



Barker™
SPECIALTY PRODUCTS by Hill PHOENIX

Service & Installation Instructions

Keep this booklet for future reference

- DLP SERIES
- GMD SERIES
- GSD SERIES
- SMD SERIES
- SSD SERIES

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IMPORTANT!!
KEEP FOR FUTURE REFERENCE

General Information

This booklet contains information on:

DLP SERIES

Low Profile, Deli Case with Front Lifting Glass

GSD SERIES

Low Profile Deli Case with Swing out Glass

SMD SERIES

Multi Deck Deli Case with Spherical Front Lifting Glass

SSD SERIES

Service, Single Deck Deli Cases with Spherical Front Lifting Glass

The DLP, SMD and SSD Series conform to the following standards



Shipping Information

IMPORTANT!

FOR YOUR PROTECTION PLEASE READ AND OBSERVE THE FOLLOWING INSTRUCTIONS:

Transportation companies assume all liability from the time a shipment is received by them until the time it is delivered to the consumer. Our liability ceases at the time of shipment.

All shipments leaving our plant have been carefully inspected. If a shipment arrives with the crating or packaging damaged, have the carrier note the condition on the receipt. Check as soon as possible for concealed damage.

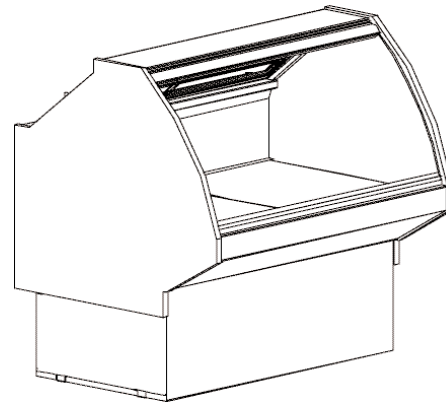
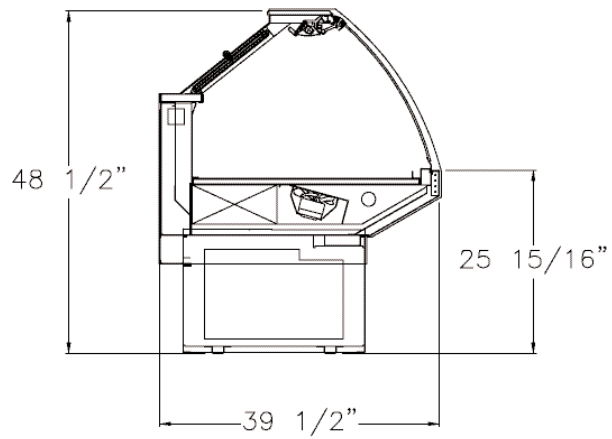
If it is found that the shipment has been damaged in transit, please DO NOT return it to us, but notify and file a claim with the carrier at once. **FAILURE TO FOLLOW THIS PROCEDURE WILL RESULT IN REFUSAL BY THE CARRIER TO HONOR ANY CLAIMS WITH A CONSEQUENT LOSS TO THE CONSUMER.**

If a UPS shipment has been damaged, retain the damaged material and the carton and notify us at once. WE will file a claim.

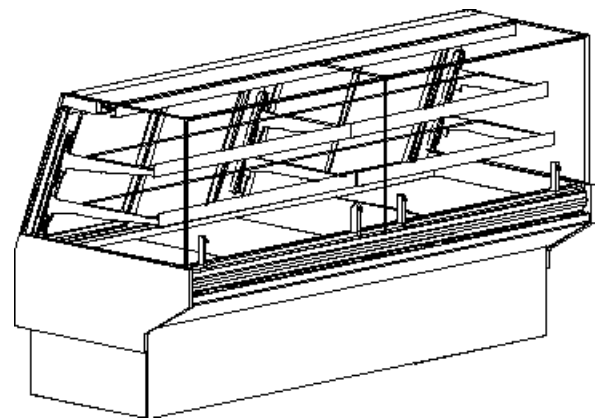
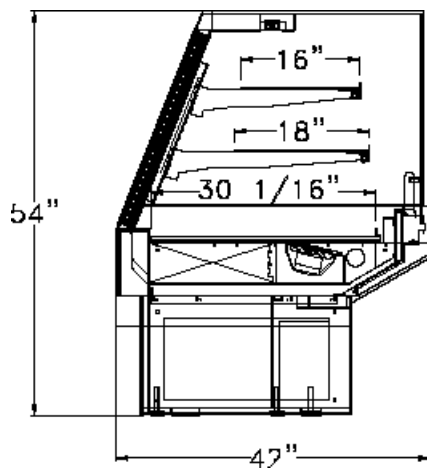
GOODS SHOULD NOT BE RETURNED FOR CREDIT UNLESS AUTHORIZED BY OUR SALES DEPARTMENT.

Case Drawings

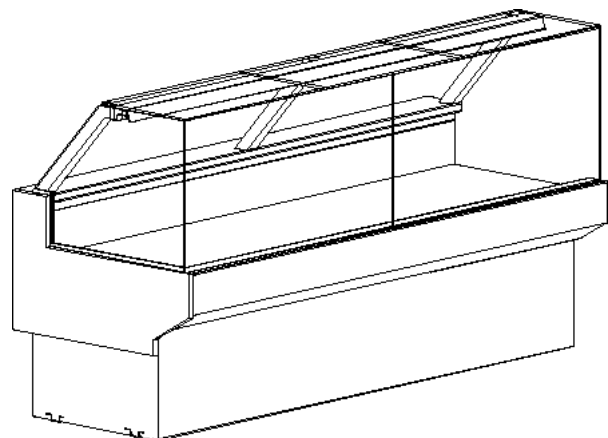
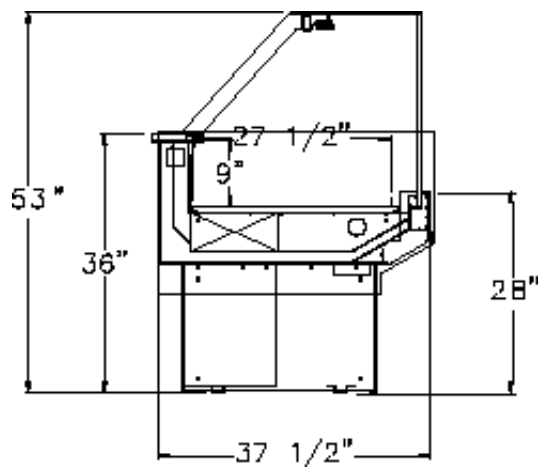
DLP Series



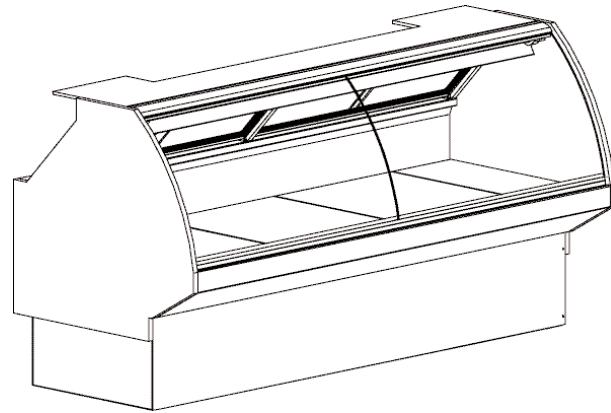
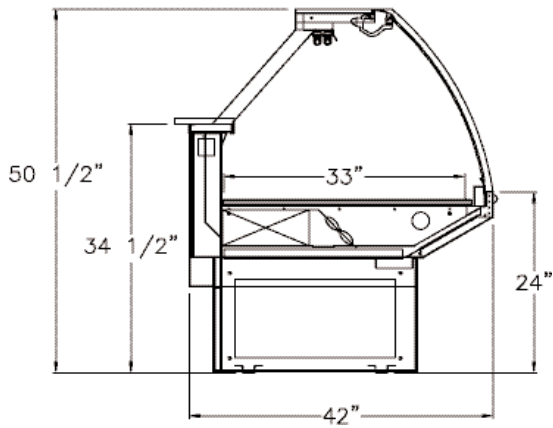
GMD Series



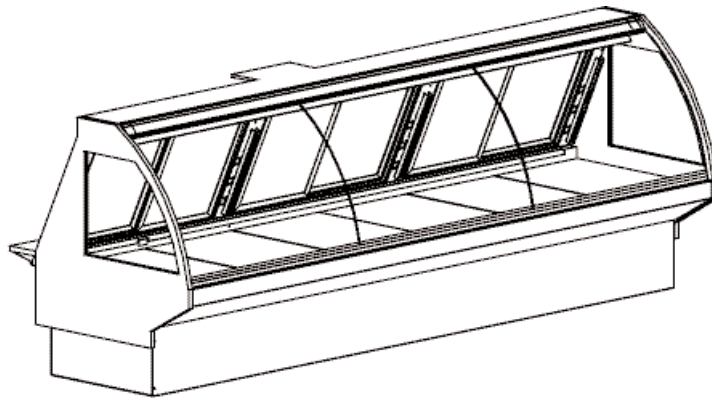
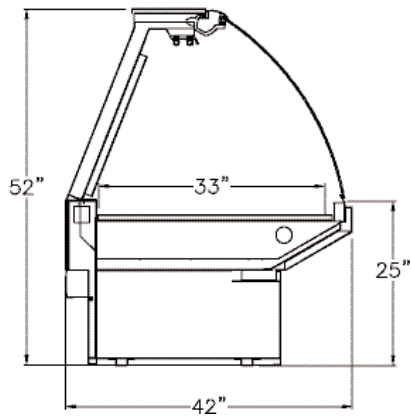
GSD Series



SSD Series

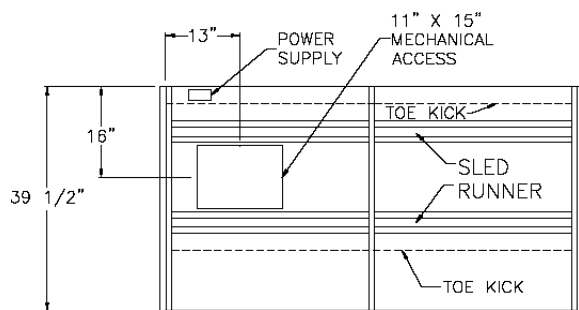


SMD Series

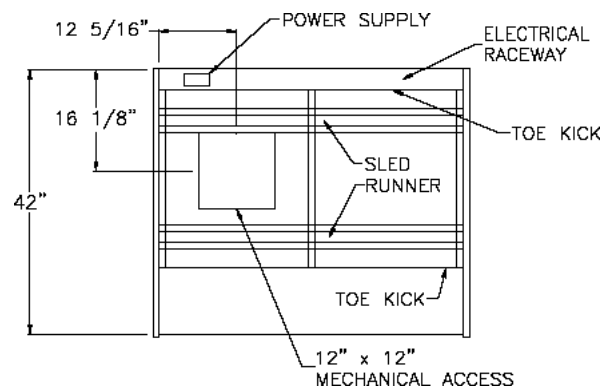


MECHANICAL VIEW

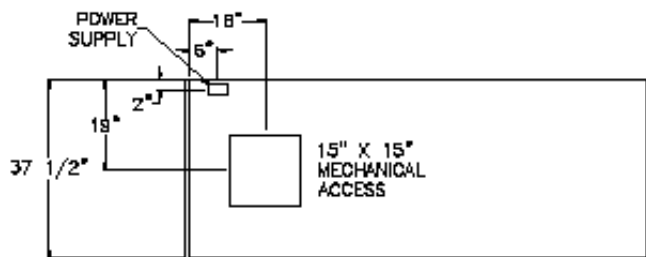
DLP Mechanical



SMD & SSD Mechanical



GMD & GSD Mechanical



Installation Instructions

Location

This refrigerated display case has been designed for displaying and storing perishable food product. It is engineered for air-conditioned stores with a maximum ambient of 75° F and 50% relative humidity.

When selecting the location for placement of this case, avoid the following conditions:

Excessive air movement

- Doors
- Air-conditioned vents
- Other air sources

Excessive heat

- Windows
- Sun
- Flood lamps 8 feet or less from the product
- Other heat sources

Crate Removal

Move case as close as possible to its location. Remove all crating and shipping braces above the shipping pallet. Loosen the plastic dust cover from the pallet, but leave cover over the case to protect it while removing the case from the pallet. Carefully, lift case up and off the pallet. Remove dust cover. Installation hardware ships in an installation packet located inside the case.

NOTE: Location of horizontal supports underneath of unit before removing from pallet, damage to the finished metal will occur if correct lift points are not identified prior to removal.



Compressor

The 6', 8', 10 and 12' Self-Contained cases are equipped with a shipping block under the compressor. This block must be removed upon installation. Loosen all four nuts on the compressor hold down screws. Lift or pry the compressor up and remove the shipping block. DO NOT retighten screws, as the compressor should be left free to float on the spring mounts.

FAILURE TO REMOVE THE SHIPPING BLOCK WILL RESULT IN EXCESSIVE NOISE, REFRIGERANT LEAKS AND WILL VOID WARRANTY PROTECTION.

Case Exterior Loading

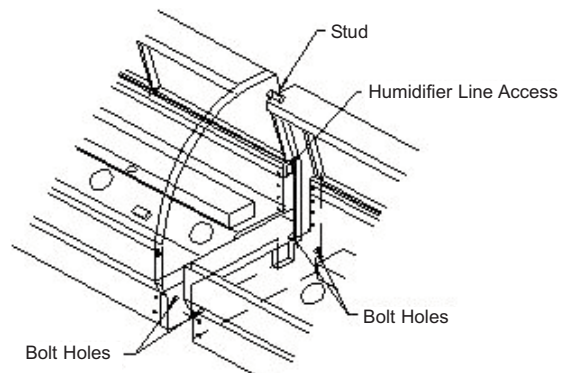
These cases are not designed for excessive external weight. DO NOT WALK ON THE TOP OF THE CASES. Walking on top of cases could cause personal injury and damage to the case.

Leveling

To ensure proper operation of the refrigeration system and drainage of the condensate, the case MUST BE LEVEL. Use a carpenter level to level front to back and side to side. Shim as necessary.

Joining Lineups

1. Begin all lineups leveling from the highest point of the store floor.
2. Remove front and rear toe kicks by removing screws on all sides. Set and level first case.
3. Apply foam tape to facing ends of lineup. Level second case to first case and seal with a good grade silicone on all edges of each case.
4. Line up bottom bolt-holes in lower toe kicks (bolts for these are located in the installation packet inside the case) and line up bolt stud located in top rear strut with bolt-hole in adjoining case. Slide cases together. Insert lower bolts and place nuts on bolts. Tighten securely. THE FRONT OF THE CASES MUST BE FLUSH!
5. A top joining plate is also located in the canopy of the case. Ensure that case is properly leveled so that the screw holes in this plate align over the screw holes in the adjoining case. Shim as necessary.
6. Screw in top plate and ensure all bolts are fastened tightly.
7. Seal all seams. Use metal U-channel located inside case to seal and cover where interior case beds join.



Drain, Electrical and Refrigeration Connections on Remote Cases

NOTE: Barker remote units are shipped with a dry nitrogen charge of approximately 10 lbs. pressure in the evaporator coil. During installation if nitrogen charge is not present, leak check accordingly.

1. Drains are located in the center of the case. Connect PVC drains to existing floor drains. Provide as much downhill slope as possible and avoid long runs of drain lines. Do not install condensate drains in contact with non-insulated suction lines in order to prevent condensate from freezing. Install the 1" PVC trap, which is provided with the case. All drains must be trapped.
2. Electrical connections are made through the power supply box of each case, which can be accessed by removing the back panel above the toe kick. The power supply is located in the raceway as shown to the right. Voltage requirements and component amperes can be found in the electrical section of this manual, but always check the data tag located on the exterior of the case. Case must be grounded.
3. Refrigeration connections will be made through the refrigeration stub up located on the customer left side of the case (see mechanical view). See refrigeration information section for caseload and recommended settings. Refrigeration lines may be headed together for all cases in a lineup, if desired, by lines through the access area under the case. Seal all access holes with a good grade silicon or foam tape to prevent recirculation. All lines must be correctly sized.

For proper refrigeration performance, PRODUCT MUST NOT BE PLACED IN A POSITION WHERE IT MAY AFFECT THE AIR CURTAIN. Air discharge and return air vents must remain unobstructed.



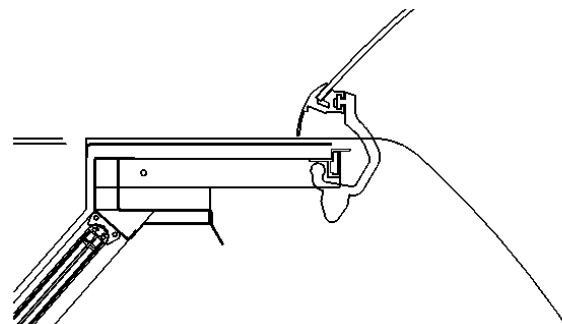
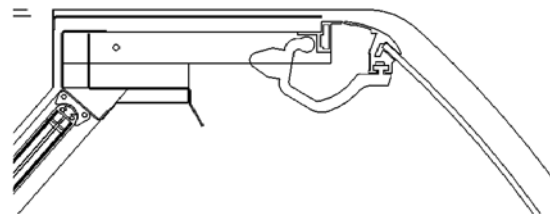
Glass Adjustment

Lift Glass is installed at the factory with the case perfectly level, if adjustments need to be made to align the glass first check to insure the case was properly leveled during installation.

NOTE: This is a 2-person operation. One person must hold the glass at all times.

1. Lift or swing the glass to its highest position as shown in drawing to the right.
2. Loosen allen screws.
3. Starting at the right side, tap the wedge with a #2 standard screwdriver. Repeat procedure on the left side. Continue working right to left until the wedge recesses into the aluminum extrusion.
EXTREME CARE MUST BE TAKEN NOT TO TAP THE WEDGE TOO HARD.
4. Slide the glass right or left as needed.
5. Tighten the right allen screw while holding the left side of the glass firmly. Be careful to keep the glass level.
6. Tighten the remaining allen screws.
7. Lower or swing glass into position. Repeat as necessary until glass is completely level.

NOTE: the entire glass clamp and glass can be moved sideways by loosening the allen screws that are located in the glass clamp hinges.



Doors

Rear load doors are shipped inside the case. Push top of doors all the way into top door tracks. Push bottom of door over bottom door tracks and lower over tracks. Doors are labeled inside and outside for easy installation.

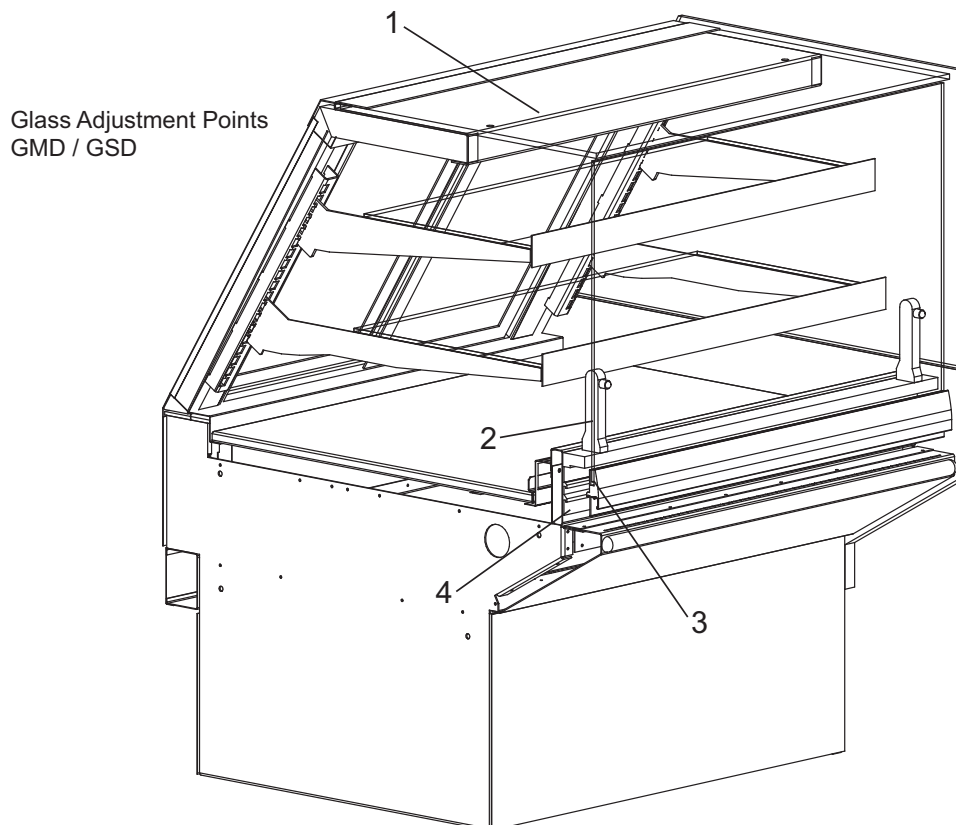
GMD / GSD Glass Adjustment

For adjusting / aligning glass on GMD/GSD units there are no mechanical adjustments located within the hardware for alignment. When GMD/GSD units leave the factory they are adjusted to within factory tolerances. It is normal during transit that service case glass can shift slightly from over the road jarring associated with the delivery. It is the installing contractors responsibility to adjust the glass if needed in the field when this occurs.

AN IMPORTANT NOTE:

It is very important that the floor has been laser leveled to find the high spot and the cases are leveled during installation along with shim supports (or leg adjustments) at every vertical case support. Without this being done during the case setting process, it will be very difficult/or impossible to get things to line-up properly. There are however minor adjustments that can be made as follows.

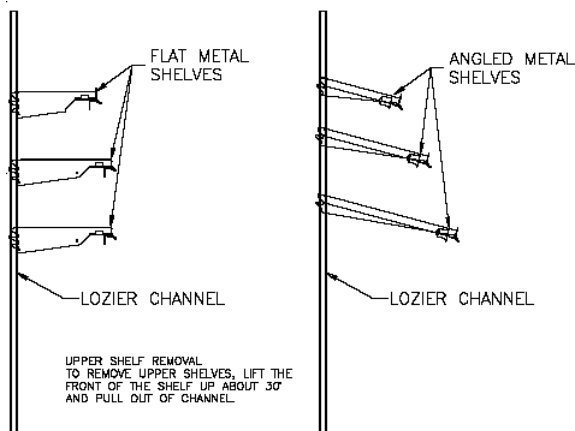
- 1) 3/8" top glass – if the units top glass needs to be raised in the front, a shim can be placed in this location to raise the front of the glass. The shim will need to be placed under top glass between stainless and top glass. Do not put excessive pressure upward on the glass or it will cause breakage.
- 2) 1/4 "front vertical glass – Each GMD / GSD unit will have two "snoopy nose" glass bumpers that adjust for each piece of glass. The snoopy nose adjustment is for adjusting the vertical glass toward or away from the customer and add support when the glass is in the closed position. The snoopy noses have a rubber button that rests on the glass and can be turned either in or out. This adjustment is accomplished by turning the threaded bumper either in or out.
- 3) Vertical glass within clamp – If front glass does not have a true horizontal line at the top, glass can be adjusted slightly in the clamp by loosening and raising one end of the glass in the clamp and re tightening. Recommendation is to not lift over 1/8" on either end.
- 4) Base profile – If necessary a shim can be placed behind the base profile of the swing hardware between the hardware and the stainless steel support. Loosening mounting screws on the base of the hardware will allow for a shim to be placed in between which will also affect the glass angle when re-tightened.



Optional Shelving

Shelves are shipped separately. To place shelving, hold shelf straight and fit brackets straight into channel. Place shelf directly above light outlet. Plug in light making certain the plug is fully engaged. All cases with shelf lights are equipped with an interlocking plug system. Shelf lights will not operate if plugs are not fully seated.

NOTE: If the shelf light is not in use, the plug attached to the receptacle must be fully seated.



Humidifier System -

This optional feature is installed at the factory.

Initial hook-up is as follows:

1. Read installation/service guide, which accompanies unit.
2. If connecting a lineup, which shares a common control system, connect companion case discharge lines.
3. For all cases, connect water supply.
NOTE: It is recommended that a pre-filter be added to the water supply.
4. Check for leaks.

Adjust water pressure as needed. See manufacturers installation guide for further information.

Installation Checklist

Before supplying electrical power and starting case check the following:

1. Compressor Area (For Self-contained cases).
Remove shipping block on units with semi-hermetic compressors. Check location of controls.
2. Evaporator Area.
Check to ensure evaporator fan pressure plates are secure and in proper position NOTE: Hinged portion of pressure plates are secured for shipping with mounting screws. Screws do not have to be removed for case operation but must be removed to use hinge.

3. Lighting System

Check to ensure male plugs are completely inserted in female sockets and that all lamps are securely seated in light fixture.

4. Case Leveling

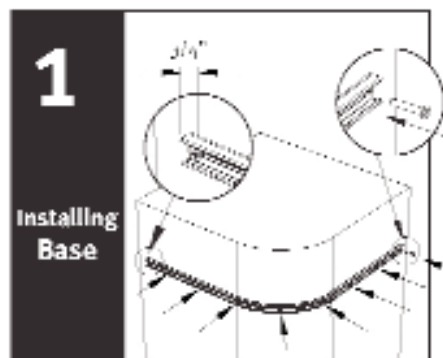
Visually check case. If lift glass is out of adjustment or case looks out of square, use a carpenter's level and shim as needed.

After supplying power to the case and starting unit:

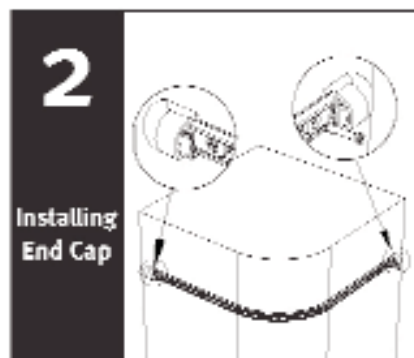
1. Check to ensure all fans are operational.
2. Check all lights.
3. Check case temperature and adjust thermostat as needed. See refrigeration section of this manual for case settings.

Cart Bumper Installation

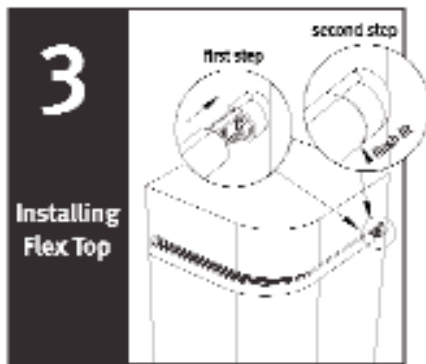
Tools required: Tape measure, pencil, drill with phillips driver bit, rubber mallet, straight edge, chalk line, PVC cutters, cotton rags, non-abrasive cleaner



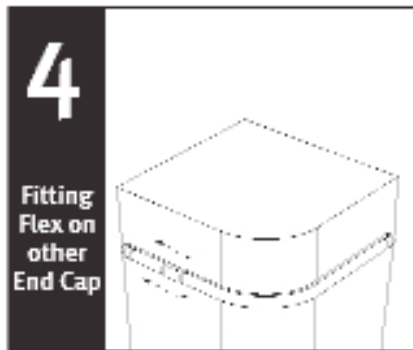
Cut plastic base to desired length of fixture. When using end caps be sure to cut base 3/4" short of fixture edge. When using corners, be sure to cut base so that it is flush with fixture edge. Secure base to fixture with screws every 4" on center. Make sure to put a screw 3/8" away from the cut end of base.



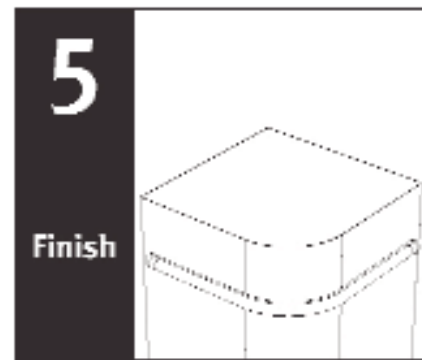
SNAP end caps or corners onto the base extrusion. Secure with #8 flat head phillips screws.



When installing flexible bumper top, the cut ends need to be as straight as possible. To mount on a curved or flat surface, start at one end and attach bumper to base by hooking bumper top onto track, then snap bottom portion into place and slide bumper against the end cap for a flush fit. Continue to hook bumper onto base track with your hand or using a rubber mallet until you reach other end cap. NOTE: Cover mallet with a cloth to prevent marring the bumper finish.



Mark and cut tail end of flexible bumper at least 1/8" longer than beyond the end cap position. NOTE: Make sure the end cut is straight and square for proper fit. Slightly retract the bumper in order to feed cut end into the end cap as you finish hooking the top and bottom edges of the bumper onto the base track. You should feel and hear the bumper snap into place for a snug fit.



Finally, check for proper fit and attachment along the entire length of bumper which is either on the wall or a fixture. Make sure you have a smooth and flush fit against the end caps. NOTE: Clean any dust or debris with a cloth and non abrasive cleaner.

Helpful Hints:

- Set the uncoiled flexible vinyl at room temperature 24 hours prior to installation.
- Over cut the flexible vinyl and compression fit. Adding the additional material will compensate for stretching which occurs during installation.
- Use a clean, dry cloth and any mild household cleaner or soap solution; spray and wipe clean

Refrigeration Information

Case Operation

Refrigeration

The refrigeration in this case is thermostatically controlled. The case refrigerates until the cut out point on the thermostat is reached. The thermostat opens, cutting power to the liquid line solenoid. The compressor continues to run, the system pumps down causing the pressure switch to open, cutting power to the compressor. Note: Some cases may be ordered with EPR valves to control case temperature. For proper refrigeration performance, **PRODUCT MUST NOT BE PLACED WHERE IT WILL AFFECT THE AIR CURTAIN.**

Defrost

This case is equipped with an OFF CYCLE defrost system. The timer cuts the power to the liquid solenoid. The unit stays in off cycle defrost until the defrost timer re-energizes the liquid solenoid. NOTE: The evaporator fan runs continuously.

Typical Component Settings

For Self Contained Cases

Thermostat cut out

Deli, Bakery	28°-30°
Fresh Meat, Seafood	26°

CRO valve

404A	75
134A	N/A

TXV: 10° Superheat

Pressure switch

404A	Low - 20 lb/55 lb	High - 350 lb
134A	Low - 7 lb/25 lb	High - 225 lb

For Remote Cases

Thermostat cut out

Deli, Bakery	28°-30°
Fresh Meat, Seafood	26°

EPR Valve (saturated suction temp.)

Deli	18°-20°
Fresh Meat & Seafood	14°

TXV 10° superheat

NOTE: The above settings are approximate and will vary slightly with product load, lighting, store ambient conditions etc. Evaporator fans run constantly.

Electronic Thermostat

The electronic thermostat is located at the rear of the case in the electronic raceway. The thermostat is equipped with a liquid crystal display providing a constant readout of the sensed temperature.

NOTE: The LCD display will be blank during defrost. A touch keypad that allows the users to select the set point temperature, differential and the heating /cooling modes.



Programming Steps for the ETC, Electronic Temperature Control

All thermostats are pre-set and cycle checked at the factory.

- STEP 1: Press the set key once to access the Fahrenheit/Celsius mode. The display will display either **F** degrees Fahrenheit or **C** for degrees Celsius. Press the **up** arrow or the **down** arrow so the display indicates **F**.
- STEP 2: Press the set key again to gain access to the set-point. The LCD will display the current Set-point and the **S1** will be blinking. Press the **up** arrow to increase or the **down** arrow to decrease the temperature setting.
- STEP 3: Press the set key again to gain access to the differential. The LCD will display the current differential and the **DIF 1** will be blinking. This should be set at 2°F.
- STEP 4: Press the set key again to gain access to the cooling or heating mode. The LCD will display the current mode. Press either the **up** arrow or the **down** arrow to set the display in the **C1**, cooling mode.
- STEP 5: Press the set key once more and the programming is complete. Set the lock to keep the set point.

STEP	DISPLAY INDICATION	DESCRIPTION
1.	F or C	Fahrenheit or Celsius Scale
2.	S1 (blinking)	Set-point Temperature
3.	DIF (blinking)	Differential Temperature
4.	C1/H1	Cooling or Heating Mode

Refrigeration Loads

Model	BTU Un/Pt	Evap Temp	Defrost
DLP Series			
DLP-4	4.60	+18 [°]	20'14hr.
DLP-6	4.60	+18 [°]	20'14hr.
DLP-8	4.60	+18 [°]	20'14hr.
DLP-10	4.60	+18 [°]	20'14hr.
DLP-12	4.60	+18 [°]	20'14hr.

GSD Series			
GSD-4	4.60	+20 [°]	20'14hr.
GSD-6	4.60	+20 [°]	20'14hr.
GSD-8	4.60	+20 [°]	20'14hr.
GSD-10	4.60	+20 [°]	20'14hr.
GSD-12	4.60	+20 [°]	20'14hr.
GSD-EV	4.60	+20 [°]	20'14hr.
GSD-IV	4.60	+20 [°]	20'14hr.
GSD-Miller	4.60	+20 [°]	20'14hr.

SMD Series			
SMD-4	4.60	+20 [°]	20'14hr.
SMD-6	4.60	+20 [°]	20'14hr.
SMD-8	4.60	+20 [°]	20'14hr.
SMD-10	4.60	+20 [°]	20'14hr.
SMD-12	4.60	+20 [°]	20'14hr.
SMD-22.5" Wedge	5.40	+20 [°]	20'14hr.
SMD-4.6" Wedge	5.40	+20 [°]	20'14hr.

SSD Series			
SSD-4	4.60	+20 [°]	20'14hr.
SSD-6	4.60	+20 [°]	20'14hr.
SSD-8	4.60	+20 [°]	20'14hr.
SSD-10	4.60	+20 [°]	20'14hr.
SSD-12	4.60	+20 [°]	20'14hr.
SSD-22.5" Wedge	5.40	+20 [°]	20'14hr.
SSD-4.6" Wedge	5.40	+20 [°]	20'14hr.

Electrical Information

Remote Case Data - Electrical 120 Volt			
Model	Evap Fans	Compressor Lts	Shelf Lts
DLP Series			
DLP-4	0.43	0.49	N/A
DLP-6	0.43	0.76	N/A
DLP-8	0.60	0.96	N/A
DLP-10	0.60	1.62	N/A
DLP-12	1.29	1.62	N/A

GSD Series			
GSD-4	0.43	0.49	N/A
GSD-6	0.43	0.76	N/A
GSD-8	0.60	0.96	N/A
GSD-10	0.60	1.6	N/A
GSD-12	1.29	1.6	N/A
GSD-EV1	0.43	0.49	N/A
GSD-10V	0.60	0.49	N/A
GSD-Mixer	N/A	N/A	N/A

SMD Series			
SMD-4	0.43	0.76	0.49
SMD-6	0.43	0.96	0.76
SMD-8	0.60	0.96	0.96
SMD-10	0.60	1.64	1.64
SMD-12	1.29	1.64	1.64
SMD-22.6" Wedge	0.43	0.76	0.49
SMD-45" Wedge	0.43	0.76	0.49

SSD Series			
SSD-4	0.43	0.76	N/A
SSD-6	0.43	0.96	N/A
SSD-8	0.60	0.96	N/A
SSD-10	0.60	1.64	N/A
SSD-12	1.29	1.64	N/A
SSD-22.6" Wedge	0.43	0.76	N/A
SSD-45" Wedge	0.43	0.76	N/A

Additional Loads for Self-Contained Units						
HP	Voltage	404A RL6/RL8	134A RL6/RL8	Cond Fan	Fan Heater	Air Sweep Fans
1/4	120-1-60	6.3/34	N/A	0.60	6.0	0.62
1/2	120-1-60	6.7/33	N/A	0.72	6.0	0.78
1/2	120-1-60	9A51	9.1/51	1.4	6.0	1.04
3/4	120-1-60	10.3/60	13/60	1.7	8.3	1.3
3/4	120-1-60	10.3/60	13/60	1.7	8.3	1.60

1/4	120-1-60	6.3/34	N/A	0.60	6.0	0.62
1/2	120-1-60	6.1/33	N/A	0.72	6.0	0.78
1/2	120-1-60	9A51	9.1/51	1.4	6.0	1.04
3/4	120-1-60	10.3/60	13/60	1.7	8.3	1.3
3/4	120-1-60	10.3/60	13/60	1.7	8.3	1.60
N/A	120-1-60	N/A	N/A	N/A	N/A	0.62
N/A	120-1-60	N/A	N/A	N/A	N/A	0.62
N/A	120-1-60	N/A	N/A	N/A	N/A	N/A

1/4	120-1-60	6.3/34	N/A	0.60	6.0	0.62
1/3	120-1-60	6.6/29	N/A	0.72	6.0	0.78
1/2	120-1-60	9A51	9.1/51	1.4	6.0	1.04
3/4	120-1-60	10.3/60	13/60	1.7	8.3	1.3
3/4	120-1-60	10.3/60	13/60	1.7	8.3	1.60
N/A	120-1-60	N/A	N/A	N/A	N/A	N/A
N/A	120-1-60	N/A	N/A	N/A	N/A	N/A

1/4	120-1-60	6.3/34	N/A	0.60	6.0	0.62
1/3	120-1-60	6.6/29	N/A	0.72	6.0	0.78
1/2	120-1-60	9A51	9.1/51	1.4	6.0	1.04
3/4	120-1-60	10.3/60	13/60	1.7	8.3	1.3
3/4	120-1-60	10.3/60	13/60	1.7	8.3	1.60
N/A	120-1-60	N/A	N/A	N/A	N/A	N/A
N/A	120-1-60	N/A	N/A	N/A	N/A	N/A

DRY CASES - USE LIGHTING SPECIFICATIONS FROM REMOTE CASE DATA

Wiring Color Code

Green-----Ground	Orange-----Thermostat
Black-----Hot	Orange-----Liquid Solenoid
White-----Neutral	Purple-----Hot Gas Defrost
Red-----208/220 Only	Purple-----Defrost Terminator
Brown-----Interlock System	Gray-----Light Switch
	Black/White-----Pressure Switch

Secondary Wiring Color Code

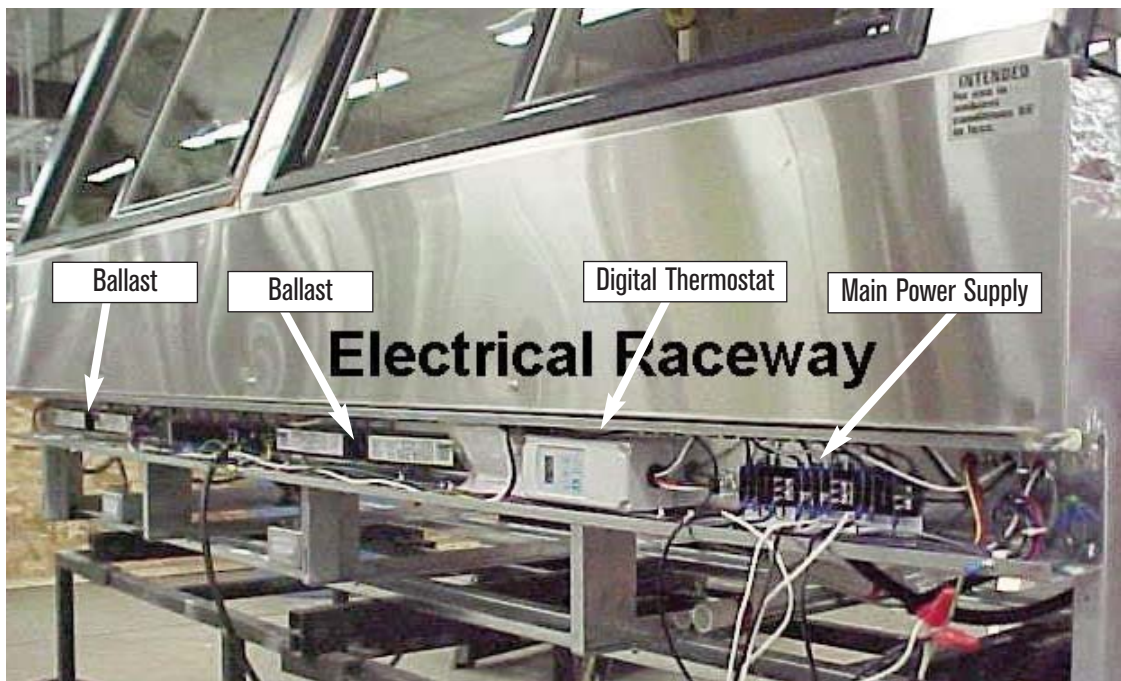
Red-----Lights	SEE BALLAST DIAGRAM FOR EACH CASE
Yellow-----Lights	
Blue-----Lights	

NOTE: Case must be grounded

Ballast Information

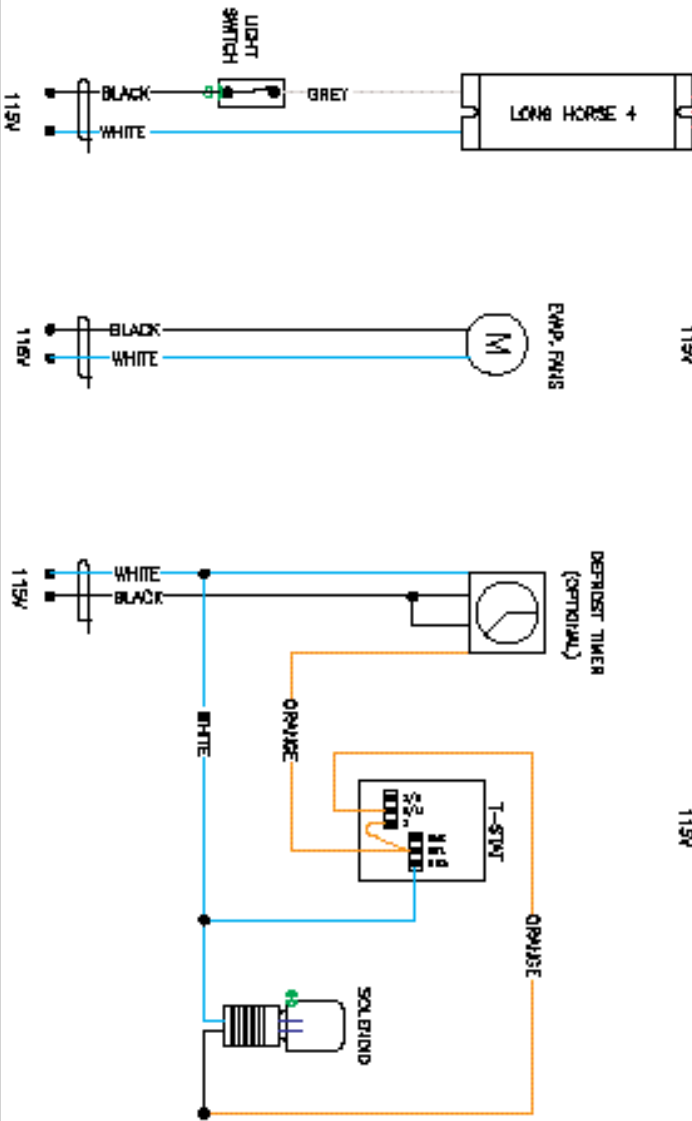
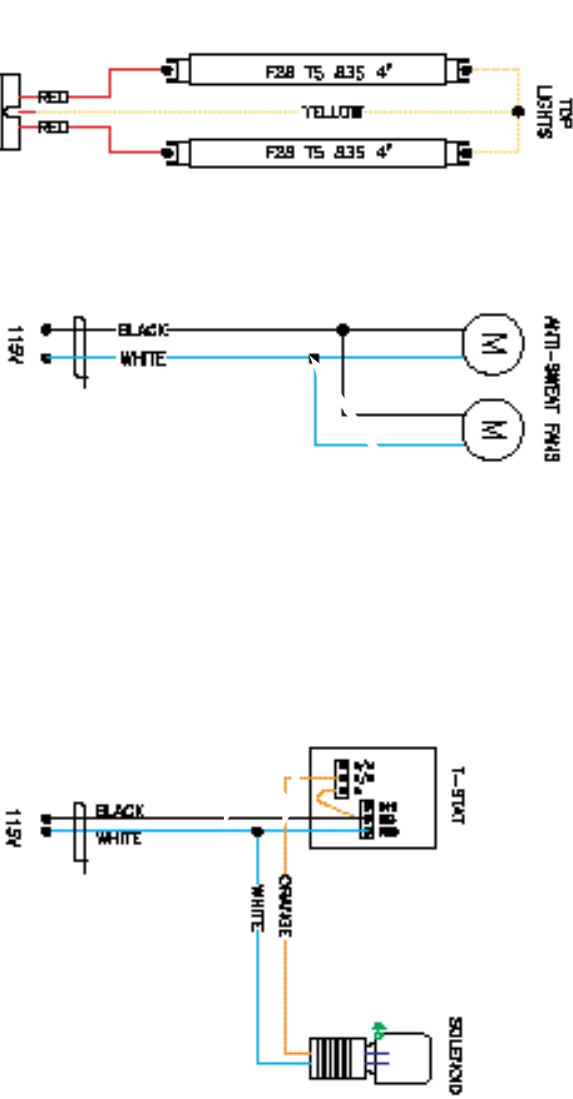
Ballasts are located in the electronic raceway at the rear of the case.

MODEL	Ballast Canopy Only	MODEL	Ballast w/ Nose Light	MODEL	Ballast Canopy Only
DLP-4	(1) 2P	SMD/SSD-4	(1) 3P	GSD-4	(1) 2P
DLP-6	(1) 4P	SMD/SSD-6	(1) 4P, (1) 2P	GSD-6	(1) 4P
DLP-8	(1) 4P	SMD/SSD-8	(1) 4P, (1) 2P	GSD-8	(1) 4P
DLP-10	(2) 3P	SMD/SSD-10	(3) 3P	GSD-10	(2) 3P
DLP-12	(2) 3P	SMD/SSD-12	(3) 3P	GSD-12	(2) 3P



NOTE: CASE MUST BE GROUNDED

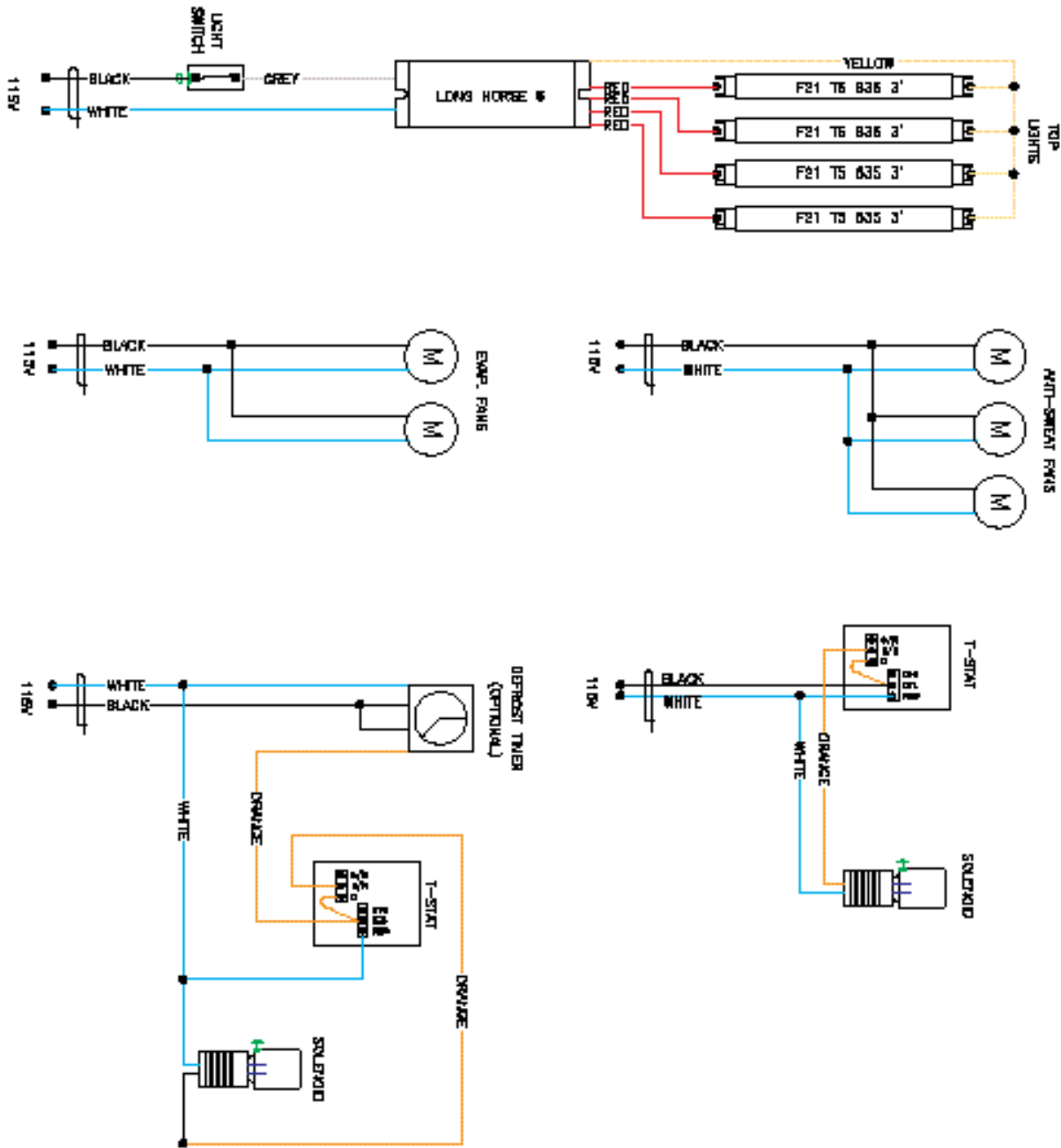
VOLT.	120-1-BQ
AMPS	#2
BTU'S	1,800
EMP. TEMP.	+16°



DATE:	12/5/2008	REVISION	-	PROJECT	ORDER #	P.O. BOX 478 KEOSAUQUA, IN 42303 PHONE: (319)283-3777 FAX: (319)283-3778	CUSTOMER:	DLP-4 R	INSULATION	CP	ATTACHED IT
DRAWING #								STANDARD WIRING DIAGRAM	SCALE	INCHES	

NOTE: CASE MUST BE GROUNDED

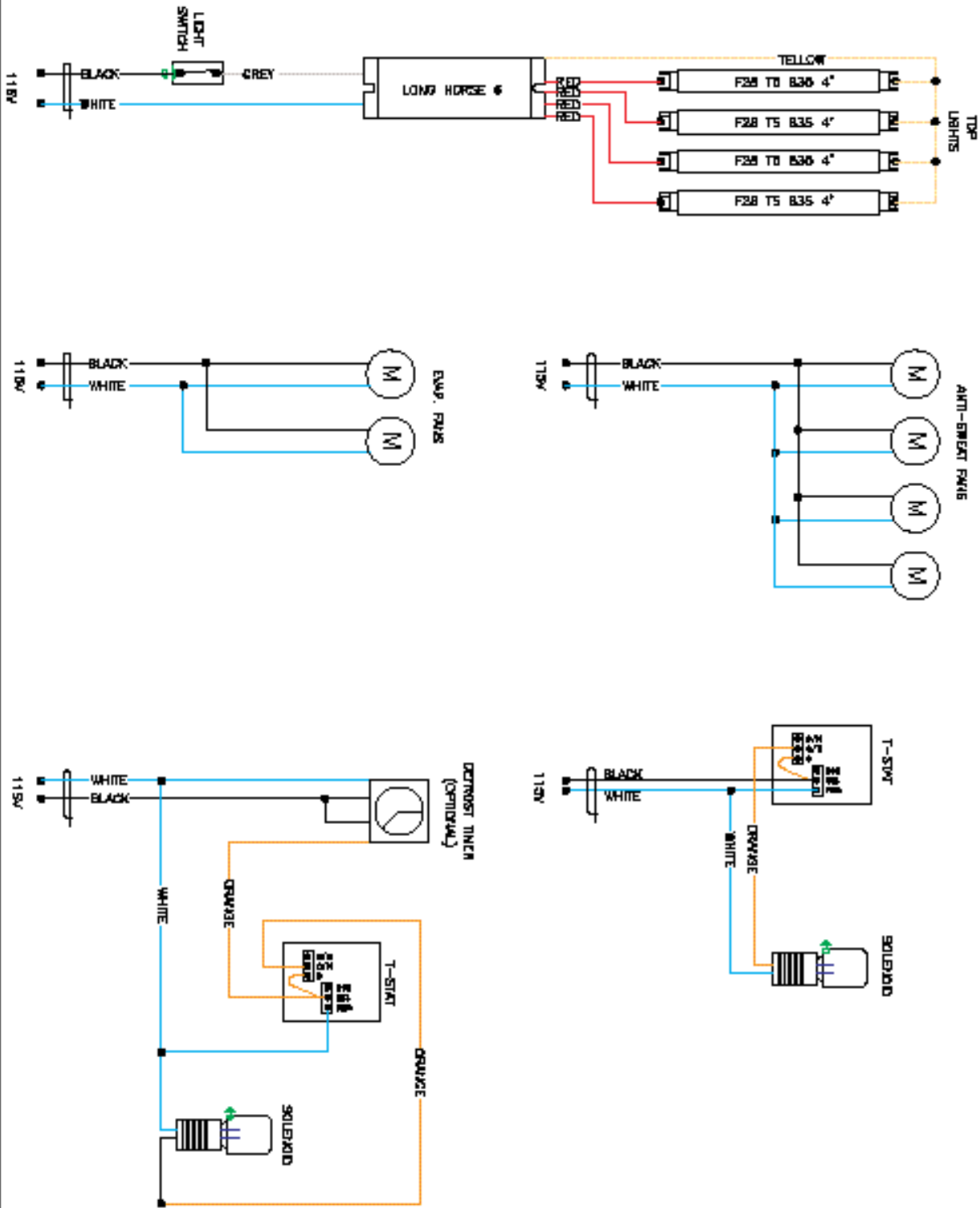
VOLT.	120-1-BQ
AMPS	1.22
BTU'S	2,700
EMP. TEMP.	+16°



DATE:	12/5/08	REVISION	---	PROJECT	ORDER #	P.O. BOX 478 KEOSAUQUA, IA 52503 PHONE: (319)283-3777 FAX: (319)283-3770	CUSTOMER:	DLP-6 R	ROUTING	ATTACHED IT
DRAWING #								STANDARD WIRING DIAGRAM	SCALE	INCHES

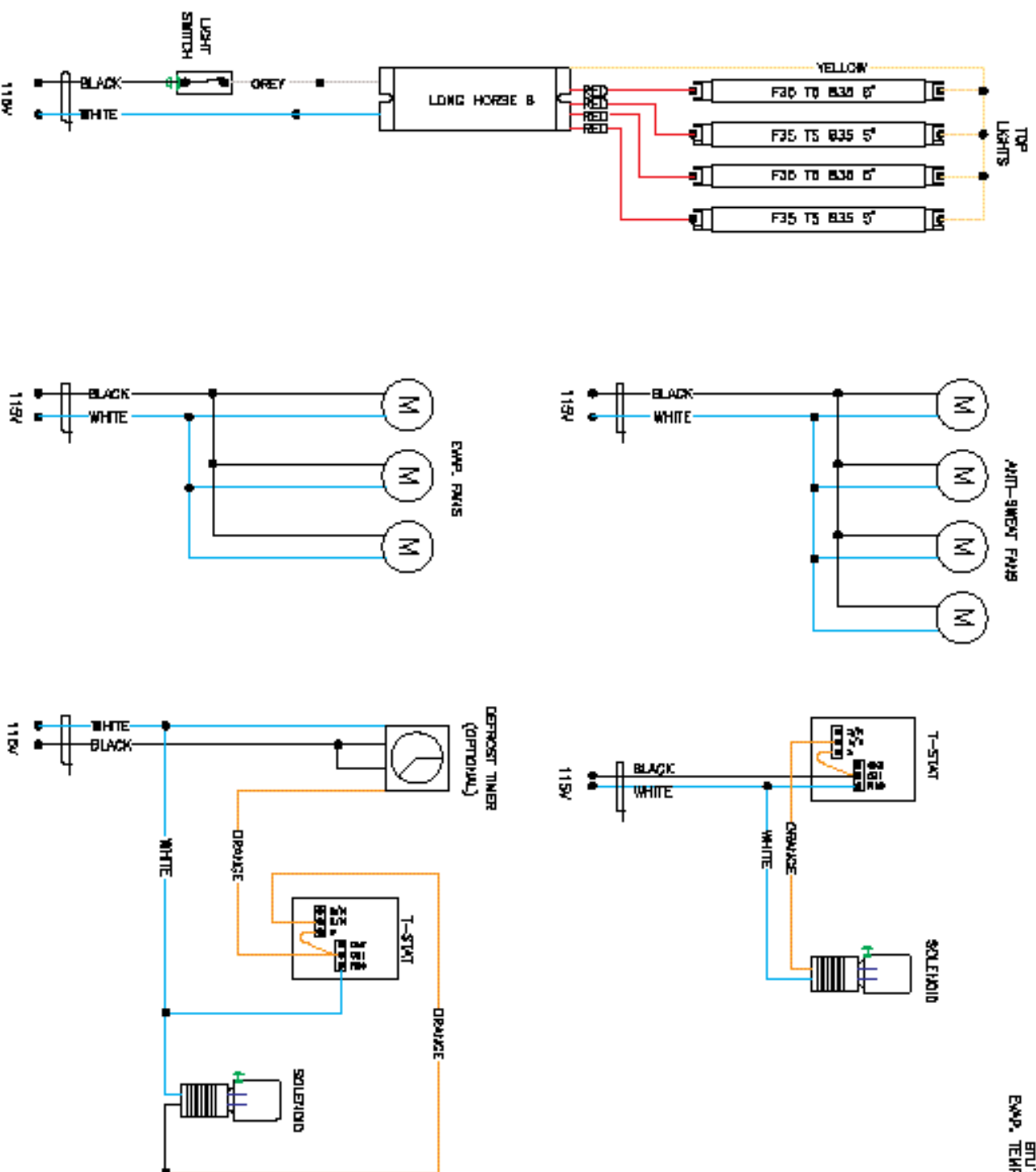
NOTE: CASE MUST BE GROUNDED

VOLT.	120-1-BQ
AMPS	1.81
BR/US	3.600
EXP. TEMP.	+16°



DATE:	12/5/2008	REVISION	---	PROJECT	ORDER #	Customer:	DLP-8 R	INSTALL	ATTACHED IT
DRAWING #							STANDARD WIRING DIAGRAM	SCALE	
<div><div>P.O. BOX 478 KEESOTA, IA 52502 PHONE: (319)283-3777 FAX: (319)283-3778</div></div>									

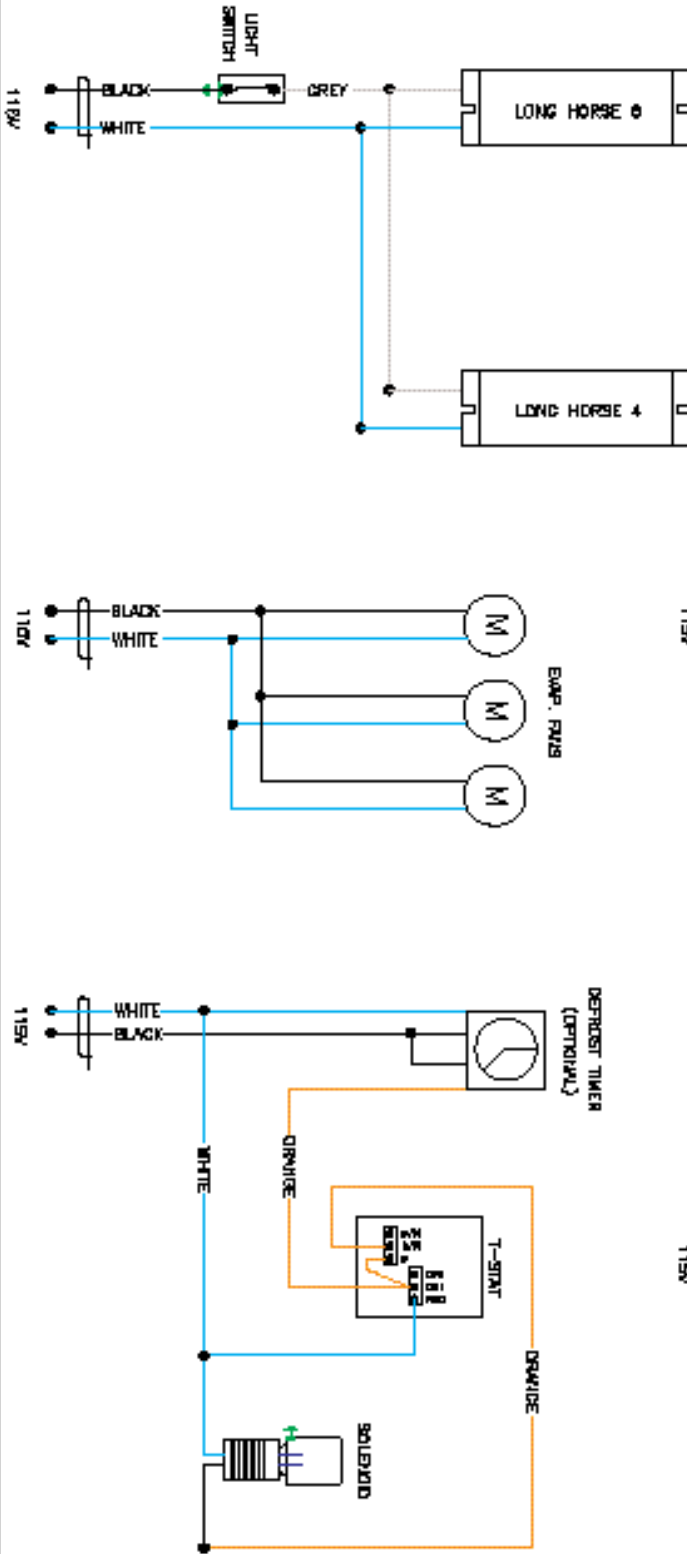
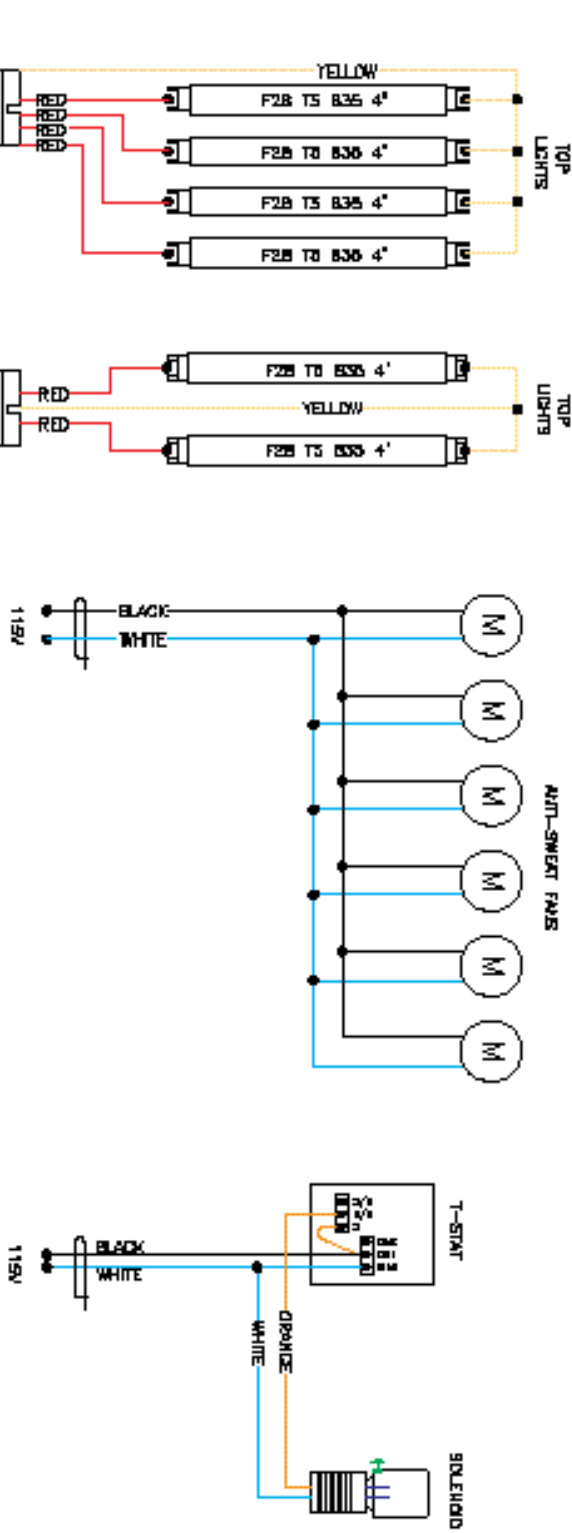
WLT.	120-1-80
AMPS	2.38
BTU'S	4,600
EXP. TEMP.	+18



ATTACHED FILE(S)

NOTE: CASE MUST BE GROUNDED

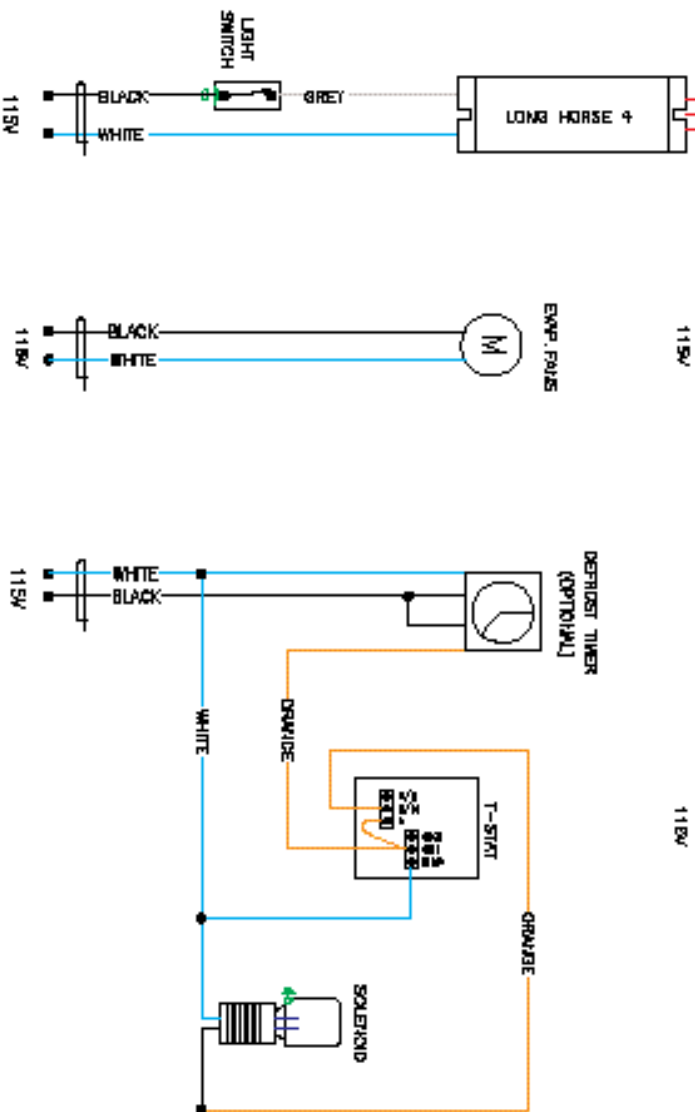
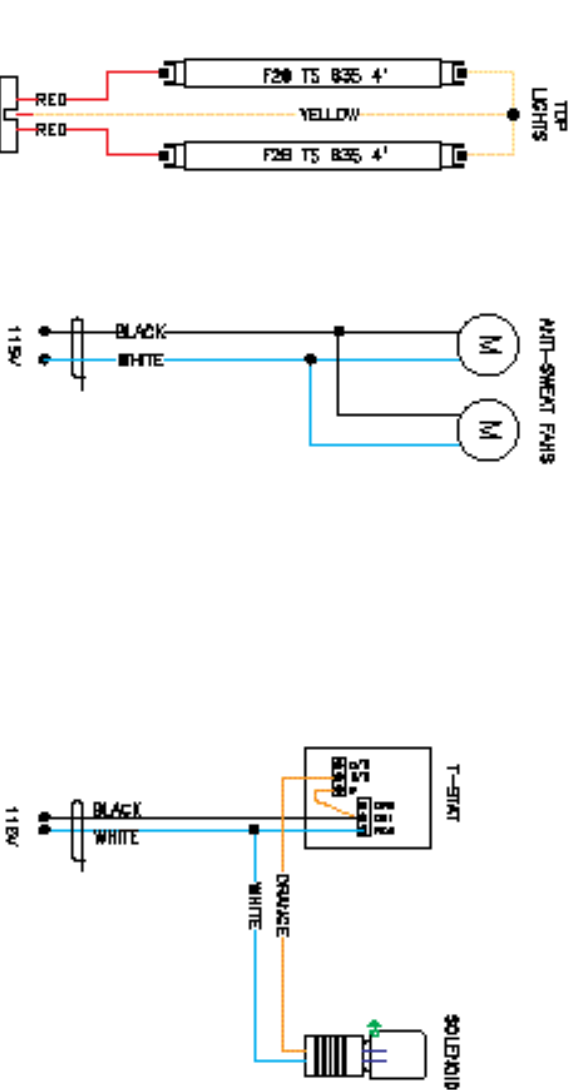
VOLT.	120-1-BQ
AMPS	2.25
BTU'S	5,400
EMP. TEMP.	+16°



DATE:	12/5/2008	REVISION		PROJECT	ORDER #	CUSTOMER:	DLP-12 R	MODEL	CP	ATTACHED IT
DRAWING #						STANDARD WIRING DIAGRAM		SCALE	INCHES	

NOTES: GND MUST NOT BE GROUNDED

VOLT.	120-1-BQ
AMPS	1.14
BTU'S	1,800
EMP. TEMP.	+80°



DATE: 12/5/08

REVISION: -

PROJECT: ORDER #



P.O. BOX 478
KEESBOLDA, N.J. 07030
PHONE: (319)283-3777
FAX: (319)283-3778

CUSTOMER: SSD-4 R
STANDARD WIRING DIAGRAM

NOTATION: CP

SCALE: NONE

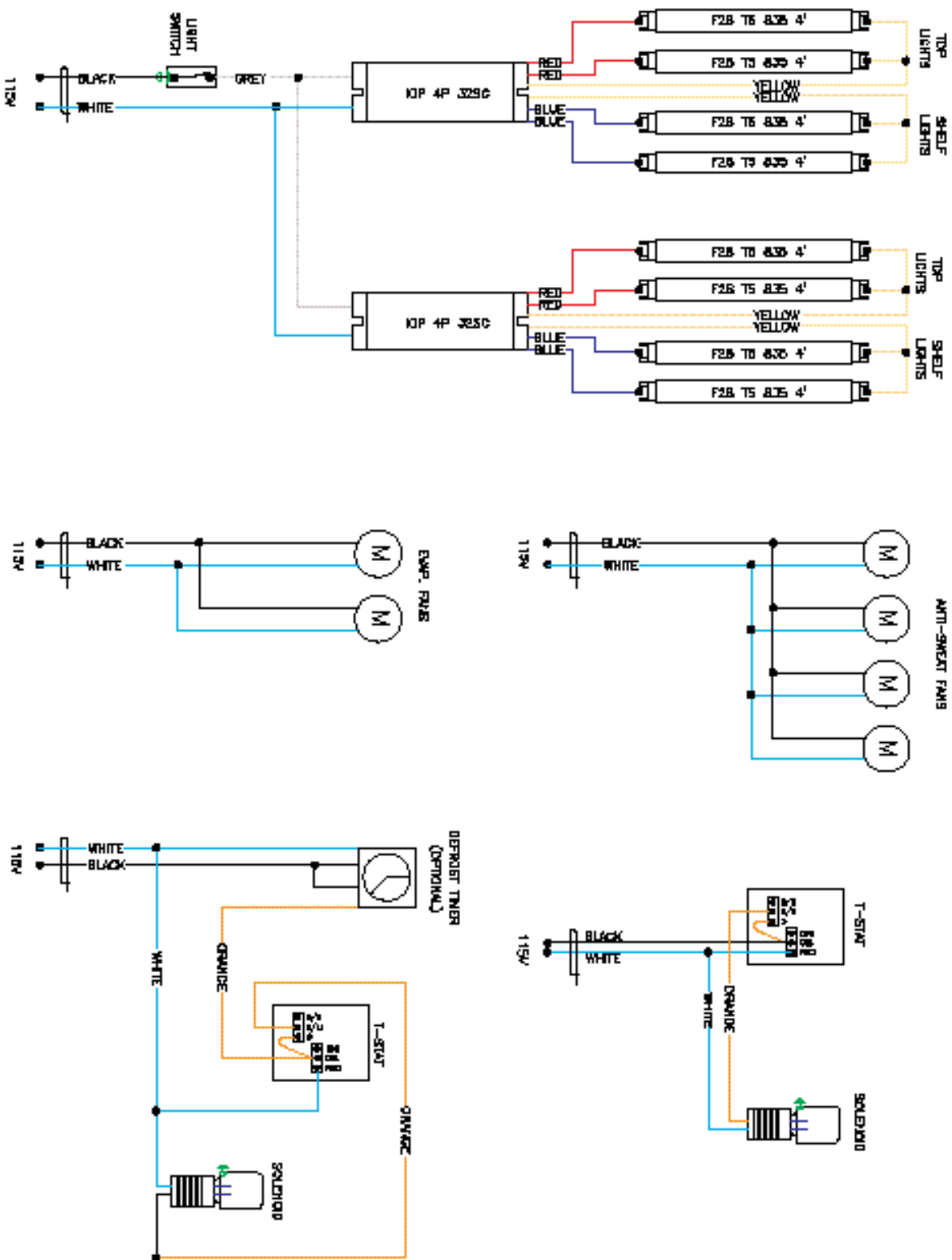
ATTACHED: IT

VOLT.	120-1-80
AMPS	2.13
BTU'S	2,700
EXP. TEMP.	+20°

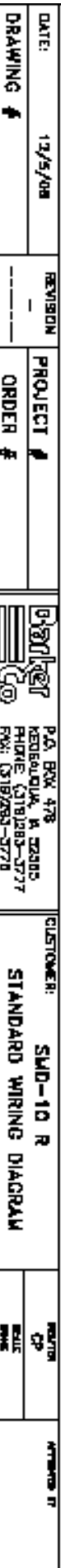
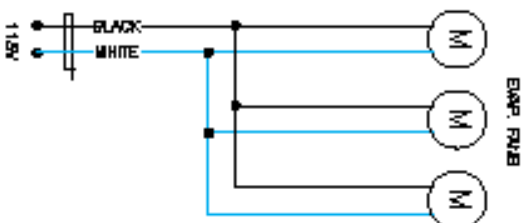
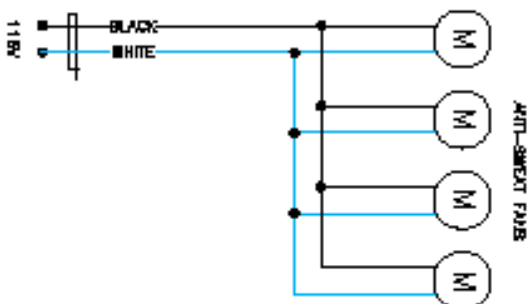


DATE: 07/31/2008	REVISION: -	PROJECT #		 P.O. BOX 478 KESSELBURN, FL 32060 PHONE: (318)283-5777 FAX: (318)283-5778	CUSTOMER: SMD-6 R	ROUTER CP	ATTACHED IT
DRAWING #	ORDER #	STANDARD WIRING DIAGRAM			BULK PRNG		

WOLT.	120-1-80
AMPS	2.78
BTU'S	3600
EXP. TEMP.	+20°

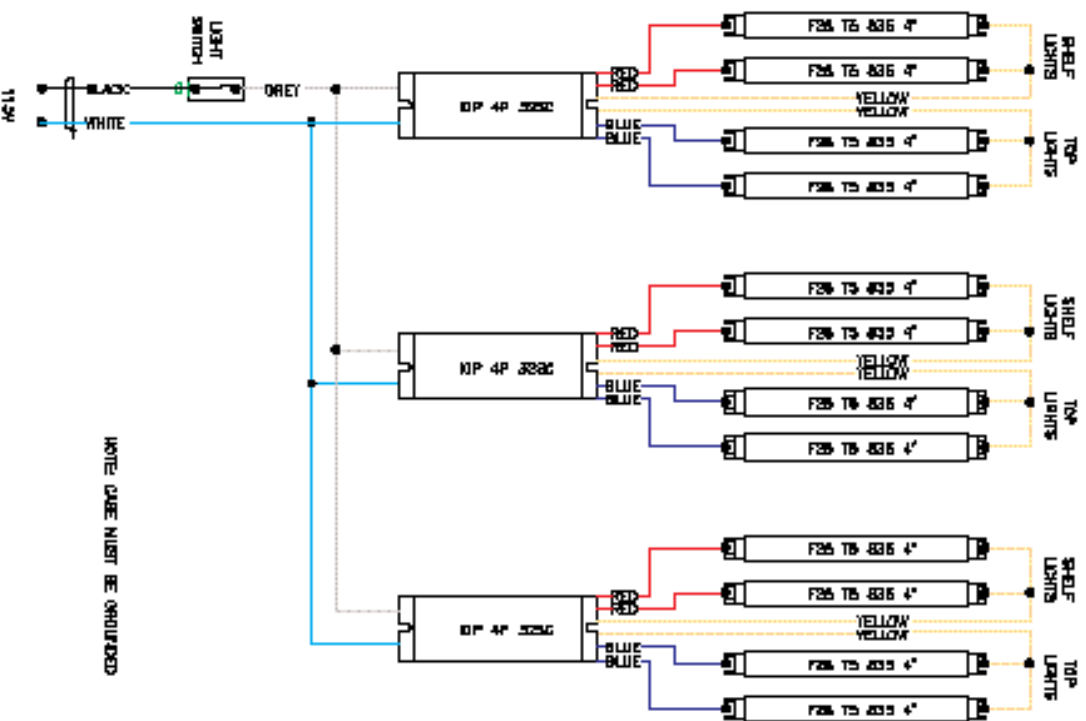


WOLT.	120-1-80
AMPS	3.94
BTU'S	4.650
EXP. TEMP.	+28°

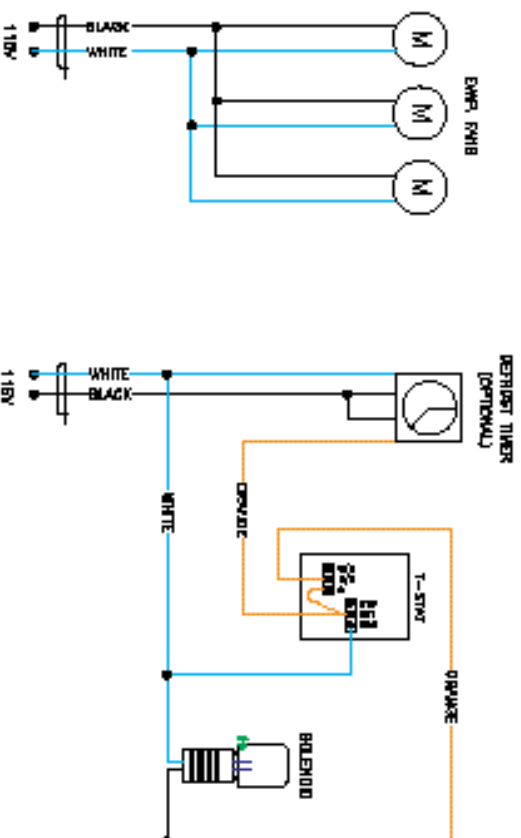
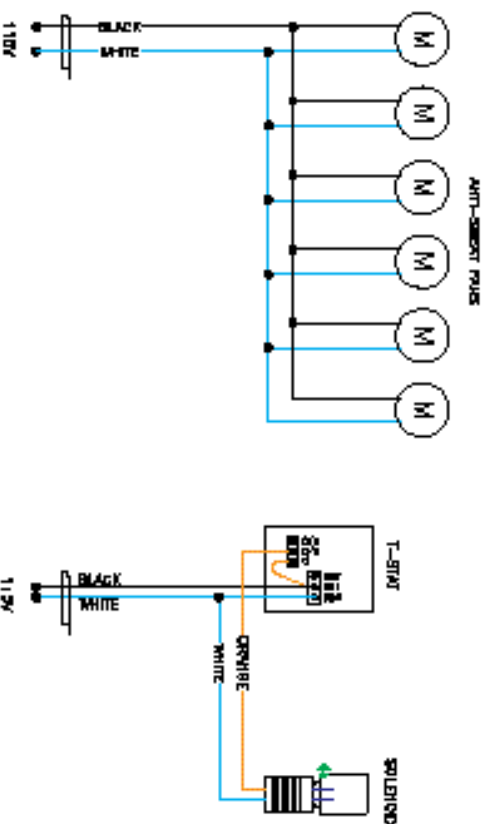


NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-BQ
AMPS	4.37
BTU'S	5,400
COMP. TEMP.	+28°



NOTE: CASE MUST BE GROUNDED

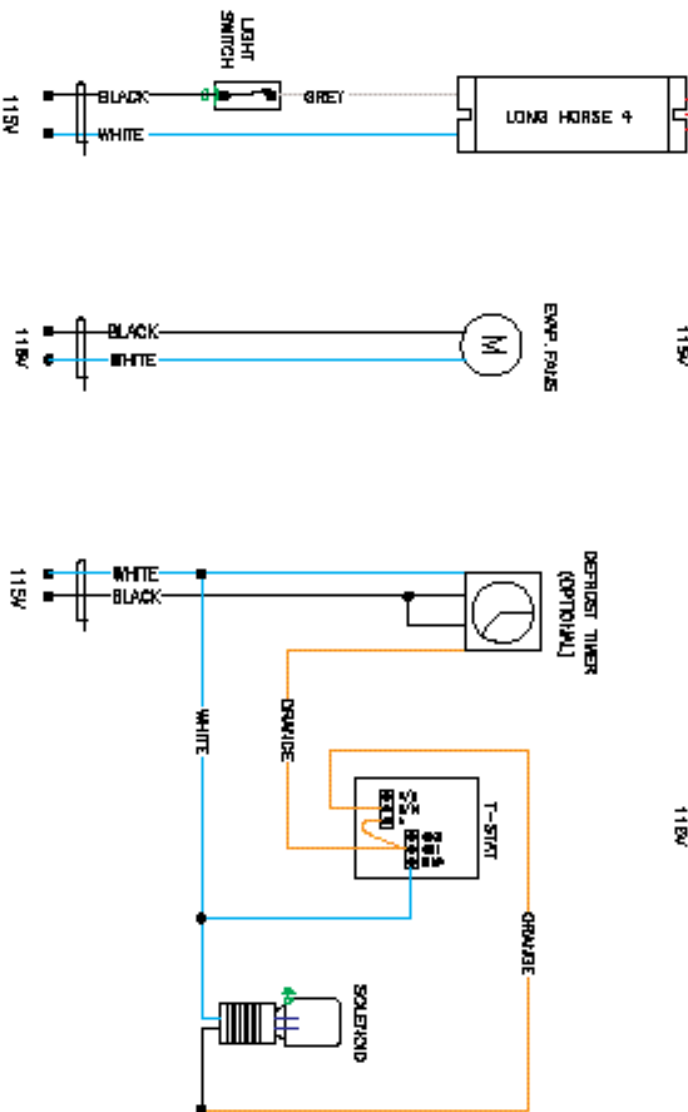
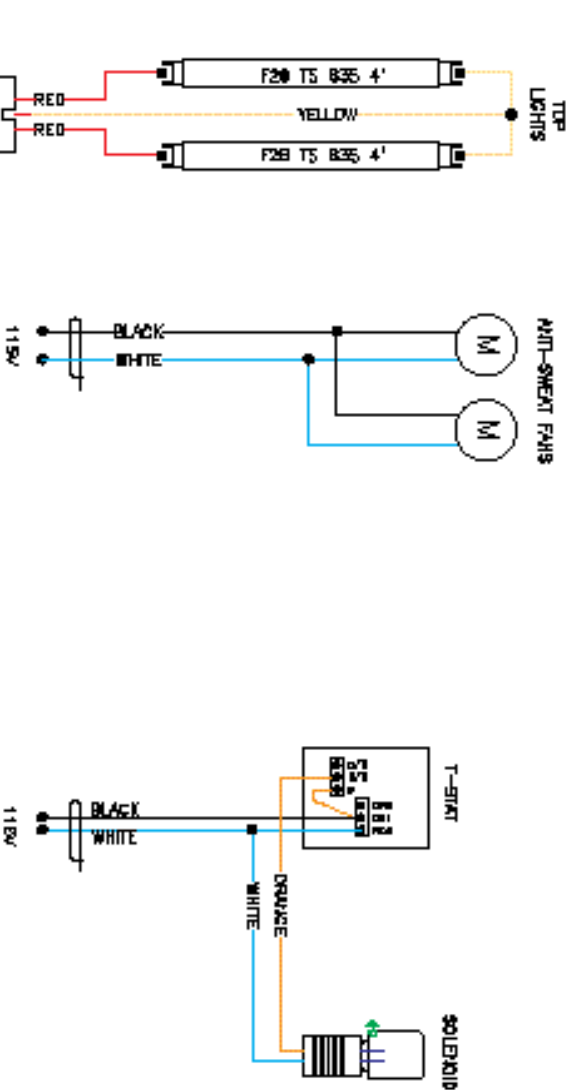


DATE:	12/5/2008	REVISION	-	PROJECT	ORDER #	CUSTOMER:	SMD-12 R	INSTALL	ATTACHED IT
DRAWING #							STANDARD WIRING DIAGRAM	SCALE	INCHES

P.O. BOX 478
 KENOSHA, WISCONSIN 53140
 PHONE: (312) 883-3777
 FAX: (312) 883-3778

NOTES: GROUND MUST NOT BE GROUNDED

VOLT.	120-1-BQ
AMPS	1.14
BTU'S	1,800
EMP. TEMP.	+28°



DATE:	12/5/08	REVISION	-	PROJECT	ORDER #	P.O. BOX 478 KEDOLQUA, R 22805 PHONE: (319)283-3777 FAX: (319)283-3778	CUSTOMER:	SSD-4 R	INSTALL	ATTACHED IT
DRAWING #								STANDARD WIRING DIAGRAM	CP	

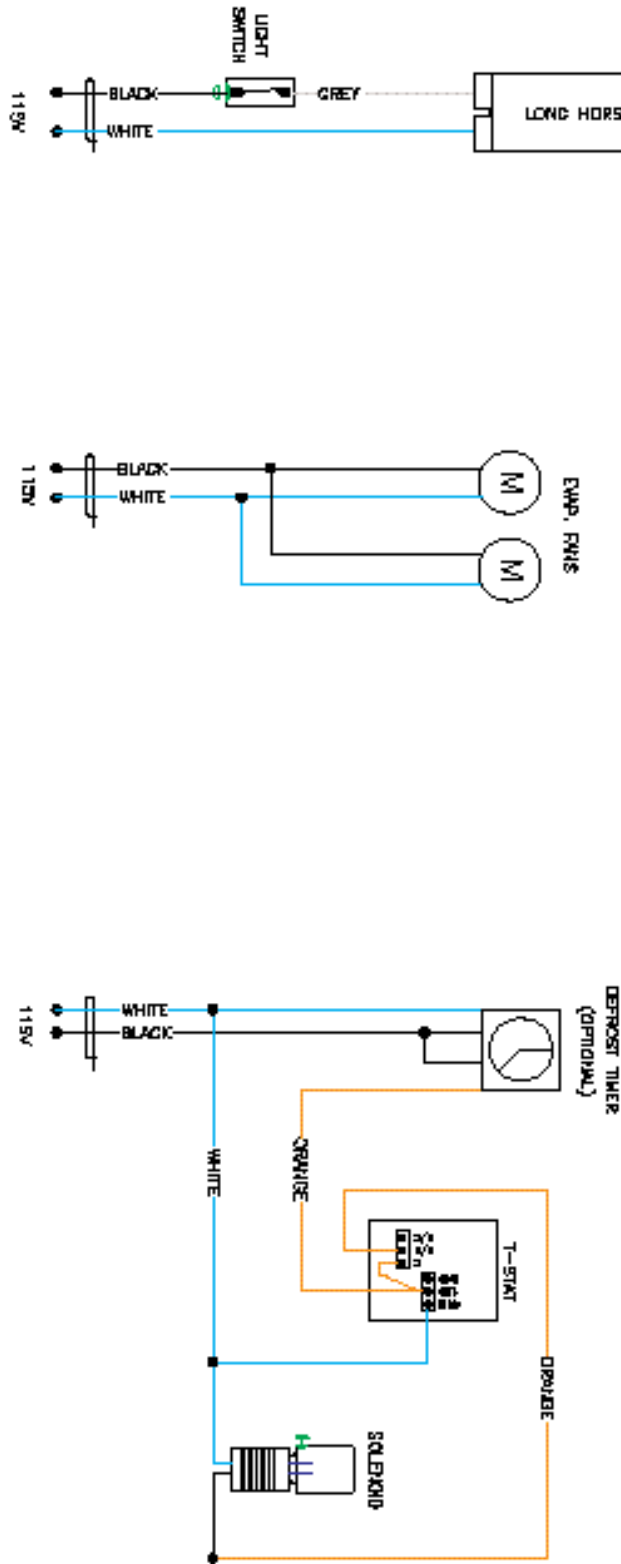
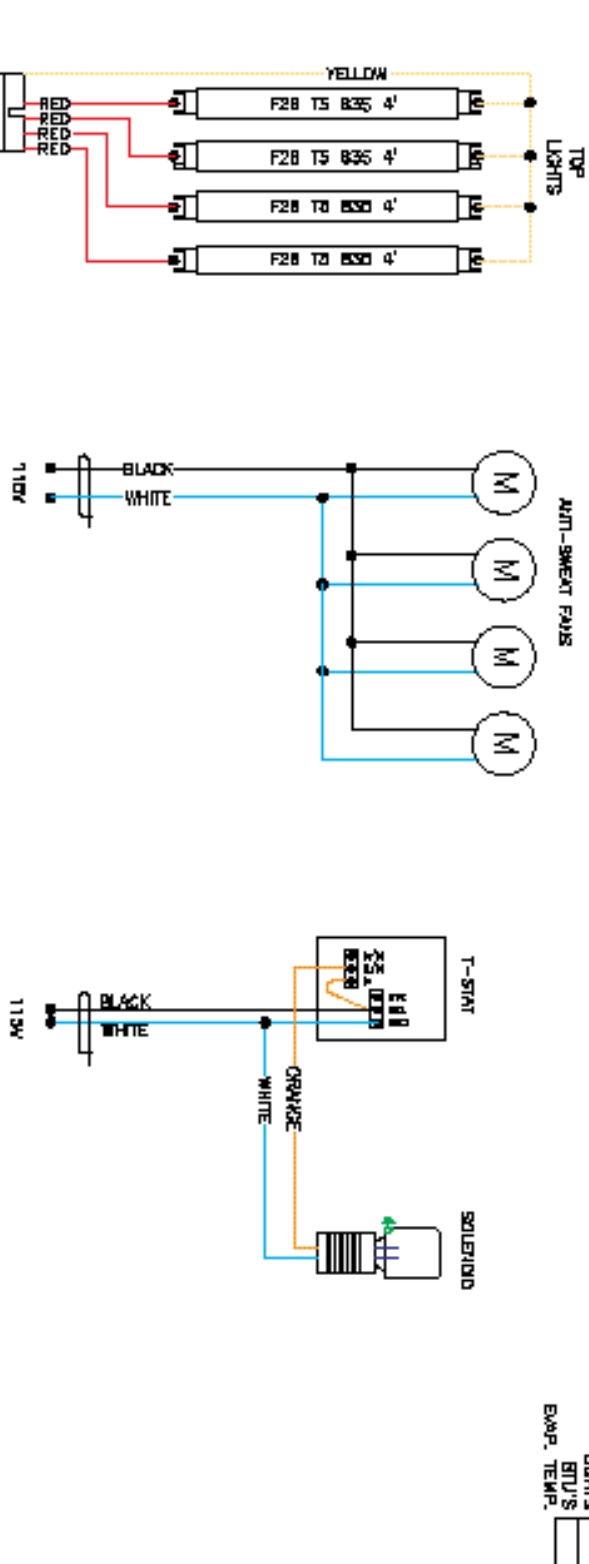
VOLT.	120-1-BK
AMPS	1.38
BTU'S	2,700
EXP. TEMP.	+18




NOTE: CASE MUST BE GROUNDED

VOLT.	120-1-BQ
FANS	1.81
LIGHTS	3.600
BTU'S	+28°

EWP. TEMP.



DATE:	12/5/2008	REVISION	-	PROJECT	ORDER #	CUSTOMER:	SSD-B R	INSTALL	ATTACHED IT
DRAWING #							STANDARD WIRING DIAGRAM	SCALE	
 <p>P.O. BOX 478 KEOSAUQUA, IA 52505 PHONE: (319)283-3777 FAX: (319)283-3778</p>									

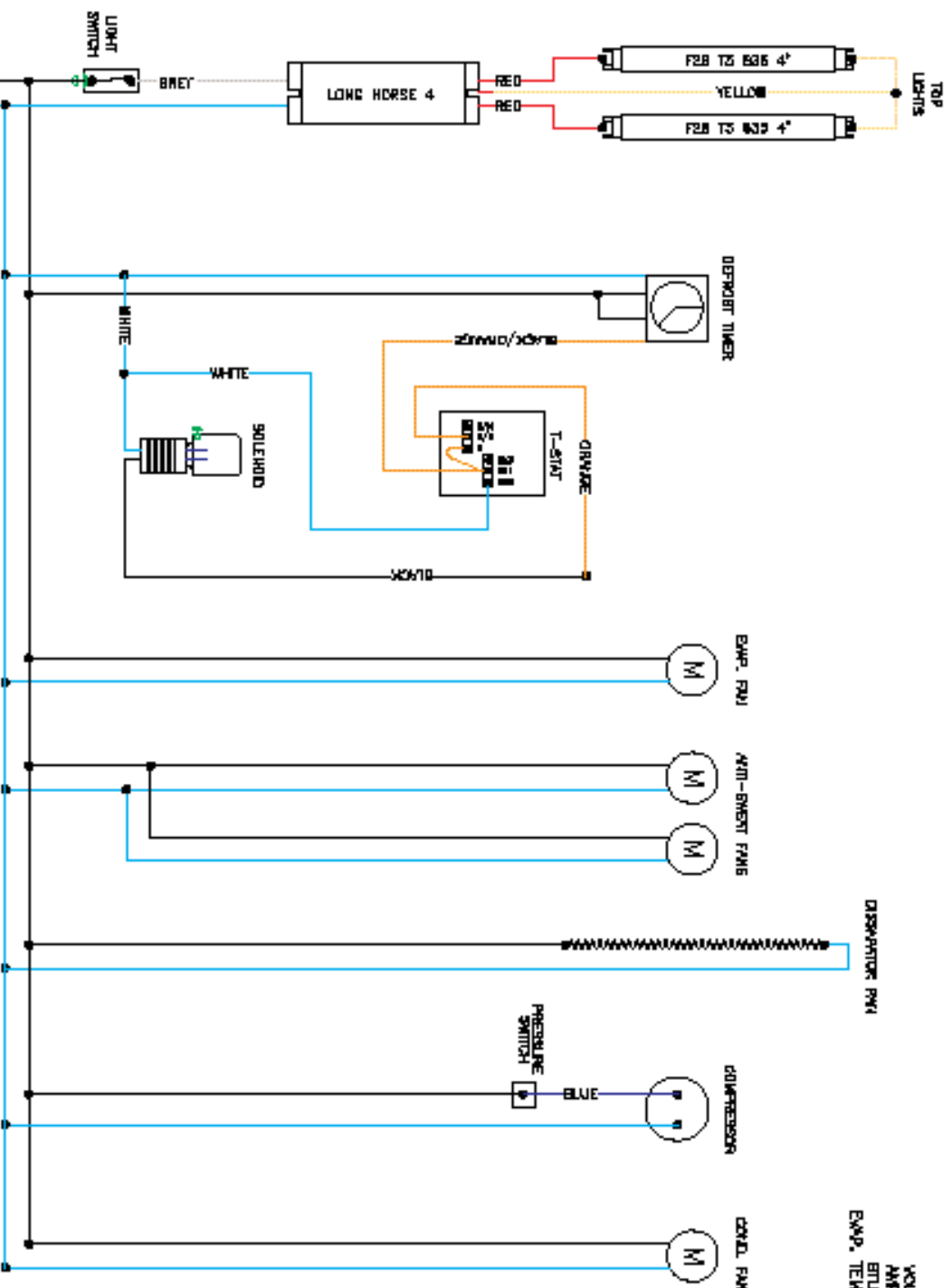
WLT.	120-1-80
AMPS	2.4
BTU'S	4,600
EXHP. TEMP.	+20°



WOLT.	120-1-80
FASIS	2.50
LIGHTS	6.400
BTU'S	+207
EXHP. TEMP.	



VOLT.	120-1-BQ
AMPS	13.9
BTU'S	1,800
EWAP. TEMP.	+18°



NOTE: CABLE MUST BE CHANGED

DATE: 12/5/2008
DRAWING #

REVISION

PROJECT #
ORDER #



P.O. BOX 478
KENDALDIA, IL 62505
PHONE: (312) 883-5777
FAX: (312) 263-5778

CUSTOMER: DLP-4 SC
STANDARD WIRING DIAGRAM

REVISION
C2

ATTACHED IT

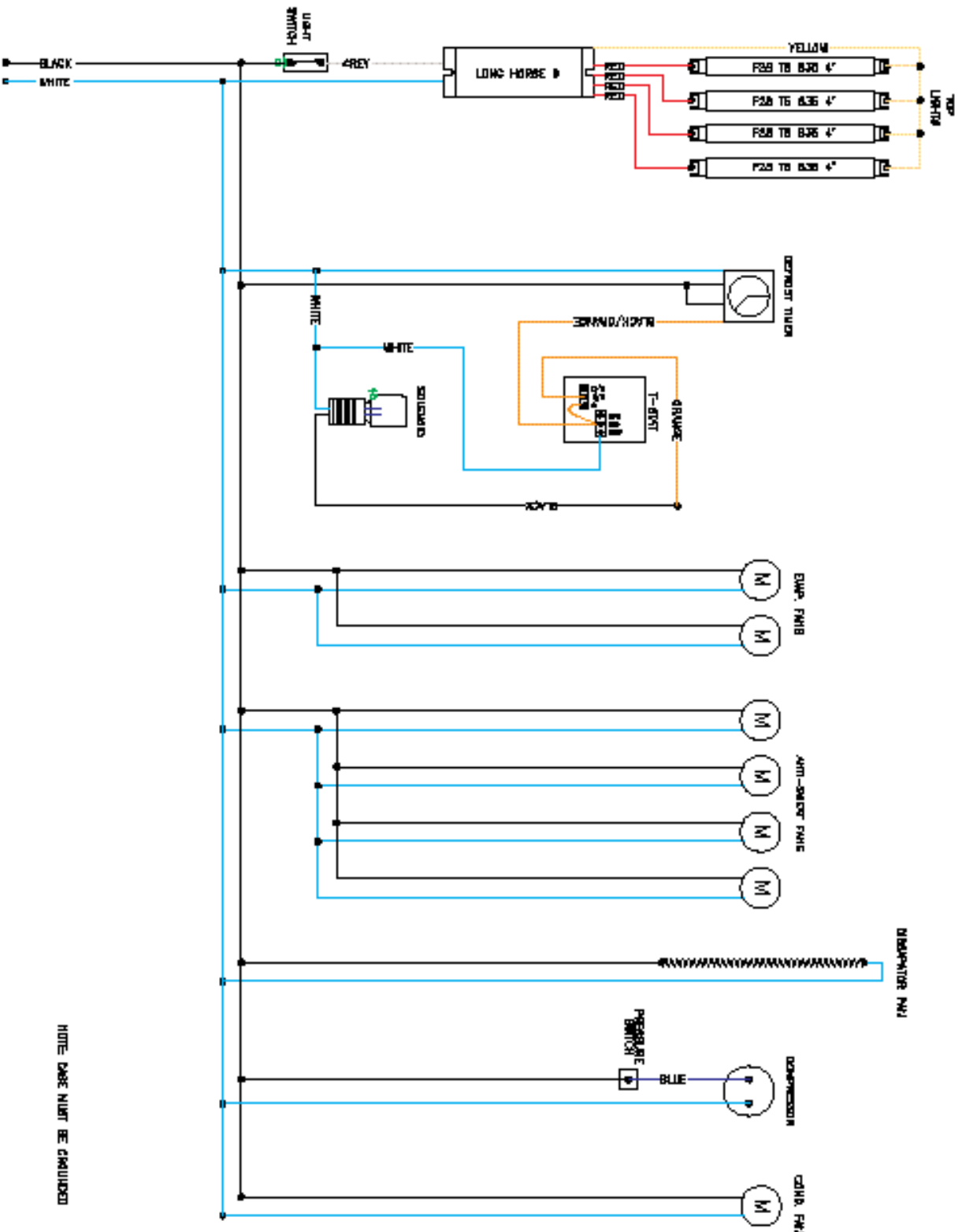
WOLT.	120-1-80
AMPS	15.80
BTU'S	2,700
EXP. TEMP.	+18



ATTACHED TO:

NOTE: SHIELDS ARE OPTIONAL. CABLE MAY OR MAY NOT BE EQUIPPED WITH UNDER-SHEATH GROUNDING.

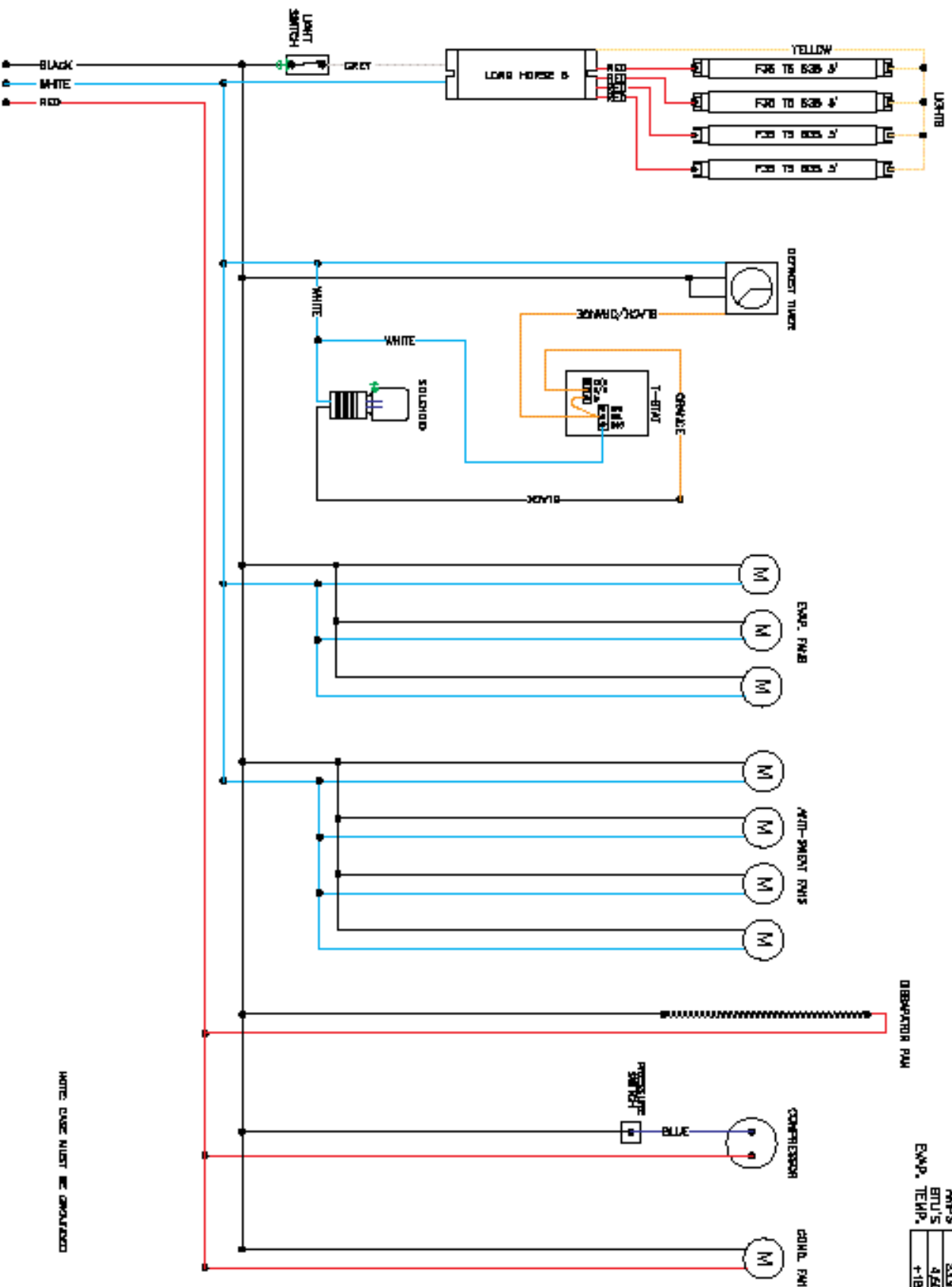
VOLT.	120-1-BQ
AMPS	18.00
BTU'S	3600
COMP. TEMP.	+18°



NOTE: CABLE MUST BE GROUNDING

DATE:	12/5/2008	REVISION	---	PROJECT	ORDER #	P.O. BOX 478 KEESOTA, IA 52502 PHONE: (319)283-3777 FAX: (319)283-3778	CUSTOMER:	DLP-8 SC	INSTALL	ATTACHED IT
DRAWING #								STANDARD WIRING DIAGRAM	SCALE	INCHES

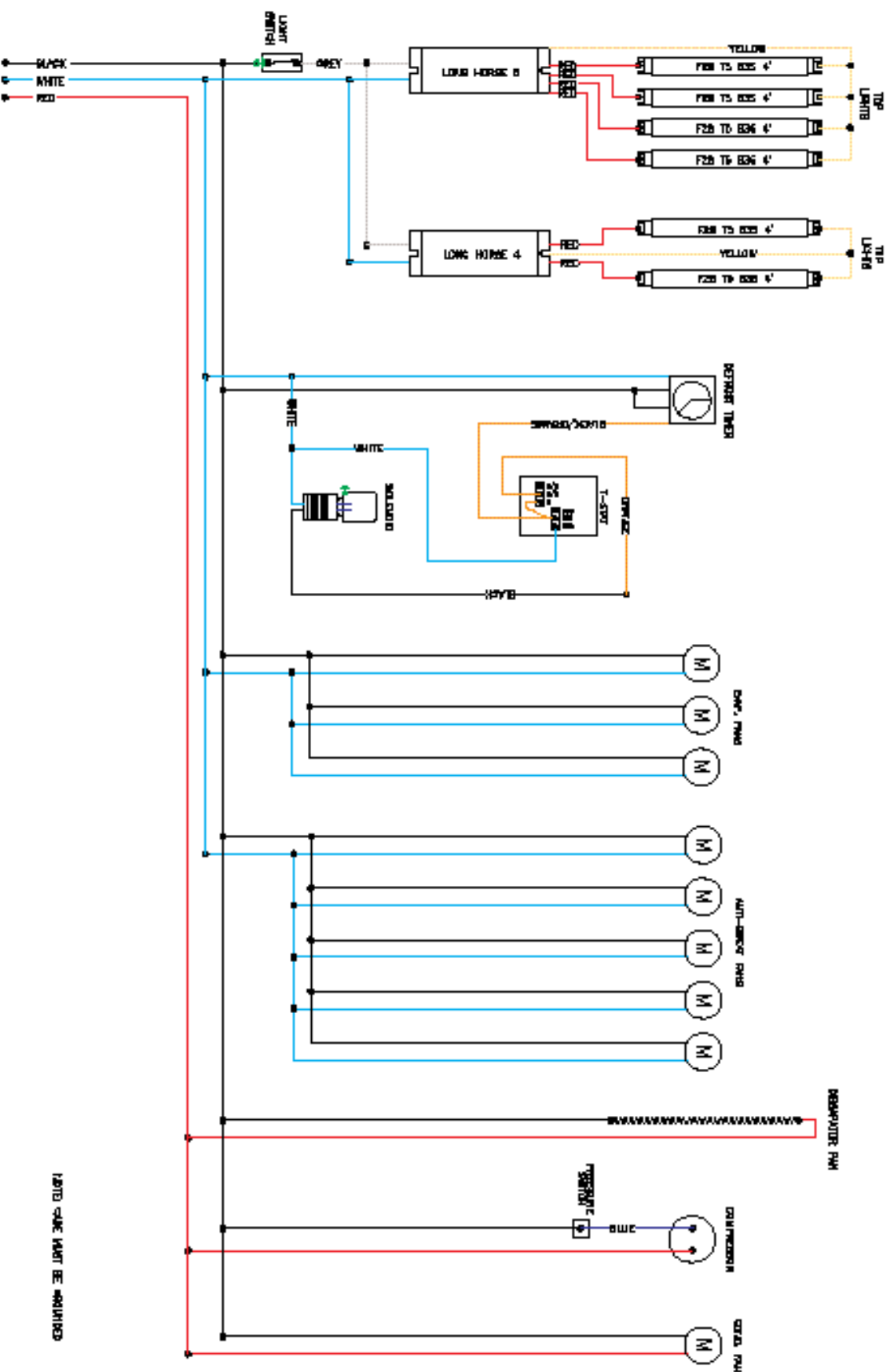
VOLT.	180-1-80
AMPS	23.88
BTU'S	4750
EMP. TEMP.	+18°





NOTE: CASE MUST BE GROUNDING

DATE:	12/5/2008	REVISION	-	PROJECT	ORDER #	Customer:	DUP-10 SC	INSTALL	CP	ATTACHED IT
DRAWING #						P.O. BOX 478 KEOSAUQUA, IA 52305 PHONE: (319)283-3777 FAX: (319)283-3778	STANDARD WIRING DIAGRAM	SCALE	INCHES	

VOLT.	120-1-80
AMPS	24.67
BTU'S	6,400
EXP. TEMP.	+18°



NOTE: PLEASE DON'T BE MISLEADING

DATE:	12/5/2008	REVISION	-
DRAWING #	-----	PROJECT #	
ORDER #		 P.O. BOX 478 KENNESAW, GA 30145 PHONE 678/263-5777 FAX 678/263-5778	CUSTOMER: DLP-12 SC STANDARD WIRING DIAGRAM
			REVISION CP
			ATTACHED IT

WOLT.	120-1-80
AMPS	13.4
BTU'S	1,800
EXP. TEMP.	+20°



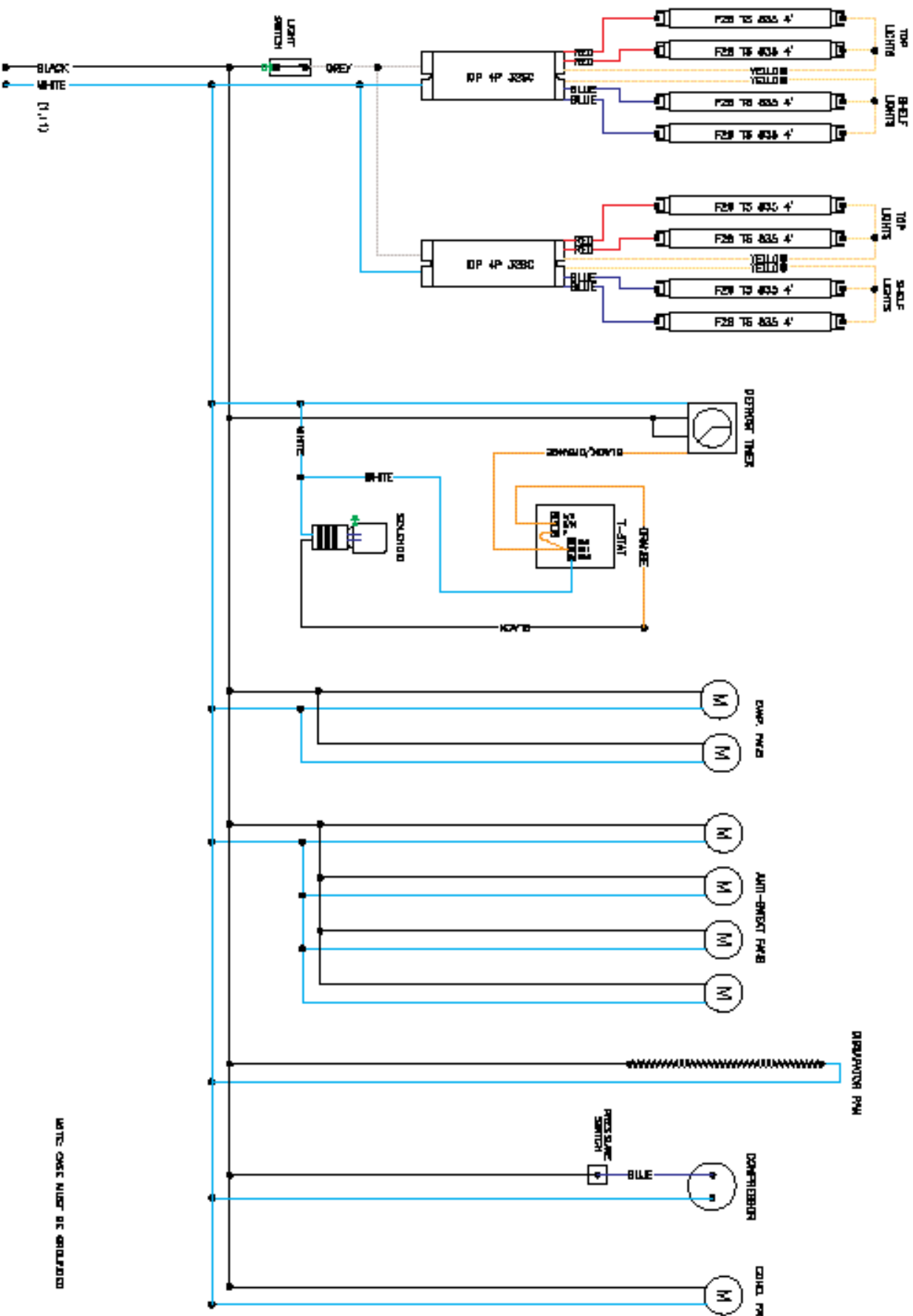
ATTACHED FILES

VOLT.	120-1-80
AMPS	15.89
BTU'S	2,700
EXP. TEMP.	+20°



	ATTACHED TO

WOLT.	120-1-80
AMPS	24.8
BTU'S	3,400
EXP. TEMP.	+20°



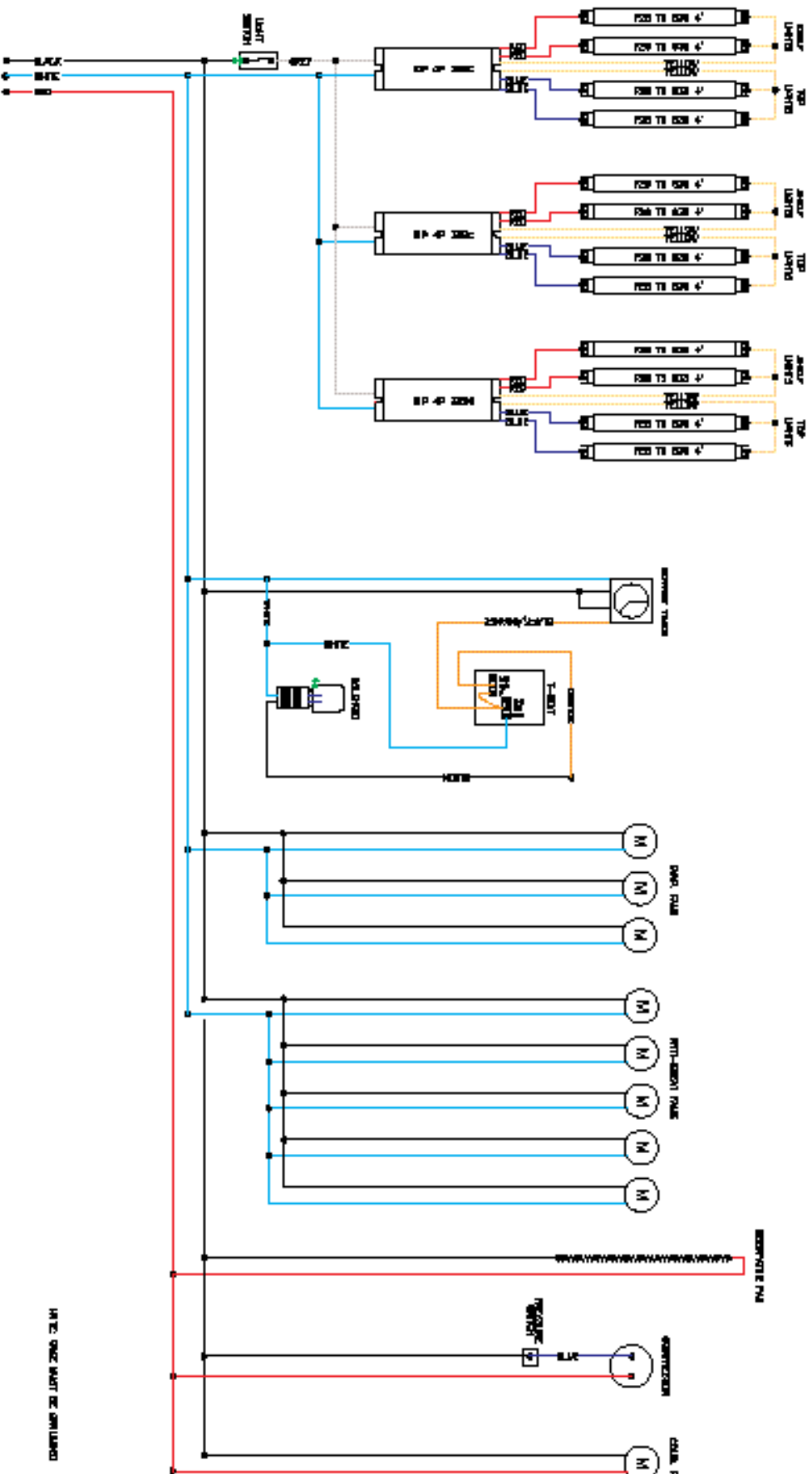
DATE: 12/5/2008	REVISION: -	PROJECT #	CUSTOMER: SMD-8 SC		ROUTED BY: CP	ATTACHED TO:
DRAWING #	ORDER #	 P.O. BOX 478 KESSELBACH, IA 52585 PHONE (319)283-5777 FAX (319)283-5778	STANDARD WIRING DIAGRAM			

UNITED STATES AND NATIONAL COM MITTEE IS NOT BEING EMPLOYED WITH UNITED STATES NATIONAL

**Perkle Co.**

NOTES: REWIRE AND SERVICE CABLE MUST BE INSTALLED IN EQUIPMENT WITH UTILITY SERVICE. LAMPING.

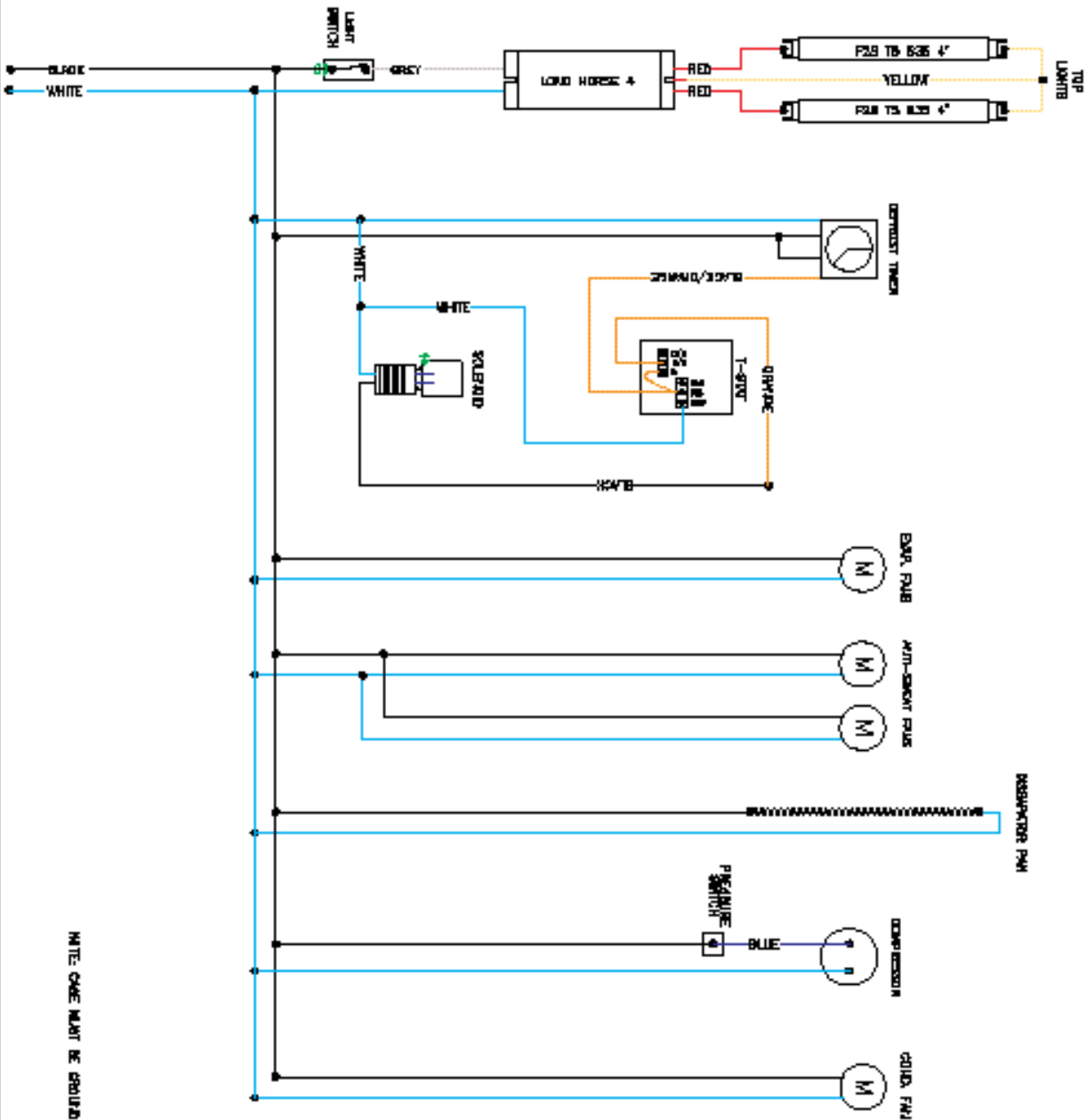
VOLT.	120-1-BQ
AMPS	28.33
BTU'S	5,400
EXP. TEMP.	+25°



DATE:	12/5/2008	REVISION	---	PROJECT #	ORDER #	CUSTOMER:	SMD-12 SC	LOCATION	CP	ATTACHED IT
DRAWING #							STANDARD WIRING DIAGRAM	SCALE	INCH	

NOTE: SHOWN ARE OPTIONAL CASE UNIT AIR MAY NOT BE EQUIPPED WITH UNION SHIELD LIGHTS.

VOLT.	120-1-BQ
AMPS	14.17
BTU'S	1,200
EXHP. TEMP.	+20°



DATE:	12/5/2008	REVISION	PROJECT	P.O. BOX 478 KEOSAUQUA, IA 52305 PHONE: (319)283-3777 FAX: (319)283-3778	CUSTOMER:	SSD-4 SC	INSTALL	ATTACHED IT
DRAWING			ORDER			STANDARD WIRING DIAGRAM	SCALE	

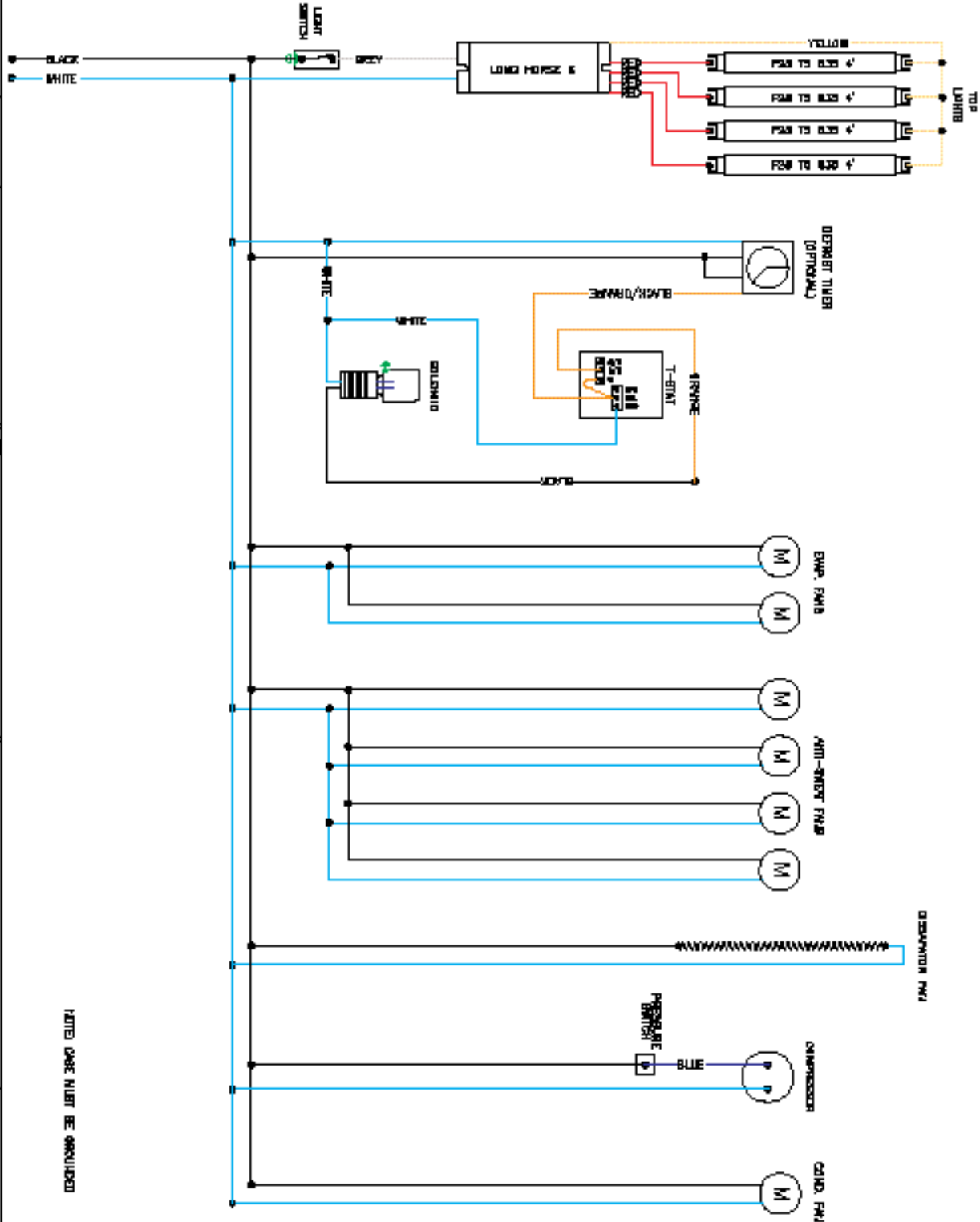
VOLT.	120-1-80
AMPS	15.85
BTU'S	2,700
EXP. TEMP.	+28°



ATTACHED TO

NOTE: SHIELDS ARE OPTIONAL. CABLE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHIELD LAMINATE.

VOLT.	120-1-BQ
AMPS	18.2A
BTU'S	3600
COMP. TEMP.	+20°



NOTE: CABLE MUST BE GROUNDING

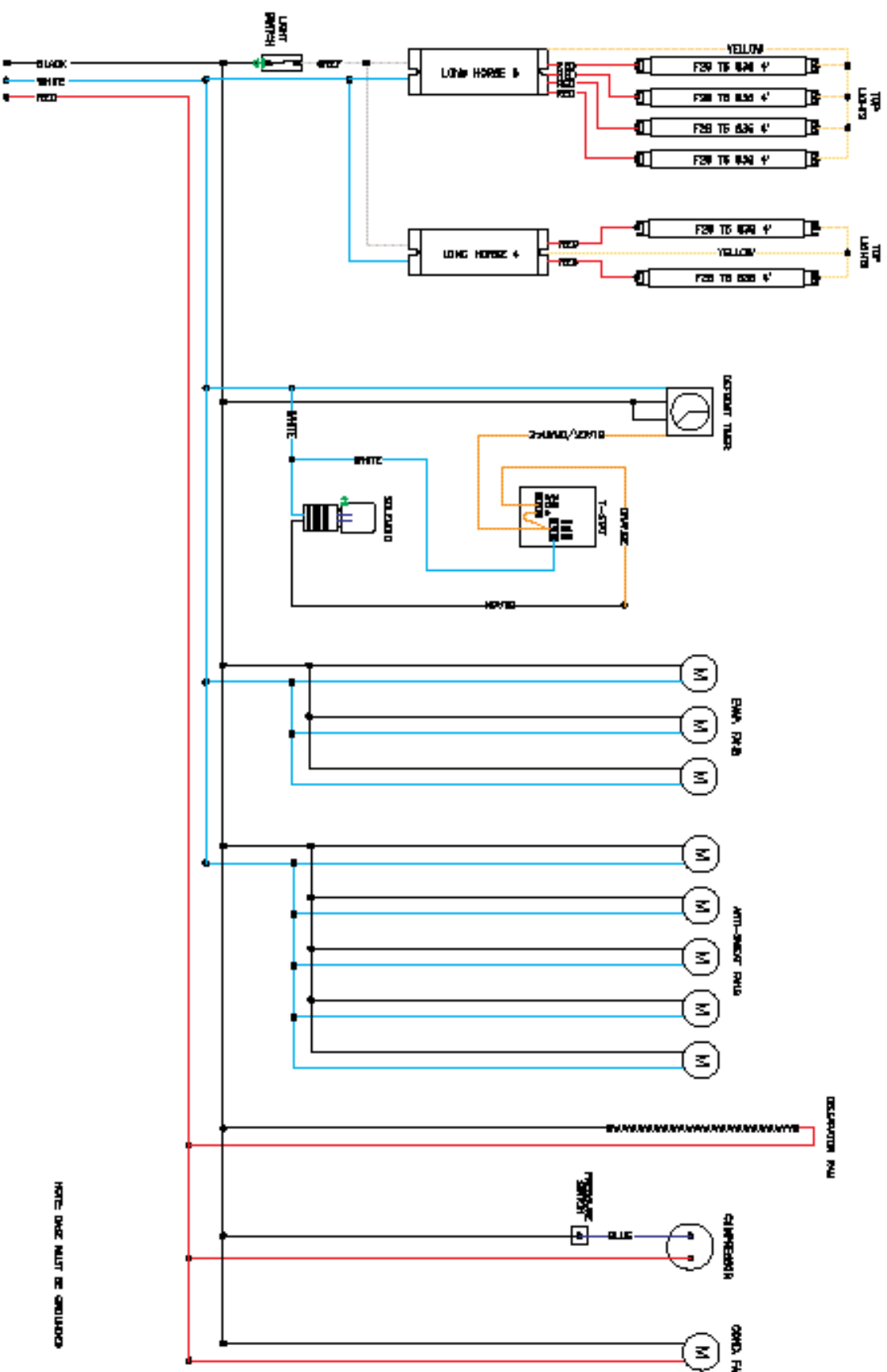
DATE:	08/01/2008	REVISION	—	PROJECT	ORDER #	P.O. BOX 478 KEESBOLDA, N. DAKOTA PHONE: (318) 283-3777 FAX: (318) 283-3778	CUSTOMER:	SSD-S SC	INSULATION	CP	ATTACHED IT
DRAWING #								STANDARD WIRING DIAGRAM	SCALE	INCHES	

WOLT.	120-1-80
AMPS	24.0
BTU'S	4500
EXP. TEMP.	+28°




DATE: 12/5/2008	REVISION: -	PROJECT #		P.O. BOX 478 KEDDIEVILLE, KY 22085 PHONE: (518)283-3777 FAX: (518)283-3778	CUSTOMER: SSD-10 SC	ROUTING	ATTACHED IT
DRAWING #	ORDER #	 			STANDARD WIRING DIAGRAM	CP DATE NAME	

VOLT.	120-1-80
AMPS	24.89
BMU'S	6,400
EXP. TEMP.	+20°



HATE DICE MUST BE COUNDED

DATE: 12/5/2008	REVISION: -	PROJECT #	 P.O. BOX 478 KESELBURN, N. CAROL PHONE (919)283-1777 FAX: (919)283-1778	CUSTOMER: SSD-12 SC	ROUTER: CP	ATTACHED IT
DRAWING #	ORDER #	STANDARD WIRING DIAGRAM		SOLE ENDS		

Maintenance Information

Cleaning

Case Exterior

Clean surfaces frequently with warm water and mild detergent. Do not use strong alkali solutions, steel wool, or abrasive cleaners.

Non-Glare Glass

Non-glare glass surfaces are coated to reduce the glare from lighting. Care must be taken not to scratch the coating. Use the following products only.

Cleaning Cloths

Scotch-Brite® High Performance Cloth - manufactured by 3M® and available in most grocery stores under the name Scotch-Brite® Microfiber Cleaning Cloth in a 12" x14" size. This cloth is washable and may be reused as long as it remains clean.

Spontex® Microfibre Cleaning Cloth - distributed by Spontex® and available in most grocery stores under the same name in a 15.75" x 12" size. This cloth is washable and may be reused as long as it remains clean. The cleaning cloths named above will normally remove dust, grease, oil and fingerprints without the need for cleaning fluids. A light spray of the cleaning fluids listed below will reduce the time required for cleaning.

Cleaning Fluid - for more difficult cleaning jobs, these products are recommended:

Windex® - standard product only (extra-strength or specialty products may not be suitable)

Glass-Plus® - standard product only (extra-strength or specialty products may not be suitable)

Warm Water

DO NOT USE the following types of materials can be used for cleaning glass with anti-reflective coatings.

Coarse Paper Towels

Scouring Pads or Powders

Steel wool or Steel Fiber Materials

Blades

Acidic or highly Alkaline detergents

Fluorine based detergents

Case Interior

All shelving and lower deck can be removed for cleaning (See installation instructions for removing and setting shelving). Check to make sure the case drain(s) are not clogged. Clean interior with warm water and a mild detergent. A sanitizer should be used after washing to eliminate bacteria. Rinse thoroughly being careful not to flood the drain system. Avoid spraying water directly into electrical connections. **DO NOT USE A HIGH PRESSURE WATER HOSE. MAKE SURE FANS ARE SHUT OFF WHEN CLEANING THE INTERIOR OF THE CASE.** Drains should be cleaned once a month.

Evaporator Coil

Clean as needed.

Condenser Coil

FAILURE TO CLEAN COILS WILL VOID WARRANTY. Clean condenser coil every three months or as needed with a whisk broom or vacuum. Disconnect power when servicing. **FINS ON CONDENSER COIL ARE SHARP!**

Condensate Heater

(Evap-O-Way)

Add one teaspoon of scale remover or white vinegar to condensate heater pan once every three months or as needed. Heater is designed for 75° and 50% relative humidity. The condensate pan may overflow if design limits are exceeded.

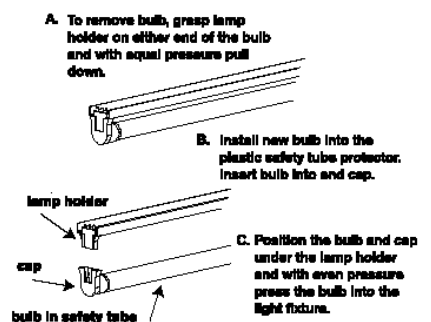
Seafood Application

Plexiglas should be removed for cleaning. Reinstall Plexiglas by placing in front of case. Ice will hold it in place. **PLEXIGLAS MUST BE IN PLACE TO KEEP ICE OUT OF AIR SCREEN.**

Light Replacement

The fluorescent lights in this case are furnished with plastic safety shields and end caps. When replacing fluorescent lamps, be certain to reinstall safety shield and caps. (See illustration). If the bulb is not fully seated the lights will not operate. **BE SURE BULBS ARE FULLY SEATED.**

The light switch is mounted to the right side of the ceiling. See mechanical drawing for ballast box location.



Caution: Failure to install bulb fully into light socket will cause premature bulb life and may cause damage to light fixture

Load Limits

DO NOT place product in merchandiser until all refrigeration controls have been adjusted and are at the proper operating temperature. **DO NOT** place product above load limits or in such a way that the discharge or return air grill are blocked. This will effect the performance of the case and effect the defrost system.

Service

WARNING!

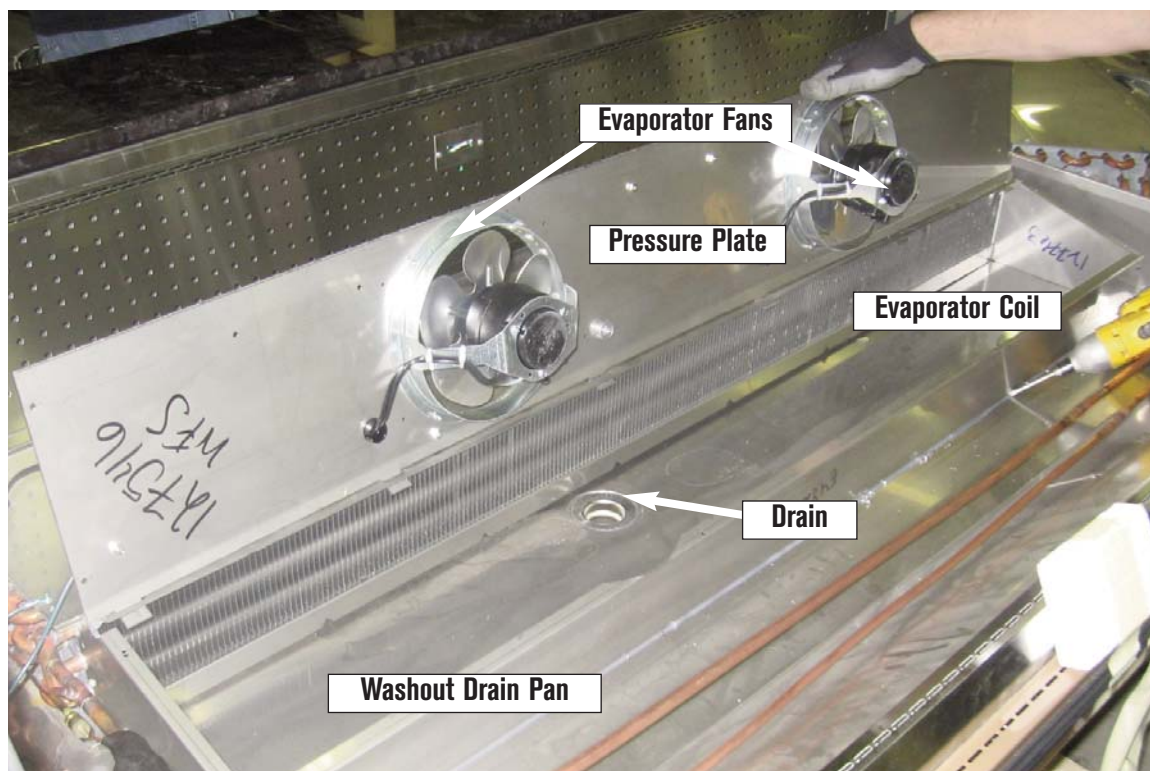
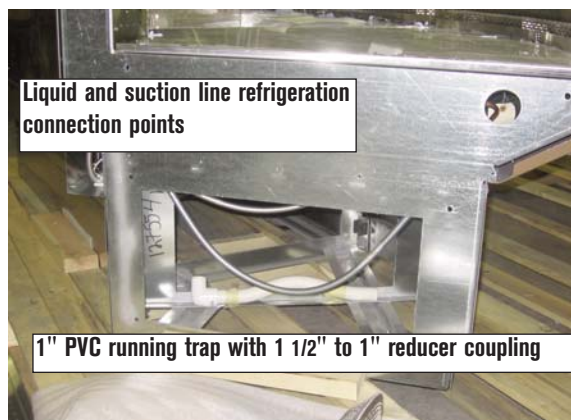
DISCONNECT THE ELECTRICAL POWER WHEN SERVICING OR REPLACING ANY ELECTRICAL COMPONENT.

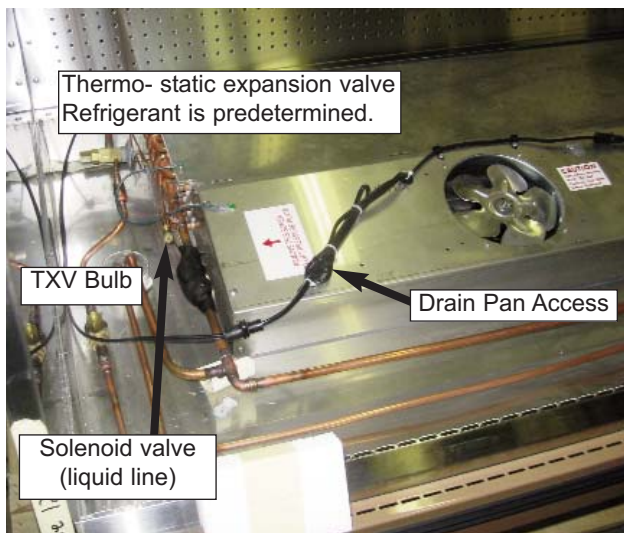
Evaporator Coil Area

To access Evaporator Coil area, remove bottom deck by lifting up and out to expose pressure plate cover and evaporator fans. Remove screws as shown to the left and lift pressure plate cover up.



Drain and refrigeration connections are located on the customer left side at the back of the case.





Service Instructions

1. Read the Installation and Service manual.
2. See the trouble-shooting guide in the event of problems.
3. If service is needed contact Barker Company for an authorized service person in your area. Before calling for service locate the case model and serial number on the data tag located on the customer left, outside back of the case, the customer left, inside top of the case, or contact the factory for location.

Troubleshooting Guide

Problem	Cause	Action
Case temperature is too warm.	<p>Case is in defrost.</p> <p>Product load may be over its limits blocking airflow.</p> <p>Ambient conditions may be affecting the case operation.</p> <p>Condensing coil or evaporator coil is clogged or dirty.</p>	<p>Review T-Stat settings.</p> <p>Redistribute product.</p> <p>Check case position in store. Is the case located near an open door, window, or air conditioning vent?. RH should not be over 50% and temperature above 75°.</p> <p>Clean coil.</p>
Case temperature is too cold.	<p>The T-Stat Temp is set too low. Ambient conditions may be affecting the case operation.</p> <p>Condensing coil or evaporator coil is clogged or dirty.</p>	<p>Check setting. See factory guidelines. Check case position in store. Is the case located near an open door, window, or air conditioning vent? RH should not be over 50% and temperature above 75°.</p> <p>Clean coil.</p>
Condensation on glass.	<p>Inadequate air circulation.</p> <p>Product load may be over its limits blocking airflow.</p> <p>Ambient conditions may be affecting the case operation.</p>	<p>Check grill on die board for adequate airflow over glass.</p> <p>Redistribute product.</p> <p>Check case position in store. Is the case located near an open door, window, or air conditioning vent? RH should not be over 50% and temperature above 75°.</p>
Water has pooled under case.	<p>Case drain is clogged.</p> <p>Check PVC drains under case for leaks.</p> <p>Evaporator pan is overflowing.</p>	<p>Clear drain.</p> <p>Repair as needed.</p> <p>Check electrical supply to dissipater pan. Check float assembly. (Note: Cases equipped with electric dissipater pans should NEVER have food products washed or poured into the drain as it will result in damage to the heating element.)</p>
Frost or ice on evaporator coil.	<p>Check evaporator fans.</p> <p>Defrost clock doesn't work.</p>	<p>Check electrical connections. Have unit serviced by a qualified service technician.</p>

Barker Specialty Products Service Department

IMPORTANT INFORMATION!

FOR PROMPT SERVICE WHEN CONTACTING THE FACTORY FOR SUPPORT, BE SURE TO HAVE CASE MODEL AND SERIAL NUMBER HANDY.

(THIS INFORMATION IS LOCATED ON THE DATA TAG ATTACHED TO THE CASE. SEE BELOW FOR DATA TAG LOCATIONS)

For any warranty or service issues not covered by this manual, for tech support, or for warranty service calls, please contact the Barker Service Manager in your area.

Robert Henderson - Eastern Service Manager: (319) 293-8308

robert.henderson@hillphoenix.com

- Connecticut
- Delaware
- Florida
- Georgia
- Maine
- Maryland
- Massachusetts
- New Hampshire
- New Jersey
- New York
- North Carolina
- Vermont
- Rhode Island
- South Carolina
- Virginia
- West Virginia

Bill Connor - Mideastern Service Manager: (319) 293-8307

bill.connor@hillphoenix.com

- Alabama
- Arkansas
- Indiana
- Kentucky
- Louisiana
- Michigan
- Mississippi
- Ohio
- Pennsylvania
- Tennessee

Jason Shipley - Midwestern Service Manager: (319) 293-8344

jason.shipley@hillphoenix.com

- Alaska
- CANADA
- EUROPE
- Hawaii
- Illinois
- MEXICO
- Minnesota
- North Dakota
- South Dakota
- Texas
- Wisconsin
- Nebraska
- Iowa
- Missouri
- Kansas
- Oklahoma

Gary Winslow - Western Service Manager: (319) 293-8306

gary.winslow@hillphoenix.com

- Arizona
- California
- Colorado
- Idaho
- Montana
- Nevada
- New Mexico
- Oregon
- Utah
- Washington
- Wyoming

Parts

Ordering Procedure

1. Contact the Service Parts Department
Melissa Marshall
703 Franklin Street
PO Box 478
Keosauqua, IA 52565
Tel: 319-293-8323
Fax: 319-293-8377
melissa.marshall@hillphoenix.com
2. Provide the serial number of the case containing the part.
To locate the serial number look on the data tag located on the customer left, outside back of the case, the customer left, inside top of the case, or contact the factory for location.
3. If parts are to be returned for credit, contact the Parts Department. Do not send parts without authorization.



BEFORE SERVICING

ALWAYS DISCONNECT ELECTRICAL
POWER AT THE MAIN DISCONNECT
WHEN SERVICING OR REPLACING
ANY ELECTRICAL COMPONENT.

WARRANTY

HEREINAFTER REFERRED TO AS MANUFACTURER

FOURTEEN MONTH WARRANTY. MANUFACTURER'S PRODUCT IS WARRANTED TO FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USE AND MAINTENANCE FOR A PERIOD OF FOURTEEN MONTHS FROM THE DATE OF ORIGINAL SHIPMENT. A NEW OR REBUILT PART TO REPLACE ANY DEFECTIVE PART WILL BE PROVIDED WITHOUT CHARGE. PROVIDED THE DEFECTIVE PART IS RETURNED TO MANUFACTURER. THE REPLACEMENT PART ASSUMES THE UNUSED PORTION OF THE WARRANTY.

WARRANTY CLAIMS: All claims should include: the serial number of the cabinet, proof of purchase, date of installation, and all pertinent information supporting the existence of the alleged defect. Any action for breach of these warranty provisions must be commenced within one (1) year after that cause of action has accrued.

All warranty service work must be pre-authorized by Barker Specialty Products (800-814-0446). Barker Specialty Products reserves the rights to designate the service provider, time in which labor is to be performed and specify amount of time per warranty problem.

This warranty does not include labor or other costs incurred for repairing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts.

The fourteen month warranty shall not apply:

1. To any unit or any part thereof which has been subject to accident, alteration, negligence, misuse or abuse, operation on improper voltage, or which has not been operated in accordance with the manufacturer's recommendation, or if the serial number of the unit has been altered, defaced, or removed.
2. When the unit, or any part thereof, is damaged by fire, flood, or other act of God.
3. Outside the continental United States.
4. To labor cost for replacement parts, or for freight, shipping expenses, sales tax or upgrading.
5. When the operation is impaired due to improper installation
6. When installation and startup forms are not properly complete or returned within two weeks after startup.

THIS PLAN DOES NOT COVER CONSEQUENTIAL DAMAGES. Manufacturer shall not be liable under any circumstances for any consequential damages, including loss of profit, additional labor cost, loss of any delay in its performance hereunder due to causes beyond its control. The foregoing shall constitute the sole and exclusive remedy of any purchases and the sole and exclusive liability of Manufacturer in connection with this product.

The Warranties are Expressly in Lieu of All Other Warranties, Express of Implied and All Other Obligations or Liabilities on Our Part. The Obligation to Repair or Replace Parts or Components Judged to be Defective in Material or Workmanship States Our Entire Liability Whether Based on Tort, Contract or Warranty. We Neither Assume Nor Authorize any Other Person to Assume for Us Any Other Liability in connection with Our Product.

Mail approved warranty claims to the address listed below: