

1) HVAC HEAT RECLAIM VALVES ACTUATED BY RX CONTROLLER, AS DIRECTED THROUGH BX HVAC CONTROLLER. VALVES ARE LOCATED ON REFRIGERATION RACK, & ARE WIRED & PROVIDED BY RACK OEM.

--- NEW INSTALLED WIRING
 --- FIELD INSTALLED WIRING

EQUIPMENT NOTE
 REFER TO CPC INSTRUCTION MANUAL OR OTHER MANUFACTURER INFORMATION FOR WIRING OF CONTROL COMPONENTS (E.G. SENSORS, I/O BOARDS, TERMINAL BLOCKS, ETC.).
 BUS'S ARE SHUT DOWN, MA THE ALARM PANEL, UPON SERVICE, CHECK PROCEEDS.

1 ENERGY MANAGEMENT SYSTEM REQUIREMENTS

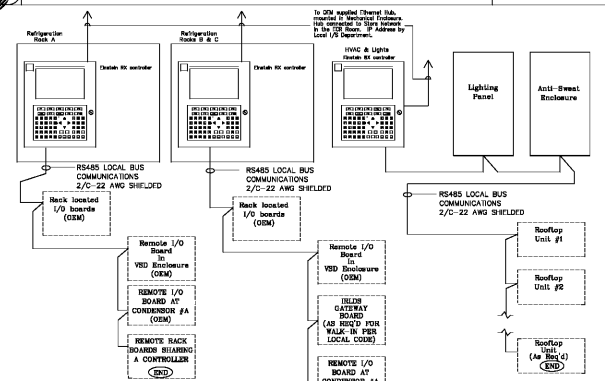
Controls Takeoff	Description	Supplier Part ID	Qty
REFRIGERANT LEAK DETECTION			
K-000846	2-BRD 1000000 24V nut and enclosure	810-2016	1
K-000925	24V Transformer, 600VA 220/208/240V Center Tap, Class 2	810-2780	1
K-000948	24V Transformer, 600VA 220/208/240V Center Tap, Class 2	810-2780	1
K-000960	Flow Fittings, 2 & 3 way splitter connections with line and filter assembly, Machine room border with technical bulletin and parts guide (includes Filter Ends)	3015-KIT	1
K-000247	Washdown Floor for Filter ends	3015-5748	4
K-0002370	Tubing - 1.000" roll (Not for NH3)	76100	EXTRA IF REQ'D
K-0002372	Line End Filter Assembly (includes Filter & tubing connection)	3005-3420	EXTRA IF REQ'D
K-0002387	TYPE BLUE HORN STROBE MTWFB-2475W-NW	BLUE HORN STROBE	1 FOR OFFICES, 1 PER MECH ROOM, 1 PER BOX (CODE MAY REQUIRE 2 PER BOX, INSIDE AND OUTSIDE)
LIGHTING DIMMING CONTROL			
K-000813	2-BRD 1000000 24V nut and enclosure	810-2016	1
K-000925	24V Transformer, 600VA 220/208/240V Center Tap, Class 2	810-2780	1
K-000948	24V Transformer, 600VA 220/208/240V Center Tap, Class 2	810-2780	1
BUILDING CONTROL			
K-000829	EZE BX870-80 Cords (for upgrade of older E1 and RALC)	845-2400	AS REQ'D
K-000918	EZE RA-400-80 Cords (for upgrade of older E1 and RALC)	845-1400	AS REQ'D
K-000822	Single Point Temp Sensor	300-6381	2
K-000821	Single Point Temp Sensor	300-6380	1 PER I/O
K-000820	Single Point Temp Sensor	300-6380	2
K-000819	Single Point Temp Sensor	300-6380	1
K-000818	Single Point Temp Sensor	300-6380	1
K-000817	Single Point Temp Sensor	300-6380	1
K-000816	Single Point Temp Sensor	300-6380	1
K-000815	Single Point Temp Sensor	300-6380	1
K-000814	Single Point Temp Sensor	300-6380	1
K-000813	Single Point Temp Sensor	300-6380	1
K-000812	Single Point Temp Sensor	300-6380	1
K-000811	Single Point Temp Sensor	300-6380	1
K-000810	Single Point Temp Sensor	300-6380	1
K-000809	Single Point Temp Sensor	300-6380	1
K-000808	Single Point Temp Sensor	300-6380	1
K-000807	Single Point Temp Sensor	300-6380	1
K-000806	Single Point Temp Sensor	300-6380	1
K-000805	Single Point Temp Sensor	300-6380	1
K-000804	Single Point Temp Sensor	300-6380	1
K-000803	Single Point Temp Sensor	300-6380	1
K-000802	Single Point Temp Sensor	300-6380	1
K-000801	Single Point Temp Sensor	300-6380	1

2 CONTROLS TAKEOFF

SCALE: NONE

KEY NOTE	DESCRIPTION	PLENUM	WSE TYPE	PLENUM
◇	WALK CONNECTION	SELVN #153P #14-8 CAT5E/UTP OR APPROVED EQUAL	SELVN #153P #14-8 CAT5E/UTP OR APPROVED EQUAL	SELVN #153P #14-8 CAT5E/UTP OR APPROVED EQUAL
◇	RS-485 NETWORK	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL
◇	ANALOG/DIGITAL TEMPERATURE SENSORS	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL
◇	RELATIVE HUMIDITY SENSORS	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL
◇	LIGHT LEVEL SENSORS	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL
◇	OUTDOOR TEMPERATURE SENSORS	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL
◇	NOT USED			
◇	LIGHTING CONTROL	#4 TWISTED PAIR PER LIGHTING CONTACTOR	#4 TWISTED PAIR PER LIGHTING CONTACTOR	#4 TWISTED PAIR PER LIGHTING CONTACTOR
◇	REFRIGERATION SENSORS	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL	SELVN #153P #22-2 SHIELDED CABLE OR APPROVED EQUAL
◇	NOT USED			
◇	LOCAL STAGING CONTROL	#4 TWISTED PAIR PER LIGHTING CONTACTOR	#4 TWISTED PAIR PER LIGHTING CONTACTOR	#4 TWISTED PAIR PER LIGHTING CONTACTOR
◇	UNIVERSAL CONTROL	#4 TWISTED PAIR	#4 TWISTED PAIR	#4 TWISTED PAIR
◇	LINE VOLTAGE IN CONTROL			

3 ENERGY MANAGEMENT WIRING SCHEDULE



NOTES:
 1. QUANTITY OF BUS'S, REFRIGERATION RACKS AND CONTROL PANELS WILL VARY FROM STORE TO STORE.
 2. CONNECTION TO METAL AND TERMINATED RACKS IN NETWORK. RS485 NETWORK SHALL BE DUAL-DUPLEX AND TERMINATED AT BOTH ENDS OF THE NETWORK.
 3. CPC CONTROLLER TO BE THE SPENDING TERMINATION POINT OF THE DUAL CHANNEL. LIST BOARD ON DASH DRAWING TO BE THE CHANGING TERMINATION POINT. EACH BOARD HAS A SET OF TERMINATING RESISTORS LOCATED AT THE BOARD POSITION. THESE TERMINATION JUMPERS TO BE SET TO THE OUT (TOWARD THE LEFT SIDE OF THE BOARD) POSITION.

4 ENERGY MANAGEMENT SYSTEM

SCALE: NONE

7 GENERAL SYMBOLS

SYMBOL	DESCRIPTION	HEET #
△	REFRIGERATION GREAT DETECTION	---
◇	DETROIT TERMINATION POINT	01W
○	ANALOG TEMPERATURE SENSOR	01W
○	ANALOG TEMPERATURE SENSOR (BIAS)	(CPC) 060-000000
○	ANALOG RELATIVE HUMIDITY SENSOR	(CPC) 060-000000 (INDOOR) (CPC) 060-000000 (OUTDOOR)
□	LIGHT LEVEL SENSOR	(CPC) 060000 / 060-000000
△	AMBIENT TEMPERATURE SENSOR / SHIELD	060-000000 / 060-000000
DS	DOOR SWITCH	01W
⊙	SMOKE DETECTOR	01W
◇	CLEAN POWER FIELD INSTALLED BY TC	---
◇	KEY NOTE SYMBOL	---
DA	LOCAL DOOR ALARM	---
DA	LOCAL REFRIGERATION ALARM	---
TS	TEMPERATURE SENSOR NUMBER	(CPC) 060-000000
TS	(C) INTERNAL RCU WIRE AIR TEMPERATURE SENSORS	N/A SUPPLIED BY RCU WINDER
TS	(O) INTERNAL RCU WIRE AIR TEMPERATURE SENSORS	N/A SUPPLIED BY RCU WINDER
TS	AIR FLOW / SMOKE PROOFING SWITCH	N/A SUPPLIED BY RCU WINDER
TS	REFRIG STOP SIGNAL	---
TS	EXHAUSTOR PRESSURE REGULATOR	---

8 ENERGY MANAGEMENT NOTES

ATTENTION DESIGN ENGINEERS:
 THIS DRAWING REPRESENTS A TYPICAL STORE, AND SERVES AS A TEMPLATE FOR DEVELOPING JOB SPECIFIC DRAWINGS. YOUR DRAWINGS SHALL REFLECT THE DESIGN REQUIREMENTS FOR YOUR SPECIFIC STORE, AND SHALL USE THE LAYOUT ESTABLISHED BY THIS TEMPLATE. USE OF THE TEMPLATE IS NECESSARY TO SUPPORT THE DESIGN AND PROCUREMENT SYSTEMS WITHIN THE KROGER COMPANY.

FOR REFERENCE ONLY

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KROGER L-407
 CONTROLS
 INSTALLATION TEMPLATE

SCALE: NONE

7 GENERAL SYMBOLS

SCALE: NONE

8 ENERGY MANAGEMENT NOTES

SCALE: NONE

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CURRENT PLAN DATE: 01/25/2018

REVISIONS:

NO.	DATE	DESCRIPTION
1	7	
2	8	
3		
4		
5		
6		

STANDARD PLOTTED SCALE:

BUILDING STATS:

TOTAL SHIFTS	
SALES AREA	
BASE STORE	
MEZZANINE	
DOCK / UTILITY	

ENERGY MANAGEMENT RISER AND NOTES

EM-1

CON-NST-TEMP-EM-DWG