
Liebert Deluxe System™ (DE)

Deluxe System Family



While every precaution has been taken to ensure accuracy and completeness in this manual, Vertiv Co. assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

© 2016 Vertiv Co. All rights reserved throughout the world. Specifications subject to change without notice.

® Vertiv and the Vertiv logo are the registered trademarks of the Vertiv Co.

Liebert Deluxe System™ (DE)	1
Deluxe System Family	1
1. Product Description	1
2. Model Number Definition	7
3. Blower/ Motor Section	8
3.1. Blower/Motor Assembly	8
3.1.1. Pulley	8
3.1.2. Bushing Pulley	8
3.1.3. Belt	9
3.1.4. Key Stock	9
3.2. Blower Assembly	9
3.2.1. Blower	9
3.2.2. Shaft	10
3.2.3. Bearing	10
3.2.4. Weldment Fan Deck	10
3.3. Motor Assembly	11
3.3.1. Sheave	11
3.3.2. Motors	11
3.3.2.1. 1.5HP	11
3.3.2.2. 2HP	12
3.3.2.3. 3HP	12
3.3.2.4. 5HP	12
3.3.2.5. 7.5HP	12
3.3.2.6. 10HP	12
3.4. Motor Base	13
4. Humidifier Section	14
4.1. Infrared	14
4.1.1. Humidifier Assembly	14
4.1.1.1. 2 Bulb	14
4.1.1.1.1. Pan Humidifier	15
4.1.1.1.2. Reflector	15
4.1.1.1.3. Standpipe Assembly	15
4.1.1.1.4. Solenoid Valve	16
4.1.1.1.5. Support Reflector	16
4.1.1.1.6. Cover End Block	16
4.1.1.1.7. Safety Switch	16
4.1.1.1.8. Lamp	17
4.1.1.1.9. Humidifier Socket Assembly	17
4.1.1.1.10. High Water Alarm	18
4.1.1.2. 3 Bulb	18
4.1.1.2.1. Lamp I/R	19
4.1.1.3. 4 Bulb	19
4.1.1.3.1. Reflector Double	20
4.1.1.3.2. Cover Block Middle	20
4.1.1.3.3. Lamp I/R	20
4.1.1.4. 6 Bulb	21
4.1.2. Adapter	21
4.1.3. Hose Drain	21
4.1.4. Adapter Nylon	21
4.1.5. Sensor Safety	22
4.1.6. Tee Barb	22
4.1.7. Hose	22
4.2. Steam Generating	22
4.2.1. Steam Generator Assembly	23
4.2.1.1. Boot Rubber	23
4.2.1.2. Kit Humidifier Tank	23

4.2.1.3.	Plate Humidifier Valve	24
4.2.1.3.1.	Power Block	24
4.2.1.3.2.	Transformer Torroid	24
4.2.1.3.3.	Fill Valve	24
4.2.1.3.4.	Drain Valve	25
4.2.1.3.5.	Plate Valve Harnessing	25
4.2.1.3.6.	Hose Fill	25
4.2.1.3.7.	Hose Drain	25
4.2.1.3.8.	Hose Overflow	25
4.2.1.3.9.	Cylinder Full Interface	26
4.2.1.4.	Sleeve Compression Brass	26
4.2.1.5.	Nut Compression Brass	26
4.2.2.	Hose	26
4.2.3.	Hose Drain	26
4.2.4.	FTG Cross	27
4.2.5.	Manifold	27
4.2.6.	Hose Steam	27
4.2.7.	Strainer	28
4.2.8.	Adapter Nylon	28
4.2.9.	Condensate Pump	28
4.2.10.	Bracket Condensate Pump	28
4.3.	Grid Steam	29
4.3.1.	Temperature Switch	29
4.3.2.	Strainer	29
4.3.3.	Steam Humidifier	30
4.3.4.	Drain Line Assembly	30
4.3.4.1.	Bracket Drain Fitting	30
4.3.4.2.	Drain Rubber	31
4.3.4.3.	Adapter Nylon	31
4.3.4.4.	Union Nylon	31
4.3.4.5.	Clamp Wire	31
4.3.4.6.	Hose	32
4.3.4.7.	Pump Condensate	32
4.3.4.8.	Clamp Hose Wormdrive	32
4.3.5.	Humidifier Manifold	32
4.4.	No Hum Drain	33
4.5.	Exterior Hum Relay	33
4.5.1.	WH Hum	34
4.5.2.	Relay	34
4.5.3.	PWA Smoke Detector	34
4.5.4.	Smoke Detector Control	35
4.5.4.1.	Smoke Detector Box	35
4.5.4.2.	Smoke Detector Cover	35
4.5.4.3.	Smoke Detector Base	36
4.5.4.4.	Smoke Detector Sensor	36
4.5.4.5.	WH Smoke Detector Base	36
4.5.5.	Tube Connector	36
4.5.6.	Tube Form	36
4.5.7.	WH LV S3 Smoke Det.	37
4.5.8.	WH LV S3 Analog	37
4.5.9.	Termblock Section	37
4.5.10.	Termblock End Barrier	37
4.6.	Condensate Pump	38
4.6.1.	Grommet Rubber	38
4.6.2.	Hose Drain	38
4.6.3.	Condensate Pump	38
5.	Reheat Section	40

5.1.	Reheat Assembly	40
5.1.1.	Safety Switch.....	40
5.1.2.	Heater	40
5.2.	Hot Gas Reheat.....	41
5.2.1.	Coil.....	41
5.2.2.	Solenoid Valve	41
5.2.3.	Check Valve.....	41
6.	Piping Section.....	42
6.1.	Water/Glycool Cooled	42
6.1.1.	Liquid Line Assembly.....	42
6.1.2.	Discharge Assembly #1/#2	43
6.1.2.1.	6/30T Carlyle.....	43
6.1.2.2.	8/10/15/20T Carlyle	44
6.1.2.3.	6/8/10T Copeland	45
6.1.3.	Suction Assembly #1	46
6.1.3.1.	6/8/10/15/20/30T Carlyle	46
6.1.3.2.	Comp Serv Valve	46
6.1.3.3.	Eliminator	47
6.1.3.4.	6/8/10T Copeland	47
6.1.3.4.1.	Comp Serv Valve	47
6.1.3.4.2.	Eliminator	48
6.1.4.	Suction Assembly #2	48
6.1.4.1.	6/8/10/15/20/30T Carlyle	48
6.1.4.1.1.	Comp Serv Valve	49
6.1.4.1.2.	Eliminator	49
6.1.4.2.	6/8/10T Copeland	50
6.1.4.3.	Comp Serv Valve	50
6.1.4.4.	Eliminator	50
6.1.5.	Bolts and Gaskets.....	51
6.1.5.1.	Carlyle.....	51
6.1.5.2.	Copeland.....	51
6.1.6.	Catch Piping.....	51
6.1.6.1.	Filter Drier.....	52
6.1.6.2.	Liquid Indicator.....	52
6.1.6.3.	Solenoid Valve	52
6.1.7.	3-Way Chilled Water	52
6.1.7.1.	Standard Pressure.....	52
6.1.7.2.	High Pressure	53
6.1.8.	Actuator Assembly.....	53
6.1.8.1.	Standard Pressure.....	53
6.1.8.2.	High Pressure	53
6.2.	Air Cooled	54
6.3.	Hot Gas Bypass.....	54
6.3.1.	Bypass Valve	54
6.3.2.	Solenoid Valve	54
6.3.3.	Auxiliary Connector.....	54
7.	Electrical Section	56
7.1.	Electrical Panel	56
7.1.1.	Advanced Microprocessor	56
7.1.1.1.	Switch Airflow Sensing.....	56
7.1.1.2.	Display ASM	56
7.1.1.3.	Switch Airflow Differential	57
7.1.1.4.	PWA ISO Transformer.....	57
7.1.1.5.	PWA SMT Temp	57
7.1.1.6.	PWA Universal Control	57
7.1.1.7.	Fuse Glass.....	58
7.1.1.8.	Sensor.....	58

7.1.1.9.	High Water Alarm	59
7.1.2.	Advanced Graphics	59
7.1.2.1.	Display ASM	60
7.1.2.2.	PWA Universal Control	60
7.1.2.3.	Cable Assembly.....	60
7.1.3.	Standard Microprocessor	61
7.1.4.	Cable Assembly	61
7.1.5.	Display Assembly.....	61
7.1.5.1.	PWA Display	62
7.1.5.2.	Bezel	62
7.1.6.	Switch Rocker	62
7.1.7.	Relay	62
7.1.8.	PWA Universal Control.....	63
7.1.9.	PWA Glycol System.....	63
7.2.	Back Panel	63
7.2.1.	Fuseblock	63
7.2.2.	Fuse Dual Element	64
7.2.3.	Transformer	64
7.2.4.	Power Block	64
7.3.	Compressor	65
7.3.1.	Contactactor	65
7.3.2.	Fuse Dual Element	65
7.3.3.	Fuseblock	66
7.3.4.	Relay	66
7.3.5.	Relay	67
7.4.	Condensate Pump	67
7.4.1.	Fuseblock	67
7.4.2.	Fuse Dual Element	68
7.5.	Humidifier	68
7.5.1.	Humidifier Infrared	68
7.5.1.1.	Contactactor	68
7.5.1.2.	Fuse Dual Element	68
7.5.1.3.	Fuseblock	69
7.5.2.	Steam Generating.....	69
7.5.2.1.	Contactactor	70
7.5.2.2.	Fuse Dual Element	70
7.5.2.3.	Fuseblock	70
7.5.2.4.	Relay	71
7.5.3.	Kit Humidifier Control Board.....	71
7.5.4.	SW Manual Drain.....	71
7.6.	Motor Section	71
7.6.1.	Contactactor	72
7.6.2.	Fuseblock	72
7.6.3.	Fuse Dual Element	72
7.6.4.	Overload Relay.....	73
7.6.5.	Heater.....	73
7.7.	Reheat Section.....	74
7.7.1.	1 Stage	74
7.7.1.1.	Fuse Dual Element	74
7.7.1.2.	Fuseblock	75
7.7.1.3.	Contactactor	75
7.7.2.	3 Stage	75
7.7.2.1.	Fuse Dual Element	76
7.7.2.2.	Fuseblock	76
7.7.2.3.	Contactactor	77
7.8.	Panel Disconnect	77
7.8.1.	General Electric	77

7.8.1.1.	Switch Disc	77
7.8.1.2.	Non Locking Bracket	79
7.8.1.3.	Switch Disc Locking	79
7.8.2.	Klockner-Moeller	80
7.8.2.1.	Collar Disc Locking	80
7.8.2.2.	Bracket Disconnect	80
7.8.2.3.	Switch Disconnect	81
8.	Compressor Section	82
8.1.	Pressure Switch	82
8.1.1.	Carlyle	82
8.1.1.1.	Press Switch Bracket	82
8.1.1.2.	Press Switch	82
8.1.1.3.	Low Pressure Switch	83
8.1.2.	Copeland	83
8.1.2.1.	Press Switch Bracket	83
8.2.	6 Ton Compressor	84
8.2.1.	Compressor	84
8.2.2.	Gasket Valve	84
8.2.2.1.	Carlyle	84
8.2.2.2.	Copeland	85
8.2.3.	Spring Retainer	85
8.2.4.	Spring Kit	85
8.2.5.	Crankcase Heater	86
8.3.	8 Ton Compressor	86
8.3.1.	Compressor	86
8.3.2.	Gasket Valve	87
8.3.2.1.	Carlyle	87
8.3.2.2.	Copeland	87
8.3.3.	Kit Spring	88
8.4.	10 Ton Compressor	88
8.4.1.	Compressor	88
8.4.2.	Compressor Spring	89
8.5.	15 Ton Compressor	89
8.5.1.	Compressor	89
8.5.2.	Spring Retainer	90
8.5.3.	Compressor Spring	90
8.5.4.	Crankcase Heater	90
8.6.	20 Ton Compressor	90
8.6.1.	Compressor	91
8.6.2.	Spring Retainer	91
8.6.3.	Compressor Spring	91
8.6.4.	Crankcase Heater	91
8.7.	30 Ton Compressor	92
8.7.1.	Compressor	92
8.7.2.	Spring Retainer	92
8.7.3.	Compressor Spring	93
8.7.4.	Crankcase Heater	93
8.8.	Unloader Replacement	93
9.	Coil Section	94
9.1.	DX Coil Assembly (6 - 30Ton)	94
9.1.1.	Coil	94
9.1.2.	Expansion Valve	94
9.2.	EconoCoil Assembly (6 - 30Ton)	95
9.2.1.	Econo Coil	95
10.	Condenser Section	96
10.1.	Header Condenser	96
10.1.1.	Two Way Condenser Header	96

10.1.1.1.	Water Regulating Valve	96
10.1.2.	Two Way with Bypass	96
10.1.2.1.	Valve Gate	97
10.1.3.	Three Way Condenser Header	97
10.1.3.1.	Water Regulating Valve	97
10.2.	Condenser Assembly	98
10.2.1.	Condenser	98
10.2.2.	Valve Relief	98
11.	Filter Section	99
11.1.	Filter	99
12.	Exterior Section	100
12.1.	Panels	100
12.1.1.	Exterior Panel FR-BTM RR-MDL/BTM	100
12.1.2.	Exterior Panel FR-MDL RR-TOP	100
12.1.3.	Exterior Panel LEFT-RIGHT-END	101
12.2.	30 Ton	101
12.2.1.	Exterior Panel FR-MDL RR-TOP	101
12.2.2.	Exterior Panel LEFT-RIGHT-END	102
12.2.3.	Exterior Panel FR-BTM RR-MDL/BTM	102
12.2.4.	Exterior Panel LEFT-REAR 120"	102
12.3.	Accent Panels	103
12.3.1.	Klockner Moeller	103
12.3.1.1.	Accent Panel	103
12.3.1.2.	Pull Bar Right/Left	104
12.3.1.3.	Plate Disc K/M	104
12.3.1.4.	Bezel	104
12.3.1.5.	Collar Locking	104
12.3.1.6.	Shaft Extension	105
12.3.2.	GE Locking	105
12.3.2.1.	Plate Locking Disc	105
12.3.2.2.	Accent Trim	105
12.3.3.	GE Non Locking	106
12.3.3.1.	Plate Non-Locking	106
12.3.4.	No Disconnect	106
13.	Miscellaneous Section	107
13.1.	Remote Temp	107
13.1.1.	Bushing Rubber	107
13.1.2.	Plastic Box	107
13.1.3.	Label	108
13.1.3.1.	PWA SMT Temp	108
13.1.4.	Surface Box Assembly	108
13.1.5.	WH Sensor	108
13.1.6.	WH Sensor	108
13.2.	Firestat	109
13.2.1.	Firestat	109
13.2.2.	WH Firestat	109
13.2.3.	Freestat	109
13.3.	Smoke Detector	110
13.3.1.	Vinyl Tubing	110
13.3.2.	Conduit Connector	110
13.3.3.	PWA Smoke Detector	110
13.3.4.	Smoke Detector Assembly	111
13.3.4.1.	Smoke Detector Box	111
13.3.4.2.	Smoke Detector Cover	111
13.3.4.3.	Smoke Detector Base	112
13.3.4.4.	Smoke Detector Sensor	112
13.3.4.5.	WH Smoke Detector Base	112

13.3.5.	Tube Connector	112
13.3.6.	Tube Form	112
13.4.	High Water Alarm	113
13.4.1.	Bracket Mounting	113
13.4.2.	SW Level Liquid	113
13.5.	Auto Restart.....	113
14.	Revision Page	114

1. Product Description

The Deluxe System/3 unit is available in an upflow or downflow configuration and is equipped with infrared humidifier, electric reheat, 4 in. (10 cm) 20% air filters and standard blower package, high voltage circuit protection, and the Advanced Microprocessor Control (AM) includes backlit 4 x 20 LCD for displaying all data and for operator interface to the control. Data that can be displayed through the menu-driven control includes temperature, humidity, percent operating capacity, component run hours, alarm history, and four optional analog readings. Other features included in the control are three selectable temperature control algorithms, two selectable humidity control algorithms, a maximum of 17 available alarms, output diagnostics, input diagnostics, microprocessor diagnostics, temperature anticipation, programmable infrared humidifier flush cycle, compressor short-cycle control, automatic compressor sequencing, sequential load activation, CW/HW/Econ-O-Coil flush cycles, sensor calibration, alarm management, and battery backed-up clock.

Air Cooled includes dual refrigeration system with standard fan speed control condenser with factory wired internal controls for 95°F (35°C) Ambient.

Water Cooled includes dual refrigeration system with water cooled condensers and two-way head pressure control valve.

Chilled Water includes chilled water piping and three-way modulating control valve and insulated piping. Models 422C and 529C not available with optional fan motor.

Glycol Cooled includes dual refrigeration system with glycol cooled condenser and two-way head pressure control valve with bypass. Outdoor equipment includes drycooler with factory wire internal controls, pump, and expansion tank for 95°F (35°C) Ambient.

Glycool (DE/VE) includes basic glycol cooled package plus the following: Additional multi-row Glycool coil with three-way valve, insulated piping, three-way water regulating valve, higher horsepower pump selection (if required), top or fan end removable filters only (on down flow units), increased fan motor size, comparator circuit for activation of Glycool operation.

NOTE: GLYCOOL CANNOT BE SOLD WITH THE FOLLOWING OPTIONS:

- 1) Steam Humidifier
- 2) Steam Reheat
- 3) Hot Water Reheat
- 4) 6 in. (15 cm) Filters with standard Econ-O-Coil 4 in. (10 cm) or 6 in. (15 cm) Filters with 6-row Econ-O-Coil
- 5) Shutdown Frame on DE models 6) No Controls

Upflow Glycool Units cannot be sold with the following additional options:

- 1) 6-row Econ-O-Coil
- 2) Hot Gas Reheat

4-Step System includes cylinder unloaders on each compressor plus special DX coil. It provides 4 steps of DX cooling. It is available on all System/3 units except Chilled Water and 6-ton DX. It is available with either Advanced Microprocessor, or Advanced Microprocessor with Graphics.

Optional Equipment Description

Some options or combinations of options may result in reduced air flow, consult factory for recommendations.

Steam Humidifier with upflow units requires the purchase of a plenum (22 ¾ in. (58 cm) minimum height).

VH/VE DX Models Front, rear, or bottom return must be specified. Bottom return available on Air Cooled models only. Top front or top rear supply must also be specified. Rear return units have a filter box that ships separately.

UH CW Models Front, rear, or bottom return must be specified. (Bottom return is not available on UH600C & UH740C).

Hot Water and Steam Reheat both include modulating valve and y-strainer. Prices shown include:

For Downflow units, complete steam/hot water reheat package PLUS on DX units an oversized fan motor.

For Upflow units, complete steam/hot water reheat package, 22 ¾ in. (58 cm) high plenum, and grille (deduct available for plenum with top duct connection). The Liebert Blower Performance Program must be used to determine fan motor size.

Hot Gas Reheat (Water Cooled, Glycol and Glycool models only). Not available on upflow models. Water Cooled models are equipped with one stage of electric reheat.

Disconnect Switch externally operated, non-fused. (Locking type or non-locking type).

Lock Module. This option locks on liqui-tector signal even if moisture is no longer present. To clear alarm you manually reset.

Liqui Tect Sensor furnished with 6 in. (15 cm) pigtails and all mounting hardware.

Remote Sensors. Temperature and Humidity Sensors in an attractive case with 30 ft. (9 m) , 60 ft. (18 m), 90 ft. (27 m), 120 ft. (36 m) or 150 ft. (45 m) cable.

Steam Generating Canister Humidifier includes replaceable canister, supply and drain valves, steam distributor and electronic controls. High water indicator is wired to Humidifier Problem Alarm on Advanced and Graphics Microprocessors.

Cut Down Frame height reduction of Downflow units from top:

Chilled Water = 15 in. (39 cm)

6 to 10 Ton = 14 1/2 in. (37 cm)

15 to 30 Ton = 11 1/4 in. (29 cm)

Cut Down Frame height reduction of Upflow DX units from bottom:

6 to 10 Ton = 11 in. (37 cm)

15 to 30 Ton = 15 in. (29 cm) On Water, Glycol & Glycool models, water and refrigerant lines must be cut in the field to obtain reduction. On UH 600C/740C height reduction of 20 in. (51 cm) from the top.

Two (2) Additional Remote Shutdown Terminals provide the customer with a total of three locations to remotely shut down the unit.

Two (2) Extra Common Alarm Contacts provide the customer with a total of 3 sets of n/o contacts for remote indication of unit alarms.

Remote Humidifier Contacts allow the unit's humidity controller to control a humidifier outside the unit. Power to operate the remote humidifier does not come from the Deluxe unit.

Reheat and Humidifier Lockout Relays allow the customer to disable the operation of reheats and humidifier from a remote location.

Main Fan Auxiliary Switch provides the unit with 1 n/o set of contacts to indicate that the motor/unit is running.

Flow Switch shall activate the warning system, should the chilled water supply be interrupted. The switch shall be factory-mounted and wired for Chilled Water units only. (Not available with two-way valve.) Rated for 150 psig (1034 kPa).

Condensate Pump must be shipped loose for all Water Cooled, Glycol Cooled units and GLYCOOL units and for bottom return Air Cooled and Chilled Water units. A Dual Float Condensate Pump is also available. It includes a common alarm, unit shutdown and 1 set of customer n/o contacts

Filter Packages.

NOTE: When using optional filters, an upsized fan motor is recommended (consult factory).

All filter packages are rated in accordance with ASHRAE 52.1. The standard filter package is 4 in. (10 cm)/20% efficient. Optional Packages are:

For Downflow DX Units

4 in. (10 cm)/30% efficient

4 in. (10 cm)/40-45% efficient

4 in. (10 cm)/60-65% efficient

6 in. (15 cm)/60-65% efficient

2 in. (5 cm)/ 20% efficient Pre-filters

All filters are mounted in the standard unit filter rack. When using the optional 60-65% or higher filters, an upsized fan motor should be used (consult factory).

For Upflow DX Units

4 in. (10 cm)/30% efficient

4 in. (10 cm)/40-45% efficient

4 in. (10 cm)/60-65% efficient

4 in. (10 cm)/80-85% efficient

4 in. (10 cm)/90-95% efficient

2 in. (5 cm)/ 20% efficient Pre-filters

For All CW Units

4 in. (10 cm)/30% efficient

4 in. (10 cm)/40-45% efficient

4 in. (10 cm)/60-65% efficient

4 in. (10 cm)/80-85% efficient*

4 in. (10 cm)/90-95% efficient*

* UH600C & UH740C only. Prices shown are list add for an optional package and list add for one extra set of filters. 2 in. Pre-filters on FH Chilled Water units require a 9 in. plenum.

Mode	FILTER AVAILABILITY			
	6 in. + 2 in.	6 in.	4 in. + 2 in.	4 in.
	Pre-Filter	Only	Pre-Filter	Only
FH/D	ALL (ECW)	ALL (ECW)	ALL (CWS)	ALL
H				
UHV	N/A	N/A	ALL (ECW)	ALL
H				
DE	N/A	N/A	N/A	E6RE
VE	N/A	N/A	ALL	ALL

ECW = Except Chilled Water
 CWS = Chilled Water – Special Plenum
 E6RE = Except 6-row Econ-O-Coil – 2 in. only.

The **Smoke Detector** senses the return air, shuts down the unit upon detection, and sends visual and audible alarm. Dry contacts are available for a remote customer alarm. This smoke detector is not intended to function as or replace any room smoke detection system that may be required by local or national codes.

Firestat senses return air temperature. Shuts down unit if temperature reaches the field adjustable set point.

Crankcase Heaters are installed in each compressor and are energized whenever the unit is powered but the compressor(s) is off.

Lee–Temp Air Cooled System includes an air cooled condenser with heated (150 watt), insulated receivers, pressure relief valves, three-way head pressure control valves, check valves and roto lock valves. Provides head pressure control to -30°F (-34.4°C).

300 Watt Heater Pads for Lee–Temp includes an additional 150 watt heater for each Lee–Temp receiver.

Two Way WRV with Bypass Valve includes a manually adjustable gate valve piped in parallel with WRV (standard on glycol units).

3 Way WRV replaces two-way WRV and is required when constant condenser water flow rate must be maintained (standard on glycol units).

High Pressure Water Cooled or Glycol Cooled System (300 psig / 2068.5 kPa) includes WRV and condenser to meet the listed pressure. Glycol units also include high pressure chilled glycol valve.

High Pressure Chilled Water System (400psig/2758kPa) includes high pressure valve. Standard coil is good for 400 psig (2758 kPa).

Balance Valve on chilled water units is mounted in bypass leg around chilled water coil. Manually adjustable. Rated for 400 psig (2758 kPa).

Export Pack. See Weights and Measures.

Floorstand available in heights between 9 in. (23 cm) through 24 in. (61 cm) in 3 in. (7.6 cm) increments (adj. ± 1.5 in./± 3.8 cm); Turning Vanes add to price of floorstand.

Turning Vanes are designed to drop into opening in floorstand. Can be installed to direct air to the front or rear of the unit.

Some options or combinations of options may result in reduced air flow, consult factory for recommendations.

Main Fan Overload Alarm includes an overload wired to control which activates an alarm on digital readout of monitor.

Compressor Overload Alarm includes an overload wired to control which activates an alarm on digital readout of monitor (price is per compressor).

Plenum painted to match dominant unit color; standard heights 20 in. (51 cm), 22 ¾ in. (58 cm), and 34 ¾ in. (88 cm), insulation on all four sides. The following standard configurations are available: Front or Rear Discharge with grille; Top Discharge with 1 in. (2.5 cm) flange.

Advanced Microprocessor Control (AG) w/Graphics includes all the features of the Advanced control except the 4 x 20 LCD which is replaced with a backlit 240 x 128 dot matrix graphics display. In addition, the AG includes a larger alarm history file, graphical plots of temperature, humidity, and the analog inputs, bar graph plots of component run history, and a graphical floor plan layout for water detection cable. The default screen is a graphical display of unit status, temperature, and humidity.

The OpenComms NIC (Network InterfaceCard) makes possible 10baseT Ethernet connectivity for monitoring the unit via SNMP by Network Management Systems (exp. HP OpenView) as well as serving up a web page. Consult Site Price Book for more information.

Environmental Discrete Outputs Card provides 16 discrete outputs, corresponding to status and major alarm conditions of the unit. Consult Site Price Book for more information.

Language Options. The AM & AG Controls are available with the following languages which must be selected at time of order:

AM	AG
English	English
Spanish	Spanish
Portuguese	Portuguese
French	French
	Chinese

Analog Input Wiring Kit includes the necessary wiring and terminals to field wire analog inputs to AM or AG control.

Air Cooled/Water Cooled Units with Econ-O-Coil include the basic air cooled/water cooled package plus the following:

- 1) Additional Glycool Coil with Three-Way Valve
- 2) Insulated Piping
- 3) Top or Fan End Removable Filters Only (On Downflow Units)
- 4) Increased Fan Motor Size

Available in Downflow version only.

On water cooled units, the piping for the Econ-O-Coil is separate from the piping for the water cooled condensers.

NOTE: On the Advanced Microprocessor controlled units the Econ-O-Coil will operate like a chilled water unit (i.e., modulating cooling and dehumidifying).

Upflow DX and UH600C/UH740C Blower/Motor Packages for Special Applications are made up from the following list of components:

15x11 blower(s) in lieu of the standard

15x15

12x9 blower(s) in lieu of the standard 15x15

200,000 hour bearings in lieu of the standard 100,000 hour bearings

Optional HP motors up to 20 hp*

Premium Efficiency Motors

Heavy Gauge (16ga) Panels which are recommended for high esp applications

The Liebert Blower Performance Program must be used to select the proper blower/motor combination for each application.

* 15x11 blowers are required with certain motor and frame combinations. Consult specific optional motor tables (blower price must be added to motor price).

Some options or combinations of options may result in reduced air flow, consult factory for recommendations.

70/30 Cu-Ni Econ-O-Coil, (Glycool & Dual-Cooling Source units, DE & VE) replaces the copper tube Econ-O-Coil. Consult factory for lead-time. Use SFA E9126 for DE units; SFA E7351 for VE units. **Note:** this option is required on open-tower systems

Variable Speed Drive (VSD) on Chilled Water units includes an inverter-driven blower system controlled in parallel with the chilled water valve. Note: This option is not available on FH600C and FH740C Units with Steam Generating Canister Humidifier.

Centrifugal Condensers include Lee-Temp Package and control box. Prices shown are list adds to indoor unit only price. (Consult factory for lead time.)

Centrifugal Drycoolers price shown includes drycooler, drycooler control box and three-way mixing valve. Prices shown are list adds to indoor unit only price and includes standard pump. (Consult factory for lead time.)

Series PB Condensers include Centrifugal fan and Lee-Temp package in the same cabinet design as the Deluxe System/3. Prices are in Heat Rejection Section.

Series PB Drycoolers include Centrifugal fan, pump, and expansion tank in the same cabinet design as the Deluxe System/3. Prices are in Heat Rejection Section.

SERIES PB OPTIONS

Adjustable Floor Stand available between 9 in. (23cm) and 24 in. (61 cm) in 3 in. (7.6 cm) increments, adjustable $\pm 1/2$ in. (± 3.8 cm).

Filter Section includes filter slides and 20% efficiency air filter.

Disconnect Switch externally operated, non-automatic.

Non-locking does not prevent access to high voltage panel (standard). **Locking** locks high voltage panel when voltage is on.

Optional Extended Protection Programs Domestic Only

Liebert offers Optional Extended Protection Programs for the Deluxe System/3. The **2nd Year Total Unit Coverage (Parts & Compressor)** program provides parts replacement on Liebert equipment as required in accordance with the policy statement provided which covers year two from date of start-up. The **4 Year Compressor Only Warranty program** is for an additional four years beyond the standard one year unit warranty. The **4-Year Total Unit Coverage (Parts & Compressor)** program provides parts replacement on Liebert equipment as required in accordance with the policy statement provided which covers years two through five from date of start-up. The **1st Year Labor and Standard Service** program provides labor coverage for the replacement of components as covered in our standard warranty statement. **Comprehensive 1st year Labor** includes all the features of 1st year labor described above, plus it also includes appropriate troubleshooting of the Liebert environmental unit during the first year of service, fine tuning of Liebert controls to match the customer load, and the labor assistance to repair Liebert or Liebert vendor caused problems. Start-up allowance must be sold with this optional labor warranty, a factory trained serviceman must do the start-up, start-up papers must be returned to Liebert ES&S, a Liebert USA contractor must provide the labor, and all labor must be pre-authorized by Liebert ES&S through the local sales office. The **Platinum Service** program combines the benefits of 1st Year Labor Coverage along with 4 Year Total Unit Coverage (Parts & Compressor). Note: This does not include the features of the Comprehensive 1st year labor option.

Alarm Indicator Reference Chart

ALARM INDICATOR REFERENCE CHART

	Visual & Audible
	Advanced & Graphics Unit
STANDARD ALARMS	
High Temperature	x
Low Temperature	x
High Humidity	x
Low Humidity	x
Humidifier Problem	x
High Head Pressure 1	x
High Head Pressure 2	x
Change Air Filters	x
Loss of Air Flow	x
Low Suction Pressure	x
Compressor Short Cycle	x
Loss of Power	x
Local Alarm	
OPTIONAL ALARMS	
Unit Alarms ¹	
Main Fan Overload	x
Compressor 1 Overload	x
Compressor 2 Overload	x
Customer Alarms ²	
Stand-by Glycol Pump ON ³	x
Water Under Floor ³	x
Smoke Detected ³	x
Loss of Water Flow ³	x
Stand-by Unit ON ³	x
(Special Message 1-20 spaces) ^{3,4}	x
(Special Message 2-20 spaces) ^{3,4}	x
(Special Message 3-20 spaces) ^{3,4}	x
(Special Message 4-20 spaces) ^{3,4}	x

1 See optional equipment pricing for list price add.

2 A maximum of four can be programmed.

3 Components required to activate alarms must be added to unit price.

4 AG version can have four special messages – AM can have two.

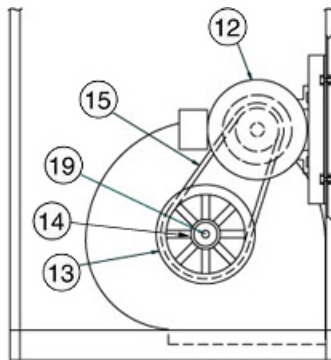
2. Model Number Definition

6 TON	8 TON	10 TON	15 TON	20 TON	30 TON
72G	110G	116G	192G	240G	383G
075A	114A	125A	199A	245A	380A
88W	127W	138W	219W	287W	412W

	240	G	-	A	A	E	I
DE= Downflow DX w/ Econ-o-coil	Nominal Capacity in Thousand BTU/H	A = Air Cooled W = Water Cooled G = Glycol Cooled	U = 4 Step DX H = DX with Hot Gas By Pass	A = 460/3/60 B = 575/3/60 C = 208/3/60 D = 230/3/60 w/ Graphics F = 380/3/50 G = 415/3/50 H = 230/3/50 J = 200/3/50 M = 380/415/3/50	A = Advanced Microprocessor G = Advanced Microprocessor	0 = No Reheat E = Electric Reheat H = Hot Water Reheat G = Hot Gas Reheat T = Steam Reheat	0 = No Humidifier I = Infrared Humidifier G = Steam Grid Humidifier S = Steam Generating Humidifier

3. Blower/ Motor Section

3.1. Blower/Motor Assembly



DOWNFLOW
FAN MOTOR GROUP

- 12. Motor Assembly
- 13. Pulley
- 14. Bushing Pulley
- 15. Belt
- 19. Key Stock

3.1.1. Pulley



Part Number	Description	6T	8T	10T	15T	20T	30T
B-0540	PULLEY 2BK80H	1	1	1			
B-0700	PULLEY 2BK110H				1		
B-0530	PULLEY 2BK100H					1	
B02-0050	PULLEY 2BK90H					1*	1

*Used on a 20Ton unit with a 10Hp fan motor.

3.1.2. Bushing Pulley



Part Number	Description	HP	Bearings	6T	8T	10T	15T	20T	30T
B-0080	BUSHING PULLEY H 1" DIA	1/3	STD	1	1	1			
B-1160	BUSHING PULLEY H 1-3/16"DIA	1/3	200K	1	1	1			
B-1160	BUSHING PULLEY H 1-3/16"DIA	5/7.5	STD				1	1	
1A23547P1	BUSHING PULLEY HX1 7/16 D	5/7.5	200K				1	1	
1A23547P1	BUSHING PULLEY HX1 7/16 D	10.0	STD/200K					1	1

3.1.3. Belt



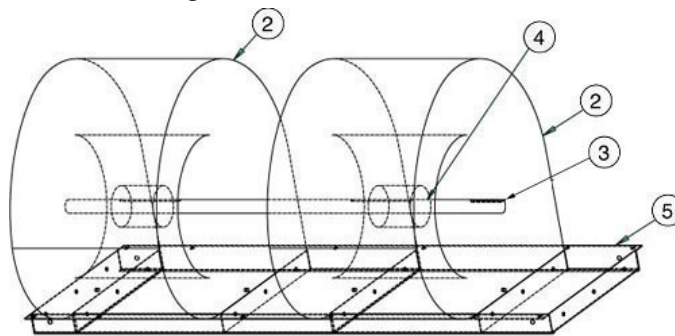
Part Number	Description	HP	6T	8T	10T	15T	20T	30T
B-060A	BELT B-40	1//7.5	2					
B-1680	BELT B-44	5.0				2		
B-0550	BELT B-42	1//10		2	2		2	2

3.1.4. Key Stock



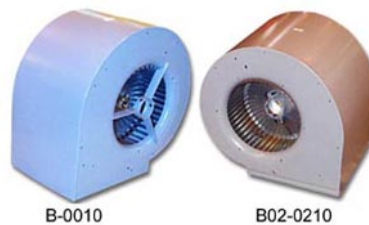
Part Number	Description	HP	6T	8T	10T	15T	20T	30T
B-0650	KEY STOCK 1/4X 1-5/16	ALL	1	1	1			

3.2. Blower Assembly



- 2. Blower
- 3. Shaft
- 4. Bearing
- 5. Weldment Fan Deck

3.2.1. Blower



Part Number	Description	HP	Bearings	6T	8T	10T	15T	20T	30T
B-0010	BLOWER W/H A12-09Ax1.00	1.5//3	STD	2	2	2			
1A30285P1	BLOWER W/H A12-09Ax1.19	1.5//3	200K	2	2	2			
B-1170	BLOWER W/H A15-15Ax2.25	5//7.5	STD				2	2	
B02-0210	BLOWER W/H A15-15Ax3.00	10.0	STD					2	3
B02-0210	BLOWER W/H A15-15Ax3.00	10.0	200K				2	2	3

3.2.2. Shaft



Part Number	Description	HP	Bearings	6T	8T	10T	15T	20T	30T
B-0020	SHAFT	1.5//3	STD	1	1	1			
1C30283P1	SHAFT	1.5//3	200K	1	1	1			
B-1140	SHAFT TUBULAR FAN	5/7.5	STD				1	1	
B02-0200	SHAFT TUBULAR FAN	5/7.5	200K				1	1	
B02-0200	SHAFT TUBULAR FAN	10	STD					1	
B02-0200	SHAFT TUBULAR FAN	10	200K					1	
125425P1	SHAFT BLOWER 30T AWG	10	STD						1
125425P1	SHAFT BLOWER 30T AWG	10	200K						1

3.2.3. Bearing



Part Number	Description	HP	Bearings	6T	8T	10T	15T	20T	30T
B-0040	BEARING	1.5//3	STD	3	3	3			
B-064A	BEARING PILLOW BLK CI 1-3/16	1.5//3	200K	2	2	2			
B-064A	BEARING PILLOW BLK CI 1-3/16	5/7.5	STD				2	2	
B05-0200	BEARING PILLOW BLOCK	5/7.5	200K				2	2	
B05-0200	BEARING PILLOW BLOCK	10	STD					2	2
1A30499P1	BEARING PILLOW BLOCK W/FTG	10	200K				2	2	2

3.2.4. Weldment Fan Deck



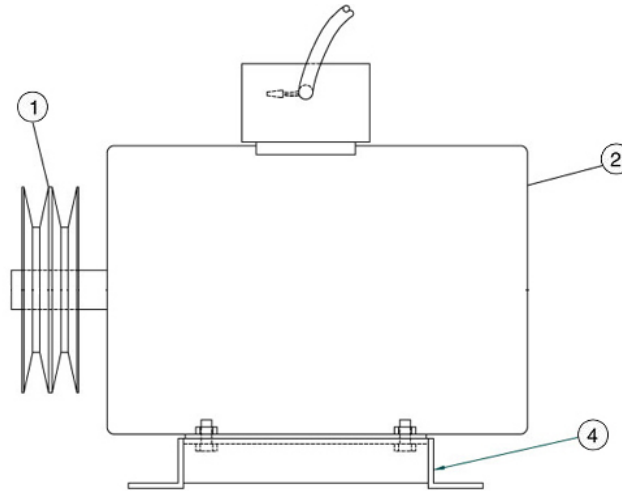
Part Number	Description	HP	Bearings	6T	8T	10T	15T	20T	30T
F-008A	WELDMENT FAN DECK 2-12X9 FANS	1.5//3	STD	1	1	1			
1D32256G1	WELDMENT FAN DECK 2-12X9 FANS	1.5//3	200K	1	1	1			
F-009D	WELDMENT FAN DECK 2-15X15	5/7.5	STD				1	1	

Part Number	Description	HP	Bearings	6T	8T	10T	15T	20T	30T
FANS									
F02-9600	WELDMENT FAN DECK W/ 10Hp D	5/7.5	200K				1	1	
F02-9600	WELDMENT FAN DECK W/ 10Hp D	10	STD					1	
125426G1	WELDMENT FAN DECK 30T AWG	10	Both						1
*F02-9000	SPACER FAN WELDMENT	ALL	Both				1	1	
**F02-8990	SPACER FAN WELDMENT	ALL	Both				2	2	

*Used with F-009D Fan Weldment.

**Used with F02-9600 Fan Weldment.

3.3. Motor Assembly



1. Sheave 4. Motor Base
2. Motors

3.3.1. Sheave



Part Number	Description	HP	6T	8T	10T	15T	20T	30T
B-005B	SHEAVE 2VP42x7/8	1/2	1	1				
B-069A	SHEAVE 2VP60x1-3/8	3/5			1	1		
B-069B	SHEAVE 2VP60x1-1/8	7.5/10					1	1

3.3.2. Motors



3.3.2.1. 1.5HP

Part Number	Description	HP	6T	8T	10T	15T	20T	30T
B-019A	MOTOR 1.5HP 208/230/460-3-60	1.5 Hp	1					
B-020A	MOTOR 1.5HP 575-3-60	1.5 Hp	1					
B-1740	MOTOR 1.5HP 200/208 E+ OPD	1.5 Hp	1					
B-1750	MOTOR 1.5HP 230/460 E+ OPD	1.5 Hp	1					

Part Number	Description	HP	6T	8T	10T	15T	20T	30T
160629P1	MOTOR 1.5HP 208-3-60 PE	1.5 Hp	1					
160630P1	MOTOR 1.5HP 230/460-3-60 PE	1.5 Hp	1					
160631P1	MOTOR 1.5HP 575-3-60 PE	1.5 Hp	1					

3.3.2.2. 2HP

Part Number	Description	HP	6T	8T	10T	15T	20T	30T
B-022A	MOTOR 2.0HP 208/230/460-3-60	2 Hp		1				
B-023A	MOTOR 2.0HP 575-3-60	2 Hp		1				
B-1770	MOTOR 2.0HP 230/460-3-60	2 Hp		1				
B-1760	MOTOR 2.0HP 200/208-3-60 E+	2 Hp		1				
160632P1	MOTOR 2.0HP 208-3-60 PE	2 Hp		1				
160633P1	MOTOR 2.0HP 230/460-3-60 PE	2 Hp		1				
160634P1	MOTOR 2.0HP 575-3-60 PE	2 Hp		1				

3.3.2.3. 3HP

Part Number	Description	HP	6T	8T	10T	15T	20T	30T
B-025A	MOTOR 3.0HP 208/230/460-3-60	3 Hp			1			
B-026A	MOTOR 3.0HP 575-3-60	3 Hp			1			
B-1780	MOTOR 3.0HP 200/208-3-60	3 Hp			1			
B-1790	MOTOR 3.0HP 230/460-3-60	3 Hp			1			
160635P1	MOTOR 3.0HP 575-3-60 PE	3 Hp			1			
1A30349P1	MOTOR 3.0HP 230/460-3-60 PE	3 Hp			1			
1A30349P2	MOTOR 3.0HP 208-3-60 PE	3 Hp			1			

3.3.2.4. 5HP

Part Number	Description	HP	6T	8T	10T	15T	20T	30T
B-1810	MOTOR 5.0HP 208-230/460-3-60	5 Hp				1		
B-028A	MOTOR 5.0HP 208/230/460-3-60	5 Hp				1		
1C30169P1	MOTOR 5.0HP 230/460-3-60	5 Hp				1		
B-029A	MOTOR 5.0HP 575-3-60	5 Hp				1		
1C30169P2	MOTOR 5.0HP 208-3-60 PE	5 Hp				1		
160636P1	MOTOR 5.0HP 575-3-60 PE	5 Hp				1		

3.3.2.5. 7.5HP

Part Number	Description	HP	6T	8T	10T	15T	20T	30T
B-1830	MOTOR 7.5HP 208-230/460-3-60	7.5 Hp					1	
B-035A	MOTOR 7.5HP 208/230/460-3-60	7.5 Hp					1	
1A22733P1	MOTOR 7.5HP 230/460-3-60	7.5 Hp					1	
B-034A	MOTOR 7.5HP 575-3-60	7.5 Hp					1	
1A22733P2	MOTOR 7.5HP 208-3-60 PE	7.5 Hp					1	
160995P1	MOTOR 7.5HP 575-3-60 PE	7.5 Hp					1	

3.3.2.6. 10HP

Part Number	Description	HP	6T	8T	10T	15T	20T	30T
140997P1	MOTOR 10.0HP 208/230/460	10 Hp					1	1
1A22735P1	MOTOR 10.0HP 230/460-3-60	10 Hp					1	1
140998P1	MOTOR 10.0HP 575-3-60	10 Hp					1	1
1A22735P2	MOTOR 10.0HP 208-3-60 PE	10 Hp					1	1
160285P1	MOTOR 10.0HP 575-3-60 PE	10 Hp					1	1

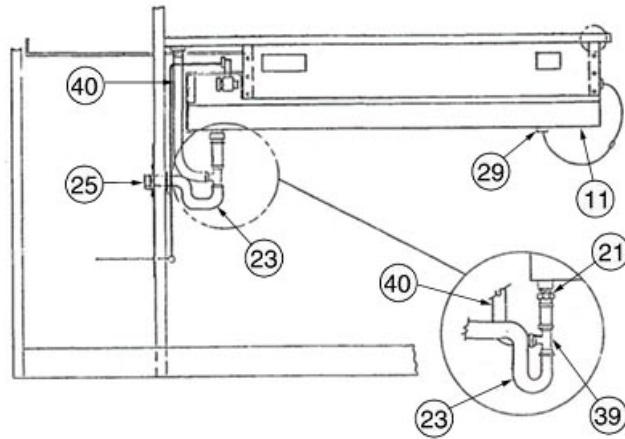
3.4. Motor Base



Part Number	Description	HP	6T	8T	10T	15T	20T	30T
B-0320	MOTOR BASE ADJUSTABLE 145-T	1//2	1	1				
B-0330	MOTOR BASE ADJUSTABLE 182-T	3			1			
B-0430	MOTOR BASE ADJUSTABLE 184-T	5				1		
B-0440	MOTOR BASE ADJUSTABLE 213-T	7.5					1	
B05-014E	MOTOR BASE ADJUSTABLE 215-T	10					1	1

4. Humidifier Section

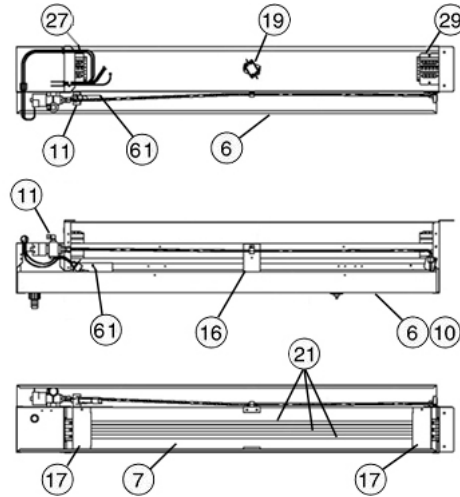
4.1. Infrared



- | | |
|-------------------------|-------------------|
| 11. Humidifier Assembly | 29. Sensor Safety |
| 21. Adapter | 39. Tee Barb |
| 23. Hose Drain | 40. Hose |
| 25. Adapter Nylon | |

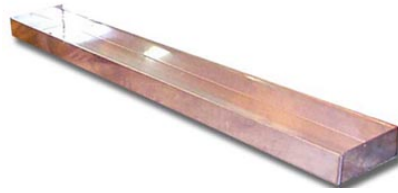
4.1.1. Humidifier Assembly

4.1.1.1. 2 Bulb



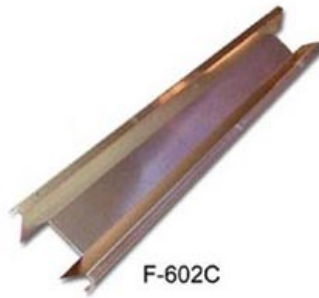
- | | |
|---------------------------------|--------------------------------|
| 6. Pan Humidifier | 19. Safety Switch |
| 7. Reflector | 21. Lamp I/R |
| 10. Standpipe Assembly | 27. Humidifier Socket Assembly |
| 11. Solenoid Autoflush Assembly | 29. Humidifier Socket Assembly |
| 16. Support Reflector | 61. High Water Alarm |
| 17. Cover End Block | |

4.1.1.1.1. Pan Humidifier



Part Number	Description	6/8/10/15T	20/30T
160158G1	PAN HUMIDIFIER (LONG)	1	1

4.1.1.1.2. Reflector



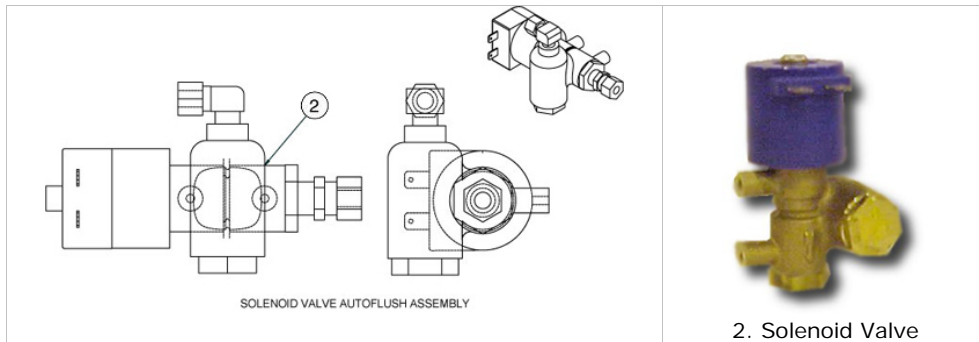
Part Number	Description	6/8/10/15T				20/30T			
		208	230	460	575	208	230	460	575
F-602C	REFLECTOR 575 V DOUBLE		1	1					

4.1.1.1.3. Standpipe Assembly



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1C18003G2	STANDPIPE ASSY WITH NUT	ALL	1	1	1	1
1C18003G3	STANDPIPE ASSY W/O NUT	ALL	1	1	1	1

4.1.1.1.4. Solenoid Valve



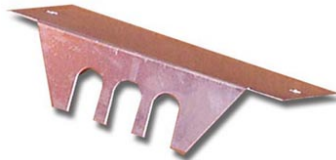
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P-5590	VALVE SOL/STRNR/FLO-REG .5 GPM	ALL	1	1	1	1

4.1.1.1.5. Support Reflector



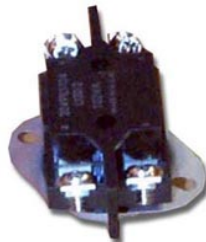
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
F-6100	SUPPORT REFLECTOR	ALL	2	2	2	2

4.1.1.1.6. Cover End Block



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
F-6090	COVER END BLOCK	ALL	2	2	2	2

4.1.1.1.7. Safety Switch



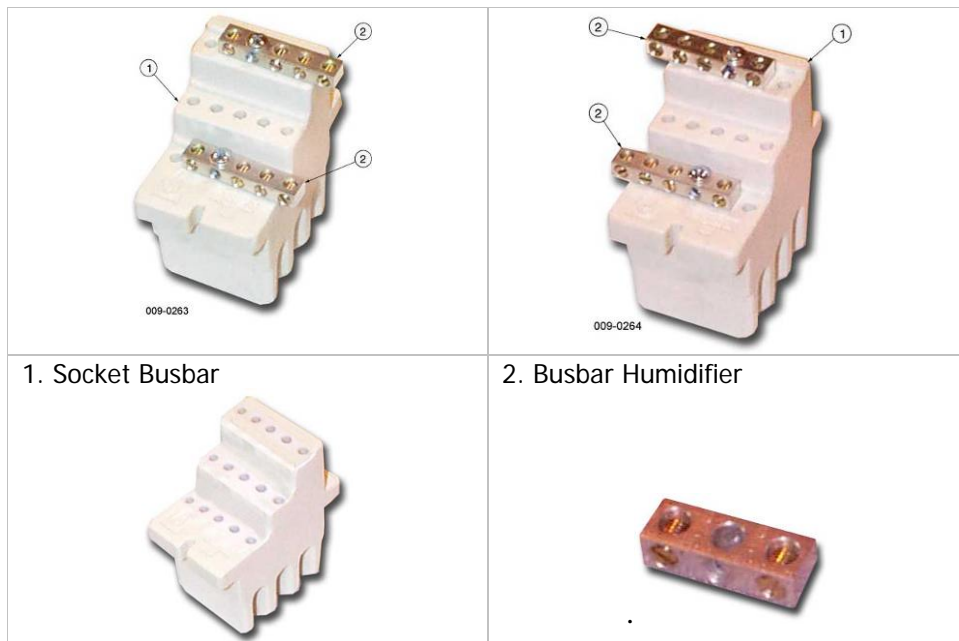
Part Number	Description	6/8/10/15T				20/30T			
		208	230	460	575	208	230	460	575
R13-0090	SAFETY SWT THERM. 120F TRIP	2	2	2	1	2	2	1	1

4.1.1.1.8. Lamp



Part Number	Description	6/8/10/15T				20/30T			
		208	230	460	575	208	230	460	575
H-0030	LAMP 1/R LINEAR/QRTZ 3800W600V				2				3

4.1.1.1.9. Humidifier Socket Assembly



Item #	Part Number	Description	Volts	6/8/10/15T	20/30T
1	H-014A	SOCKET BUSBAR PORCELAIN	ALL	1	1

Item #	Part Number	Description	Volts	2 Bulb	3 Bulb	4 Bulb	6 Bulb
2	H-0370	BUSBAR HUMIDIFIER HI-VOLT	ALL	2	3	2	3

4.1.1.1.10. High Water Alarm



4. SW Liquid Level



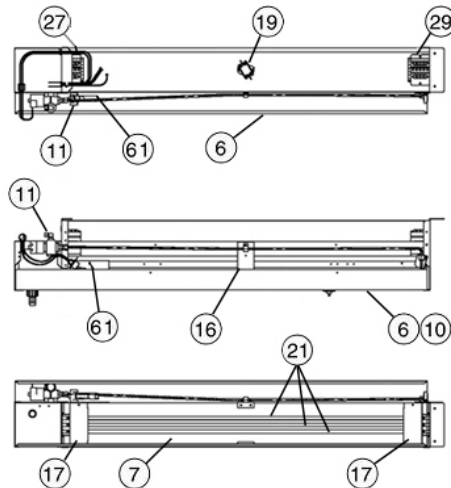
5. SW Liquid Level



Item #	Part Number	Description	Volts	6/8/10/15T	20/30T
4	1C18661P2	BRKT HUM MTG LIQ LEV SW DX	ALL	1	1

Item #	Part Number	Description	Volts	2 Bulb	3 Bulb	4 Bulb	6 Bulb
5	1A18660P1	SW LEVEL LIQUID GEMS LS- 7	ALL	1	1	1	1

4.1.1.2. 3 Bulb



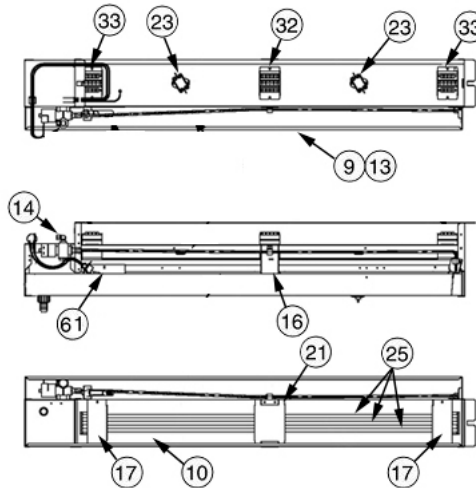
- 6. Pan Humidifier
- 7. Reflector
- 10. Standpipe Assembly
- 11. Solenoid Valve
- 16. Support Reflector
- 17. Cover End Block
- 19. Safety Switch
- 21. Lamp I/R
- 27. Humidifier Socket Assembly
- 29. Humidifier Socket Assembly
- 61. High Water Alarm

4.1.1.2.1. Lamp I/R



Part Number	Description	6/8/10/15T				20/30T			
		208	230	460	575	208	230	460	575
H-0030	LAMP I/R LINEAR/QRTZ 3800W600V				2				3
151187P2	LAMP I/R LINEAR/QRTZ 3200W277V						3		

4.1.1.3. 4 Bulb



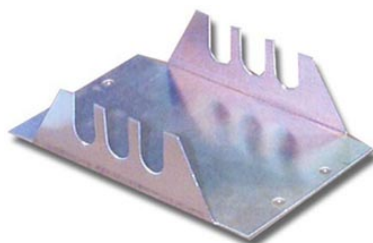
- | | |
|------------------------|--------------------------------|
| 9. Pan Humidifier | 21. Cover Block Middle |
| 10. Reflector Double | 23. Safety Switch |
| 13. Standpipe Assembly | 25. Lamp I/R |
| 14. Solenoid Valve | 32. Humidifier Socket Assembly |
| 16. Support Reflector | 33. Humidifier Socket Assembly |
| 17. Cover End Block | 61. High Water Alarm |

4.1.1.3.1. Reflector Double



Part Number	Description	6/8/10/15T				20/30T			
		208	230	460	575	208	230	460	575
F-601C	REFLECTOR DOUBLE	1	1	1		1	1		

4.1.1.3.2. Cover Block Middle



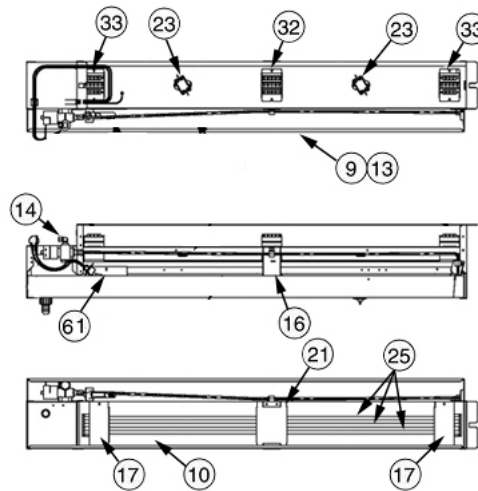
Part Number	Description	6/8/10/15T				20/30T			
		208	230	460	575	208	230	460	575
F-601D	COVER BLOCK MIDDLE	1	1	1		1	1		

4.1.1.3.3. Lamp I/R



Part Number	Description	6/8/10/15T				20/30T			
		208	230	460	575	208	230	460	575
H-002A	LAMP I/R LINEAR/ORTZ 1600W208V	4				6			
H-0020	LAMP I/R LINEAR/ORTZ 1600W240V		4	4			6		

4.1.1.4. 6 Bulb



- 9. Pan Humidifier
- 10. Reflector Double
- 13. Standpipe Assembly
- 14. Solenoid Valve
- 16. Support Reflector
- 17. Cover End Block
- 21. Cover Block Middle
- 23. Safety Switch
- 25. Lamp I/R
- 32. Humidifier Socket Assembly
- 33. Humidifier Socket Assembly
- 61. High Water Alarm

4.1.2. Adapter



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P-5400	ADAPTER SWIVL3/4FPTX3/4HOSEBRB	576V	1	1	1	1

4.1.3. Hose Drain



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1C19071P1	HOSE DRAIN .75 ID TRAP	ALL	1	1	1	1
P15-0150	CLAMP WIRE	ALL	2	2	2	2

4.1.4. Adapter Nylon



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P02-0260	ADAPTER NYLON 3/4FPT x 3/4HOSE	ALL	1	1	1	1
F02-0660	BRKT DRAIN FITTING MTG	ALL	1	1	1	1

4.1.5. Sensor Safety



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
H-0450	SENSOR SAFETY THOPN-RISE 225F	ALL	1	1	1	1

4.1.6. Tee Barb



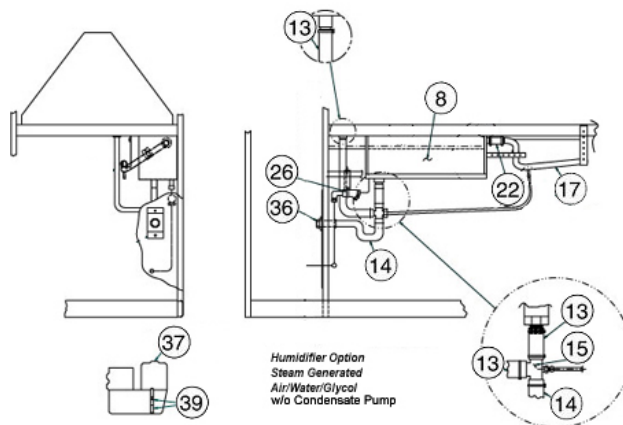
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1A16207P1	TEE BARB 3/4X3/4X3/4	ALL	1	1	1	1

4.1.7. Hose



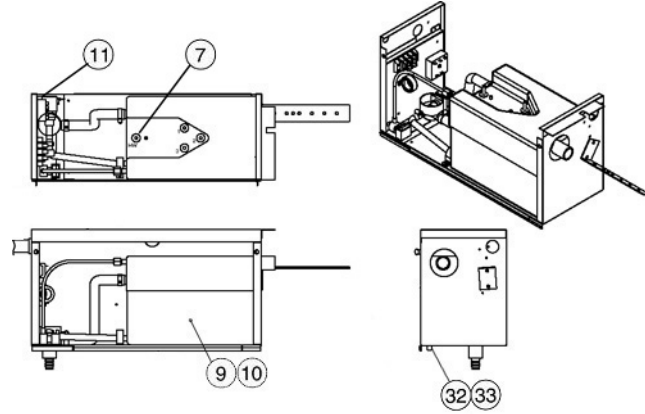
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P15-0170	HOSE 3/4"ID 150PSI EPDM 350	ALL	4ft	4ft	4ft	4ft
P15-0150	CLAMP WIRE	ALL	3	3	3	3
124216P2	CLAMP HOSE WORM DRIVE .31 x 1.25	ALL	1	1	1	1

4.2. Steam Generating



- 8. Steam Generator Assy
- 13. Hose
- 14. Hose Drain
- 15. FTG Cross
- 17. Manifold
- 22. Hose Steam
- 36. Adapter Nylon
- 37. Condensate Pump
- 39. Bracket Condensate Pump

4.2.1. Steam Generator Assembly



- 7. Boot Rubber
- 9. Kit Humidifier Tank
- 11. Plate Humidifier Valve
- 32. Sleeve Compression Brass
- 33. Nut Compression Brass

4.2.1.1. Boot Rubber



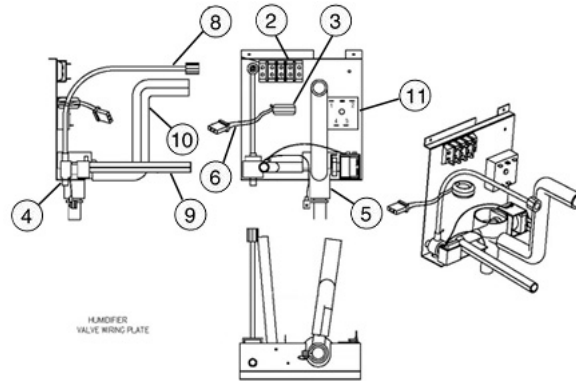
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
128759P1	BOOT RUBBER SG HUM TERM COVER	ALL	4	4	4	4

4.2.1.2. Kit Humidifier Tank



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
153315P1	KIT HUMID TANK 200//240 W/HOSE	200//240V	1	1	1	1
153315P2	KIT HUMID TANK 380//480 W/HOSE	380//480V	1	1	1	1

4.2.1.3. Plate Humidifier Valve



- 2. Power Block
- 3. Transformer
- 4. Fill Valve
- 5. Drain Valve
- 6. Plate Valve Harnessing
- 8. Hose Fill
- 9. Hose Drain
- 10. Hose Overflow
- 11. Cylinder Full Interface

4.2.1.3.1. Power Block



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
128750P1	PWRBLK 3P W/TABS SG HUM	ALL	1	1	1	1

4.2.1.3.2. Transformer Torroid



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
128752P1	XFMR TORR010 W/MNL SG HUM	ALL	1	1	1	1

4.2.1.3.3. Fill Valve



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
128753P1	VALVE FILL SG HUM W/FTG	ALL	1	1	1	1

4.2.1.3.4. Drain Valve



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
128754P1	VALVE DRAIN SG HUM W/FTG	ALL	1	1	1	1

4.2.1.3.5. Plate Valve Harnessing

Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
128758P1	PLATE VALVE HARNESSSG HUM	ALL	1	1	1	1

4.2.1.3.6. Hose Fill



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
151802P1	HOSE FILL SGH	ALL	1	1	1	1

4.2.1.3.7. Hose Drain



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
153044P1	HOSE DRAIN SGH	ALL	1	1	1	1

4.2.1.3.8. Hose Overflow



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
153043P1	HOSE OVERFLOW SGH	ALL	1	1	1	1

4.2.1.3.9. Cylinder Full Interface



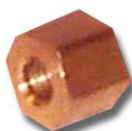
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
136956P1	CYL FULL INTFC SGH C3000	ALL	1	1	1	1

4.2.1.4. Sleeve Compression Brass



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P-057A	SLEEVE COMPRESSION BRASS 1/4"	ALL	1	1	1	1

4.2.1.5. Nut Compression Brass



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P-057B	NUT COMPRESSION BRASS 1/4"	ALL	1	1	1	1

4.2.2. Hose



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P15-0170	HOSE 3/4"ID 150PSI EPDM 350	ALL	3ft	3ft	3ft	3ft
P15-0150	CLAMP WIRE	ALL	3	3	3	3
124216P2	CLAMP HOSE WORM DRIVE .31 x 1.25	ALL	1	1	1	1

4.2.3. Hose Drain



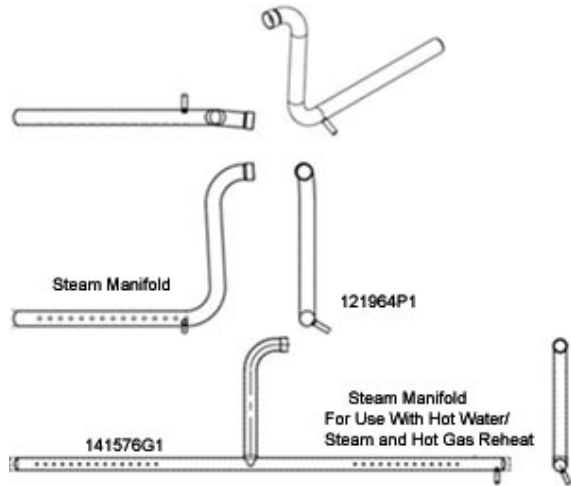
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1C19071P1	HOSE DRAIN .75 ID TRAP	ALL	1	1	1	1
P15-0150	CLAMP WIRE	ALL	2	2	2	2

4.2.4. FTG Cross



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
121965P2	FTG CROSS 3/8HOSE X 3/8TUB 90	ALL	1	1	1	1

4.2.5. Manifold



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
121964P1	MANIFOLD DTL 1-1/2"O.D. CU	ALL	1	1	1	1
141576G1	MANIFOLD SGH- HW/STM/HG/RHT	ALL	1	1	1	
S13-0140	CLAMP INSUL MTL HVY DTY 1- 1/8" DIA	ALL	1	1	1	1
130916P2	CLAMP NON-INSULATED 1-1/8" DIA	ALL	1	1	1	1

4.2.6. Hose Steam



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1A21071P1	HOSE STEAM 1.25ID 10PSI	ALL	1	1	1	1
P02-0020	CLAMP HOSE WORM DRIVE .75- 1.75	ALL	2	2	2	2

4.2.7. Strainer



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
H-0390	STRAINER"Y" BRASS 1/4FPT	ALL	1	1	1	1
127781P1	ADAPTER BRASS 1/4COMX1/4M	ALL	1	1	1	1
P15-0250	ELL BRASS 1/4COMX1/4NPT	ALL	1	1	1	1

4.2.8. Adapter Nylon



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P02-0260	ADAPTER NYLON 3/4FPT x 3/4HOSE	ALL	1	1	1	1
F02-0660	BRKT DRAIN FITTING MTG	ALL	1	1	1	1

4.2.9. Condensate Pump



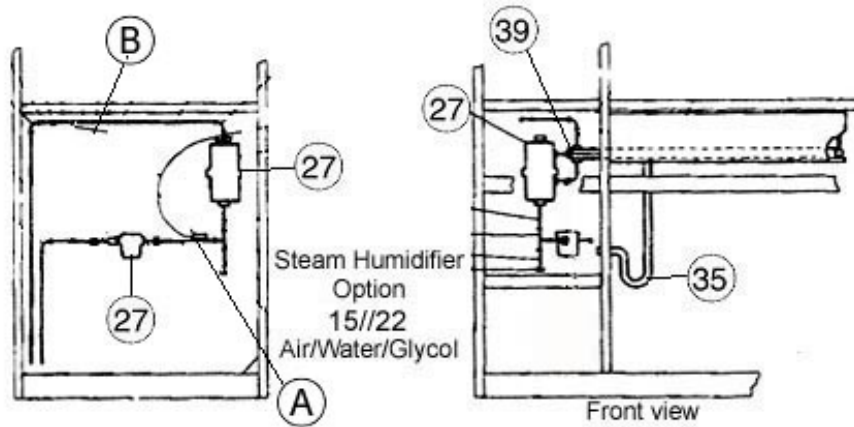
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
X-015A	PUMP CONDENSATE W/O AUX W/WIRE	208-230-575V	1	1	1	1
X-015A Condensate Pump requires a step-down XFMR for 575 Volt units.						
1C19034P1	PUMP CONDENSATE 460 W/WIRE	460V	1	1	1	1
1A19271P1	PUMP CONDENSATE 208/230/1/60DF	208-230-575V	1	1	1	1
Dual Float Condensate Pumps. 1A19271P1 Condensate Pump requires a step-down XFMR for 575 Volt Units.						
Dual Float Condensate Pump						

4.2.10. Bracket Condensate Pump



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
F20-2300	BRKT COND PUMP ADJ-PART B	ALL	4	4	4	4

4.3. Grid Steam



- A. Temperature Switch
- B. Strainer
- 27. Steam Humidifier
- 35. Drain Line Assembly
- 39. Humidifier Manifold

4.3.1. Temperature Switch



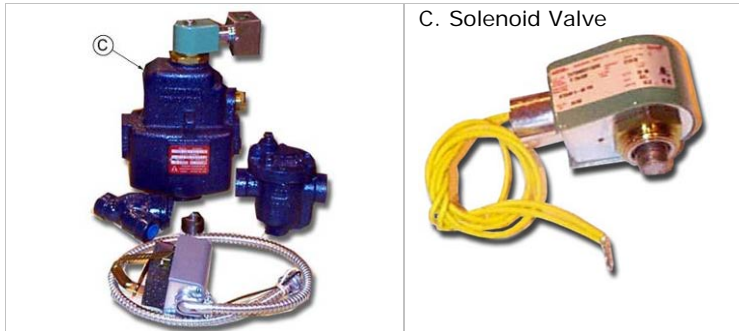
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
E02-0180	ELECTRICAL TEMPERATURE SWITCH	ALL	1	1	1	1

4.3.2. Strainer



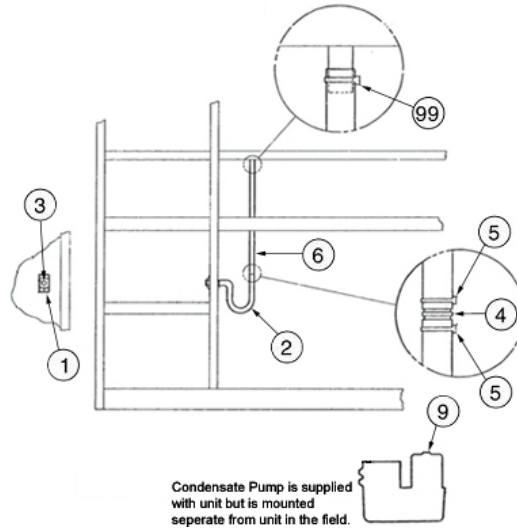
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
R-0520	STRAINER"Y" 1/2" CI	ALL	1	1	1	1

4.3.3. Steam Humidifier



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1C21353P1	HUMDFR STM W/O MAN 5/32ORF 24V	ALL	1	1	1	1
*Trap is part of 1C21353P1						
149002P1	SOLENOID VALVE	ALL	1	1	1	1

4.3.4. Drain Line Assembly



- | | |
|--------------------------|--------------------------|
| 1. Bracket Drain Fitting | 5. Clamp Wire |
| 2. Drain Rubber | 6. Hose |
| 3. Adapter Nylon | 9. Pump Condensate |
| 4. Union Nylon | 99. Clamp Hose Wormdrive |

4.3.4.1. Bracket Drain Fitting



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
F02-0660	BRKT DRAIN FITTING MTG	ALL	1	1	1	1

4.3.4.2. Drain Rubber


Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P-5500	DRAIN RUBBER HUM TRAP DX/CW	ALL	1	1	1	1

4.3.4.3. Adapter Nylon


Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P02-0260	ADAPTER NYLON 3/4FPT x 3/4HOSE	ALL	1	1	1	1
F02-0660	BRKT DRAIN FITTING MTG	ALL	1	1	1	1

4.3.4.4. Union Nylon


Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P15-0140	UNION NYLON 3/4BARBX3/4BARB	460V	1	1	1	1

4.3.4.5. Clamp Wire


Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P15-0150	CLAMP WIRE	ALL	3	3	3	3

4.3.4.6. Hose



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
P15-0170	HOSE 3/4"ID 150PSI EPDM 350	ALL	3ft	3ft	3ft	3ft
P15-0150	CLAMP WIRE	ALL	3	3	3	3
124216P2	CLAMP HOSE WORM DRIVE .31 x 1.25	ALL	1	1	1	1

4.3.4.7. Pump Condensate



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
X-015A	PUMP CONDENSATE W/O AUX W/WIRE	208-230-575V	1	1	1	1
X-015A Condensate Pump requires a step-down XFMR for 575 Volt units.						
1C19034P1	PUMP CONDENSATE 460 W/WIRE	460V	1	1	1	1
1A19271P1	PUMP CONDENSATE 208/230/1/60DF	208-230-575V	1	1	1	1
Dual Float Condensate Pumps. 1A19271P1 Condensate Pump requires a step-down XFMR for 575 Volt Units.						
1A19271P2	PUMP CONDENSATE 460/1/60DF	460V	1	1	1	1
Dual Float Condensate Pump						

4.3.4.8. Clamp Hose Wormdrive



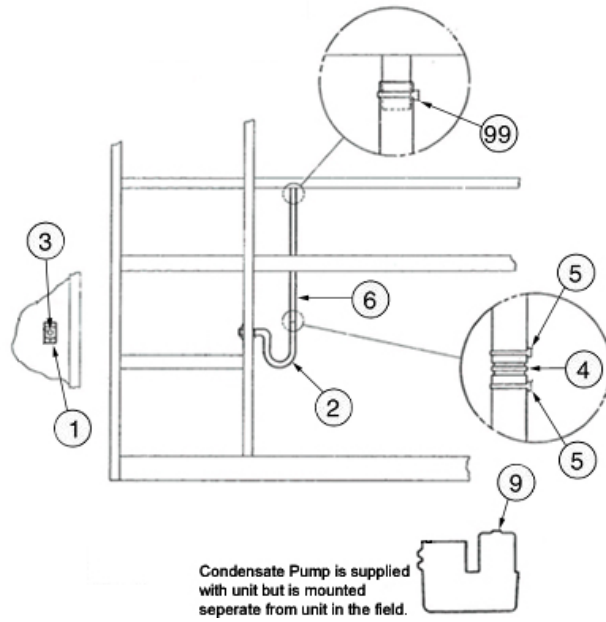
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
124216P2	CLAMP HOSE WORM DRIVE .31 x 1.25	ALL	1	1	1	1

4.3.5. Humidifier Manifold



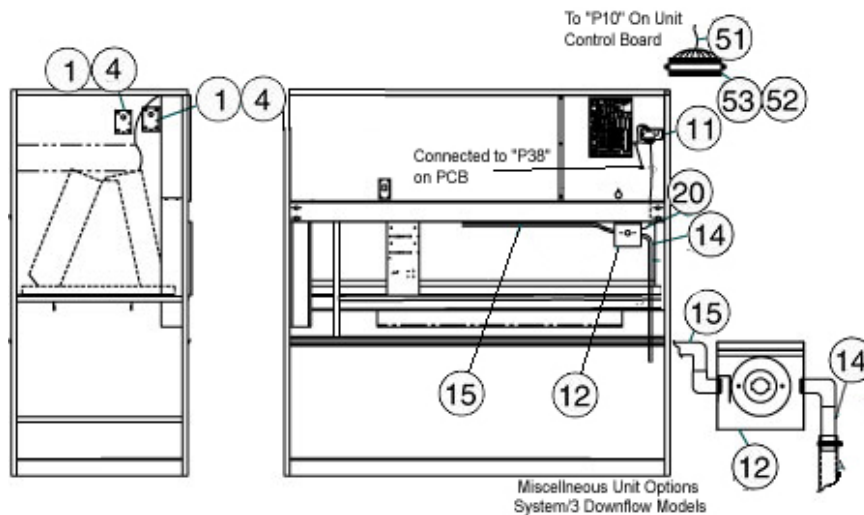
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1C21355P1	HUMDFR MANIFOLD STEAM 48"	ALL	1	1	1	1

4.4. No Hum Drain



- | | |
|--------------------------|--------------------------|
| 1. Bracket Drain Fitting | 5. Clamp Wire |
| 2. Drain Rubber | 6. Hose |
| 3. Adapter Nylon | 9. Pump Condensate |
| 4. Union Nylon | 99. Clamp Hose Wormdrive |

4.5. Exterior Hum Relay



- | | |
|-----------------------------|----------------------------|
| 1. WH Hum | 15. Tube Form |
| 4. Relay | 20. WH LV S3 Smoke Det |
| 11. PWA Smoke Detector CTRL | 51. WH LV S3 Analog |
| 12. Smoke Detector Assembly | 52. Termoblock Section |
| 14. Tube Connector | 53. Termoblock End Barrier |

4.5.1. WH Hum



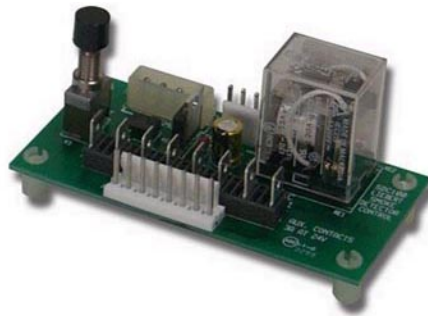
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
154194G4	WH HUM CNTCT CH3K S3 72"&120"	ALL	1	1	1	1

4.5.2. Relay



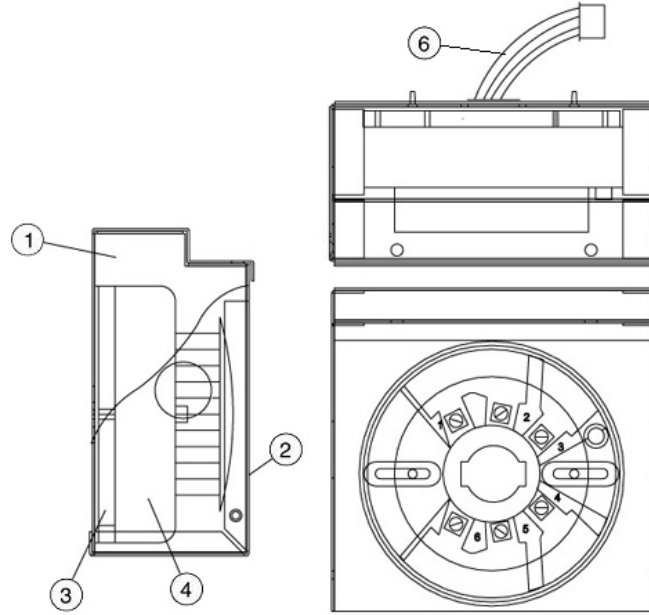
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
E03-0170	RELAY 1P2T 24V 50/60HZ	ALL	1	1	1	1

4.5.3. PWA Smoke Detector



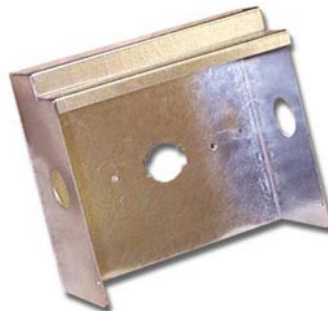
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
124502P1	PWA SMOKE DET CNTL 24VDC	ALL	1	1	1	1

4.5.4. Smoke Detector Control



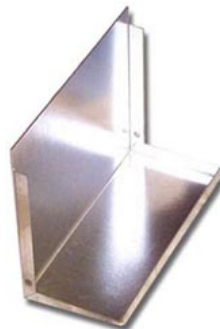
- 1. Smoke Detector Box
- 2. Smoke Detector Cover
- 3. Smoke Detector Base
- 4. Smoke Detector Sensor
- 6. WH Smoke Detector Base

4.5.4.1. Smoke Detector Box



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
149100P1	BOX SMOKE DETECTOR 731U	ALL	1	1	1	1

4.5.4.2. Smoke Detector Cover



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
149101P1	COVER SMOKE DETECTOR 731U	ALL	1	1	1	1

4.5.4.3. Smoke Detector Base



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
149102P1	BASE SMOKE DETECTOR 702E	ALL	1	1	1	1

4.5.4.4. Smoke Detector Sensor



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
149103P1	SENSOR SMOKE DETECTOR PHOTOELECTRIC	ALL	1	1	1	1

4.5.4.5. WH Smoke Detector Base



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
149103P1	SENSOR SMOKE DETECTOR PHOTOELECTRIC	ALL	1	1	1	1

4.5.5. Tube Connector



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
F02-8800	CONN TUBE SMOKE DETECTOR	ALL	1	1	1	1

4.5.6. Tube Form



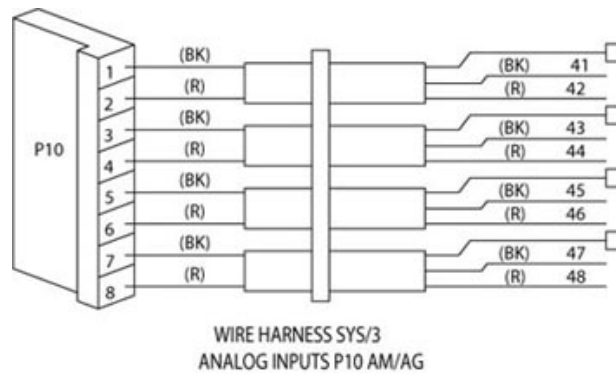
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
129323P1	TUBE FORM SAMPLING SMOKE DET	ALL	1	1	1	1

4.5.7. WH LV S3 Smoke Det.



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
140617G3	WH LV S3 SMK DET P38 DF 72"	ALL	1	1		

4.5.8. WH LV S3 Analog



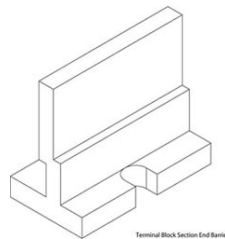
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
140615G1	WH LV S3 ANALOG INP P10 AM/AG	ALL	1	1	1	1

4.5.9. Termblock Section



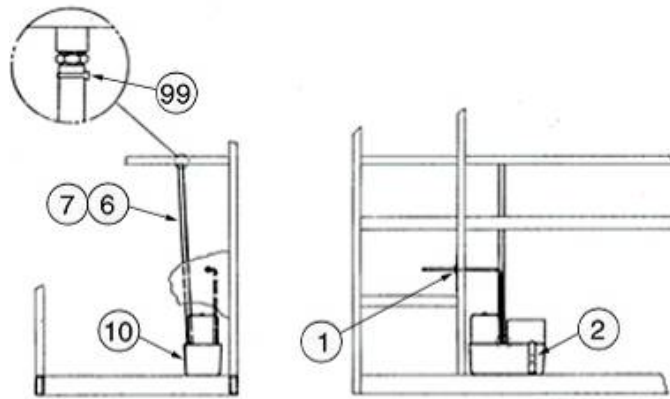
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
E-0380	TERMBLK SECTION 1POS	ALL	2	2	2	2

4.5.10. Termblock End Barrier



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
E-0390	TERMBLK SECTION END BARRIER	ALL	1	1	1	1

4.6. Condensate Pump



- 1. Grommet Rubber
- 2. Bracket Condensate Pump
- 6. Hose
- 7. Hose Drain
- 10. Condensate Pump
- 99. Clamp Hose Wormdrive

4.6.1. Grommet Rubber



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
E-3960	GROMMET RBR 1/16"ID x 1-3/16"OD	ALL	1	1	1	1

4.6.2. Hose Drain



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
149376P1	HOSE DRAIN .75 ID TRAP	ALL	1	1	1	1

Trap used on units with Infrared Humidifier with Condensate Pump.

4.6.3. Condensate Pump

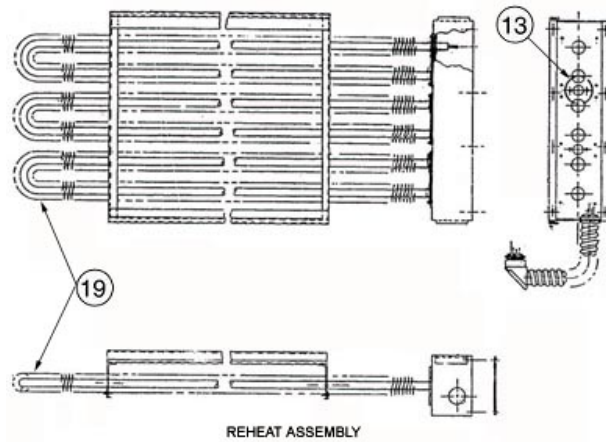


Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
X-015A	PUMP CONDENSATE W/O AUX W/WIRE	208-230-575V	1	1	1	1
X-015A Condensate Pump requires a step-down XFMR for 575 Volt units.						
1C19034P1	PUMP CONDENSATE 460	460V	1	1	1	1

Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
	W/WIRE					
1A19271P1	PUMP CONDENSATE 208/230/1/60DF	208-230- 575V	1	1	1	1
Dual Float Condensate Pumps. 1A19271P1 Condensate Pump requires a step-down XFMR for 575 Volt Units.						
1A19271P2	PUMP CONDENSATE 460/1/60DF	460V	1	1	1	1
Dual Float Condensate Pump						

5. Reheat Section

5.1. Reheat Assembly



13. Safety Switch 19. Heater

5.1.1. Safety Switch



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
R-0970	SAFETY SWT THERM. 115F	ALL	2	2	2	2

5.1.2. Heater



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
148367P1	HEATER 03.3KW 208V	208V	3			
148367P2	HEATER 03.3KW 230V	230V	3			
148367P4	HEATER 03.3KW 460V	460V	3			
148367P5	HEATER 03.3KW 575V	575V	3			
148367P6	HEATER 05.0KW 208V	208V		3		
148367P7	HEATER 05.0KW 230V	230V		3		
148367P9	HEATER 05.0KW 460V	460V		3		
148367P10	HEATER 05.0KW 575V	575V		3		
148367P16	HEATER 08.3KW 208V	208V			3	
148367P17	HEATER 08.3KW 230V	230V			3	
148367P19	HEATER 08.3KW 460V	460V			3	
148367P20	HEATER 08.3KW 575V	575V			3	
148367P21	HEATER 09.5KW 208V	208V				3
148367P22	HEATER 10.0KW 230V	230V				3
148367P24	HEATER 10.0KW 460V	460V				3
148367P25	HEATER 10.0KW 575V	575V				3

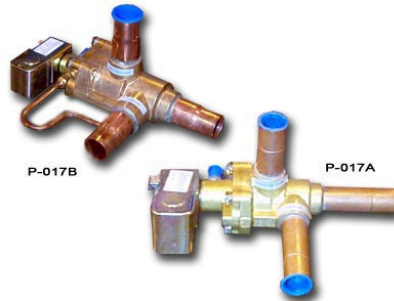
5.2. Hot Gas Reheat

5.2.1. Coil



Part Number	Description	6/8/10T	15T	20T
X-0230	COIL HGRH 32-1/2X20-1/4X2-1/2"	1		
X-0240	COIL HGRH 48-1/2X20-1/4X2-1/2"		1	1

5.2.2. Solenoid Valve



Part Number	Description	6/8/10T	15T	20T
P-017A	VALVE SOLND 3WAY HTRECLM			1
P-017B	VALVE SOLND 3WAY HTRECLM 7/8	1	1	

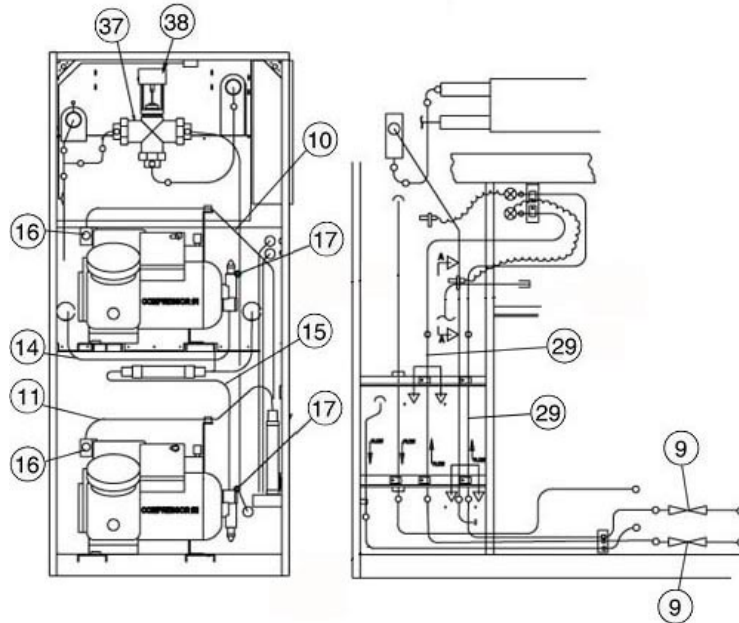
5.2.3. Check Valve



Part Number	Description	6/8/10T	15T	20T
P-017A	VALVE SOLND 3WAY HTRECLM			1
P-017B	VALVE SOLND 3WAY HTRECLM 7/8	1	1	

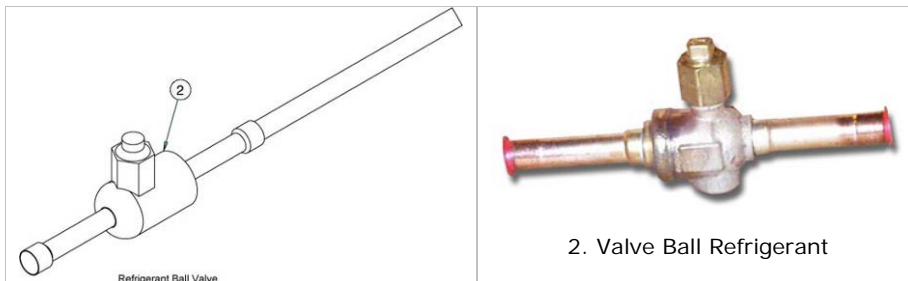
6. Piping Section

6.1. Water/Glycool Cooled



- 9. Liquid Line Assembly
- 10. Discharge Assembly #1
- 11. Discharge Assembly #2
- 14. Suction Assembly #1
- 15. Suction Assembly #2
- 16. Bolts and Gaskets
- 29. Catch Piping
- 37. 3Way Chilled Water Valve
- 38. Actuator Assembly

6.1.1. Liquid Line Assembly

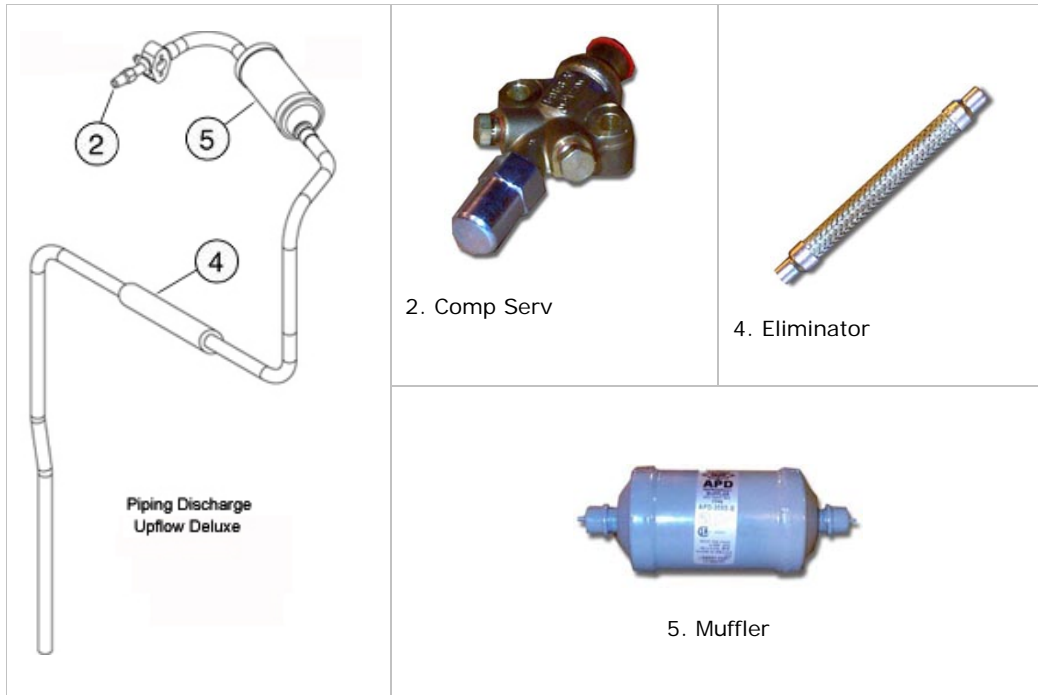


2. Valve Ball Refrigerant

Part Number	Description	6T	8T	10T	15T	20T	30T
P05-4360	VALVE BALL REFRIG 1/2"	2	2	2	2		
P05-1370	VALVE BALL REFRIG 5/8"					2	2

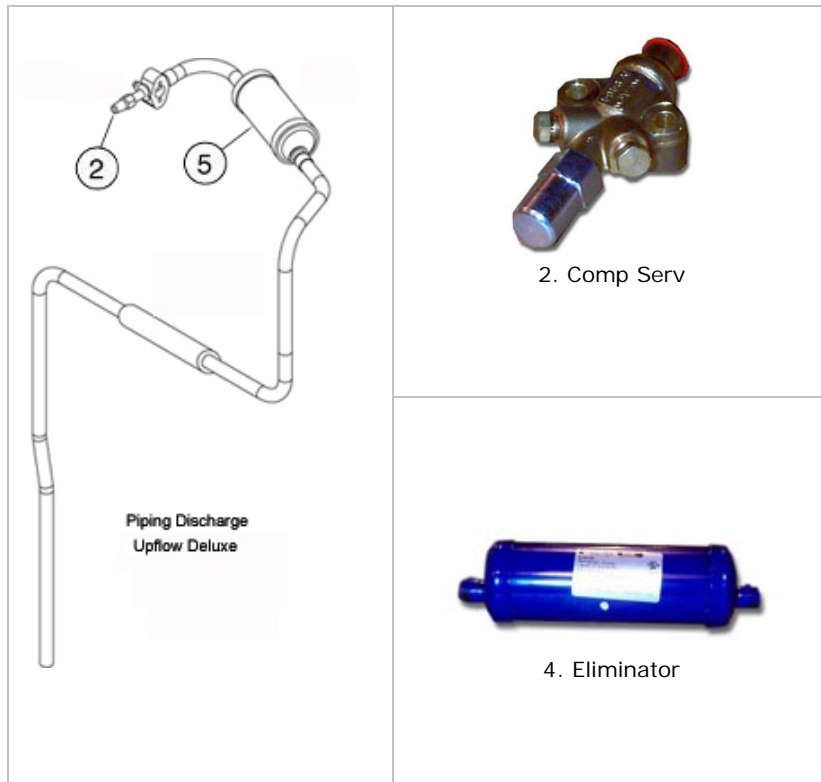
6.1.2. Discharge Assembly #1/#2

6.1.2.1. 6/30T Carlyle



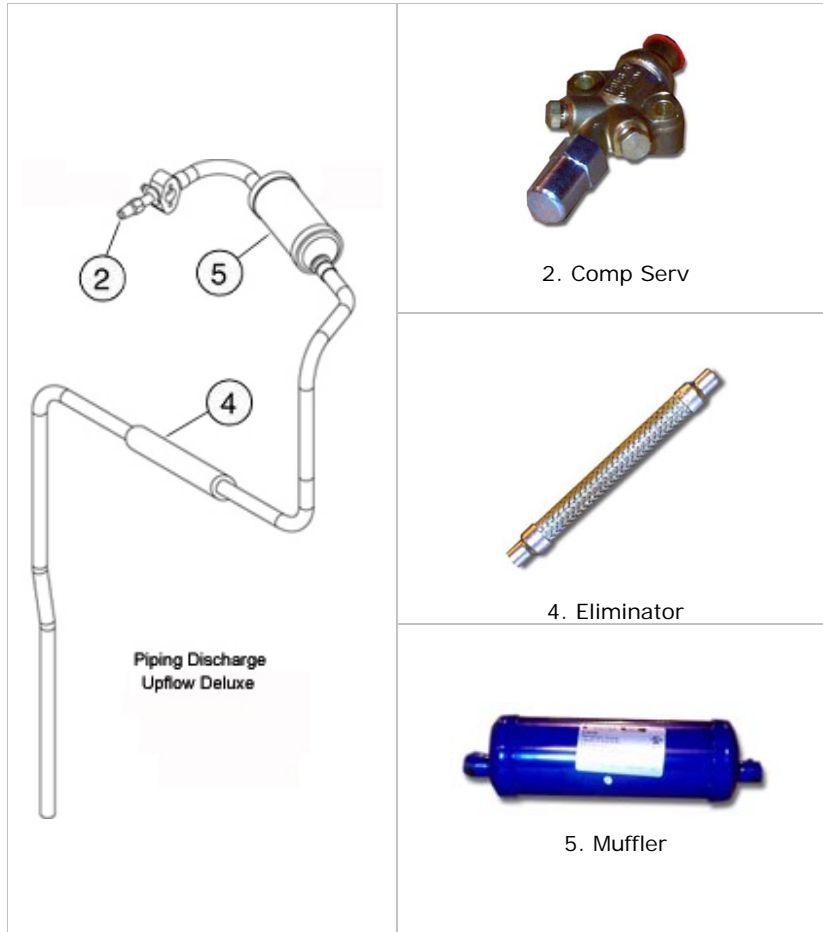
Item #	Part Number	Description	6T	30T
2	C-0930	VALVE COMP SERV 5/8SWT	1	
	C-0880	VALVE COMP SERV DISCH 1-1/8SWT		1
4	PO5-169F	ELIMINATOR VIB ISOL 5/8 ODF	1	
	PO5-169D	ELIMINATOR VIB ISOL 1-1/8 OD		1
5	1C16401P1	MUFFLER DISCHARGE 5/8"OD	1	
	123575P4	MUFFLER DISCHARGE 1-1/8"OD HIEFF		1

6.1.2.2. 8/10/15/20T Carlyle



Item #	Part Number	Description	8/10T	15T	20T
2	C-0930	VALVE COMP SERV 5/8SWT	1		
	C-0870	VALVE COMP SERV DISCH 7/8SWT		1	
	C-0880	VALVE COMP SERV DISCH 1-1/8SWT			1
5	123575P1	MUFFLER DISCHARGE 5/8"OD	1		
	123575P2	MUFFLER DISCHARGE 7/8"OD HIEFF		1	
	123575P4	MUFFLER DISCHARGE 1-1/8"OD HIEFF			1

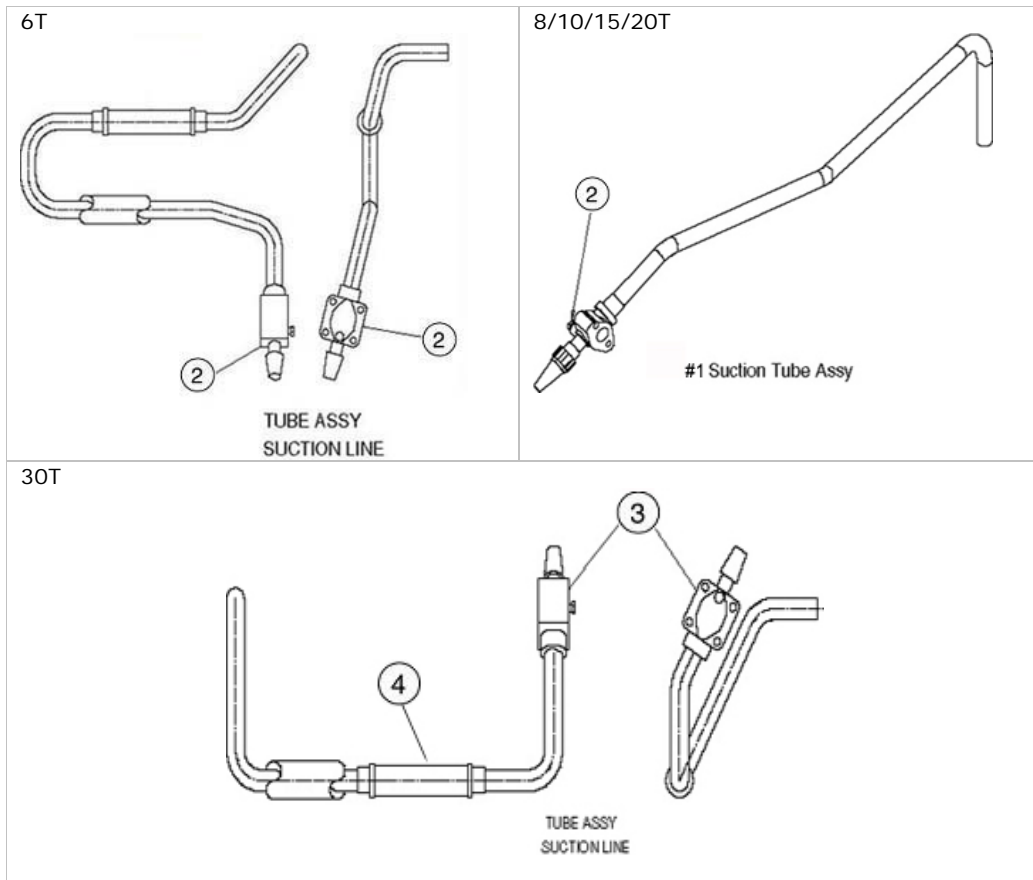
6.1.2.3. 6/8/10T Copeland



Item #	Part Number	Description	6T	8T	10T
2	C-0930	VALVE COMP SERV 5/8SWT	1	1	1
4	P-0040	ELIMINATOR VIB ISOL 5/8 ODF	1		
5	P05-169F	MUFFLER DISCHARGE 5/8"OD	1		
	1C16401P1	MUFFLER DISCHARGE 5/8"OD		1	
	1C16401P1	MUFFLER DISCHARGE 5/8"OD			1

6.1.3. Suction Assembly #1

6.1.3.1. 6/8/10/15/20/30T Carlyle



- 2. Comp Serv Valve
- 3. Comp Serv Valve
- 4. Eliminator

6.1.3.2. Comp Serv Valve



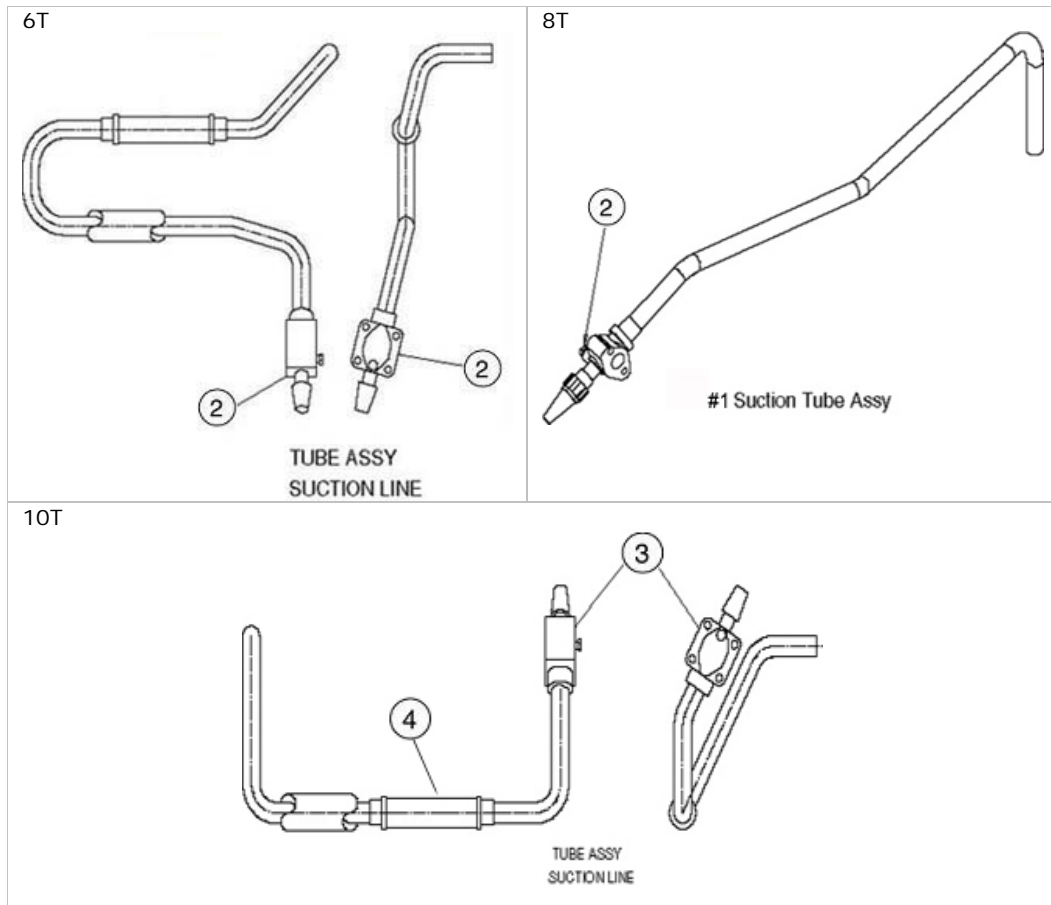
Item #	Part Number	Description	6T	8/10T	15T	20T	30T
2	C-0870	VALVE COMP SERV 7/8SWT	1				
	C-0910	VALVE COMP SERV 7/8SWT		1			
	C-0880	VALVE COMP SERV 1-1/8 SWT			1		
	C-0890	VALVE COMP SERV SUCTN 1-1/8SWT				1	
3	C-0890	VALVE COMP SERV SUCTN 1-1/8SWT					1

6.1.3.3. Eliminator



Item #	Part Number	Description	30T
4	P05-169C	ELIMINATOR VIB ISOL 1-1/8	1

6.1.3.4. 6/8/10T Copeland



- 2. Comp Serv Valve
- 3. Comp Serv Valve
- 4. Eliminator

6.1.3.4.1. Comp Serv Valve



Item #	Part Number	Description	6T	8T	10T
2	C-0870	VALVE COMP SERV 7/8SWT	1		
	C-0870	VALVE COMP SERV DISCH 7/8 SWT		1	
3	C-080K	VALVE COMP SERV DISCH 7/8SWT			1

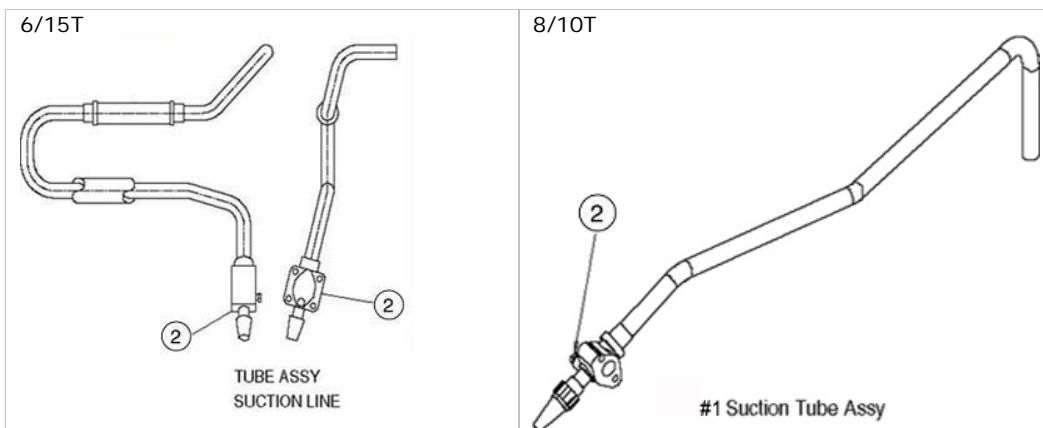
6.1.3.4.2. Eliminator

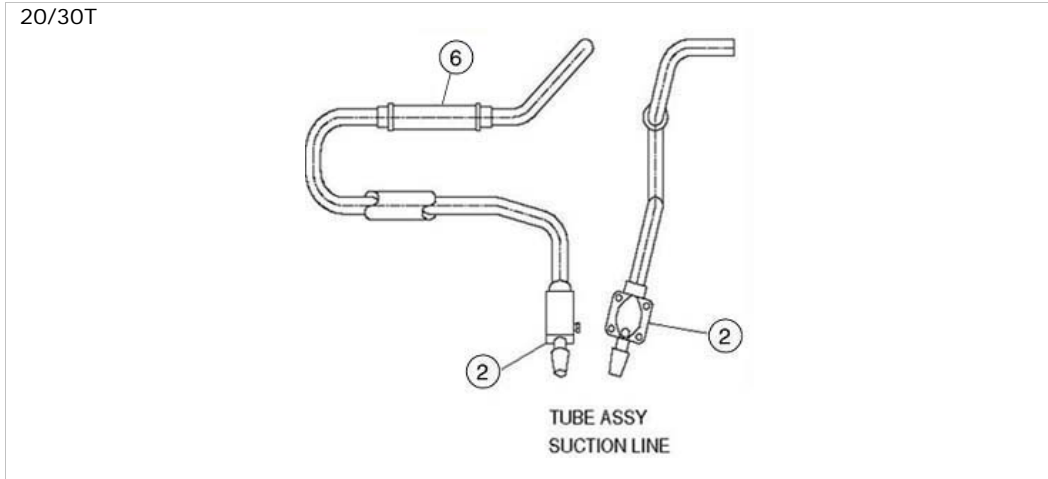


Item #	Part Number	Description	30T
4	P05-169C	ELIMINATOR VIB ISOL 1-1/8	1

6.1.4. Suction Assembly #2

6.1.4.1. 6/8/10/15/20/30T Carlyle





- 2. Comp Serv Valve
- 6. Eliminator

6.1.4.1.1. Comp Serv Valve



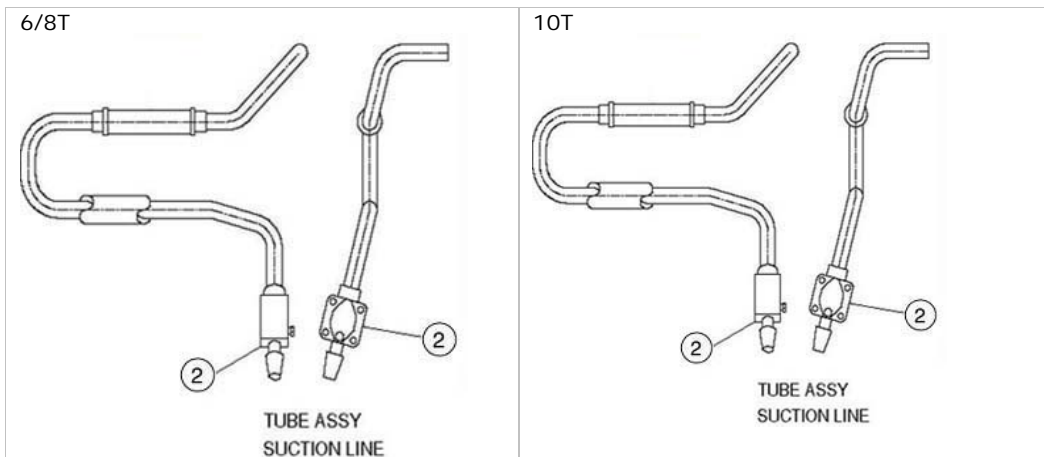
Part Number	Description	6T	8/10T	15T	20/30T
C-0870	VALVE COMP SERV 7/8SWT	1			
C-0910	VALVE COMP SERV 7/8SWT		1		
C-0880	VALVE COMP SERV 1-1/8 SWT			1	
C-0890	VALVE COMP SERV SUCTN 1-1/8SWT				1

6.1.4.1.2. Eliminator



Part Number	Description	20T	30T
P05-169C	ELIMINATOR VIB ISOL 1-1/8	1	1

6.1.4.2. 6/8/10T Copeland



- 2. Comp Serv Valve
- 6. Eliminator

6.1.4.3. Comp Serv Valve



Part Number	Description	6T	8T	10T
C-0870	VALVE COMP SERV 7/8SWT	1	1	
C-080K	VALVE COMP SERV DISCH 7/8SWT			1

6.1.4.4. Eliminator



Part Number	Description	10T
P05-169E	ELIMINATOR VIB ISOL 7/8 OD	1

6.1.5. Bolts and Gaskets

6.1.5.1. Carlyle



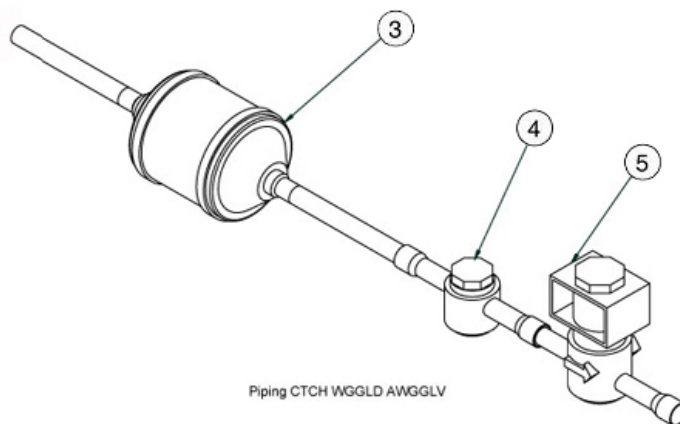
Part Number	Description	6T	8T	10T	15T	20T	30T
C-087A	GASKET VALVE COMP SERVICE	4	2	2	2		
C-088A	GASKET VALVE COMP SERVICE		2	2	2	2	
C-089A	GASKET VALVE COMP SERVICE					2	
S-128A	SCREW CAP HX G8 P0 5/16-18 X 1-3/8	4	4	4			
S-129A	SCREW CAP HX G8 P0 5/16-18 X 1-3/4	4	4	4	4		
S-123A	SCREW CAP HX G5 P0 5/16-18 X 2				4	4	4
S-125A	SCREW CAP HX G5 P0 1/2-13 X 2-1/2					8	8

6.1.5.2. Copeland



Part Number	Description	6T	8T	10T
C-088A	GASKET VALVE COMP SERVICE	2	2	
C-080N	GASKET VALVE COMP SERVICE	2	2	2
C-089A	GASKET VALVE COMP SERVICE			
C-080T	GASKET VALVE COMP SERVICE			2
S-129A	SCREW CAP HX G8 P0 5/16-18 X 1-3/4	4	4	4
S-128A	SCREW CAP HX G8 P0 5/16-18 X 1-3/8	4	4	4
S-5810	SCREW CAP HX G8 P0 1/2-13 X 1-3/4			4

6.1.6. Catch Piping



- 3. Filter Drier
- 4. Liquid Indicator
- 5. Solenoid Valve

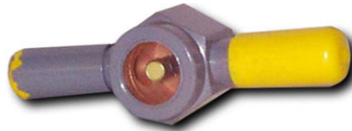
6.1.6.1. Filter Drier



Part Number	Description	6T	8T	10T	15T	20T	30T
P-0020	FILTER/DRIER 1/2ODF SLDR	2	2	2	2		
*P-0060	FILTER/DRIER 1/2ODF SLDR				2		
P-2890	FILTER/DRIER 5/8ODF SLDR					2	2

*Used on 15 Ton Air-Cooled units.

6.1.6.2. Liquid Indicator



Part Number	Description	6T	8T	10T	15T	20T	30T
P-0050	INDICATOR LIQUID 1/2 ODF	2	2	2	2		
P-2880	INDICATOR LIQUID 5/8 ODF					2	2

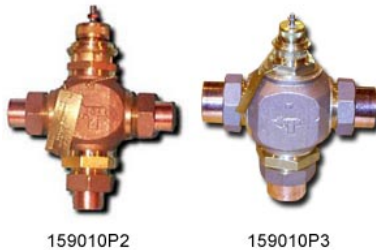
6.1.6.3. Solenoid Valve



Part Number	Description	6T	8T	10T	15T	20T	30T
P-0070	VALVE SOLND 1/2ODM X 1/2ODF	2	2	2			
P-0080	VALVE SOLND 1/2MXF 24V-50/60				2		
P-2870	VALVE SOLND 5/8MXF 24V-50/60					2	2

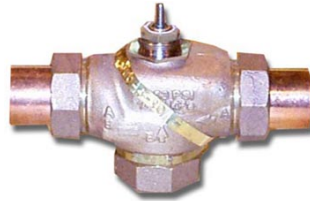
6.1.7. 3-Way Chilled Water

6.1.7.1. Standard Pressure



Part Number	Description	6/8/10T	15/20/30T
159010P2	VALVE 1-1/2" 3WAY UNION BODY	1	
159010P3	VALVE 2" 3WAY UNION BODY		1

6.1.7.2. High Pressure



Part Number	Description	6/8/10T	15/20/30T
159007P5	VALVE CW3WAY 1-1/2" 250# B/C	1	
159007P6	VALVE CW3WAY 2" 250# B/C		1

6.1.8. Actuator Assembly

6.1.8.1. Standard Pressure



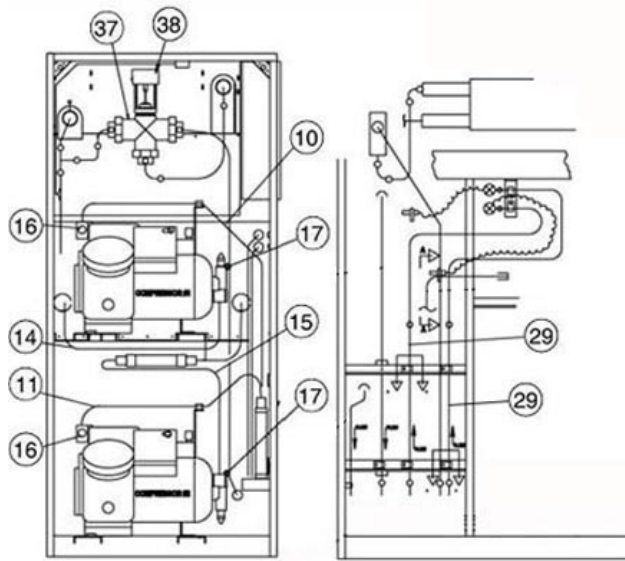
Part Number	Description	6/8/10T	15/20/30T
146350P1	MOTOR MOD 24VAC 50/60HZ SML JC	1	1
127709G3	WH LV P22 126" WH	1	
127709G4	WH LV P22 151" WH		1

6.1.8.2. High Pressure



Part Number	Description	6/8/10T	15/20/30T
1C23803P4	ACTUATOR 150# NON SPRG RTN	1	1
1C23804P1	ACTUATOR LNKG B/C HP .50 LIFT	1	1
1C16609G1	WH P22 CW ACTUATOR	1	1

6.2. Air Cooled



- 10. Discharge Assembly #1
- 11. Discharge Assembly #2
- 14. Suction Assembly #1
- 15. Suction Assembly #2
- 16. Bolts and Gaskets
- 17. Catch Piping
- 29. Catch Piping
- 37. 3-Way Chilled Water
- 38. Actuator Assembly

6.3. Hot Gas Bypass

6.3.1. Bypass Valve



Part Number	Description	6T	8T	10T	15T	20T	30T
P-0180	VALVE BYPASS/DISCH 1/2ODF SLDR	*	*	*			
P-0190	VALVE BYPASS/DISCH 5/8ODF SLDR				*		
P-018A	VALVE BYPASS/DISCH 7/8ODF SLDR					*	*

Qty of (1) is used on 1 circuit Hot Gas Bypass.
Qty of (2) is used on 2 circuit Hot Gas Bypass.

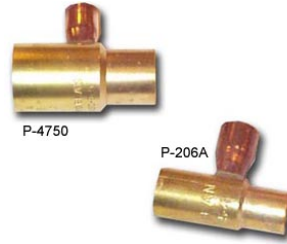
6.3.2. Solenoid Valve



Part Number	Description	6T	8T	10T	15T	20T	30T
P-0080	VALVE SOLND 1/2MXF 24V-50/60	*	*	*			
P-2870	VALVE SOLND 5/8MXF 24V-50/60				*		
P-287A	VALVE SOLND 7/8MXF 24V-50/60					*	*

Qty of (1) is used on 1 circuit Hot Gas Bypass.
Qty of (2) is used on 2 circuit Hot Gas Bypass.

6.3.3. Auxiliary Connector

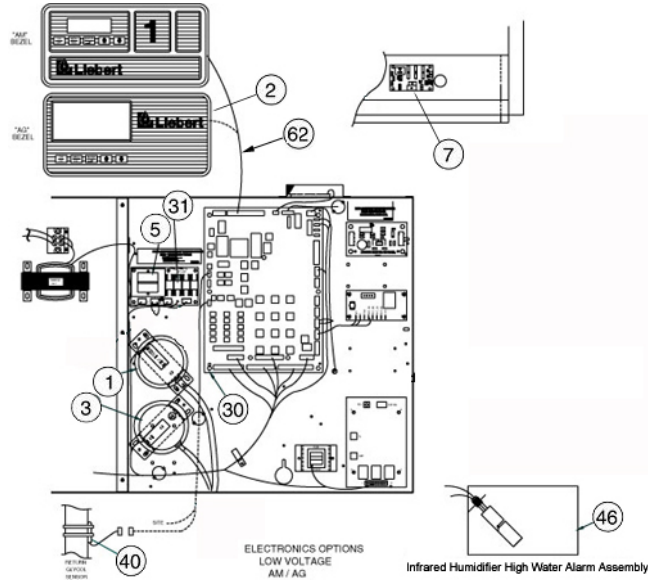


Part Number	Description	6T	8T	10T	15T	20T	30T
P-206A	CONN AUX SIDE HOT-GAS	*	*	*			
P-4750	CONN AUX SIDE HOT GAS 1-1/8				*	*	*
* Qty of (1) is used on 1 circuit Hot Gas Bypass. * Qty of (2) is used on 2 circuit Hot Gas Bypass.							

7. Electrical Section

7.1. Electrical Panel

7.1.1. Advanced Microprocessor



- | | |
|--------------------------------|---------------------------|
| 1. Switch Airflow Sensing | 30. PWA Universal Control |
| 2. Display ASM | 31. Fuse Glass |
| 3. Switch Airflow Differential | 40. Sensor |
| 5. PWA ISO Transformer | 46. High Water Alarm |
| 7. PWA SMT Temp | |

7.1.1.1. Switch Airflow Sensing



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
B02-0190	SW AIRFLO SENSING	ALL	1	1	1	1	1	1

7.1.1.2. Display ASM



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
166819G1	DISPLAY ASM AM 4X20 UNIV 24/WH	ALL	1	1	1	1	1	1

7.1.1.3. Switch Airflow Differential


Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
128199P1	SW AIR DIFFERENTIAL 2PORTS	ALL	1	1	1	1	1	1

7.1.1.4. PWA ISO Transformer


Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
4C14651G1	PWA ISO XFMR/FUSE INTF	ALL	1	1	1	1	1	1

7.1.1.5. PWA SMT Temp


Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
4C13121G4	PWA SMT TEMP/HUM GEN EAST	ALL	1	1	1	1	1	1

7.1.1.6. PWA Universal Control


Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
415761G2	PWA UNIVERSAL CONTROL AM	ALL	1	1	1	1	1	1

7.1.1.7. Fuse Glass



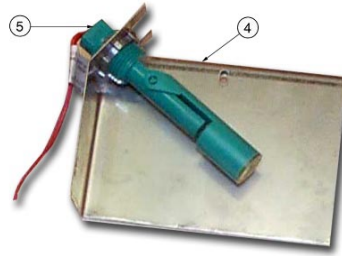
Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
135409P2	FUSE GLASS 250V 4AMP .25X1.25	ALL 60Hz	4	4	4	4	4	4
153509P1	FUSE 250V 1.5AMP	ALL	1	1	1	1	1	1
135637P2	FUSE KIT QTY 8 4A NON-TD FUSES	ALL 60Hz	1	1	1	1	1	1
Fuse kit contains (6) 135409P2 Fuses and (2) 153509P1 Fuses.								

7.1.1.8. Sensor



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
148039P1	SENSOR GLYCOL W/PLUG	ALL	1	1	1	1	1	1

7.1.1.9. High Water Alarm



4. SW Liquid Level

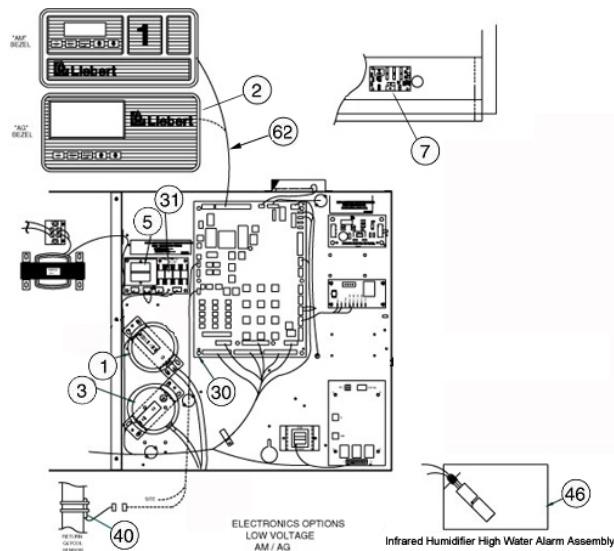
5. SW Liquid Level



Item #	Part Number	Description	Volts	6/8/10/15T	20/22/30T
4	1C18661P2	BRKT HUM MTG LIQ LEV SW DX	ALL	1	1

Item #	Part Number	Description	Volts	6/8/10/15T	20/22/30T
5	1A18660P1	SW LEVEL LIQUID GEMS LS-7	ALL	1	1

7.1.2. Advanced Graphics



- | | |
|--------------------------------|---------------------------|
| 1. Switch Airflow Sensing | 30. PWA Universal Control |
| 2. Display ASM | 31. Fuse Glass |
| 3. Switch Airflow Differential | 40. Sensor |
| 5. PWA ISO Transformer | 46. High Water Alarm |
| 7. PWA SMT Temp | 62. Cable Assembly |

7.1.2.1. Display ASM



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
139140G1	DISPLAY ASM L15 GRAPHICS	ALL	1	1	1	1	1	1

7.1.2.2. PWA Universal Control



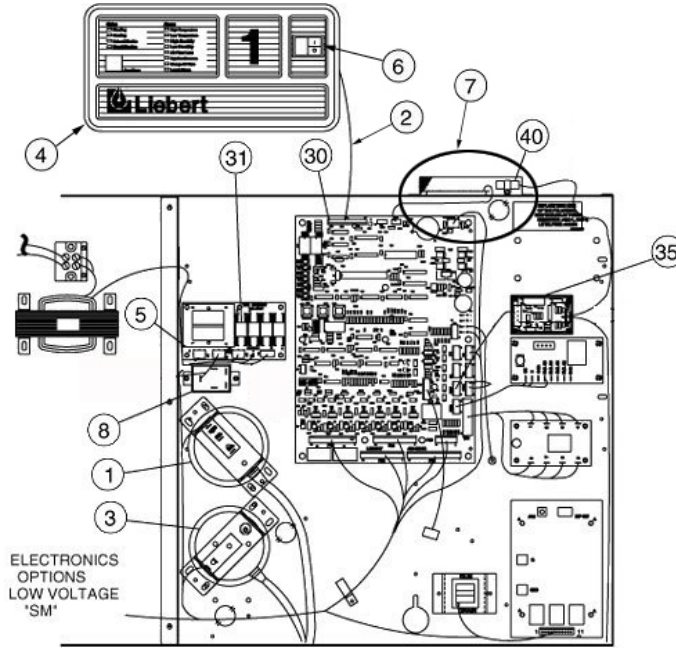
Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
415761G3	PWA UNIVERSAL CONTROL AG	ALL	1	1	1	1	1	1

7.1.2.3. Cable Assembly



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
1C13999G1	CABLE ASSY SYS3 LEVEL 0 R	ALL	1	1	1	1	1	1
Used on SM Controls.								
139147G1	WH DISPLAY AG TO CNTL BD 20"	ALL	1	1	1	1	1	1
Used on AG Controls.								

7.1.3. Standard Microprocessor



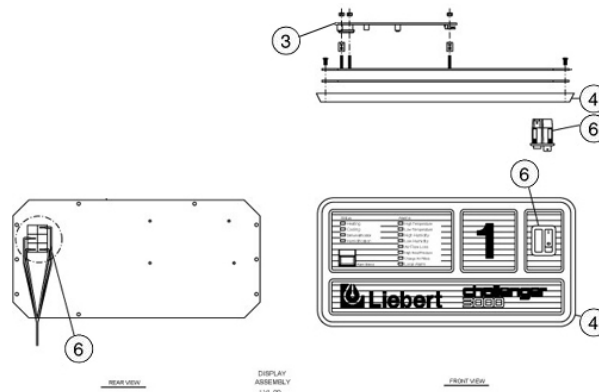
- | | |
|--------------------------------|---------------------------|
| 1. Switch Airflow Sensing | 7. PWA SMT Temp |
| 2. Cable Assembly | 8. Relay |
| 3. Switch Airflow Differential | 30. PWA Universal Control |
| 4. Display Assembly | 31. Fuse Glass |
| 5. PWA ISO Transformer | 35. PWA Glycol System |
| 6. Switch Rocker | 40. Sensor |

7.1.4. Cable Assembly



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
1C13999G1	CABLE ASSY SYS3 LEVEL 0 R	ALL	1	1	1	1	1	1
Used on SM Controls.								

7.1.5. Display Assembly



- 3. PWA Display
- 4. Bezel
- 6. Switch Rocker

7.1.5.1. PWA Display



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
4C14591G1	PWA DISPLAY LVLOO W/ALARM	ALL	1	1	1	1	1	1

7.1.5.2. Bezel



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
4D10399P1	BEZEL CNTR DISP SG/AM/00	ALL	1	1	1	1	1	1
1D24397P1	BEZEL CNTR DISP AG/AM/00	ALL	1	1	1	1	1	1

7.1.6. Switch Rocker



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
140589P1	SW ROCKER W/INDEP 28VDC L	ALL	1	1	1	1	1	1

7.1.7. Relay



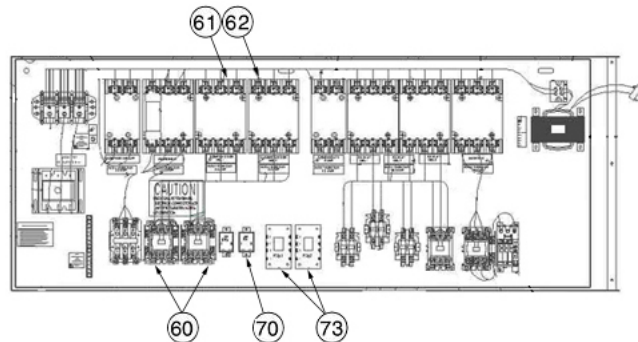
Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
E03-0170	RELAY 1P2T 24V 50/60HZ	ALL	1	1	1	1	1	1

7.1.8. PWA Universal Control

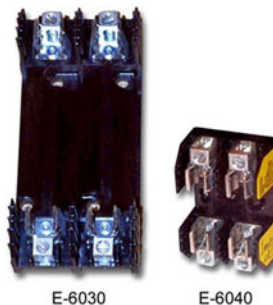

Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
4D14331G2	PWA CNTL 00 SM DX	ALL	1	1	1	1	1	1

7.1.9. PWA Glycol System


Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
4D14431G1	PWA GLYCOL SYSTEM 3	ALL	1	1	1	1	1	1

7.2. Back Panel


- | | |
|-----------------------|------------------|
| 95. Fuseblock | 105. Transformer |
| 96. Fuse Dual Element | 106. Power Block |

7.2.1. Fuseblock


Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
E-6030	FUSEBLOCK 600V 2P 030A	460/57 5V	1	1	1	1	1	1
E-6040	FUSEBLOCK 250V 2P 030A	208/23 0V	1	1	1	1	1	1

7.2.2. Fuse Dual Element



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
E-194C	FUSE DUAL ELMNT 600V 1.2AMP	460/57 5V	2	2	2	2	2	2
E-203D	FUSE DUAL ELMNT 250V 2.8AMP	208/23 0V	2	2	2	2	2	2

7.2.3. Transformer



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
*E-007A	XFMR 075VA 60 230- 24	230V	1	1	1	1	1	1
*E-007B	XFMR 075VA 60 460- 24	460V	1	1	1	1	1	1
*E-007C	XFMR 075VA 60 575- 24	575V	1	1	1	1	1	1
* E-276C	CB 3.2A BRKT MNT ETA	ALL	1	1	1	1	1	1
136202P1	XFMR 300VA 460- 615/2460	460/57 5V	1	1	1	1	1	1
136203P1	XFMR 400VA 200- 240/24V	208/23 0V	1	1	1	1	1	1

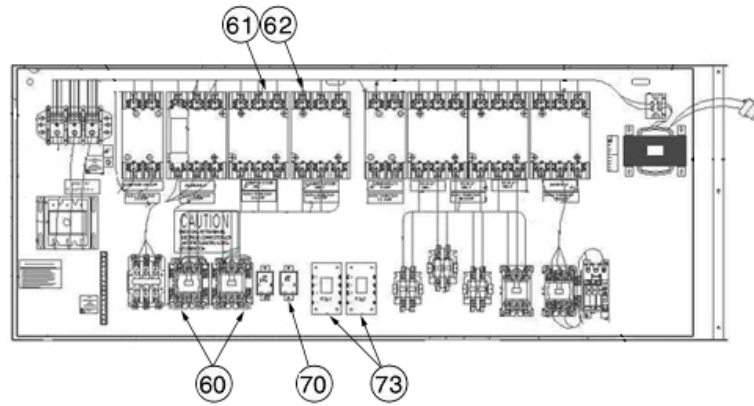
* Transformers are used with Standard Microprocessor Controls with 2 Circuit Hot Gas Bypass.

7.2.4. Power Block



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
136205P1	PWRBLK 2PL 600V 65A TCHPR	ALL	1	1	1	1	1	1

7.3. Compressor



- 60. Contactor
- 61. Fuse Dual Element
- 62. Fuseblock
- 70. Relay
- 73. Relay

7.3.1. Contactor



12373P1



123280P1



123281P1



123282P1/123282P1

Part Number	Description	Tonnage Voltage	6/8/10		15		20		30	
			208/ 230	460/ 575	208/ 230	460/ 575	208/ 230	460/ 575	208/ 230	460/ 575
123273P1	CONTACTOR 3PL 25/30 NO/NC		2	2		2		2		
123280P1	CONTACTOR 3PL 30/40 NO/NC									2
123281P1	CONTACTOR 3PL 40/50 NO/NC				2					
123282P1	CONTACTOR 3PL 50/63 NO/NC						2			
123283P1	CONTACTOR 3PL 65/75 NO/NC								2	

7.3.2. Fuse Dual Element



Part #	Description	6T		8/10 T		15 T	
		208/ 230V	460/5 75V	208/ 230V	460/ 575V	208/ 230V	460/ 575V
E-2410	FUSE DUAL ELMNT 600V		6		6		

Part #	Description	6T		8/10 T		15 T	
		208/ 230V	460/5 75V	208/ 230V	460/ 575V	208/ 230V	460/ 575V
	15.0AMP						
E-1230	FUSE DUAL ELMNT 250V 20.0AMP	6					
E-3050	FUSE DUAL ELMNT 600V 25.0AMP						6
E-2090	FUSE DUAL ELMNT 250V 30.0AMP			6			
E-1100	FUSE DUAL ELMNT 600V 30.0AMP						
E05-3810	FUSE DUAL ELMNT 600V 45.0AMP						
E-3060	FUSE DUAL ELMNT 250V 50.0AMP					6	
E-1160	FUSE DUAL ELMNT 250V 60.0AMP						
E-1120	FUSE DUAL ELMNT 250V 90.0AMP						

Part #	Description	20 T		30 T	
		208/ 230V	460/ 575V	208/ 230V	460/ 575V
E-2410	FUSE DUAL ELMNT 600V 15.0AMP				
E-1230	FUSE DUAL ELMNT 250V 20.0AMP				
E-3050	FUSE DUAL ELMNT 600V 25.0AMP				
E-2090	FUSE DUAL ELMNT 250V 30.0AMP				
E-1100	FUSE DUAL ELMNT 600V 30.0AMP		6		
E05-3810	FUSE DUAL ELMNT 600V 45.0AMP				6
E-3060	FUSE DUAL ELMNT 250V 50.0AMP				
E-1160	FUSE DUAL ELMNT 250V 60.0AMP	6			
E-1120	FUSE DUAL ELMNT 250V 90.0AMP			6	

7.3.3. Fuseblock



Part Number	Description	Tonnage Voltage	6/8/10		15/20		30	
			208/ 230	460/ 575	208/ 230	460/ 575	208/ 230	460/ 575
E-1050	FUSEBLOCK 600V 3P 030A			2		2		
E-1020	FUSEBLOCK 250V 3P 030A	2						
E-1040	FUSEBLOCK 250V 3P 060A				2			
E-105A	FUSEBLOCK 600V 3P 060A							2
E-1041	FUSEBLOCK 250V 3P 100A						2	

7.3.4. Relay



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
-------------	-------------	-------	----	----	-----	-----	--------	-----

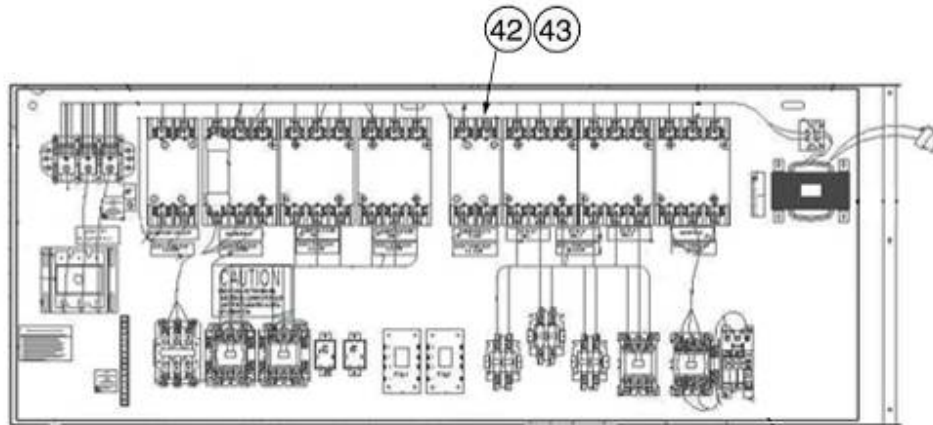
Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
E03-0170	RELAY 1P2T 24V 50/60HZ	ALL	1	1	1	1	1	1

7.3.5. Relay



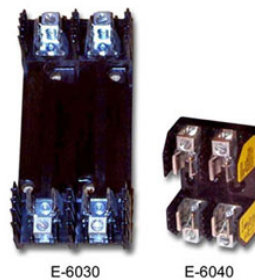
Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
1C14432P1	RELAY T/D 2P2T 24VAC 3MIN	ALL		2	2	2	2	2

7.4. Condensate Pump



- 42. Fuseblock
- 43. Fuse Dual Element

7.4.1. Fuseblock



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
E-6040	FUSEBLOCK 250V 2P 030A	208/230V	1	1	1	1	1	1
E-6030	FUSEBLOCK 600V 2P 030A	460/575V	1	1	1	1	1	1
Units that are 575 Volts require step down transformer: E05-4600.								

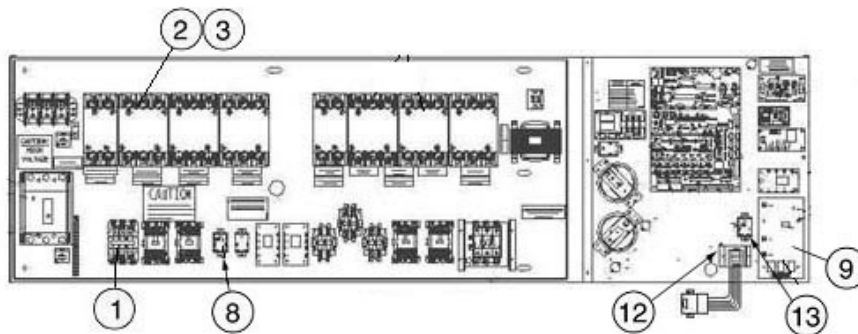
7.4.2. Fuse Dual Element



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
E-203D	FUSE DUAL ELMNT 250V 02.8AMP	208/230V	2	2	2	2	2	2
E-1951	FUSE DUAL ELMNT 600V 02.8AMP	460/575V	2	2	2	2	2	2

7.5. Humidifier

7.5.1. Humidifier Infrared



- 1. Contactor
- 2. Fuse Dual Element
- 3. Fuseblock

7.5.1.1. Contactor



Part Number	Description	Tonnage Voltage	6/8/10				20/30			
			208	230	460	575	208	230	460	575
E-0100	CONTACTOR 3PL 24VCOIL 40/50AMP		1	1	1		1	1	1	1
E-011C	CONTACTOR 2PL 24VCOIL 40/50AMP					1				

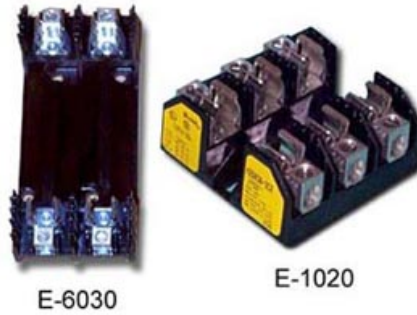
7.5.1.2. Fuse Dual Element



Part	Description	Tonnage	6/8/10/15T	20/30T
------	-------------	---------	------------	--------

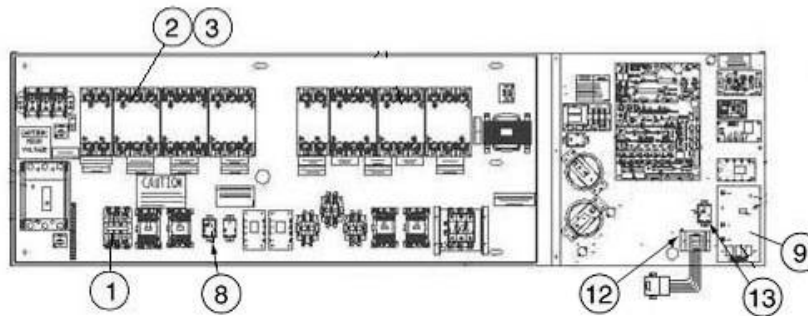
Number	Voltage	208	230	460	575	208	230	460	575
E-2020	FUSE DUAL ELEMENT 600V 20.0 AMP			3	2				
E-1200	FUSE DUAL ELEMENT 250V 35.0 AMP	3				3			
E-2090	FUSE DUAL ELEMENT 250V 30.0 AMP		3				3		
E-2730	FUSE DUAL ELEMENT 600V 17.5 AMP							3	
E-2410	FUSE DUAL ELEMENT 600V 15.0 AMP								3

7.5.1.3. Fuseblock



Part Number	Description	Tonnage	6/8/10/15T				20/30T			
		Voltage	208	230	460	575	208	230	460	575
E-2020	FUSE DUAL ELEMENT 600V 20.0 AMP				3	2				
E-1200	FUSE DUAL ELEMENT 250V 35.0 AMP		3				3			
E-2090	FUSE DUAL ELEMENT 250V 30.0 AMP			3				3		
E-2730	FUSE DUAL ELEMENT 600V 17.5 AMP								3	
E-2410	FUSE DUAL ELEMENT 600V 15.0 AMP									3

7.5.2. Steam Generating



- 1. Contactor
- 2. Fuse Dual Element
- 3. Fuseblock
- 8. Relay
- 9. Kit Humidifier Control Board
- 12. SW Manual Drain
- 13. Relay

7.5.2.1. Contactor



Part Number	Description	Tonnage Voltage	6/8/10T			15/20/30T		
			208	230	460	208	230	460
E-0110	CONTACTOR 3PL 24VCOIL 25/30AMP		1	1	1		1	1
E-009F	CONTACTOR 3PL 24VCOIL 30/40AMP					1		

7.5.2.2. Fuse Dual Element



Part Number	Description	Tonnage Voltage	6/8/10T			15/20/30T		
			208	230	460	208	230	460
E-2410	FUSE DUAL ELMNT 600V 15.0AMP				3			3
E-2740	FUSE DUAL ELMNT 250V 17.5AMP		3					
E-2070	FUSE DUAL ELMNT 250V 15.0			3				
E-1200	FUSE DUAL ELMNT 250V 35.0AMP					3		
E-2090	FUSE DUAL ELMNT 250V 30.0AMP						3	

7.5.2.3. Fuseblock



Part Number	Description	Tonnage Voltage	6/8/10T			15/20/30T		
			208	230	460	208	230	460
E-1050	FUSEBLOCK 600V 3P 030A				1			1
E-1020	FUSEBLOCK 250V 3P 030A		1	1			1	
E-1040	FUSEBLOCK 250V 3P 060A					1		

7.5.2.4. Relay

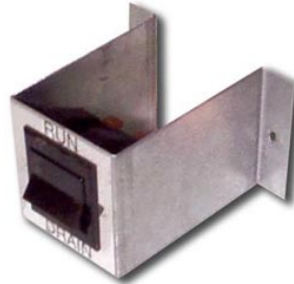


Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
E03-0170	RELAY 1P2T 24V 50/60HZ	ALL	2	2	2	2	2	2

7.5.3. Kit Humidifier Control Board

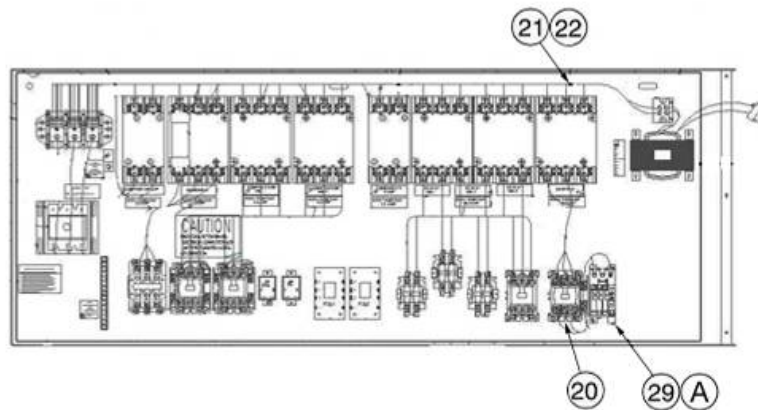
Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
183116P1S	KIT HUMIDIFIER CONTROL BOARD	ALL	1	1	1	1	1	1

7.5.4. SW Manual Drain



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
121794P1	SW MANUAL DRAIN HUM(H-TYPE)	ALL	1	1	1	1	1	1

7.6. Motor Section



- 20. Contactor
- 21. Fuseblock
- 22. Fuse Dual Element
- 29. Overload Relay
- A. Heater

7.6.1. Contactor



Part #	Description	Tonnage		6/8/10		15		20		30	
		Motor HP		1/1.5/2/3		5		7.5		10	
		Voltage		208/ 230	460/ 575	208/ 230	460/ 575	208/ 230	460/ 575	208/ 230	460/ 575
124501P1	CONTACTOR 3PL 24VCOIL 15/20AMP	1	1		1						
E-0110	CONTACTOR 3PL 24VCOIL 25/30AMP			1							
E-009F	CONTACTOR 3PL 24VCOIL 30/40AMP					1	1				1
E-0100	CONTACTOR 3PL 24VCOIL 40/50AMP									1	

7.6.2. Fuseblock



Part Number	Description	Motor HP	1/1.5/2/3/5 HP				7.5/10 HP			
		Tonnage	6/8/10/15T				20/30T			
		Voltage	208	230	460	575	208	230	460	575
E-1050	FUSEBLOCK 600V 3P 030A				1	1			1	1
E-1020	FUSEBLOCK 250V 3P 030A	1	1							
E-1040	FUSEBLOCK 250V 3P 060A					1	1			

7.6.3. Fuse Dual Element



Part #	Description	Tonnage		6/8/10		15		20		30	
		Motor HP		1/1.5/2/3		5		7.5		10	
		Voltage		208/ 230	460/ 575	208/ 230	460/ 575	208/ 230	460/ 575	208/ 230	460
E-2410	FUSE DUAL ELMNT 600V 15.0AMP		3		3			3			
E-2070	FUSE DUAL ELMNT 250V 15.0AMP	3									
E-2080	FUSE DUAL ELMNT 250V 25.0AMP			3							

Part #	Description	Tonnage	6/8/10		15		20		30		
		Motor HP	1/1.5/2/3		5		7.5		10		
		Voltage	208/ 230	460/ 575	208/ 230	460/ 575	208/ 230	460/ 575	208/ 230	460	575
E-1200	FUSE DUAL ELMNT 250V 35.0AMP						3				
E-2020	FUSE DUAL ELMNT 600V 20.0AMP									3	
E-2730	FUSE DUAL ELMNT 600V 17.5AMP										3
E-6050	FUSE DUAL ELMNT 250V 45.0AMP								3		

7.6.4. Overload Relay



Overload Relay

Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
124547P1	OVERLOAD RELAY W/B MNT 32	ALL	1	1	1	1	1	1

7.6.5. Heater

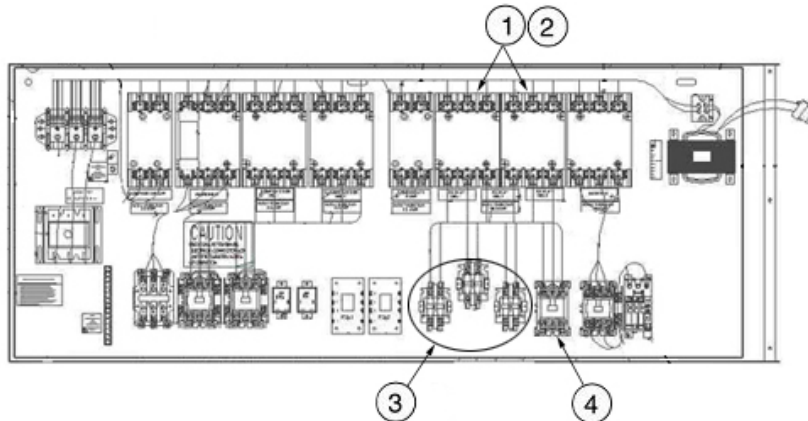


Part Number	Description	Quantity/Unit
124549P1	HEATER CLASS 10 .283A-.420A C-H	3
124549P2	HEATER CLASS 10 .384A-.623A C-H	3
124549P3	HEATER CLASS 10 .570A-.924A C-H	3
124549P4	HEATER CLASS 10 .846A-1.37A C-H	3
124549P5	HEATER CLASS 10 1.28A-2.10A C-H	3
124549P6	HEATER CLASS 10 1.92A-3.15A C-H	3
124549P7	HEATER CLASS 10 2.30A-3.77A C-H	3
124549P8	HEATER CLASS 10 3.38A-5.54A C-H	3
124549P9	HEATER CLASS 10 4.96A-8.16A C-H	3
124549P10	HEATER CLASS 10 7.07A-11.6A C-H	3
124549P11	HEATER CLASS 10 9.6A-14.4A C-H	3
124549P12	HEATER CLASS 10 14.4A-23.8A C-H	3
124549P13	HEATER CLASS 10 18.7A-28.1A C-H	3
124549P14	HEATER CLASS 10 23.5A-34.8A C-H	3

The Heaters are selected based on the motor's Full Load Amps for the line voltage of the unit.

7.7. Reheat Section

7.7.1. 1 Stage



- 1. Fuse Dual Element
- 2. Fuseblock
- 3. Contactor
- 4. Contactor

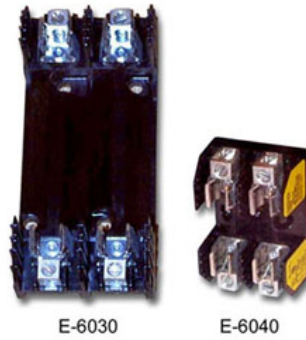
7.7.1.1. Fuse Dual Element



Part Number	Description	Tonnage Voltage	6T				8/10T			
			208	230	460	575	208	230	460	575
E-2410	FUSE DUAL ELMNT 600V 15.0AMP				2	2			2	2
E-1230	FUSE DUAL ELMNT 250V 20.0AMP		2	2						
E-1200	FUSE DUAL ELMNT 250V 35.0AMP						2			
E-2090	FUSE DUAL ELMNT 250V 30.0AMP							2		
E-3050	FUSE DUAL ELMNT 600V 25.0AMP									
E-2020	FUSE DUAL ELMNT 600V 20.0AMP									
E-1160	FUSE DUAL ELMNT 250V 60.0AMP									
E-3060	FUSE DUAL ELMNT 250V 50.0AMP									
E-1100	FUSE DUAL ELMNT 600V 30.0AMP									

Part Number	Description	Tonnage Voltage	15T				20/30T			
			208	230	460	575	208	230	460	575
E-3050	FUSE DUAL ELMNT 600V 25.0AMP				2					2
E-2020	FUSE DUAL ELMNT 600V 20.0AMP					2				
E-1160	FUSE DUAL ELMNT 250V 60.0AMP		2				2	2		
E-3060	FUSE DUAL ELMNT 250V 50.0AMP			2						
E-1100	FUSE DUAL ELMNT 600V 30.0AMP								2	

7.7.1.2. Fuseblock



Part Number	Description	Tonnage Voltage	6T				8/10T			
			208	230	460	575	208	230	460	575
E-6030	FUSEBLOCK 600V 2P 030A				1	1			1	1
E-6040	FUSEBLOCK 250V 2P 030A		1	1				1		
129629P 1	FUSEBLOCK 250V 2P 060A						1			

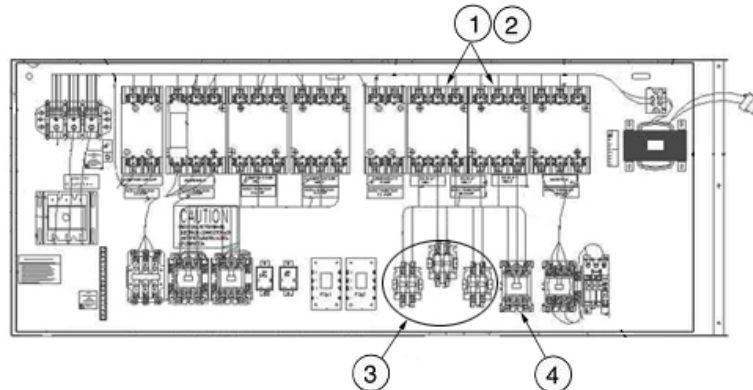
Part Number	Description	Tonnage Voltage	15T				20/30T			
			208	230	460	575	208	230	460	575
E-6030	FUSEBLOCK 600V 2P 030A				1	1			1	1
E-6040	FUSEBLOCK 250V 2P 030A									
129629P1	FUSEBLOCK 250V 2P 060A		1	1			1	1		

7.7.1.3. Contactor



Part Number	Description	Tonnage Voltage	6/8/10		15/20/30	
			208/230	460/575	208/230	460/575
E-011A	CONTACTOR 2PL 24VCOIL 20/30AMP		1	1		1
E-011C	CONTACTOR 2PL 24VCOIL 40/50AMP				1	

7.7.2. 3 Stage



1. Fuse Dual Element
2. Fuseblock
3. Contactor
4. Contactor

7.7.2.1. Fuse Dual Element



Part Number	Description	Tonnage Voltage	6T				8/10T			
			208	230	460	575	208	230	460	575
E-2410	FUSE DUAL ELMNT 600V 15.0AMP				6	6			6	6
E-1230	FUSE DUAL ELMNT 250V 20.0AMP		6	6						
E-1200	FUSE DUAL ELMNT 250V 35.0AMP						6			
E-2090	FUSE DUAL ELMNT 250V 30.0AMP							6		

Part Number	Description	Tonnage Voltage	15T				20/30T			
			208	230	460	575	208	230	460	575
E-3050	FUSE DUAL ELMNT 600V 25.0AMP				6					6
E-2020	FUSE DUAL ELMNT 600V 20.0AMP					6				
E-1160	FUSE DUAL ELMNT 250V 60.0AMP		6				6	6		
E-3060	FUSE DUAL ELMNT 250V 50.0AMP			6						
E-1100	FUSE DUAL ELMNT 600V 30.0AMP								6	

7.7.2.2. Fuseblock



Part Number	Description	Tonnage Voltage	6T				8/10T			
			208	230	460	575	208	230	460	575
E-1050	FUSEBLOCK 600V 3P 030A				2	2			2	2
E-1020	FUSEBLOCK 250V 3P 030A		2	2				2		
E-1040	FUSEBLOCK 250V 3P 060A						2			

Part Number	Description	Tonnage Voltage	15T				20/30T			
			208	230	460	575	208	230	460	575
E-1050	FUSEBLOCK 600V 3P 030A				2	2			2	2
E-1020	FUSEBLOCK 250V 3P 030A									
E-1040	FUSEBLOCK 250V 3P 060A		2	2			2	2		

7.7.2.3. Contactor

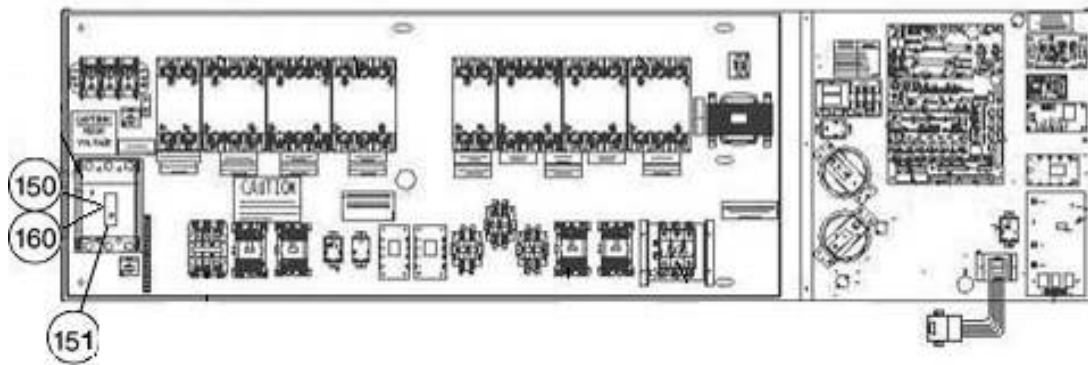


Part Number	Description	Tonnage Voltage	6T				8/10T			
			208	230	460	575	208	230	460	575
E-011A	CONTACTOR 2PL 24VCOIL 20/30AMP		3	3	3	3	3	3	3	3
E-011C	CONTACTOR 2PL 24VCOIL 40/50AMP									

Part Number	Description	Tonnage Voltage	15T				20/30T			
			208	230	460	575	208	230	460	575
E-011A	CONTACTOR 2PL 24VCOIL 20/30AMP				3	3			3	3
E-011C	CONTACTOR 2PL 24VCOIL 40/50AMP		3	3			3	3		

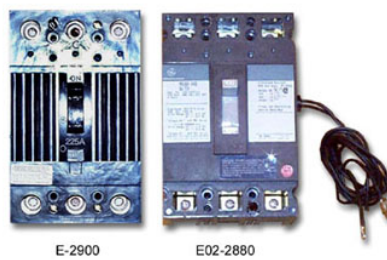
7.8. Panel Disconnect

7.8.1. General Electric



- 150. Switch Disc
- 151. Non Locking Bracket
- 160. Switch Disc Locking

7.8.1.1. Switch Disc



Part Number	Description	Tonnage Voltage	6T				8/10T			
			208	230	460	575	208	230	460	575

Part Number	Description	Tonnage Voltage	6T				8/10T			
			208	230	460	575	208	230	460	575
E-2900	SW DISC 240V 3PL 225A									
*E02-2900	SW DISC 240V 3PL 225A 120									
*E02-2880	SW DISC 480V 3PL 100A 120			1					1	
*E02-2890	SW DISC 480V 3PL 100A 120		1	1			1	1		
*E02-2910	SW DISC 600V 3PL 100A 120					1				1
* Shunt Trip Disconnect										

Part Number	Description	Tonnage Voltage	15T				20/30T			
			208	230	460	575	208	230	460	575
E-2900	SW DISC 240V 3PL 225A		1	1			1	1		
*E02-2900	SW DISC 240V 3PL 225A 120		1	1			1	1		
*E02-2880	SW DISC 480V 3PL 100A 120				1				1	
*E02-2890	SW DISC 480V 3PL 100A 120									
*E02-2910	SW DISC 600V 3PL 100A 120					1				1
* Shunt Trip Disconnect										

7.8.1.2. Non Locking Bracket



Part Number	Description	Tonnage Voltage	6T				8/10T			
			208	230	460	575	208	230	460	575
F02-2150	BRKT NON LKDISC OPER 100		1	1	1	1	1	1	1	1
F02-2130	BRKT LKDISC OPER 100		1	1	1	1	1	1	1	1
F02-2160	BRKT NON LKDISC OPER 225									
F02-2140	BRKT LKDISC OPER 225									
* Shunt Trip Disconnect										

Part Number	Description	Tonnage Voltage	15/T				20/30T			
			208	230	460	575	208	230	460	575
F02-2150	BRKT NON LKDISC OPER 100				1	1			1	1
F02-2130	BRKT LKDISC OPER 100				1	1			1	1
F02-2160	BRKT NON LKDISC OPER 225		1	1			1	1		
F02-2140	BRKT LKDISC OPER 225		1	1			1	1		
* Shunt Trip Disconnect										

7.8.1.3. Switch Disc Locking

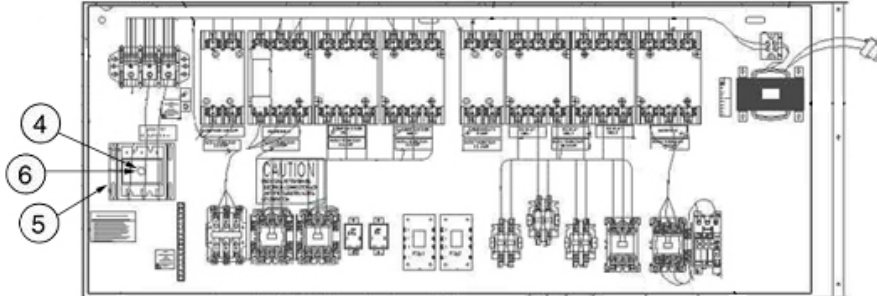


Part Number	Description	Tonnage Voltage	6T				8/10T			
			208	230	460	575	208	230	460	575
E-288A	SW DISC LOKG HANDLE ROTARY		1	1	1	1	1	1	1	1
E-290A	SW DISC LOKG HANDLE ROTARY									
E-288B	SW DISC LOKG RING CATCH		1	1	1	1	1	1	1	1

Part Number	Description	Tonnage Voltage	15T				20/30T			
			208	230	460	575	208	230	460	575
E-288A	SW DISC LOKG HANDLE ROTARY				1	1			1	1

Part Number	Description	Tonnage	15T				20/30T			
		Voltage	208	230	460	575	208	230	460	575
E-290A	SW DISC LOKG HANDLE ROTARY		1	1			1	1		
E-288B	SW DISC LOKG RING CATCH		1	1	1	1	1	1	1	1

7.8.2. Klockner-Moeller



- 4. Collar Disc Locking
- 5. Bracket Disc
- 6. Switch Disc Locking

7.8.2.1. Collar Disc Locking



Part Number	Description	Volts	6T	8T	10T	15T	20T	30T
1C18354P1	COLLAR LKG DISC W/2 SCREW	ALL	1	1	1	1	1	1
1C18352P1	HANDLE DISC SWT/FACEPLATE K/M	ALL	1	1	1	1	1	1
1A18353P1	SHAFT EXTENSION K/M DISC SWT	ALL	1	1	1	1	1	1

7.8.2.2. Bracket Disconnect



Part Number	Description	Volts	6T	8T	10T	15T	20T	30T
1C18603P1	BRKT DISC K/M	ALL	1	1	1	1	1	1

7.8.2.3. Switch Disconnect



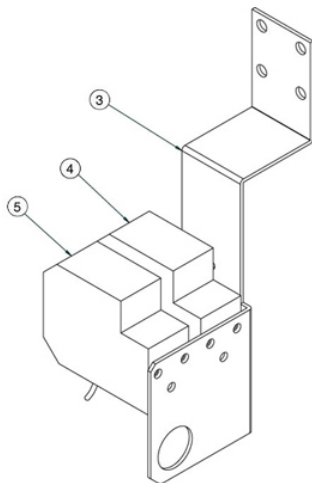
Part Number	Description	Tonnage Voltage	6T				8/10T			
			208	230	460	575	208	230	460	575
1C18351P2	SW DISC 600V 3PL 60A				1	1			1	1
1C18351P1	SW DISC 600V 3PL 100A		1	1			1	1		

Part Number	Description	Tonnage Voltage	15T				20/30T			
			208	230	460	575	208	230	460	575
1C18351P2	SW DISC 600V 3PL 60A									
1C18351P1	SW DISC 600V 3PL 100A				1	1			1	1

8. Compressor Section

8.1. Pressure Switch

8.1.1. Carlyle



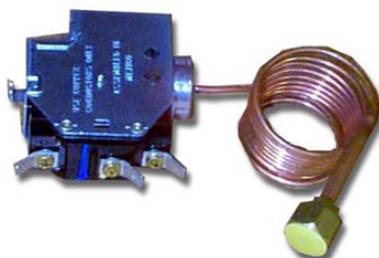
- 3. Press Switch Bracket
- 4. Press Switch
- 5. Low Pressure Switch

8.1.1.1. Press Switch Bracket



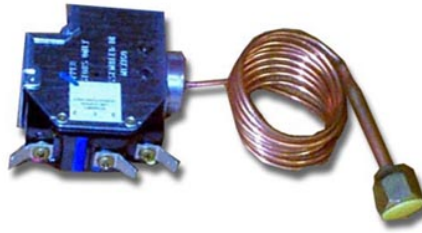
Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
1C16719P1	BRKT PRESS SW CARLYLE	ALL	2	2	2	2	2	2

8.1.1.2. Press Switch



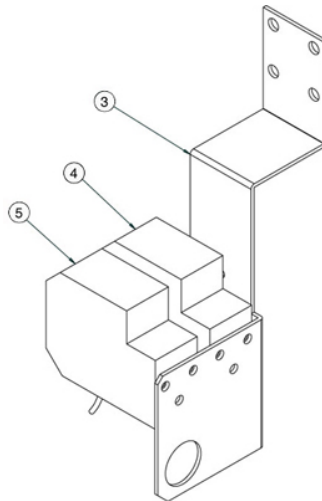
Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
1D15060P1	SW PRES HI 360PSI	ALL	2	2	2	2	2	2

8.1.1.3. Low Pressure Switch



Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
1D15059P1	SW PRES LOW 15/35PSI	ALL	2	2	2	2	2	2
1D15059P1 is used on Air-Cooled units with Fan Speed Control Condensers.								
1D16206P1	SW PRES LOW 20/65PSI	ALL	2	2	2	2	2	2
1D16206P1 is used on Air-Cooled units with Lee-Temp Receiver's and Water/Glycol/Glycool Cooled units.								

8.1.2. Copeland



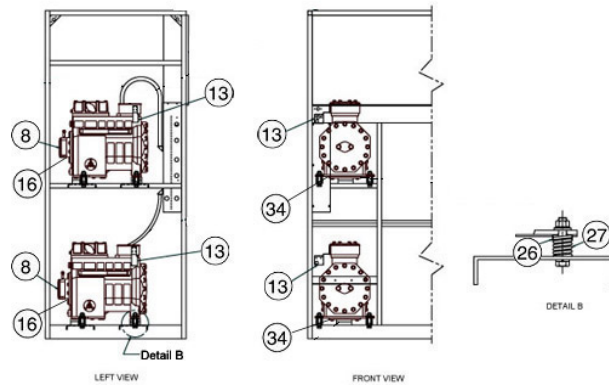
- 3. Press Switch Bracket
- 4. Press Switch
- 5. Low Pressure Switch

8.1.2.1. Press Switch Bracket



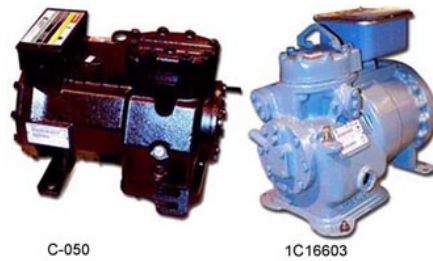
Part Number	Description	Volts	6T	8T	10T	15T	20-22T	30T
1C16720P1	BRKT PRESS SW COPELAND	ALL	2	2	2			

8.2. 6 Ton Compressor



- 8. Compressor
- 13. Pressure Switch
- 16. Gasket Valve
- 26. Spring Retainer
- 27. Spring Kit
- 34. Crankcase Heater

8.2.1. Compressor



Part Number	Remanufactured Part Number	Description	Voltage	Compressor Type
1C16603P1	06DA8086GC3200	COMP S/HERM 208/230-3-60	205/230-3-60	CARLYLE
1C16603P2	06DA8086GC3600	COMP S/HERM 460-3-60	460-3-60	CARLYLE
1C16603P3	06DA8086GC3100	COMP S/HERM 575-3-60	575-3-60	CARLYLE
C-050A	N/A	COMP S/HERM 400/60-3-5/6	400/466-3-50/60	COPELAND
C-050B	N/A	COMP S/HERM 200/30-3-5/6	205//236-3-50/60	COPELAND
C-050C	N/A	COMP S/HERM 575-3-6	575-3-60	COPELAND

8.2.2. Gasket Valve

8.2.2.1. Carlyle



Part Number	Description	6T	8T	10T	15T	20T	30T
C-087A	GASKET VALVE COMP SERVICE	4	2	2	2		
C-088A	GASKET VALVE COMP SERVICE		2	2	2	2	
C-089A	GASKET VALVE COMP SERVICE					2	
S-128A	SCREW CAP HX G8 PO 5/16-18 X 1-3/8	4	4	4			

Part Number	Description	6T	8T	10T	15T	20T	30T
S-129A	SCREW CAP HX G8 P0 5/16-18 X 1-3/4	4	4	4	4		
S-123A	SCREW CAP HX G5 P0 5/16-18 X 2				4	4	4
S-125A	SCREW CAP HX G5 P0 1/2-13 X 2-1/2					8	8

8.2.2.2. Copeland



Part Number	Description	6T	8T	10T
C-088A	GASKET VALVE COMP SERVICE	2	2	
C-080N	GASKET VALVE COMP SERVICE	2	2	2
C-080T	GASKET VALVE COMP SERVICE			2
S-129A	SCREW CAP HX G8 P0 5/16-18 X 1-3/4	4	4	4
S-128A	SCREW CAP HX G8 P0 5/16-18 X 1-3/8	4	4	4
S-5810	SCREW CAP HX G8 P0 1/2-13 X 1-3/4			4

8.2.3. Spring Retainer



Part Number	Description	Quantity	Compressor Type
C-0860	SPRING RETAINER MTG	8	Carlyle

8.2.4. Spring Kit



Part Number	Description	Quantity	Compressor Type
C-0720	KIT SPRING COMP MTG 1/2-13	2	Copeland
C-0850	SPRING COMP MTG	8	Carlyle

8.2.5. Crankcase Heater

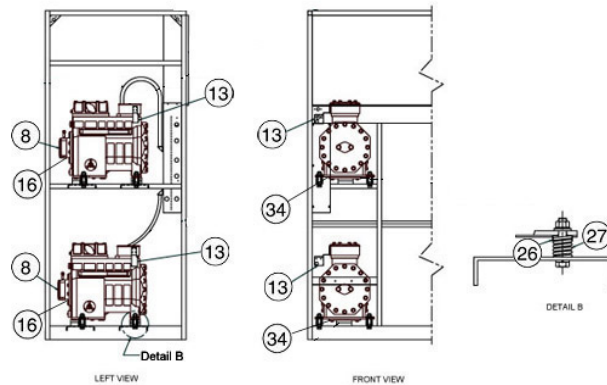


Part Number	Description	Voltage	Quantity	Compressor Type
C06-0010	CRANKCASE HEATER 240V 50W	208/230V	2	Carlyle
C06-0020	CRANKCASE HEATER 440//480 50W	460V	2	Carlyle
C06-0030	CRANKCASE HEATER 550V 50W	575V	2	Carlyle
C05-3010	CRANKCASE HEATER 240V 65W	208/230V	2	Copeland
C05-3020	CRANKCASE HEATER 480V 65W	460V	2	Copeland
C05-3030	CRANKCASE HEATER 550V 65W	575V	2	Copeland

The following parts are Required when adding Crankcase Heaters to Carlyle Compressors.

Part Number	Description	Quantity
C-1310	BRKT CCH CARLYLE 808&313	4
S-1110	WASHER PLAIN FLAT Z 1/4IN	4
1A15004P1	SCREW TPG SLHWH DYZ 1/-20X1/2	4

8.3. 8 Ton Compressor



- 8. Compressor
- 13. Pressure Switch
- 16. Gasket Valve
- 26. Spring Retainer
- 27. Spring Kit
- 34. Crankcase Heater

8.3.1. Compressor



Part Number	Remanufactured Part Number	Description	Voltage	Compressor Type
C-050D	N/A	COMP S/HERM 208/30-3-5/6	208//230-3-50/60	Copeland
C-050E	N/A	COMP S/HERM	460-3-60	Copeland

Part Number	Remanufactured Part Number	Description	Voltage	Compressor Type
		460-3-60		
C-050F	N/A	COMP S/HERM 575-3-60	575-3-60	Copeland
1C16604P1	06DS3136AC3200	COMP S/HERM 208/230-3-60	205//230-3-50/60	Carlyle
1C16604P2	06DS3136AC3600	COMP S/HERM 460-3-60	460-3-60	Carlyle
1C16604P3	06DS3136AC3100	COMP S/HERM 575-3-60	575-3-60	Carlyle
1C18809P1	06DS3136AC3200	COMP S/HERM 208/230-3-60	205//230-3-50/60	Carlyle w/unloader
1C18809P2	06DS3136AC3600	COMP S/HERM 460-3-60	460-3-60	Carlyle w/unloader
1C18809P3	06DS3136AC3100	COMP S/HERM 575-3-60	575-3-60	Carlyle w/unloader

When replacing a Compressor w/unloaders with a Remanufactured Compressor, you will also need Part# **1C16988P1**.

8.3.2. Gasket Valve

8.3.2.1. Carlyle



Part Number	Description	6T	8T	10T	15T	20T	30T
C-087A	GASKET VALVE COMP SERVICE	4	2	2	2		
C-088A	GASKET VALVE COMP SERVICE		2	2	2	2	
C-089A	GASKET VALVE COMP SERVICE					2	
S-128A	SCREW CAP HX G8 P0 5/16-18 X 1-3/8	4	4	4			
S-129A	SCREW CAP HX G8 P0 5/16-18 X 1-3/4	4	4	4	4		
S-123A	SCREW CAP HX G5 P0 5/16-18 X 2				4	4	4
S-125A	SCREW CAP HX G5 P0 1/2-13 X 2-1/2					8	8

8.3.2.2. Copeland



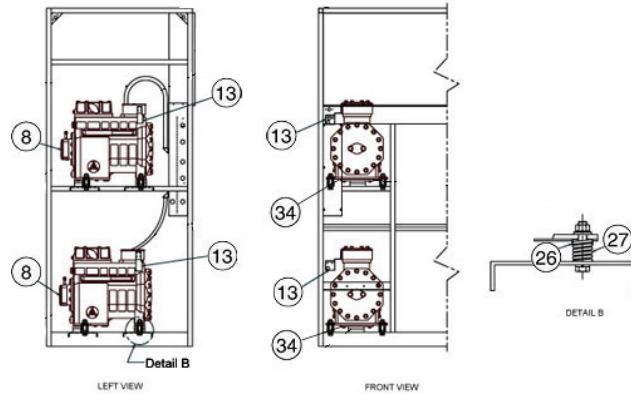
Part Number	Description	6T	8T	10T
C-088A	GASKET VALVE COMP SERVICE	2	2	
C-080N	GASKET VALVE COMP SERVICE	2	2	2
C-080T	GASKET VALVE COMP SERVICE			2
S-129A	SCREW CAP HX G8 P0 5/16-18 X 1-3/4	4	4	
S-128A	SCREW CAP HX G8 P0 5/16-18 X 1-3/8	4	4	4
S-5810	SCREW CAP HX G8 P0 1/2-13 X 1-3/4			4

8.3.3. Kit Spring



Part Number	Description	Quantity	Compressor Type
C-0770	KIT SPRING COMP MTG 1/2-13	2	Copeland
C-0850	SPRING COMP MTG	8	Carlyle

8.4. 10 Ton Compressor



- 8. Compressor
- 13. Pressure Switch
- 26. Spring Retainer
- 27. Compressor Spring
- 34. Crankcase Heater

8.4.1. Compressor



Part Number	Remanufactured Part Number	Description	Voltage	Compressor Type
151030P1	N/A	COMP S/HERM 208/230 2DC3-0500	208//230-3-50/60	Copeland
151030P2	N/A	COMP S/HERM 460 2DC3-0500	460-3-60	Copeland
151030P3	N/A	COMP S/HERM 575 2DC3-0500	575-3-60	Copeland
1C16604P1	06DS3136AC3200	COMP S/HERM 208/230-3-60	205//230-3-50/60	Carlyle
1C16604P2	06DS3136AC3600	COMP S/HERM 460-3-60	460-3-60	Carlyle
1C16604P3	06DS3136AC3100	COMP S/HERM 575-3-60	575-3-60	Carlyle
1C18809P1	06DS3136AC3200	COMP S/HERM	205//230-3-50/60	Carlyle

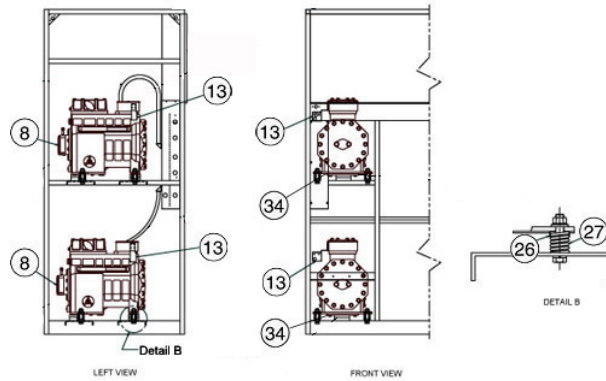
Part Number	Remanufactured Part Number	Description	Voltage	Compressor Type
		208/230-3-60		w/unloader
1C18809P2	06DS3136AC3600	COMP S/HERM 460-3-60	460-3-60	Carlyle w/unloader
1C18809P3	06DS3136AC3100	COMP S/HERM 575-3-60	575-3-60	Carlyle w/unloader
Note: When replacing a compressor with unloaders with a manufactured compressor, you will also need Part # 1C16988P1				

8.4.2. Compressor Spring



Part Number	Description	6T	8T	10T	15T
C-0850	SPRING COMP MTG	8	8	8	8

8.5. 15 Ton Compressor



- | | |
|---------------------|-----------------------|
| 8. Compressor | 27. Compressor Spring |
| 13. Pressure Switch | 34. Crankcase Heater |
| 26. Spring Retainer | |

8.5.1. Compressor



Part Number	Remanufactured Part Number	Description	Voltage	Compressor Type
1C16605P1	06DS8186AC3200	COMP S/HERM 208/230-3-60	205//230-3-50/60	Carlyle
1C16605P2	06DS8186AC3600	COMP S/HERM 460-3-60	460-3-60	Carlyle
1C16605P3	06DS8186AC3100	COMP S/HERM 575-3-60	575-3-60	Carlyle
1C18810P1	06DS8186AC3200	COMP S/HERM 208/230-3-60	205//230-3-50/60	Carlyle w/unloader
1C18810P2	06DS8186AC3600	COMP S/HERM 460-3-60	460-3-60	Carlyle w/unloader
1C18810P3	06DS8186AC3100	COMP S/HERM 575-3-60	575-3-60	Carlyle w/unloader
When replacing a Compressor w/unloaders with a Remanufactured Compressor, you will also need Part# 1C16988P1.				

8.5.2. Spring Retainer



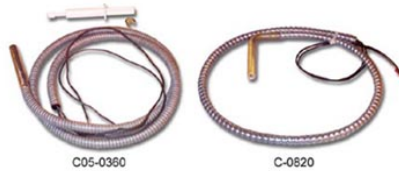
Part Number	Description	Volts	10T	15T
C-0860	SPRING RETAINER MTG	ALL	4	4

8.5.3. Compressor Spring



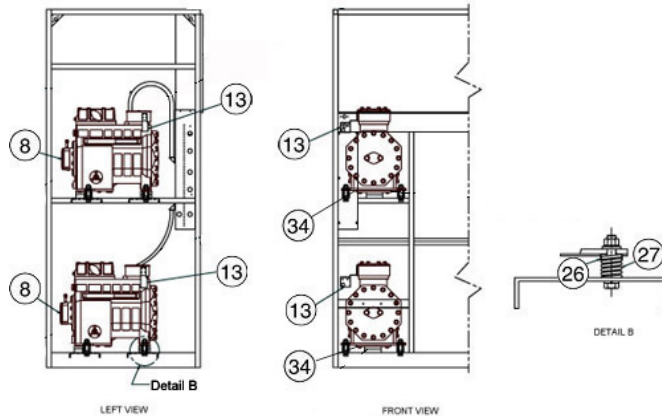
Part Number	Description	Volts	10T	15T
C-0850	SPRING COMP MTG	ALL	8	8

8.5.4. Crankcase Heater



Part Number	Description	Voltage	Quantity
C05-0360	CRANKCASE HEATER PKG NO CARR	208/230V	2
C-0820	CRANKCASE HEATER 480V 75W	460V	2
C-0830	CRANKCASE HEATER 575V 75W	575V	2
P-035A	CLIP CRANKCASE HEATER	ALL	2

8.6. 20 Ton Compressor



- 8. Compressor
- 13. Pressure Switch
- 26. Spring Retainer
- 27. Compressor Spring
- 34. Crankcase Heater

8.6.1. Compressor



Part Number	Remanufactured Part Number	Description	Voltage	Compressor Type
175023P1	06DS8246BC3200	COMP S/HERM 208/230-3-60	205//230-3-50/60	Carlyle
175023P2	06DS8246BC3600	COMP S/HERM 460-3-60	460-3-60	Carlyle
175023P3	06DS8246BC3100	COMP S/HERM 575-3-60	575-3-60	Carlyle
175024P1	06DS8246BC3200	COMP S/HERM 208/230-3-60	205//230-3-50/60	Carlyle w/unloader
175024P2	06DS8246BC3600	COMP S/HERM 460-3-60	460-3-60	Carlyle w/unloader
175024P3	06DS8246BC3100	COMP S/HERM 575-3-60	575-3-60	Carlyle w/unloader

Note: When replacing a compressor with unloaders with a manufactured compressor, you will also need Part # 1C16988P1

8.6.2. Spring Retainer



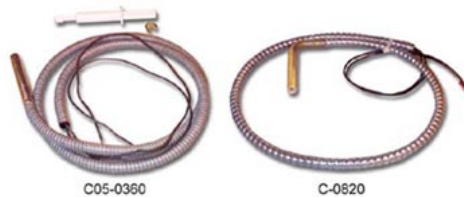
Part Number	Description	Volts	20T	22T
C-0860	SPRING RETAINER MTG	ALL	4	4

8.6.3. Compressor Spring



Part Number	Description	Quantity	Compressor Type
C-0840	SPRING COMP MTG 1/2-13	8	Carlyle

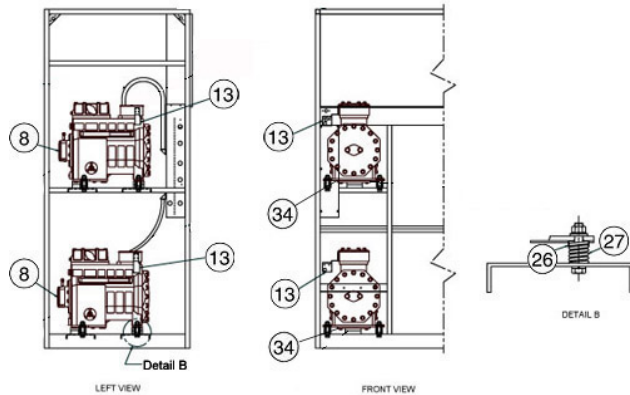
8.6.4. Crankcase Heater



Part Number	Description	Voltage	Quantity
C05-0360	CRANKCASE HEATER PKG NO CARR	208/230V	2
C-0820	CRANKCASE HEATER 480V 75W	460V	2

Part Number	Description	Voltage	Quantity
C-0830	CRANKCASE HEATER 575V 75W	575V	2
P-035A	CLIP CRANKCASE HEATER	ALL	2

8.7. 30 Ton Compressor



- 8. Compressor
- 13. Pressure Switch
- 26. Spring Retainer
- 27. Compressor Spring
- 34. Crankcase Heater

8.7.1. Compressor



Part Number	Remanufactured Part Number	Description	Voltage	Compressor Type
1C18259P1	06DS5376BC1200	COMP S/HERM 208/230-3-60	205//230-3-50/60	Carlyle
1C18259P2	06DS5376BC0600	COMP S/HERM 460-3-60	460-3-60	Carlyle
1C18259P3	06DS5376BC0100	COMP S/HERM 575-3-60	575-3-60	Carlyle
125680P1	06DS5376BC1200	COMP S/HERM 208/230-3-60	205//230-3-50/60	Carlyle w/Unloader
125680P2	06DS5376BC0600	COMP S/HERM 460-3-60	460-3-60	Carlyle w/Unloader
125680P3	06DS5376BC0100	COMP S/HERM 575-3-60	575-3-60	Carlyle w/Unloader

Note: When replacing a compressor with unloaders with a manufactured compressor, you will also need Part # 1C16988P1

8.7.2. Spring Retainer



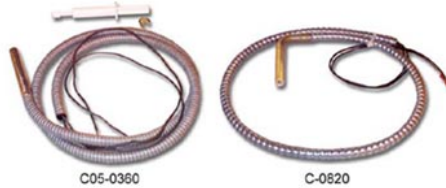
Part Number	Description	Volts	30T
C-0860	SPRING RETAINER MTG	ALL	4

8.7.3. Compressor Spring



Part #	Description	Volts	6-8T	10-15T	20-22T	30T
C-0840	SPRING COMP MTG 1/2-13	ALL			8	8

8.7.4. Crankcase Heater



Part #	Description	Voltage	Quantity
C05-0360	CRANKCASE HEATER PKG NO CARR	208/230V	2
C-0820	CRANKCASE HEATER 480V 75W	460V	2
C-0830	CRANKCASE HEATER 575V 75W	575V	2
P-035A	CLIP CRANKCASE HEATER	ALL	2

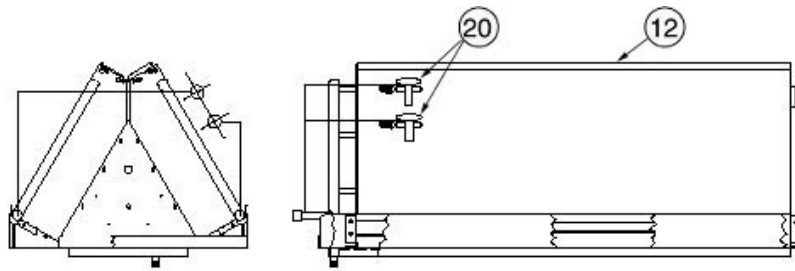
8.8. Unloader Replacement



Part #	Description	Qty./Compressor
P-5520	COIL 24V FOR ALCO VALVE 707RA	1
100067	SCREW CAP HX G8 PO 3/8-16 X 3	16
1C16777P1	GASKET COMPRESSOR CYL HD UNLOADER	2
1C16778P3	HEAD KIT UNLDR 6CYL	2
1C16987P1	GASKET COMPRESSOR STEM ASSY SUCT HD	2
1C16988P1	STEM ASSY COMPRESSOR SUCT HD	2

9. Coil Section

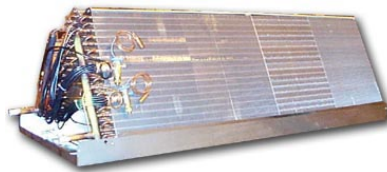
9.1. DX Coil Assembly (6 - 30Ton)



COIL ASSY
4 ROW

- 12. Coil
- 20. Expansion Valve

9.1.1. Coil



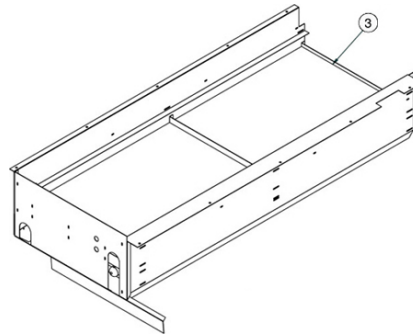
Part Number	Description	Steps	6T	8T	10T	15T	20T	30T
138422G1	COIL DX 06T D/V	2	1					
006-0007	COIL DX 08T D/V	2	1	1				
1D16583G1	COIL ASSY 08T	4	1	1				
006-0009	COIL DX 10T D/V	2			1			
1D16584G1	COIL ASSY 10T	4			1			
138422G2	COIL DX 15T 2S D/V 4R 9CKT	2				1		
1D16582G7	COIL DX 15T 4S D/V 4R 9CKT	4				1		
006-0051	COIL DX 20T D/U	2					1	
1D16582G2	COIL 20T D/V 4ROW 9CKT	4					1	
1D16582G5	COIL 30T D/V 4ROW 24STEP	2						1
1D16582G4	COIL 30T D/V 4ROW 24CKT	4						1

9.1.2. Expansion Valve



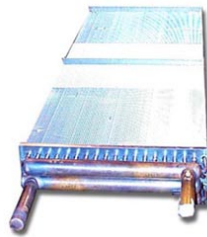
Part Number	Description	6T	8T	10T	15T	20T	30T
P02-0180	VALVE EXP 1/2X5/8X1/4ODF 60"	2					
P02-0170	VALVE EXP 1/2X5/8X1/4ODF 60"		2	2			
138418P1	VALVE EXP 1/2X1-1/8X1/4"				2		
P02-0220	VALVE EXP 5/8X1-1/8X1/4OD					2	
130992P2	VALVE EXP 5/8X1-1/8X1/4ODF 60"						2

9.2. EconoCoil Assembly (6 - 30Ton)



3. Econo Coil

9.2.1. Econo Coil

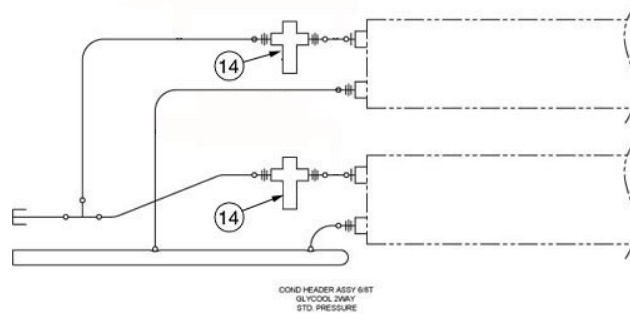


Part Number	Description	Tube Type	# of Rows	6T	8T	10T	15T	20T	30T
X-0910	COIL GLY 3ROW 6//10T 58" FIN	Copper	3	1	1	1			
146656P1	COIL CUNI GLY 3ROW 57" FIN LG	Copper- Nickel	3	1	1	1			
X02-0070	COIL GLY 6ROW 6//10T 58" FIN	Copper	6	1	1	1			
146656P5	COIL CUNI GLY 6ROW 57" FIN LG	Copper- Nickel	6	1	1	1			
X-0930	COIL GLY 4ROW 83" FIN LG	Copper	4				1	1	
146656P3	COIL CUNI GLY 4ROW 82" FIN LG	Copper- Nickel	4				1	1	
X02-0090	COIL GLY 6ROW 20/22T 83"	Copper	6				1	1	
146656P7	COIL CUNI GLY 6ROW 82" FIN LG	Copper- Nickel	6				1	1	
125672G1	COIL CUNI GLY 4ROW 106" FIN LG	Copper	4						1
146656P4	COIL CUNI GLY 4ROW 106" FIN LG	Copper- Nickel	4						1

10. Condenser Section

10.1. Header Condenser

10.1.1. Two Way Condenser Header



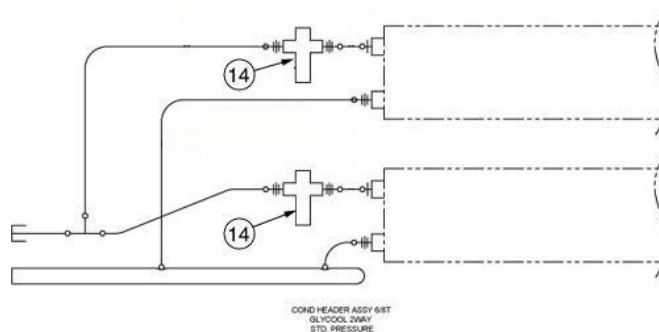
14. 2-Way Water Regulating Valve

10.1.1.1. Water Regulating Valve

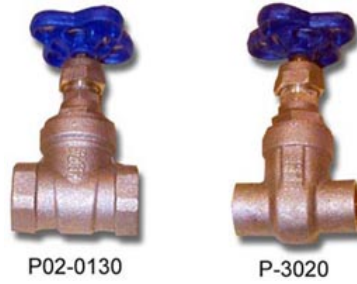


Part Number	Description	Voltage	6T	8T	10T	15T	20T	30T
131852P1	VALVE H2O REG 2WAY 1" UB	ALL	2	2	2	2		
Standard Pressure Water or Glycol								
131852P2	VALVE H2O REG 2WAY 1-1/4" UB	ALL					2	2
Standard Pressure Water or Glycol								
P-311A	VALVE H2O REG 2WAY 1"	ALL	2	2	2	2	2	2
High Pressure Water or Glycol								
171819P4	VALVE H2O REG 2WAY 1"	ALL	2	2	2	2		
High Pressure Water or Glycol								

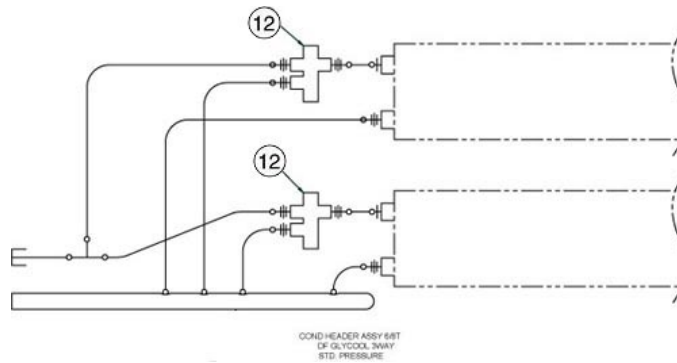
10.1.2. Two Way with Bypass



- 4. Valve Gate
- 14. Water Regulating Valve

10.1.2.1. Valve Gate


Part Number	Description	6T	8T	10T	15T	20T	30T
P-3020	VALVE GATE 3/4" SWT	2	2	2	2	2	
Standard Pressure							
P02-0130	VALVE GATE 3/4" THD 300#W	2	2	2	2	2	
High Pressure							

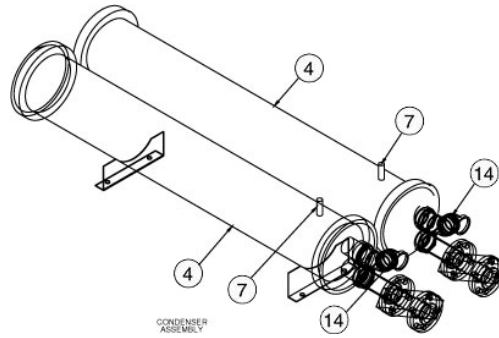
10.1.3. Three Way Condenser Header


12. 2-Way Water Regulating Valve

10.1.3.1. Water Regulating Valve


Part Number	Description	6T	8T	10T	15T	20T	30T
131853P1	VALVE H2O REG 3WAY 1" UB	2	2	2	2		
131853P2	VALVE H2O REG 3WAY 1-1/4"					2	2
Standard Pressure Water or Glycol							
P-311B	VALVE H2O REG 3WAY 1"	2	2	2	2	2	2
171818P4	VALVE H2O REG 3WAY 1" 350#	2	2	2	2		
High Pressure Water or Glycol							
131853P1	VALVE H2O REG 3WAY 1" UB	2	2	2	2		
131853P2	VALVE H2O REG 3WAY 1-1/4"					2	
125673P1	VALVE H2O REG 3WAY 1-1/2"						2
Standard Pressure Glycol							
P-311B	VALVE H2O REG 3WAY 1"	2	2	2	2	2	2
171818P4	VALVE H2O REG 3WAY 1" 350#	2	2	2	2		
High Pressure Glycol							

10.2. Condenser Assembly



- 4. Condenser
- 7. Valve Relief
- 14. Two Way Condenser Header

10.2.1. Condenser



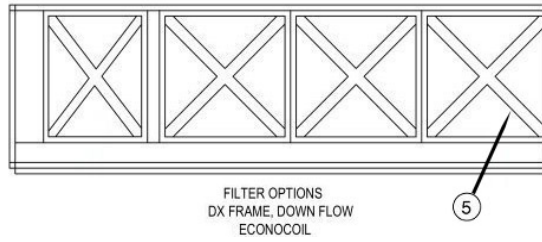
Part Number	Description	6T	8T	10T	15T	20T	30T
Water Cooled							
J-009H	CONDENSER SHL&TUBE 300# CU	2	2	2			
J-004H	CONDENSER SHL&TUBE 300# CU				**2		
J-002H	CONDENSER SHL&TUBE 300# CU				*2	**2	
J-011H	CONDENSER SHL&TUBE 300# CU					*2	2
*Used on High Pressure Units **Used on Standard Pressure Units							
Glycol or Glycool Cooled							
J-009H	CONDENSER SHL&TUBE 300# CU	2					
J-004H	CONDENSER SHL&TUBE 300# CU		2	2			
J-002H	CONDENSER SHL&TUBE 300# CU				2		
J-011H	CONDENSER SHL&TUBE 300# CU					2	
125685P2	CONDENSER SHL&TUBE 300# CU						2

10.2.2. Valve Relief



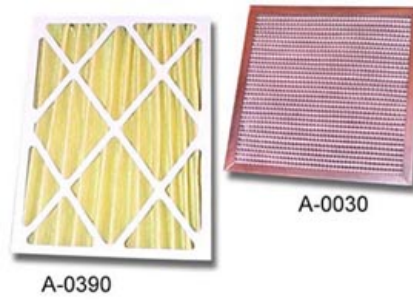
Part Number	Description	6T	8T	10T	15T	20T	30T
J-009H	CONDENSER SHL&TUBE 300# CU	2	2	2			
J-004H	CONDENSER SHL&TUBE 300# CU				**2		
P-2830	VALVE RELIEF 400#1/4MPTX3/8FLR	2	2	2	2	2	2
168198P1	VALVE RELIEF 440#1/4MPTX3/8FLR	2	2	2	2	2	2
P-2830 has been Superseded by 168198P1. Effective 4-20-03.							

11. Filter Section



5. Filter

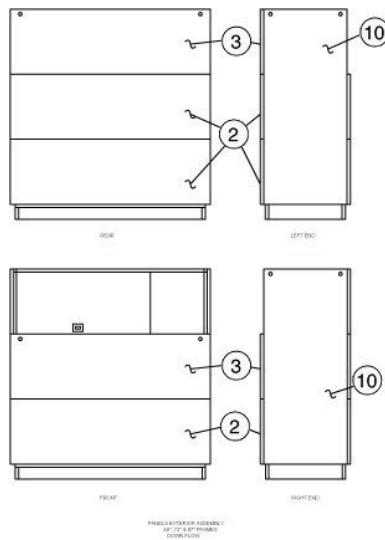
11.1. Filter



Filter Efficiency	Part Number	Description	6-10T	15-20T	30T
20%	A-0010	FILTER 4" 24.0X24.0 20%	2	3	4
	A-0020	FILTER 4" 18.0X24.0 20% ASHRAE	1	1	1
30%	A-0380	FILTER 4" 24.0X24.0 30% ASHRAE	2	3	4
	A-0390	FILTER 4" 18.0X24.0 30% ASHRAE	1	1	1
45%	1A17806P1	FILTER 4" 18.0X24.0 45%	1	1	1
	1A17806P6	FILTER 4" 24.0X24.0 45% ASHRAE	2	3	4
65%	131042P2	FILTER 4" 24.0X24.0 60-65%	2	3	4
	131042P3	FILTER 4" 18.0X24.0 60-65%	1	1	1
2 inch (Used with 6 Row Econocoils.)	A-0340	FILTER 2" 18.0X24.0 20%	1	1	1
	A-0350	FILTER 2" 24.0X24.0 20%	2	3	4

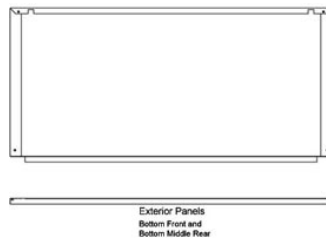
12. Exterior Section

12.1. Panels



- 2. Exterior Panel FR-BTM RR-MDL/BTM
- 3. Exterior Pane FR-MDL RR-TOP
- 10. Exterior Panel LEFT-RIGHT-END

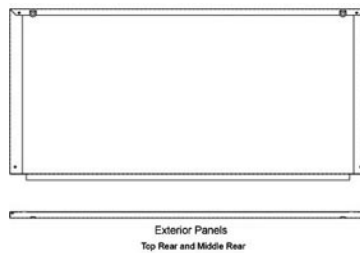
12.1.1. Exterior Panel FR-BTM RR-MDL/BTM



Part Number	Description	6/8/10T	15/20/30T
F02-7080	PANEL EXT FR-BTM RR-MDL/BTM	3	
F02-7100	PANEL EXT FR-BTM RR-MDL/BTM		3

Note: To order a replacement Exterior Panel, you need to add this suffix (Z**L) to the end of the part number. **Represents the 2 or 3 digit paint color.

12.1.2. Exterior Panel FR-MDL RR-TOP



Part Number	Description	6/8/10T	15/20/30T
F02-7110	PANEL EXT FR-MDL RR-TOP	2	
F02-7130	PANEL EXT FR-MDL RR-TOP		2

Note: To order a replacement Exterior Panel, you need to add this suffix (Z**L) to the end of the part number. **Represents the 2 or 3 digit paint color.

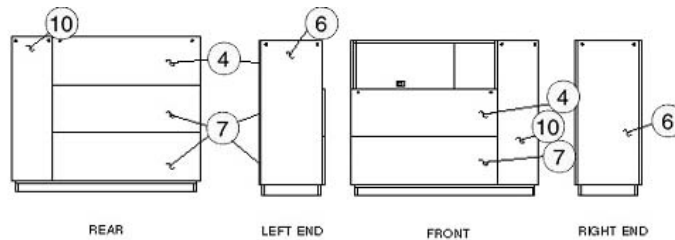
12.1.3. Exterior Panel LEFT-RIGHT-END



Part Number	Description	6/8/10T	15/20/30T
1C21770P2	Exterior Panel Left/Right End	2	2

Note: To order a replacement Exterior Panel, you need to add this suffix (Z**L) to the end of the part number. **Represents the 2 or 3 digit paint color.

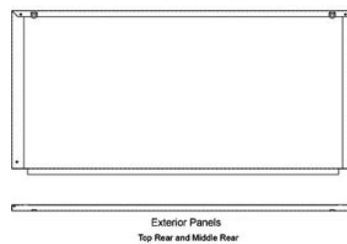
12.2. 30 Ton



PANELS EXTERIOR ASSEMBLY
120" FRAME
DOWN FLOW

- 4. Exterior Panel FR-MDL RR-TOP
- 6. Exterior Panel LEFT-RIGHT-END
- 7. Exterior Panel FR-BTM RR-MDL/BTM
- 10. Exterior Panel LEFT -REAR 120"

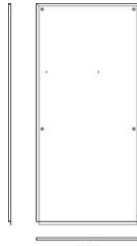
12.2.1. Exterior Panel FR-MDL RR-TOP



Part Number	Description	6/8/10T	15/20/30T
F02-7110	PANEL EXT FR-MDL RR-TOP	2	
F02-7130	PANEL EXT FR-MDL RR-TOP		2

Note: To order a replacement Exterior Panel, you need to add this suffix (Z**L) to the end of the part number. **Represents the 2 or 3 digit paint color.

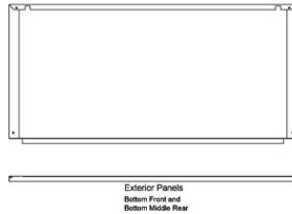
12.2.2. Exterior Panel LEFT-RIGHT-END



Part Number	Description	6/8/10T	15/20/30T
1C21770P2	Exterior Panel Left/Right End	2	2

Note: To order a replacement Exterior Panel, you need to add this suffix (Z**L) to the end of the part number. **Represents the 2 or 3 digit paint color.

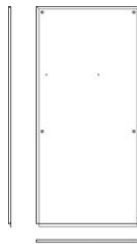
12.2.3. Exterior Panel FR-BTM RR-MDL/BTM



Part Number	Description	6/8/10T	15/20/30T
F02-7080	PANEL EXT FR-BTM RR-MDL/BTM	3	
F02-7100	PANEL EXT FR-BTM RR-MDL/BTM		3

Note: To order a replacement Exterior Panel, you need to add this suffix (Z**L) to the end of the part number. **Represents the 2 or 3 digit paint color.

12.2.4. Exterior Panel LEFT-REAR 120"

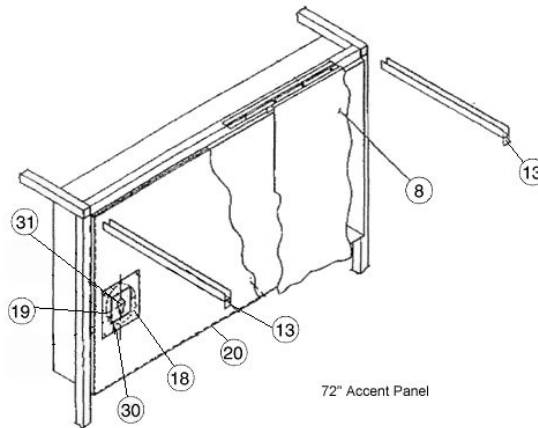


Part Number	Description	30T
1C21770P4	Panel Exterior Left-Rear 120"	2

Note: To order a replacement Exterior Panel, you need to add this suffix (Z**L) to the end of the part number. **Represents the 2 or 3 digit paint color.

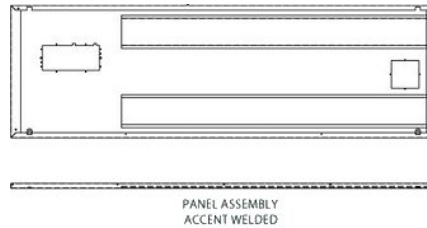
12.3. Accent Panels

12.3.1. Klockner Moeller



- 8. Accent Panel
- 13. Pull Bar Right/Left
- 18. Plate Disc K/M
- 19. Bezel
- 30. Collar Locking
- 31. Shaft Extension

12.3.1.1. Accent Panel



Part Number	Description	Disconnect Type	6/8/10T	15/20/30T
1D16721G1	ACCNT 72" 00/15 LOK	GE	1	
1D16721G4	ACCNT 72" 00/15 N/L	GE	1	
1D16721G7	ACCNT 72" 00/15	No Disconnect	1	
1D16721G14	ACCNT 72" 00/15 K/M	Klockner-Moeller	1	
1D16721G3	ACCNT 97" 00/15 LOK	GE		1
1D16721G6	ACCNT 97" 00/15 N/L	GE		1
1D16721G9	ACCNT 97" 00/15	No Disconnect		1
1D16721G16	ACCNT 97" 00/15 K/M	Klockner-Moeller		1

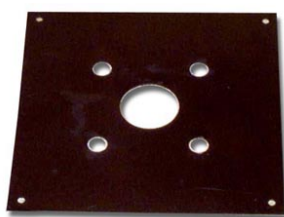
Note: To order a replacement Exterior Panel, you need to add this suffix (Z**L) to the end of the part number. **Represents the 2 or 3 digit paint color.

12.3.1.2. Pull Bar Right/Left



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1C13815P1	PULL BAR RIGHT/LEFT	ALL	2	2	2	2

12.3.1.3. Plate Disc K/M



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1C18707P1	PLATE DISC K/M	ALL	1	1	1	1

12.3.1.4. Bezel



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
S-6210	BEZEL S3 ON/OFF/DISC	ALL	1	1	1	1

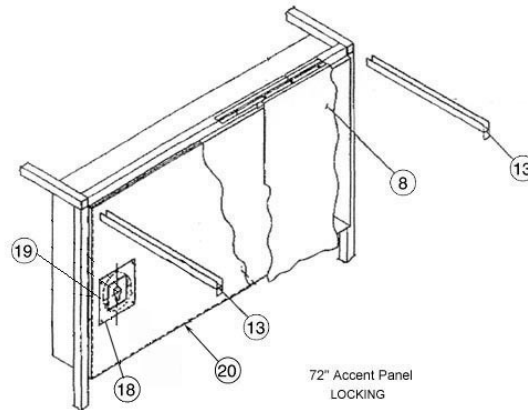
12.3.1.5. Collar Locking



Part Number	Description	6T	8T	10T	15T	20T	30T
1C18354P1	COLLAR LKG DISC W/2 SCREW	ALL	1	1	1	1	1
1C18352P1	HANDLE DISC SWT/FACEPLATE K/M	ALL	1	1	1	1	1
1A18353P1	SHAFT EXTENSION K/M DISC SWT	ALL	1	1	1	1	1

12.3.1.6. Shaft Extension

12.3.2. GE Locking



- 8. Accent Panel
- 13. Pull Bar Right/Left
- 18. Plate Locking Disc
- 19. Bezel
- 20. Accent Trim

12.3.2.1. Plate Locking Disc



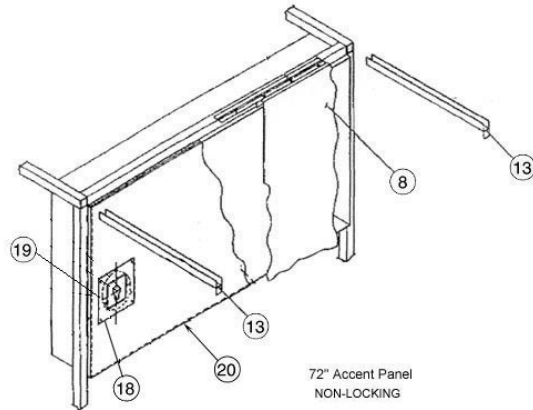
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
F30-0030	Plate Locking Disc 6//22T	ALL	1	1	1	1

12.3.2.2. Accent Trim



Part Number	Description	6-8-10T	15-20-30T
T-0220	TRIM ALUM ACCENT	1	
T-0240	TRIM ALUM ACCENT		1

12.3.3. GE Non Locking



- 8. Accent Panel
- 13. Pull Bar Right/Left
- 18. Plate Non-Locking Disc
- 19. Bezel
- 20. Accent Trim

12.3.3.1. Plate Non-Locking



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
F30-0040	PLATE NON LOCKING DISC 6//22T	ALL	1	1	1	1

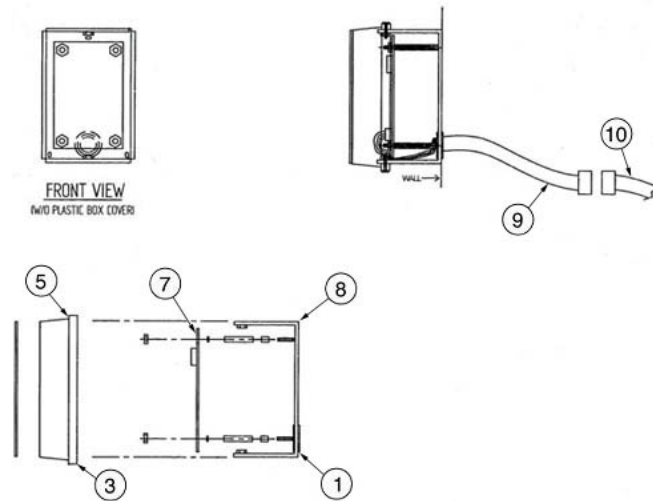
12.3.4. No Disconnect



Part Number	Description	6-8T	10-15T	20-22T	30T
F02-9570	COVER DISCONNECT BLANK-OFF	ALL	1	1	1

13. Miscellaneous Section

13.1. Remote Temp



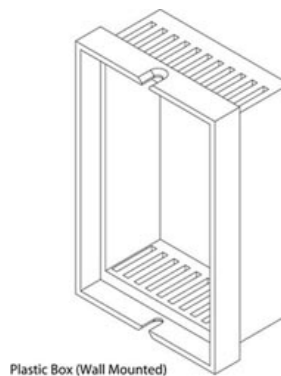
- 1. Bushing Rubber
- 3. Plastic Box
- 5. Label
- 7. PWA SMT Temp
- 8. Surface Box Assembly
- 9. WH Sensor
- 10. WH Sensor

13.1.1. Bushing Rubber



Part Number	Description	Quantity
E-0800	BUSHING RBR 1/2" I.D. x 1" O.D.	1
G-2850	SPACER NYLON 1/4" O.D. x .25" Lg. #4	4
4A10179P1	SCREW M PH PHL Z 6-32 x 7/16	2
S-5330	NUT HEX MACH NYLON #4-40	4
G-118A	WASHER FIBER #40 1/4" O.D. x 1/16" I.D.	4
G-4040	SPACER STANDOFF 1/4" x 1-1/2" #4-40M	4

13.1.2. Plastic Box



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
G03-001A	BOX PLASTIC (WALL MOUNTED)	ALL	1	1	1	1

13.1.3. Label



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
Y-2130	LABEL S3 SENSOR WALLBOX	ALL	1	1	1	1

13.1.3.1. PWA SMT Temp



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
4C13121G4	PWA SMT TEMP/HUM GEN EAST	ALL	1	1	1	1

13.1.4. Surface Box Assembly



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
020-0482	BOX T/H SURFACE MNT ASSY	ALL	1	1	1	1

13.1.5. WH Sensor



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
022-2742	WH LV S3/DIS P16 REM T/H	ALL	1	1	1	1

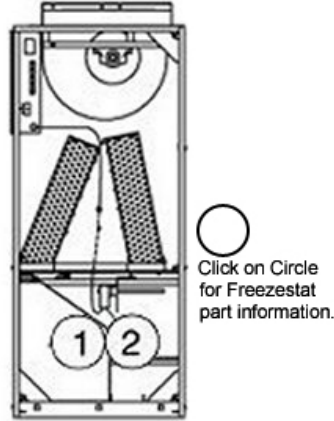
13.1.6. WH Sensor



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
022-2741	WH LV T/H SNSR REM 30FT	ALL	1	1	1	1
1C11237P1	WH LV T/H SNSR REM 60FT	ALL	1	1	1	1

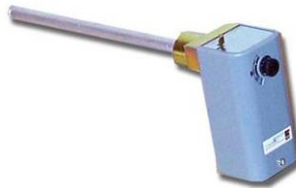
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1C16769G1	CABLE ASSY LV T/H SNSR REM 90'	ALL	1	1	1	1
1C16770G1	CABLE ASSY LV T/H SNSR REM 120'	ALL	1	1	1	1
1D11293P1	WH LV T/H SNSR REM 150FT	ALL	1	1	1	1

13.2. Firestat



- 1. Firestat
- 2. WH Firestat
- 3. Freezestat

13.2.1. Firestat



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
E-2350	FIRESTAT OPEN ON RISE	ALL	1	1	1	1

13.2.2. WH Firestat



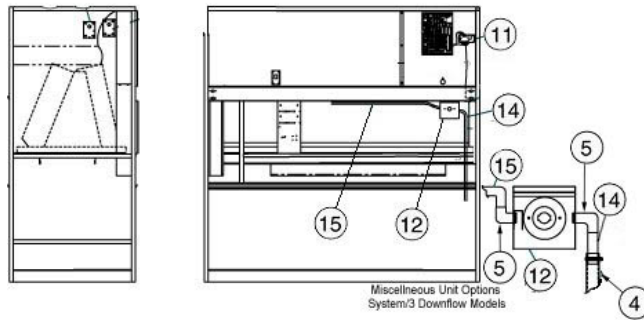
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
136889G2	WH LV S3 FIRESTAT P39 82"	ALL	1	1	1	1
136889G3	WH LV S3 FIRESTAT P39 107"	ALL	1	1	1	1

13.2.3. Freestat



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
E02-0110	FREEZSTAT W/BRKT OPN35FCL	ALL	2	2	2	2

13.3. Smoke Detector



- 4. Vinyl Tubing
- 5. Conduit Connector
- 11. PWA Smoke Detector CTRL
- 12. Smoke Detector Assembly
- 14. Tube Connector
- 15. Tube Form

13.3.1. Vinyl Tubing



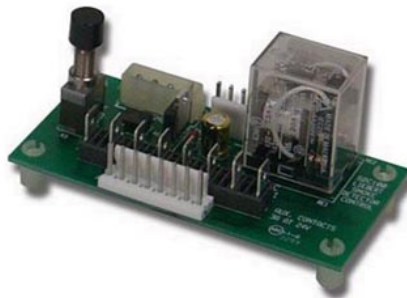
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
S04-0420	TUBING VINYL CLEAR 3/4ID	ALL	2	2	2	2

13.3.2. Conduit Connector



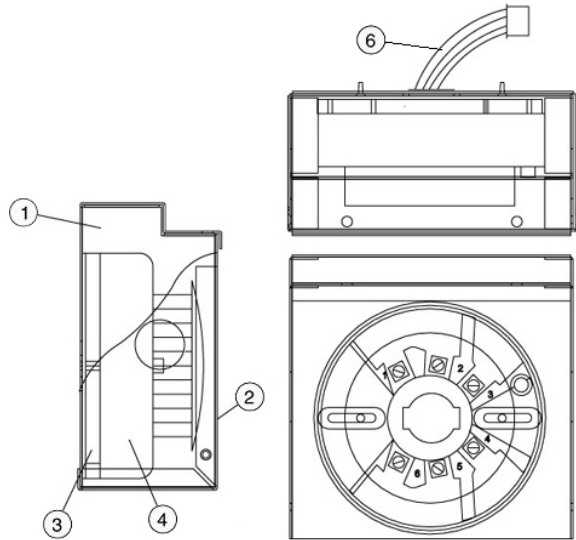
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
E13-0060	CONDUIT CONN EMT .50 90D SHORT	ALL	2	2	2	2

13.3.3. PWA Smoke Detector



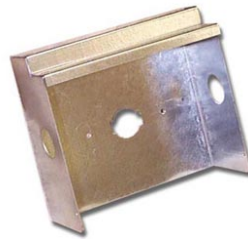
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
124502P1	PWA SMOKE DET CNTL 24VDC	ALL	1	1	1	1

13.3.4. Smoke Detector Assembly



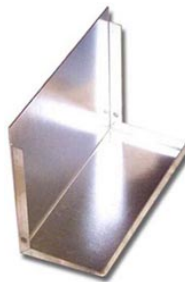
- 1. Smoke Detector Box
- 2. Smoke Detector Cover
- 3. Smoke Detector Base
- 4. Smoke Detector Sensor
- 5. WH Smoke Detector Base
- 6. Cable

13.3.4.1. Smoke Detector Box



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
149100P1	BOX SMOKE DETECTOR 731U	ALL	1	1	1	1

13.3.4.2. Smoke Detector Cover



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
149101P1	COVER SMOKE DETECTOR 731U	ALL	1	1	1	1

13.3.4.3. Smoke Detector Base



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
149102P1	BASE SMOKE DETECTOR 702E	ALL	1	1	1	1

13.3.4.4. Smoke Detector Sensor



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
149103P1	SENSOR SMOKE DETECTOR PHOTOELECTRIC	ALL	1	1	1	1

13.3.4.5. WH Smoke Detector Base



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
129321G1	WH SMOKE DETECTOR BASE	ALL	1	1	1	1

13.3.5. Tube Connector



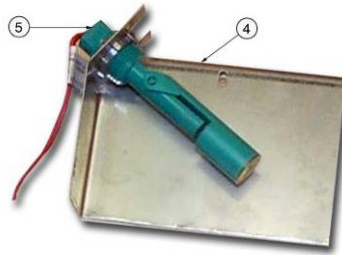
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
F02-8800	CONN TUBE SMOKE DETECTOR	ALL	1	1	1	1

13.3.6. Tube Form



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
129323P1	TUBE FORM SAMPLING SMOKE DET	ALL	1	1	1	1

13.4. High Water Alarm



- 4. Bracket Mounting
- 5. SW Level Liquid

13.4.1. Bracket Mounting



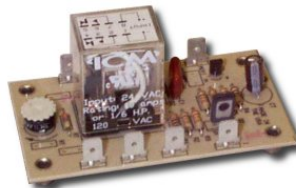
Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1C18661P2	BRKT HUM MTG LIQ LEV SW DX	ALL	1	1	1	1

13.4.2. SW Level Liquid



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
1A18660P1	SW LEVEL LIQUID GEMS LS-7	ALL	1	1	1	1

13.5. Auto Restart



Part Number	Description	Volts	6-8T	10-15T	20-22T	30T
E-3530	RELAY T/D 24V 2P2T ADJ 90SEC	ALL	1	1	1	1

14. Revision Page

Revision Date	Modification	Details
10/20/2008	Convert manual into new layout	-