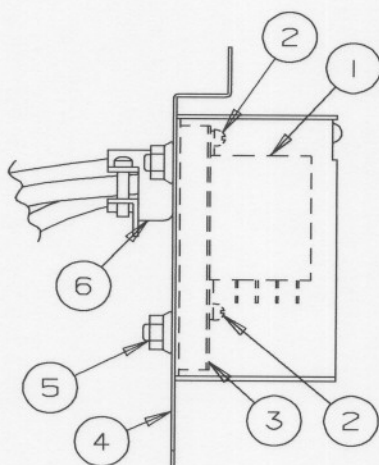
Figure 10 Switch Assemblies

Item	Part No.	Description
1	114176	Switch Assembly Plunger-Sides
2	150477	Switch Plunger-Sides
3	160104	Nut***
4	159965	Screw
5	159374	Spring***
6	114178	Switch Assembly Plunger-Center
7	150478	Switch-Plunger Center**

* Included in 114176 Plunger Switch Assembly

** Included in 114178 Plunger Switch Assembly

*** Included in both 114176 and 114178

Figure 11 Relay Box — MTS

Item	Part No.	Description
1	150381	Relay
2	160308	Screw #6-32
2A	160116	Nut #6-32
3	138159	Bracket
4	138169	Support-MTS
5	159950	Screw 1/4-20
5A	159951	Nut 1/4-20
6	150828	Connector 1/2

Figure 12 Model 30T-CMT Assembly (sheet 1 of 2)

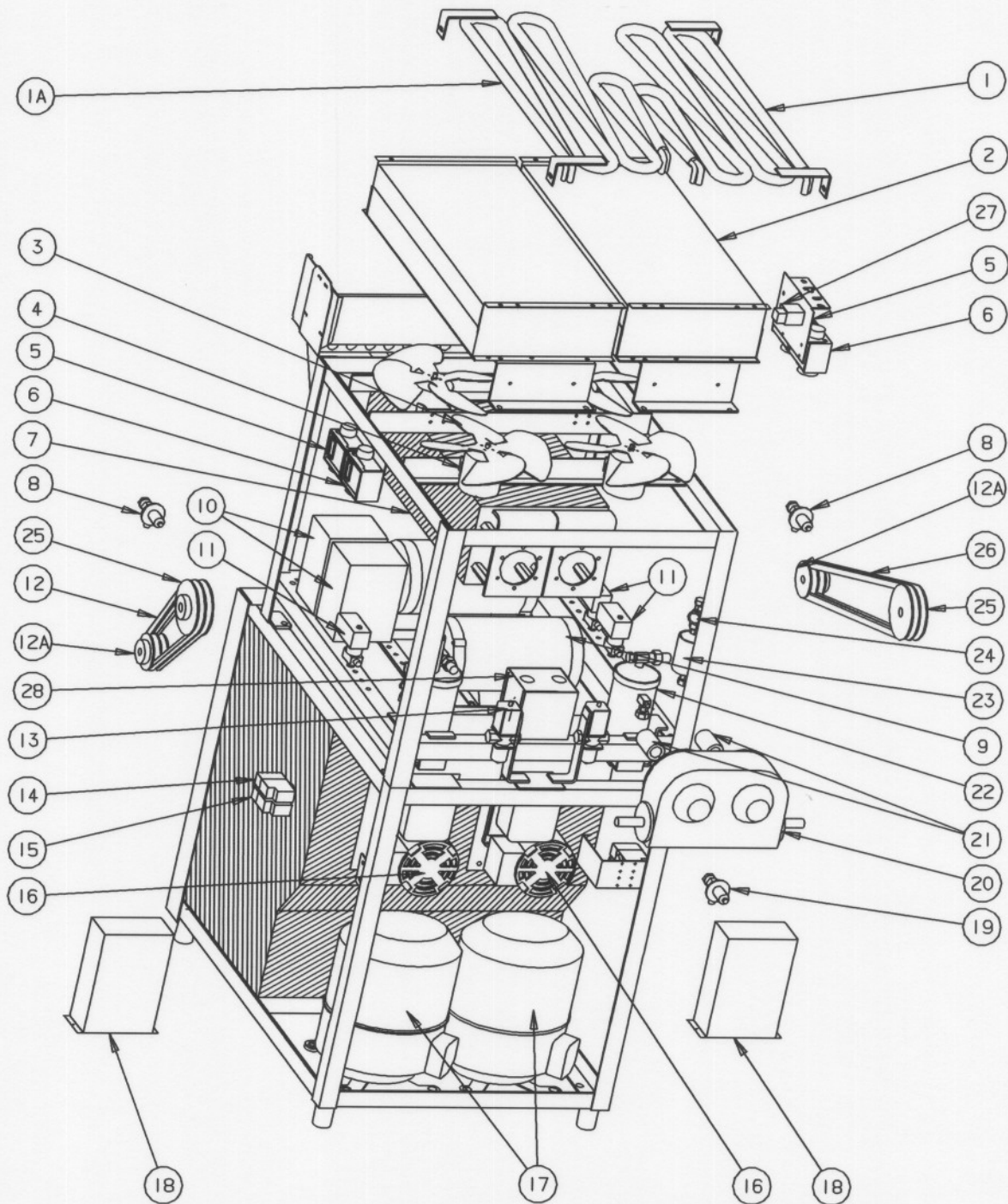


Figure 12 Model 30T-CMT Assembly (sheet 2 of 2)

Item	Part No.	Description
1	155039	Condenser-Water LH (A) Side
1A	155026	Condenser-Water RH (B) Side
2	155120	Condenser-Air
2A	116564	Bracket-Rear
2B	116565	Bracket-Front
2C	113989	Hanger Assembly
3	159023	Blade-Fan
4	151077-01	Motor-Fan
5	155442	Thermostat-Low Temp
6	155442	Thermostat-Medium Temp
7	116037	Cylinder Assembly
7A	116107	Kit-Pressure Switch
7B	116105	Nut Assembly-Pressure Switch
7C	161302-1	Switch-Head
7D	115004-01	Tube Assembly-Drain
8	155400	Valve-Automatic Expansion (Cylinder) (Flare)
	155448	Valve-Automatic Expansion (Cylinder) (Sweat)
9	151052	Motor-3 PH 208-230 Volt
9A	151075	Motor-1 PH 230 Volt (order by freezer SN)
10	150872	Capacitor-Start 1 PH only (order by freezer SN)
10A	150873	Capacitor-Run 1 PH only (order by freezer SN)
11	155422	Valve-Solenoid (Flare)
	155421	Valve-Solenoid (Sweat)
11A	155434	Kit-Repair Solenoid Valve
12	153161	Belt-RH (order by freezer SN)
12A	153625	Pulley-Driver (order by freezer SN)
13	155410	Valve-Water
13A	155444	Kit-Water Valve Repair
14	155425	Cut-Out-Pressure High (air and water cooled)
15	155403	Cut-Out-Pressure Low
16	151129	Motor-Mix Transfer
17	117018	Compressor-208-230/3/60
17A	116973	Compressor-230/1/60
18	151356	Capacitor Relay Assembly (Single Phase)
	150361	Capacitor-Start
	150362	Capacitor-Run
	150363	Relay
19	155416	Valve-Automatic Expansion (Cabinet) (Flare)
	155449	Valve-Automatic Expansion (Cabinet) (Sweat)
20	153341	Reducer (see figure 7 Gear Reducer)
21	111964	Coupling-Drive
22	155040	Receiver Assembly
23	155050	Drier (Flare) (R-404a)
	155051	Drier (Flare) (R-502)
	155054	Drier (Sweat) (R-502, R404A)
24	159203	Glass-Sight (Flare)
	155059	Glass-Sight (Sweat)
25	153626	Pulley-Driven (order by freezer SN)
26	153171	Belt LH (order by freezer SN)
27	155443	Thermostat-Cabinet
28	150202	Indicators-Mix Level

IMPORTANT: For all 50-cycle freezers order by freezer SN

Figure 13 Model 88T-CMT Assembly (sheet 1 of 2)

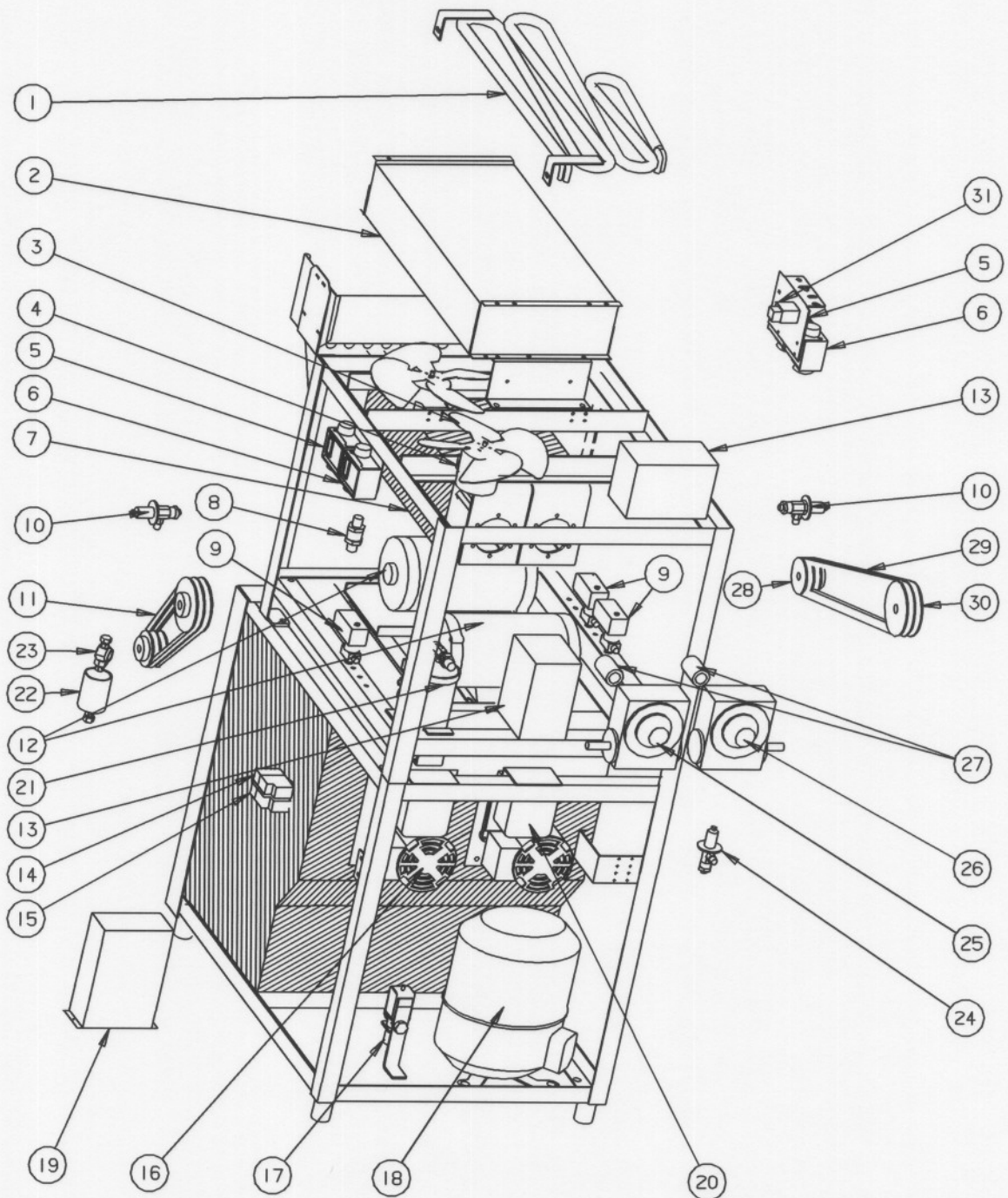


Figure 13 Model 88T-CMT Assembly (sheet 2 of 2)

Item	Part No.	Description
1	155026	Condenser-Water
2	155120	Condenser
2A	116564	Bracket-Rear
2B	116565	Bracket-Front
2C	113989	Hanger Assembly
3	159023	Blade-Fan
4	151077-01	Motor-Fan
5	155442	Thermostat-Low Temp
6	155442	Thermostat-Medium Temp
7	116034	Cylinder Assembly
7A	116107	Kit-Pressure Switch
7B	116105	Nut Assembly-Pressure Switch
7C	161302-1	Switch-Head
8	155418	Valve-Check Refrigeration 1/2 OD- Flare
	155409	Valve-Check Refrigeration - Sweat
9	155422	Valve-Solenoid (Flare)
	155421	Valve-Solenoid (Sweat)
10	155400	Valve-Automatic Expansion (Cylinder) (Flare)
	155448	Valve-Automatic Expansion (Cylinder) (Sweat)
11	153163	Belt-RH (order by freezer SN)
12	151052	Motor-3 Phase 208-230 Volt
12A	151075	Motor-1 Phase 230 Volt (order by freezer SN)
13	150872	Capacitors-Start 1 PH only (order by freezer SN)
13A	150873	Capacitors-Run 1 PH only (order by freezer SN)
14	155425	Cut-Out-Pressure High Air & Water Cooled
15	155403	Cut-Out-Pressure Low
16	151129	Motor-Mix Transfer
17	155410	Valve-Water
17A	155444	Kit-Water Valve Repair
18	117018	Compressor 208-230/3/60
18A	116973	Compressor 230/1/60
19	151356	Capacitor Relay Assembly (Single Phase)
19A	150361	Capacitor-Start
19B	150362	Capacitor-Run
19C	150363	Relay
20	150381	Relay-MTS
21	155040	Receiver Assembly (Flare)
	155057	Receiver Assembly (Sweat)
22	155050	Drier (Flare) (R404A)
	155051	Drier (Flare) (R502)
	155054	Drier (Sweat) (R404A, R502)
23	159203	Glass-Sight (Flare)
	155059	Glass-Sight (Sweat)
24	155416	Valve-Automatic Expansion (Cabinet) (Flare)
	155449	Valve-Automatic Expansion (Cabinet) (Sweat)
25	153354	Reducer-Gear RH Side (see figure 7)
26	153353	Reducer-Gear LH Side (see figure 7)
27	111780	Coupling-Drive
28	153611	Pulley-Driver (order by freezer SN)
28A	153322	Key
28B	160033	Set Screw
29	153167	Belt LH (order by freezer SN)
30	153602	Pulley-Driven (Order by freezer SN)
30A	153322	Key
30B	160033	Set Screw
31	155443	Thermostat-Cabinet

IMPORTANT: For All 50-cycle Freezers Order by Freezer Serial Number

Air-cooled Remote Unit - Mobile Unit

PART No.	DESCRIPTION
116981	Condensing unit - RM 2HP 1 ph
114157	Panel Assy - top
155603	Plug - Pipe 2/3 Blk sq. HD
162050	Hinge - 1-3/8 Pivot Top RH
162051	Hinge - 1-3/8 Pivot Bottom RH
136427	Strip - Splash
136428	Cap - Drip
136995	Bracket - Service Connection
139015	Diagram - Wiring Customer
139004	Diagram - Wiring
139005	Schematic - Wiring
150209	Timer - 4 Sec. DOM
150212	Timer - Delay on Make
150851	Resistor - 2 meg 1/4 w B side
150381	Relay - Flange Base w/ cover
115162	Bracket - Assy SS TDR DBL
150798	Strip - Terminal
114176	Switch - Assy Plunger SS
116447	Box - Assy Mix Level Indicator
155419	Valve - Access
138556	Panel - Side RH
196068	Tubing - .375 IDx .500 OD PVC

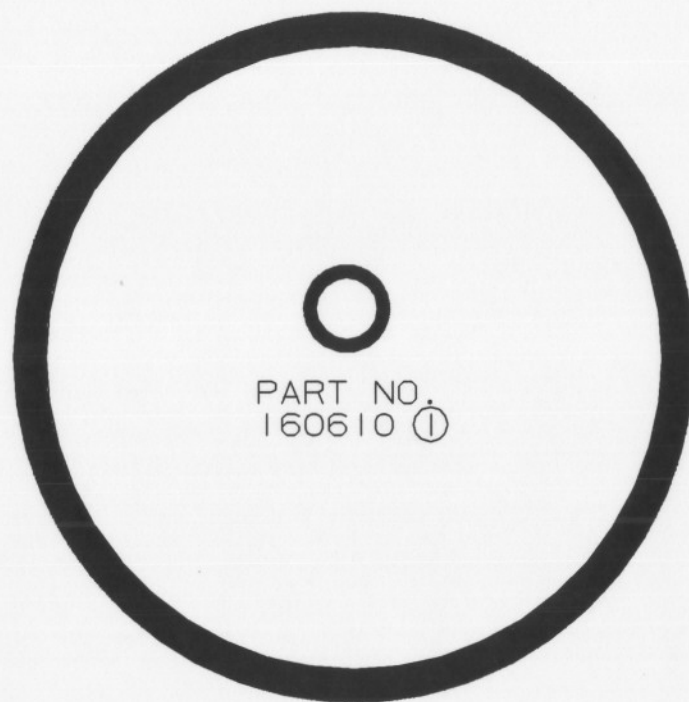
Accessories

PART No.	DESCRIPTION
196103	Bottle-Wash Plunger and MTS
158004	Brush-4-inch Cylinder
158018	Brush-7/16-inch Dia. w/12-inch Handle
158019	Brush-9/16-inch Dia. w/30-inch Handle
158022	Brush-1/4-inch Dia. w/6 1/2-inch Handle
162105	Caster with Brake
162106	Caster without Brake
184235	Chart-O-ring Laminated
158051	Cup-Overrun (use with P/N 158049 scale)
164027	Decal-CMT Connection
164031	Decal-Blade Installation
164043	Decal-MTS Operating Instructions
165018	Decal-Mix Transfer
165025	Decal-Beater Warning
165040	Decal-Pulley Removal
165119	Decal-6 inch Air Flow
165124	Decal-Top Air Discharge
165126	Decal-Panel Removal
165307	Decal-Cleaning Instructions
116071	Kit-CMT
116100	Kit-O-ring
112978	Leg-6-inch
158000	Lubricant-Petrol Gel (12 tube carton)
158000A	Lubricant-Petrol Gel (per tube)
158014	Sanitizer-Stera-Sheen (per case)
158014A	Sanitizer-Stera-Sheen (per jar)
158049	Scale-Overrun Z32
161000	Thermometer-Pocket 1-inch Dial
169374	Tool-O-Ring Removal
184805	Video-Mix Transfer System

184235

SOFT SERVE DISPENSING HEADS

REV D



PART NO.
160610 ①

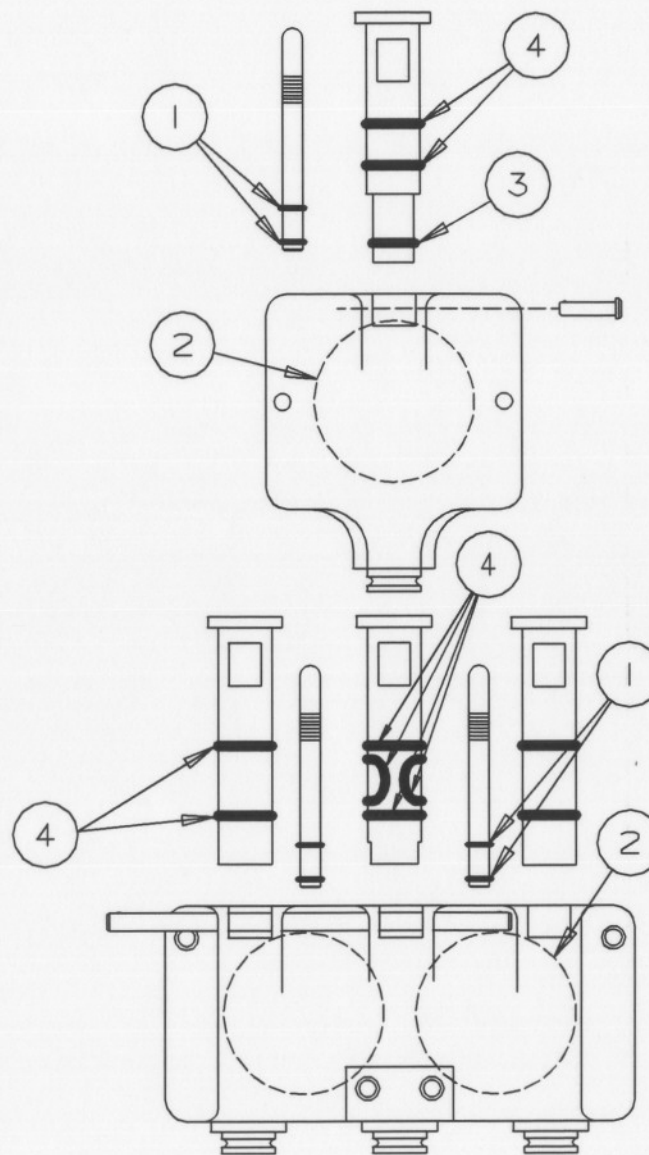
PART NO.
159309 ②



PART NO.
160582 ③



PART NO.
160501 ④



PH.NO. 309-755-4553 O-RING CHART H.C.DUKE & SON, INC.