YORK BY JOHNSON CONTROLS	New Release	Form 201.30-PW1 (1113)
	FIELD CONNECTIONS AND CONTROL WIRING FOR ____HZ SINGLE COMPRESSOR YVWA CHILLER	
WIRING DIAGRAM		
CONTRACTOR _____ ORDER NO. _____ YORK CONTRACT NO. _____ YORK ORDER NO. _____	PURCHASER _____ JOB NAME _____ LOCATION _____ ENGINEER _____	
☐ REFERENCE DATE _____	☐ APPROVAL DATE _____	☐ CONSTRUCTION DATE _____

JOB DATA:

CHILLER (PIN 1-4) YVWA

VSD FRAME SIZE (PIN 11) _____

RUNNING LOAD AMPS (RLA) _____

POWER SUPPLY VOLTAGE(PIN 20, 21) _____

AUTO TRANSFORMER _____ YES _____ NO

CIRCUIT BREAKER (PIN 22) _____ YES _____ NO

DISCONNECT SWITCH (PIN 22) _____ YES _____ NO

Issue Date:
November 21, 2013

IMPORTANT!

READ BEFORE PROCEEDING!

GENERAL SAFETY GUIDELINES

This equipment is a relatively complicated apparatus. During installation, operation maintenance or service, individuals may be exposed to certain components or conditions including, but not limited to: refrigerants, materials under pressure, rotating components, and both high and low voltage. Each of these items has the potential, if misused or handled improperly, to cause bodily injury or death. It is the obligation and responsibility of operating/service personnel to identify and recognize these inherent hazards, protect themselves, and proceed safely in completing their tasks. Failure to comply with any of these requirements could result in serious damage to the equipment and the property in which it is situated, as well as severe personal injury or death to themselves and people at the site.

This document is intended for use by owner-authorized operating/service personnel. It is expected that these individuals possess independent training that will enable them to perform their assigned tasks properly and safely. It is essential that, prior to performing any task on this equipment, this individual shall have read and understood this document and any referenced materials. This individual shall also be familiar with and comply with all applicable governmental standards and regulations pertaining to the task in question.

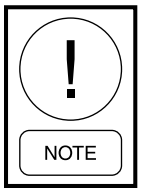
SAFETY SYMBOLS

The following symbols are used in this document to alert the reader to specific situations:

Indicates a possible hazardous situation which will result in death or serious injury if proper care is not taken.

Identifies a hazard which could lead to damage to the machine, damage to other equipment and/or environmental pollution if proper care is not taken or instructions and are not followed.

Indicates a potentially hazardous situation which will result in possible injuries or damage to equipment if proper care is not taken.



Highlights additional information useful to the technician in completing the work being performed properly.

External wiring, unless specified as an optional connection in the manufacturer's product line, is not to be connected inside the control cabinet. Devices such as relays, switches, transducers and controls and any external wiring must not be installed inside the micro panel. All wiring must be in accordance with Johnson Controls' published specifications and must be performed only by a qualified electrician. Johnson Controls will NOT be responsible for damage/problems resulting from improper connections to the controls or application of improper control signals. Failure to follow this warning will void the manufacturer's warranty and cause serious damage to property or personal injury.

CHANGEABILITY OF THIS DOCUMENT

In complying with Johnson Controls' policy for continuous product improvement, the information contained in this document is subject to change without notice. Johnson Controls makes no commitment to update or provide current information automatically to the manual owner. Updated manuals, if applicable, can be obtained by contacting the nearest Johnson Controls Service office or accessing the Johnson Controls QuickLIT website at http://cgproducts.johnsoncontrols.com.

Operating/service personnel maintain responsibility for the applicability of these documents to the equipment.

If there is any question regarding the applicability of these documents, the technician should verify whether the equipment has been modified and if current literature is available from the owner of the equipment prior to performing any work on the chiller.

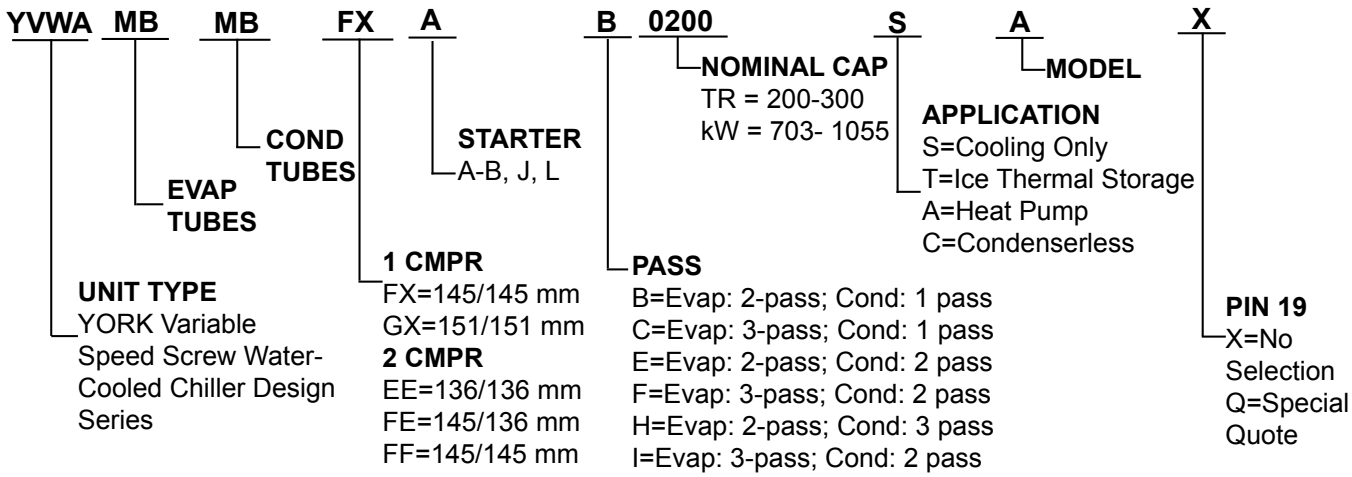
CHANGE BARS

Revisions made to this document are indicated with a line along the left or right hand column in the area the revision was made. These revisions are to technical information and any other changes in spelling, grammar or formatting are not included.

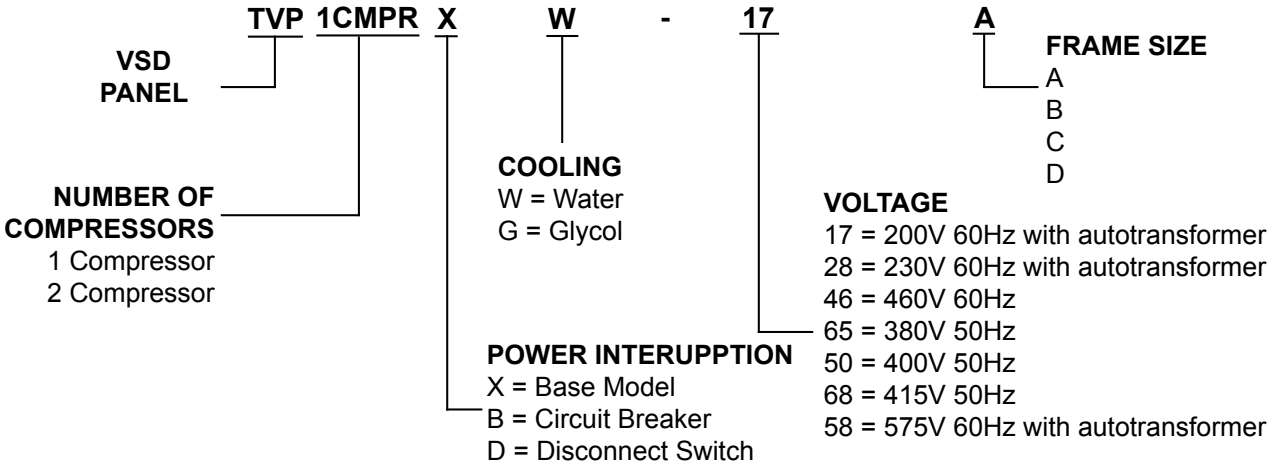
ASSOCIATED LITERATURE

MANUAL DESCRIPTION	PART NUMBER
E-Link Gateway Installation Instructions	24-104-04-9 Rev. C

NOMENCLATURE



VARIABLE SPEED DRIVE NOMENCLATURE



NOTES AND LEGEND

GENERAL	
A	This drawing is based on IEC Symbols
B	All sources of supply shown on this diagram to be taken from one main isolator, not shown or supplied by YORK.
C	Green and Yellow wire is used for Earth. Multi-colored cable used for low voltage. Red wire used for AC control. Blue wire used for neutral. Black wire used for AC and DC power. Orange wire should be used for interlock wiring supplied by external source.
D	Legend designation depicts component abreviations. Number prefix located, if applicable on schematic circuit, refers to system thereon, e.g., 1-BMT refers to compressor motor temperature sensor on system 1.
E	All wiring to power section voltage-free contacts requires a supply provided by the customer; maximum 240 volts. The customer must take particular care when deriving the supplies for the voltage-free terminals with regard to a common point of isolation, thus these circuits, when used, must be fed via a common point of isolation. The voltage to these circuits is removed when the oommon point of isolation to the unit is opened. This common point of isolation is not supplied by YORK. The YORK voltage-free contacts are rated at 100va. All inductive devices (relays) switched by the YORK voltage-free contacts must have their coils suppressed using standard R/C suppressors.
F	No controls (relays, etc.) should be mounted in any section of the control panel. Additionally control wiring not connected to the YORK control panel should not be run through the panel. If these precautions are not followed, electrical noise could cause malfunctions or damage to the unit and its controls.

For information on the notes in the following wiring diagrams not listed here, refer to the notes legend on the language kit that ships with the unit, which is located on the inside of the panel door.

NOTES	
1	All field wiring shall be in accordance with the relevant electrical code as well as all other applicable codes and specifications.
2	Contacts must be suitable for switching 115VAC at 5 MA.
3	Contacts are rated at 115V/230V, 100VA, resistive load only, and must be suppressed at load by user.
4	See installation, operation and maintenance manual when optional equipment is used.
7	Applied to models ending in 65B, 65C, 50B, 50C, 68B, 68C, and all models ending in D.
8	A. Fuses -F(4FU and 5FU) are 12 A for 380V, 400V and 415V models.
	B. Fuses -F (4FU and 5FU) are 10 A for 200V, 230V, 460V and 575V models.
9	A. Fuses -F(1FU, 2FU and 3FU) are 630 A for models ending in A & B.
	B. Fuses -F(1FU, 2FU and 3FU) are 800 A for models ending in C.
	C. Fuses -F (1FU, 2FU and 3FU) are 900 A for models ending in 46D & 58D.
	D. Fuses -F (1FU, 2FU and 3FU) are 1000 A for models ending in 40D, 65D, 50D & 68D.
10	See Detail B for units with auto transformer.
12	For Detail E for CE units.
13	Options not applicable to all units, remote temp reset, remote current limit.
15	A. For models ending in A or B - AGDB P/N is 031-02061-003.
	B. For models ending in C OR D - AGDB P/N is 031-02061-001.
16	Accessory E-Link Gateway consisting of AMGB (cannot be used with RCC accessory)

NOTES AND LEGEND (CONT'D)

NOTES (CONT'D)	
19	A. Models ending in A get capacitors C1, C5, C2 and C6.
	B. Models ending in B and C get capacitors C1, C3, C5, C2, C4 and C6.
	C. Models ending in D get capacitors C1, C3, C5, C7, C2, C4, C6 and C8.
20	See Detail C for optional circuit breaker or disconnect switch.

LEGEND	
DESIGNATION	**DESCRIPTION**
-ABIB	Buss Isolation Board
-ADIS	Display Board
-AFIB	Cooling Fan Inverting Board
-AGDB	Gate Driver Board
-AMB	Micro Board
-AMGB	E-Link Option
-ARB	Relay Board
-ASMC	Stepper Motor Controller
-ASCRTB	SCR Trigger Board
-ATSB	Transient Supression Board
-AVSDLB	Variable Speed Drive Logic Board
-BAMB	Ambient
-BCOL	Condenser Level
-BCOP	Condenser Pressure
-BDP	Discharge Pressure
-BDT	Discharge Temperature
-BLCLT	Leaving Chilled Liquid Temperature
-BECLT	Entering Chilled Liquid Temperature
-BEVT	Evaporator Temperature
-BECT	Economizer Temperature
-BEDT	Eductor Temperature
-BECP	Economizer Pressure
-BEVP	Evaporator Pressure
-BEVT	Evaporator Temperature
-BLCOLT	Leaving Condenser Liquid Temp.
-BECOLT	Entering Condenser Liquid Temp.
-BMT	Compressor Motor Temperature
-BOP	Oil Pressure
-BOLS	Oil Level Switch
-BSLT	Subcooled Liquid Temperature
-C	Capacitor
COL	Column

LEGEND (CONT'D)	
DESIGNATION	**DESCRIPTION**
CRS	Chiller Run Signal
CONT	Contrast
DB	Data Buss
E	Enable
-ECMH	Compressor Heater
-EEH	Evaporator Heater
-ES	Supressor
EXT	External
FU	Fuse
-FHP/HPCO	High Pressure Cutout
GRD	Ground/Earth
-IGBT_ASSY	Insulated Gate Bipolar Transistor Assy.
-J	Plug/Socket
-K	Relay
-L	Inductor
LED GND	Light Emitting Diode Ground
LK	Link
LP	Liquid Pump
-M	Contactor
-MC	Motor Compressor
-MFC	Motor Fan Cooling
-MP	Motor Pump Glycol Cooling
NC	Not Connected
OP	Oil Pump
PE	Protective Earth
PNT	Print
-QCB(1SW)	Circuit Breaker (Emergency Stop Device)
-QSD	Disconnect Switch
R	Relay
RES	Resistor
RCC	Remote Control Center
RCL	Remote Current Limit

LEGEND (CONT'D)	
DESIGNATION	**DESCRIPTION**
ROW	Row
RUN PERM(RP)	Run Permission
RS	Reset
RTR	Remote Temperature Reset
R/W	Read/Write
-SI	Switch Unit On/Off
SA	System Alarm
SCR	Silicone Controlled Rectifier
-SF	Flow Switch
-SKP	Keypad
SUPR	Suppressor
-TB	Terminal Block
-T ( )	Transformer Voltage
-TC	Transformer Current
VSD	Variable Speed Drive
-XTB	Abb Terminal / Plug
-YECF	Economizer Feed Valve
-YCOD	Condender Drain Valve
-YVSV	Step Vi Solenoid Valve
-YLIV	Liquid Injection Solenoid Valve
-YHBV	Hotgas Bypass Solenoid Valve
-YECDV	Economizer Drain Solenoid Valve

ES Transient Voltage Suppression

Terminal Block for Customer Connections (1TB)

Terminal Block for YORK Connections

——— Wiring and Components by YORK

—–—– Optional Equipment

– – – Wiring and/or Components by Others

NB Note Well

EXT A Component Marked Thus is External to the Control Panel

*=NOT REQUIRED FOR ALL MODELS

NOTES & LEGEND
035-23178-100
REV A

WIRE COLOR CODES	
BLU	Blue
GRN	Green
YEL	Yellow
WHT	White
BLK	Black
BRN	Brown
VIO	Violet
ORG	Orange
PNK	Pink
TAN	Tan
GRY	Gray
G/Y	Green/Yellow

LIST OF FIGURES

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WIRING DIAGRAM – CONTROL PANEL

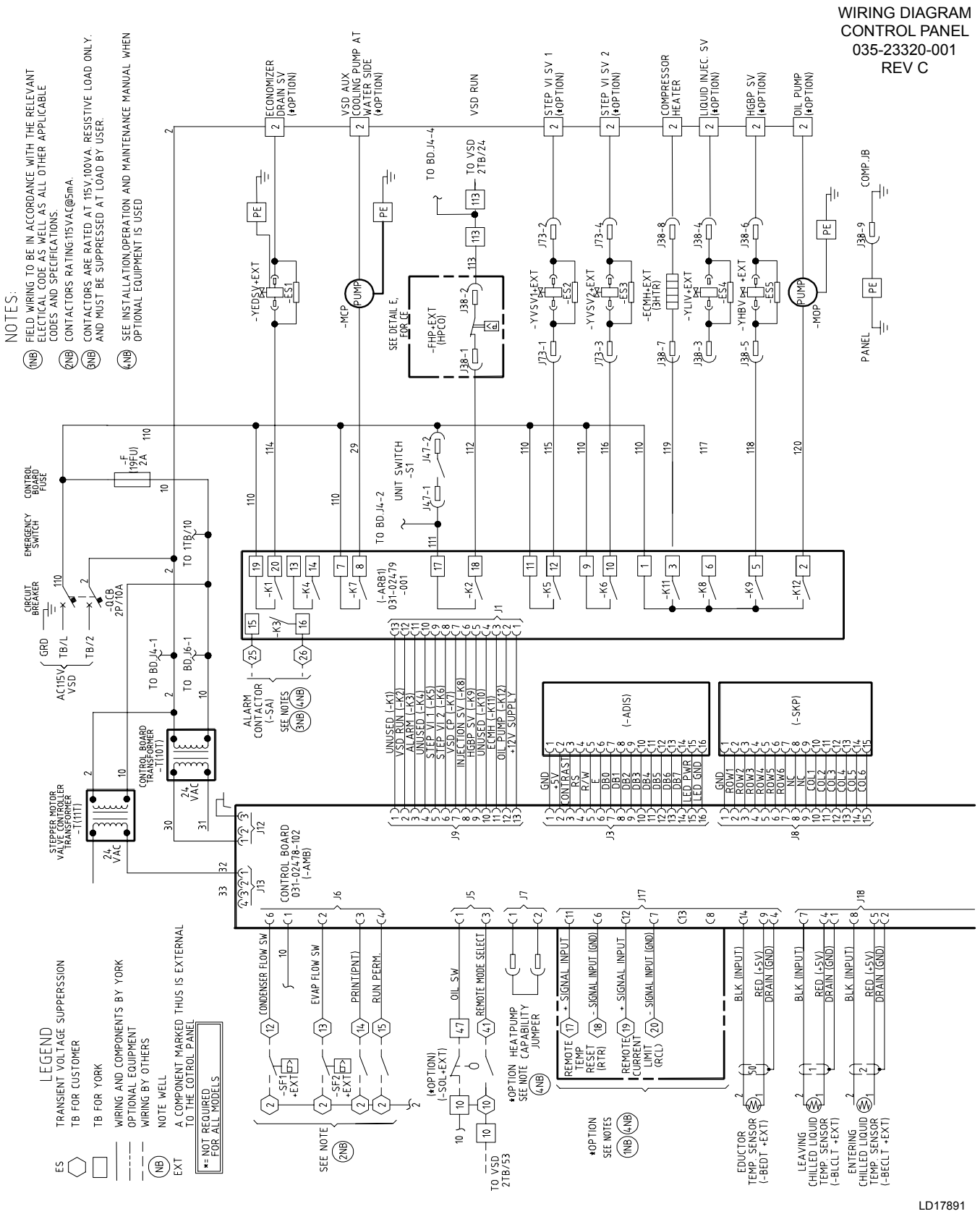

FIGURE 1 - WIRING DIAGRAM - CONTROL PANEL

WIRING DIAGRAM – CONTROL PANEL (CONT'D)

WIRING DIAGRAM
CONTROL PANEL
035-23320-001
REV C

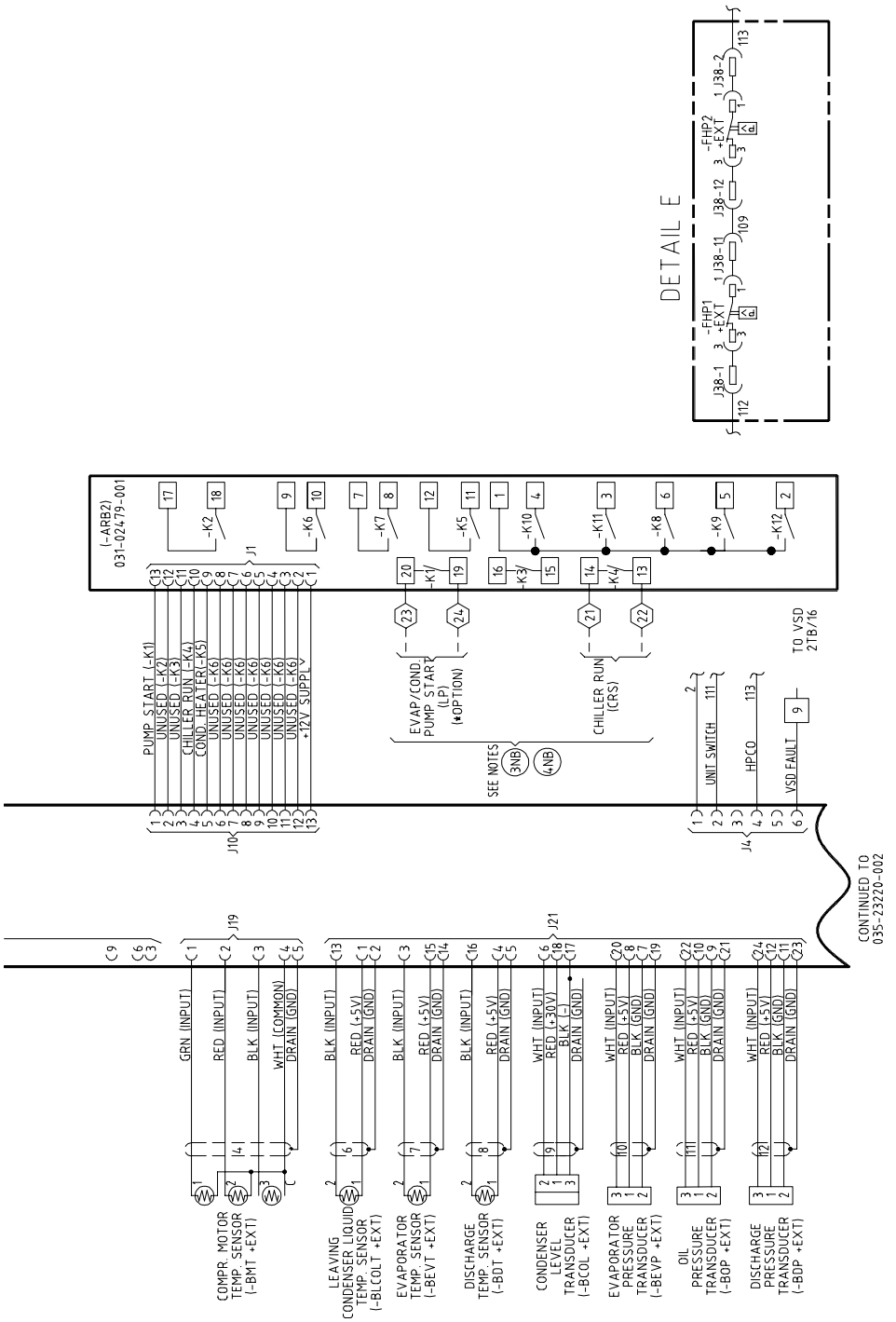

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FIGURE 1 - WIRING DIAGRAM - CONTROL PANEL (CONT'D)

WIRING DIAGRAM – CONTROL PANEL (CONT'D)

WIRING DIAGRAM
CONTROL PANEL
035-23320-002
REV B

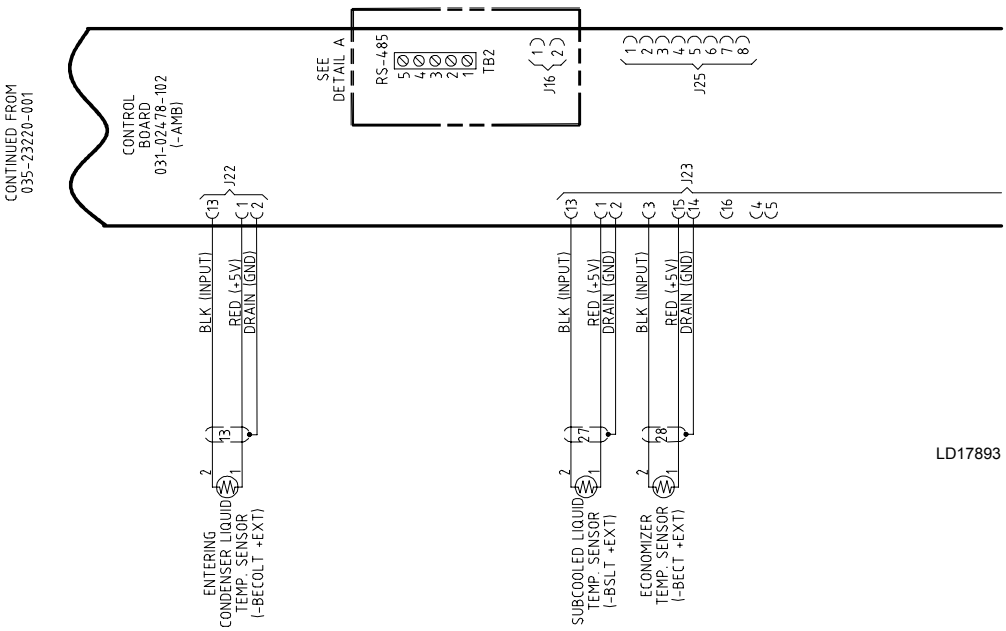


FIGURE 2 - WIRING DIAGRAM - CONTROL PANEL

WIRING DIAGRAM – CONTROL PANEL (CONT'D)

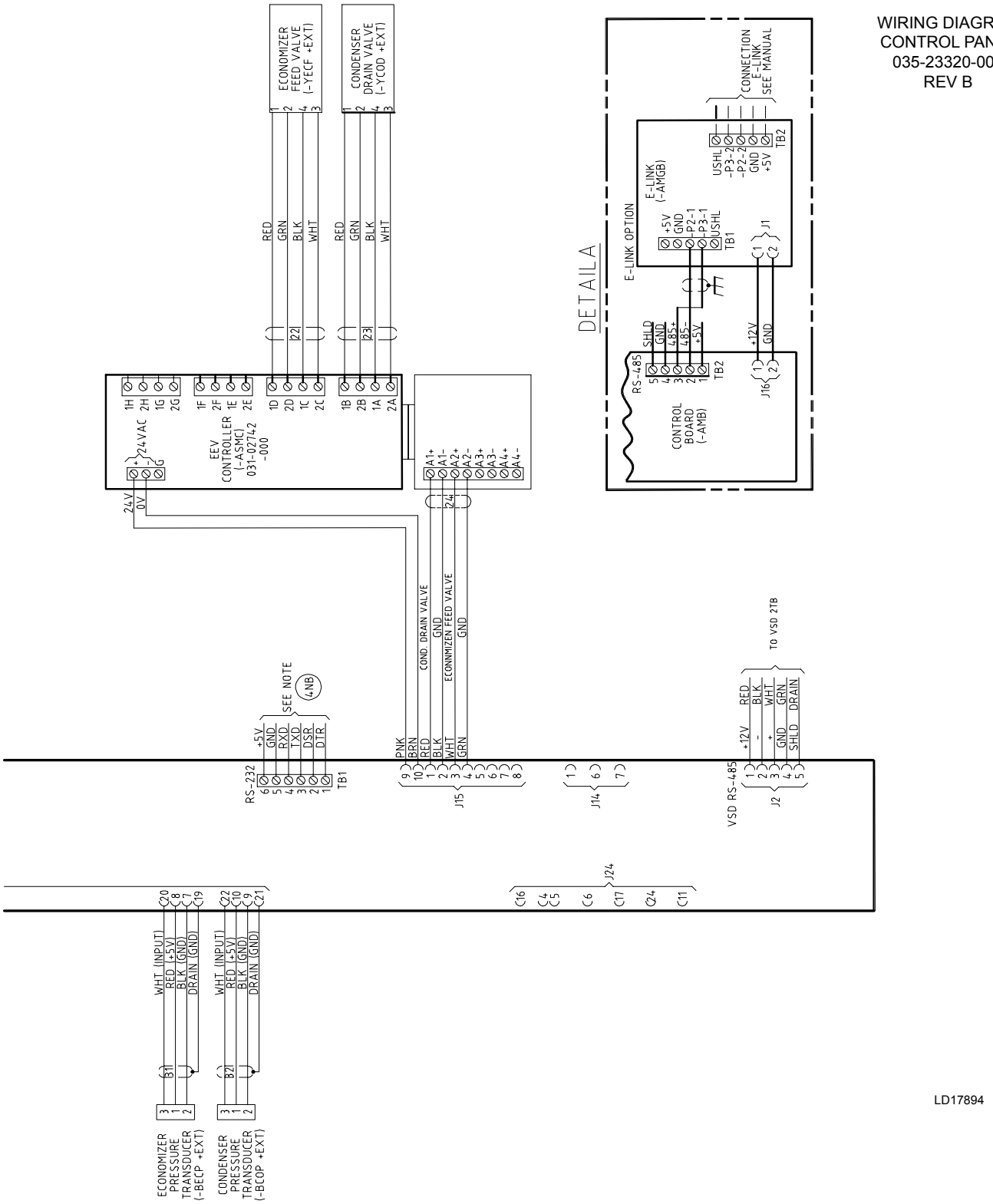


FIGURE 2 - WIRING DIAGRAM - CONTROL PANEL (CONT'D)

WIRING DIAGRAM - CONTROL PANEL

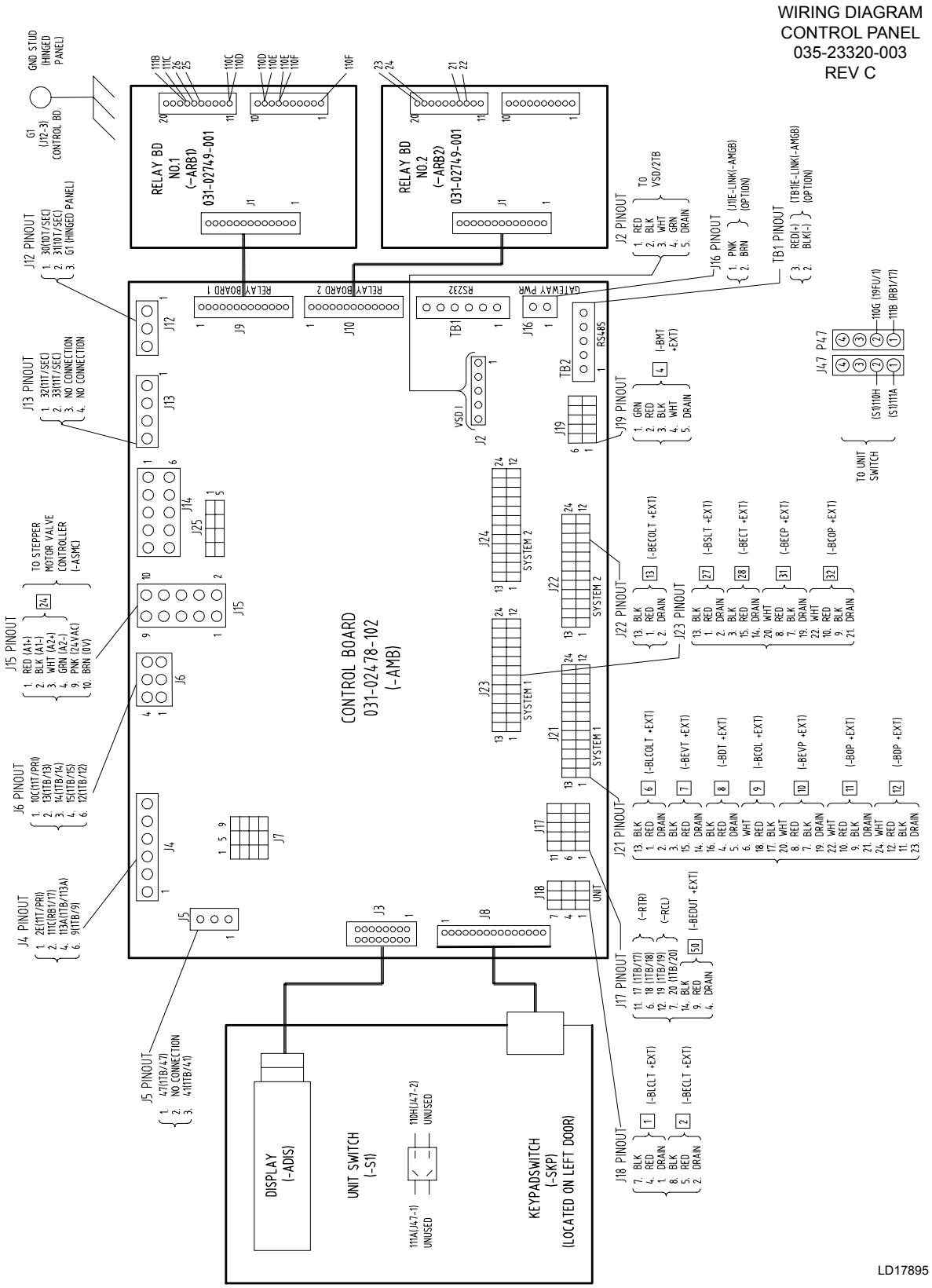


FIGURE 3 - WIRING DIAGRAM - CONTROL PANEL

WIRING DIAGRAM - CONTROL PANEL (CONT'D)

WIRING DIAGRAM
CONTROL PANEL
035-23320-003
REV C

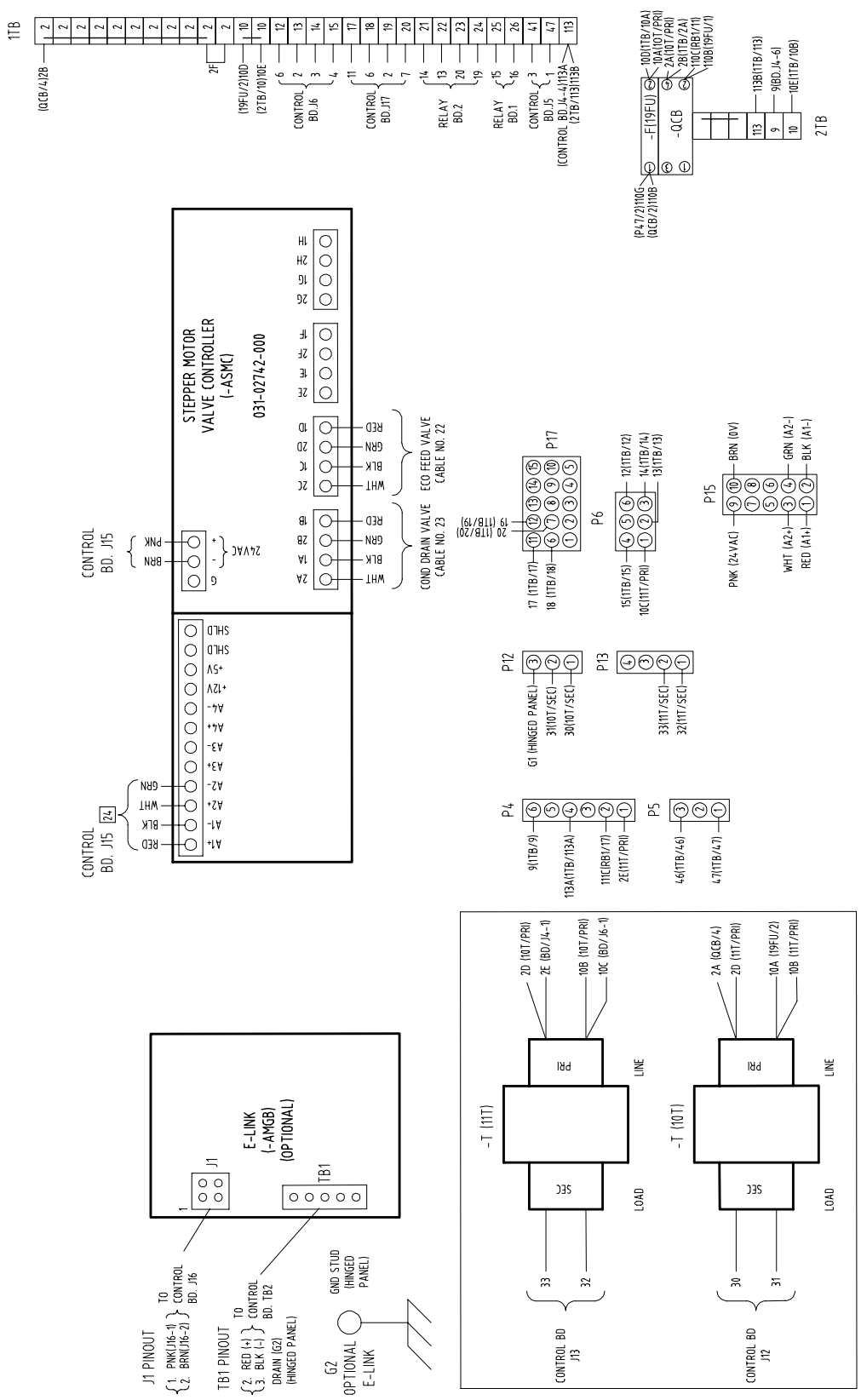
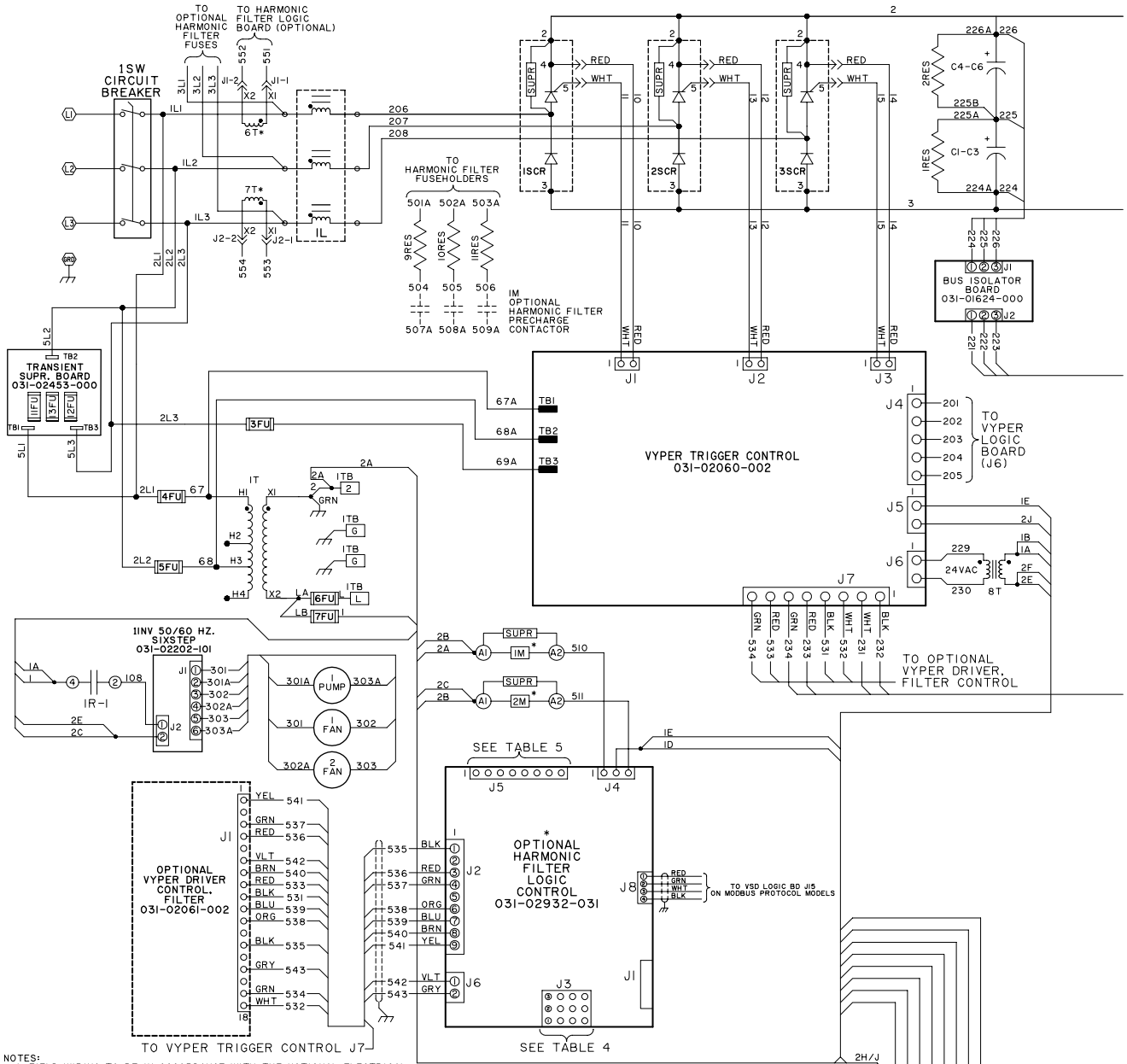


FIGURE 4 - WIRING DIAGRAM - CONTROL PANEL

WIRING DIAGRAM - VYPER DRIVE - 415/50HZ - FRAME B



NOTES:
1. FIELD WIRING TO BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AS WELL AS ALL OTHER APPLICABLE CODES AND SPECIFICATIONS.
2. TERMINAL BOARD CONNECTION POINTS ARE INDICATED BY NUMBERS WITHIN A SQUARE, I.E. [1] 2TB. MAIN POWER CONNECTION POINTS ARE INDICATED BY NUMBERS WITHIN A HEXAGON, I.E. ⬡. COMPONENT TERMINAL MARKINGS ARE INDICATED BY NUMBERS WITHIN A CIRCLE, I.E. ②. NUMBERS ADJACENT TO CIRCUIT LINES ARE THE CIRCUIT IDENTIFICATION NUMBERS.
3. TERMINALS L1, L2, L3 AND GRD ARE THE MAIN POWER INPUT TERMINALS AND ARE FIELD CONNECTED. (SEE NOTE 6.). TERMINALS T1, T2 & T3 ARE THE COMPRESSOR MOTOR LEAD POWER TERMINALS AND ARE FACTORY CONNECTED ON FACTORY PACKAGED UNITS.
4. THE THREE PHASE SOLID STATE MOTOR OVERLOAD PROTECTION SYSTEM PROVIDES MOTOR OVERCURRENT PROTECTION AT 105% FULL LOAD AMPS.
5. SEE YORK CONTROL CENTER WIRING DIAGRAM PRODUCT DRAWING FORMS 160.48-PA21 OR 160.52-PW3.
6. FIELD WIRING CONNECTIONS PER PRODUCT DRAWING FORMS 160.48-PA15 OR 160.48-PW12.
7. ELEMENTARY DIAGRAM SHT.1 DOES NOT SHOW ALL COMPONENTS RELATING TO THE OPTIONAL HARMONIC FILTER COMPONENTS. THE CONNECTION DIAGRAM, SHT.2, DOES SHOW ALL THE COMPONENTS RELATING TO THE OPTIONAL HARMONIC FILTER. REFER TO THE WIRING LABEL 035-18110-000 FOR WIRING RELATED SPECIFICALLY TO THE OPTIONAL FILTER.

LEGEND

C1-C6	CAPACITORS, ALUMINUM ELECTROLYTIC, 12,000 µF, 450 VDC	1T	120VAC, 3KVA CONTROL POWER TRANSFORMER
C7 - C9	CAPACITORS, FILM, 1.0µF, 1200 VDC	2T, 8T	24VAC, 75VA CONTROL TRANSFORMER
C10 - C12	CAPACITORS, FILM, 0.027µF, 560 VAC	3T - 5T	OUTPUT CURRENT TRANSFORMERS
3FU	TRIGGER BOARD FUSE, 6A, 600V	1TB - 2TB	TERMINAL BLOCKS, FIELD WIRING
4FU - 5FU	CONTROL SUPPLY TRANSFORMER FUSES, 15A, 500V	>——	JACK, J1-1 ETC.
6FU	EXTERNAL CONTROL SUPPLY TRANSFORMER SECONDARY FUSE, 20A, 500V	——>	PLUG, P1-1 ETC.
7FU	INTERNAL CONTROL SUPPLY TRANSFORMER SECONDARY FUSE, 10A, 500V	1INV	50 TO 60 HZ. INVERTER
IL	VSD AC INDUCTOR, 115 µH PER PHASE, 400A		
1MOD	IGBT MODULE, 3 PHASE, 450A, 1200V		
1RES - 2RES	RESISTORS, VSD BLEEDER, 2.4KΩ, 100W		
3RES - 8RES	DV/DT RESISTORS, 10Ω, 100W		
9RES - 11RES	RESISTORS, PRECHARGE (HARMONIC FILTER), 10Ω, 375W		
RT1 - RT2	THERMISTOR TEMPERATURE SENSORS		
1SCR - 3SCR	SCR/DIODE MODULES, 1200V, 285A		
1R	RELAY, COOLING FANS AND PUMP		
1SW	CIRCUIT BREAKER, 600V, 400A, 100% RATED		

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FIGURE 5 - WIRING DIAGRAM - VYPER DRIVE 415/50HZ - FRAME B

WIRING DIAGRAM - VYPER DRIVE - 415/50HZ - FRAME B (CONT'D)

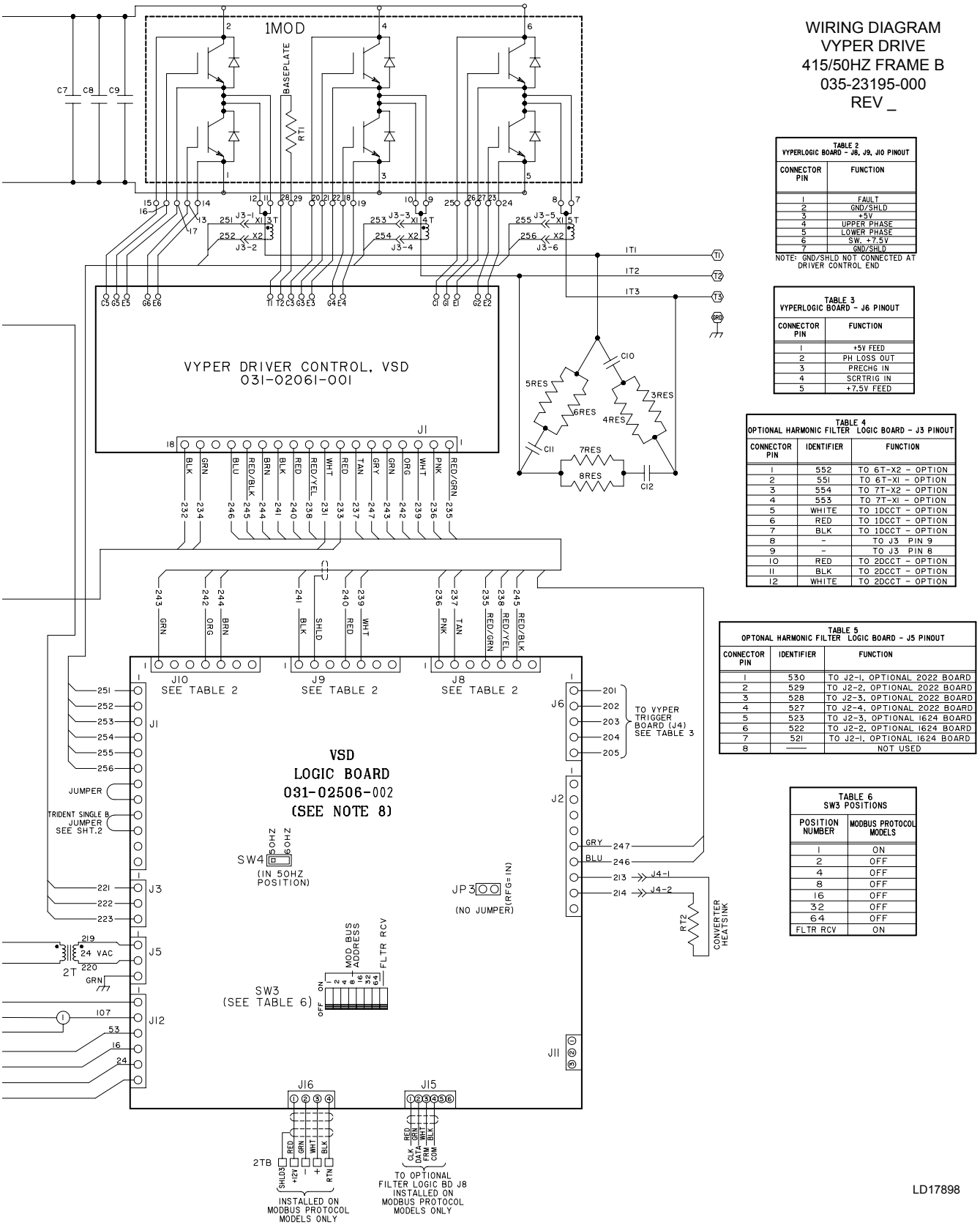


TABLE 2
VYPERLOGIC BOARD - J6, J9, J10 PINOUT

CONNECTOR PIN	FUNCTION
1	FAULT
2	GND/SHLD
3	+5V
4	UPPER PHASE
5	LOWER PHASE
6	SW. +7.5V
7	GND/SHLD

NOTE: GND/SHLD NOT CONNECTED AT DRIVER CONTROL END

TABLE 3
VYPERLOGIC BOARD - J6 PINOUT

CONNECTOR PIN	FUNCTION
1	+5V FEED
2	PH LOSS OUT
3	PRECHG IN
4	SCRTRIG IN
5	+7.5V FEED

TABLE 4
OPTIONAL HARMONIC FILTER LOGIC BOARD - J3 PINOUT

CONNECTOR PIN	IDENTIFIER	FUNCTION
1	552	TO 6T-X2 - OPTION
2	551	TO 6T-X1 - OPTION
3	554	TO 7T-X2 - OPTION
4	553	TO 7T-X1 - OPTION
5	WHITE	TO 1DCCT - OPTION
6	RED	TO 1DCCT - OPTION
7	BLK	TO 1DCCT - OPTION
8	-	TO J3 PIN 9
9	-	TO J3 PIN 8
10	RED	TO 2DCCT - OPTION
11	BLK	TO 2DCCT - OPTION
12	WHITE	TO 2DCCT - OPTION

TABLE 5
OPTONAL HARMONIC FILTER LOGIC BOARD - J5 PINOUT

CONNECTOR PIN	IDENTIFIER	FUNCTION
1	530	TO J2-1, OPTIONAL 2022 BOARD
2	529	TO J2-2, OPTIONAL 2022 BOARD
3	528	TO J2-3, OPTIONAL 2022 BOARD
4	527	TO J2-4, OPTIONAL 2022 BOARD
5	523	TO J2-3, OPTIONAL 1624 BOARD
6	522	TO J2-2, OPTIONAL 1624 BOARD
7	521	TO J2-1, OPTIONAL 1624 BOARD
8	—	NOT USED

TABLE 6
SW3 POSITIONS

POSITION NUMBER	MODBUS PROTOCOL MODELS
1	ON
2	OFF
4	OFF
8	OFF
16	OFF
32	OFF
64	OFF
FLTR RCV	ON

FIGURE 5 - WIRING DIAGRAM - VYPER DRIVE - 415/50HZ - FRAME B (CONT'D)

PANEL WIRING - VYPER DRIVE - 415/50HZ - FRAME B

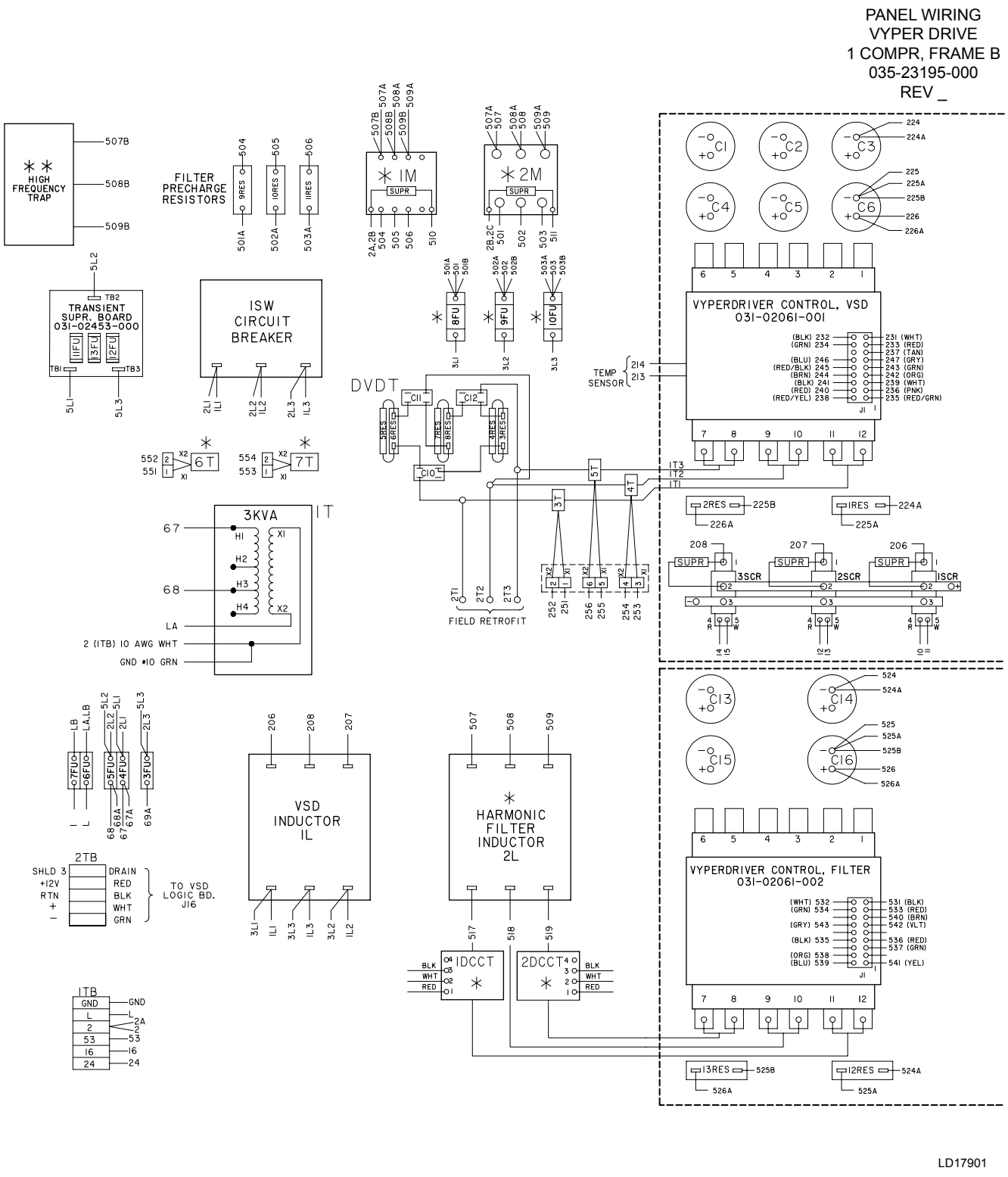
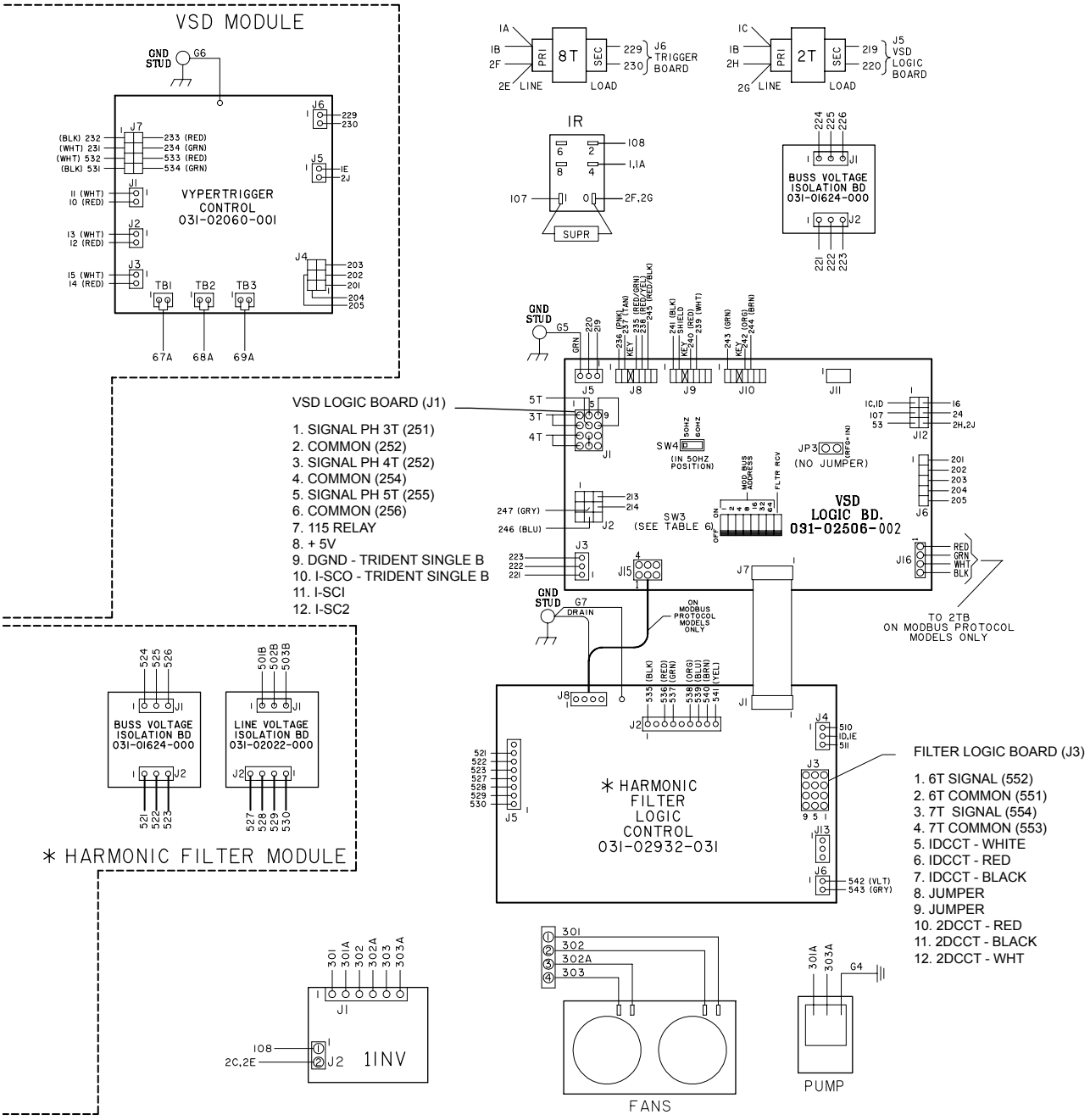


FIGURE 6 - PANEL WIRING - VYPER DRIVE - 415/50HZ - FRAME B

PANEL WIRING - VYPER DRIVE - 415/50HZ - FRAME B (CONT'D)

PANEL WIRING
VYPER DRIVE
1 COMPR, FRAME B
035-23195-000
REV _



*SUPPLIED WITH HARMONIC FILTER OPTION
**SUPPLIED WITH HIGH FREQUENCY TRAP OPTION

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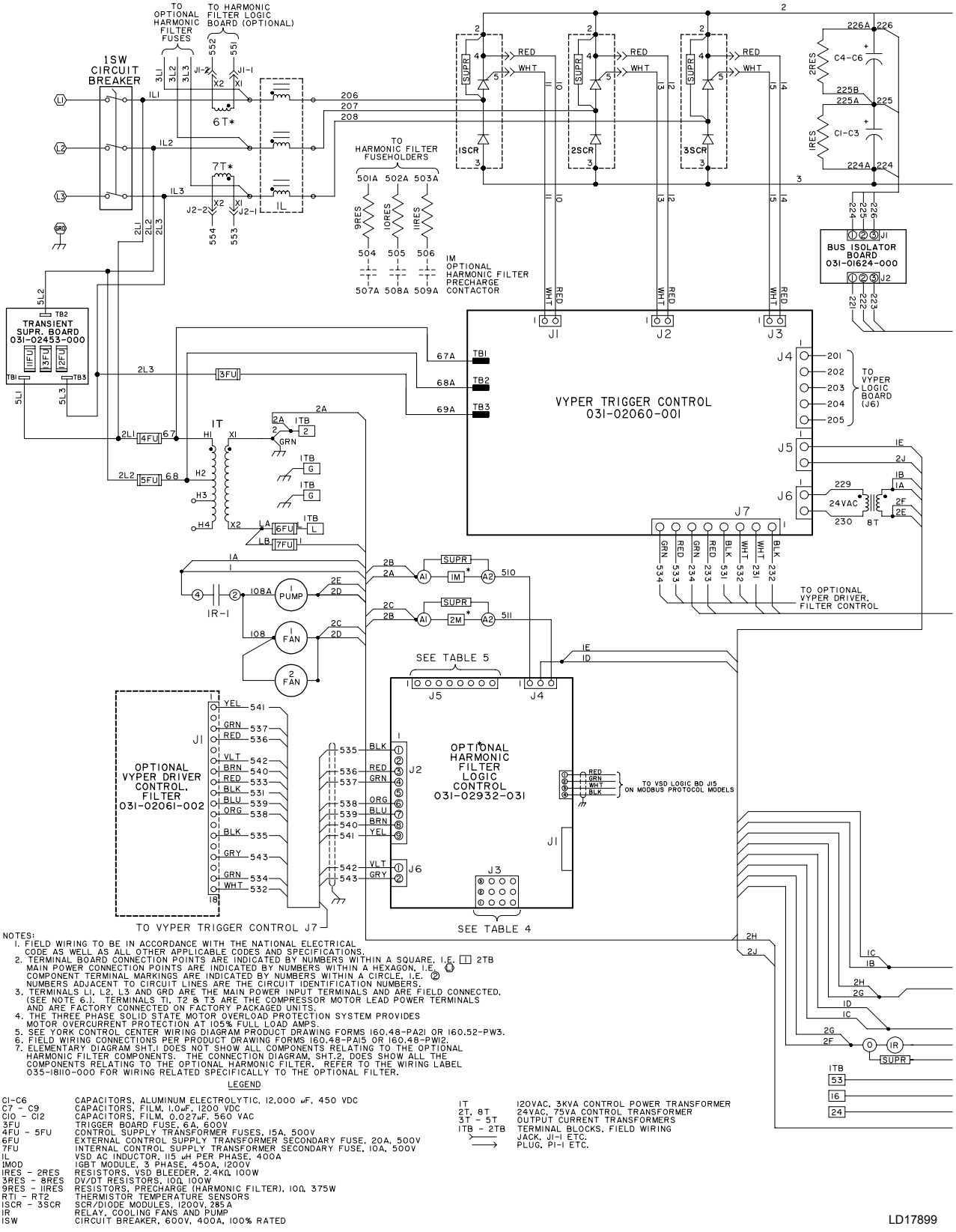
FIGURE 6 - PANEL WIRING - VYPER DRIVE - 415/50HZ - FRAME B (CONT'D)

WIRING DIAGRAM - VYPER DRIVE - 380/60HZ - FRAME B



NOTES:
1. FIELD WIRING TO BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AS WELL AS ALL OTHER APPLICABLE CODES AND SPECIFICATIONS.
2. TERMINAL BOARD CONNECTION POINTS ARE INDICATED BY NUMBERS WITHIN A SQUARE, I.E. [1] 2TB. MAIN POWER CONNECTION POINTS ARE INDICATED BY NUMBERS WITHIN A HEXAGON, I.E. ⬡. COMPONENT TERMINAL MARKINGS ARE INDICATED BY NUMBERS WITHIN A CIRCLE, I.E. ②. NUMBERS ADJACENT TO CIRCUIT LINES ARE THE CIRCUIT IDENTIFICATION NUMBERS.
3. TERMINALS L1, L2, L3 AND GRD ARE THE MAIN POWER INPUT TERMINALS AND ARE FIELD CONNECTED. (SEE NOTE 6.). TERMINALS T1, T2 & T3 ARE THE COMPRESSOR MOTOR LEAD POWER TERMINALS AND ARE FACTORY CONNECTED ON FACTORY PACKAGED UNITS.
4. THE THREE PHASE SOLID STATE MOTOR OVERLOAD PROTECTION SYSTEM PROVIDES MOTOR OVERCURRENT PROTECTION AT 105% FULL LOAD AMPS.
5. SEE YORK CONTROL CENTER WIRING DIAGRAM PRODUCT DRAWING FORMS 160.48-PA2I OR 160.52-PW3.
6. FIELD WIRING CONNECTIONS PER PRODUCT DRAWING FORMS 160.48-PAI5 OR 160.48-PWI2.
7. ELEMENTARY DIAGRAM SHT.1 DOES NOT SHOW ALL COMPONENTS RELATING TO THE OPTIONAL HARMONIC FILTER COMPONENTS. THE CONNECTION DIAGRAM, SHT.2, DOES SHOW ALL THE COMPONENTS RELATING TO THE OPTIONAL HARMONIC FILTER. REFER TO THE WIRING LABEL 035-18110-000 FOR WIRING RELATED SPECIFICALLY TO THE OPTIONAL FILTER.

LEGEND

C1-C6	CAPACITORS, ALUMINUM ELECTROLYTIC, 12,000 µF, 450 VDC
C7 - C9	CAPACITORS, FILM, 1.0µF, 1200 VDC
C10 - C12	CAPACITORS, FILM, 0.027µF, 560 VAC
3FU	TRIGGER BOARD FUSE, 6A, 600V
4FU - 5FU	CONTROL SUPPLY TRANSFORMER FUSES, 15A, 500V
6FU	EXTERNAL CONTROL SUPPLY TRANSFORMER SECONDARY FUSE, 20A, 500V
7FU	INTERNAL CONTROL SUPPLY TRANSFORMER SECONDARY FUSE, 10A, 500V
IL	VSD AC INDUCTOR, 115 µH PER PHASE, 400A
1MOD	IGBT MODULE, 3 PHASE, 450A, 1200V
1RES - 2RES	RESISTORS, VSD BLEEDER, 2.4KΩ, 100W
3RES - 8RES	DV/DT RESISTORS, 10Ω, 100W
9RES - 11RES	RESISTORS, PRECHARGE (HARMONIC FILTER), 10Ω, 375W
RT1 - RT2	THERMISTOR TEMPERATURE SENSORS
1SCR - 3SCR	SCR/DIODE MODULES, 1200V, 285A
1R	RELAY, COOLING FANS AND PUMP
1SW	CIRCUIT BREAKER, 600V, 400A, 100% RATED
1T	120VAC, 3KVA CONTROL POWER TRANSFORMER
2T, 8T	24VAC, 75VA CONTROL TRANSFORMER
3T - 5T	OUTPUT CURRENT TRANSFORMERS
1TB - 2TB	TERMINAL BLOCKS, FIELD WIRING
⟩——	JACK, J1-1 ETC.
——⟩	PLUG, P1-1 ETC.

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FIGURE 7 - WIRING DIAGRAM - VYPER DRIVE - 380/60HZ - FRAME B

WIRING DIAGRAM - VYPER DRIVE - 380/60HZ - FRAME B (CONT'D)

WIRING DIAGRAM
VYPER DRIVE
380/60HZ FRAME B
035-231917-000
REV _

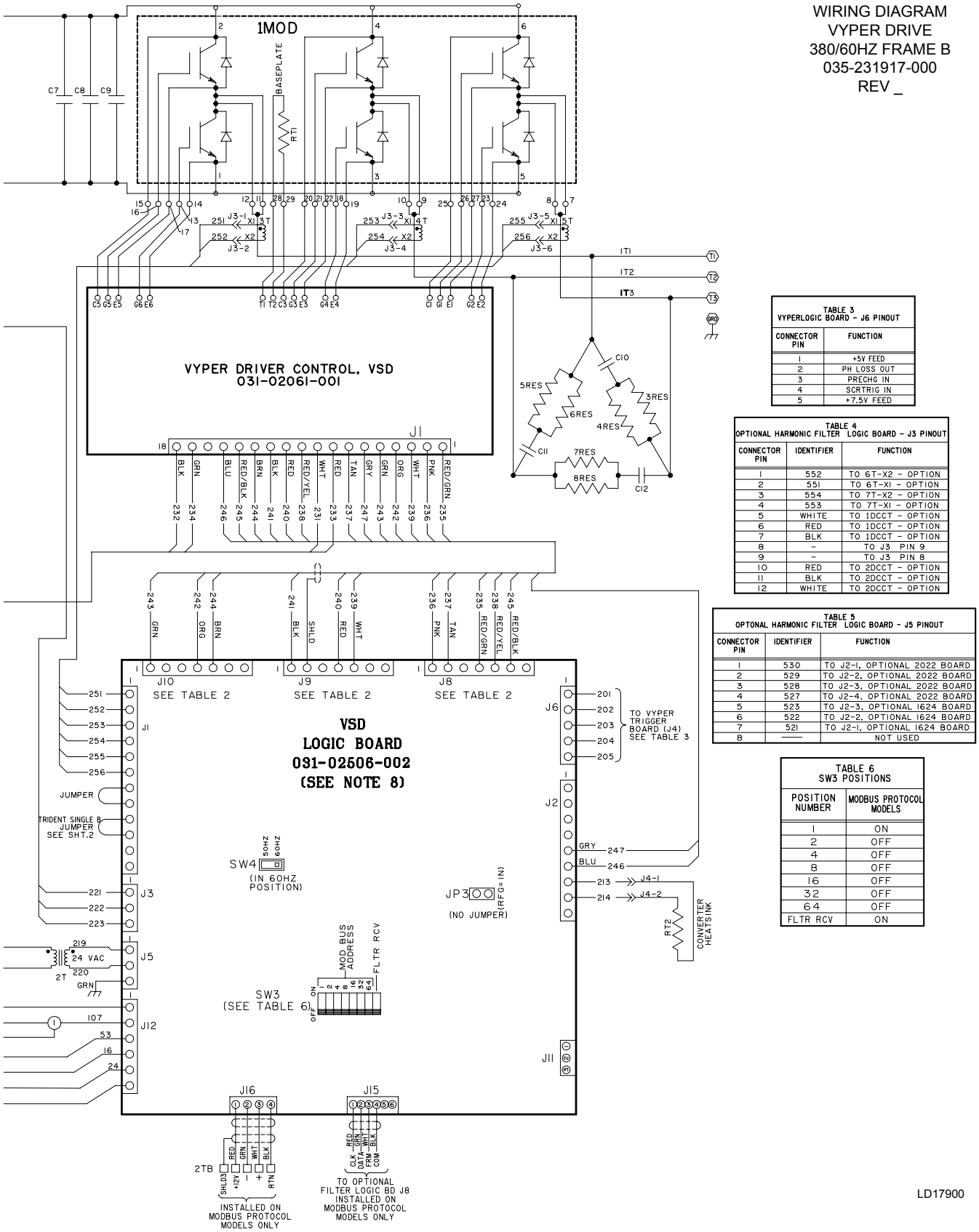


TABLE 3
VYPERLOGIC BOARD - J6 PINOUT

CONNECTOR PIN	FUNCTION
1	+5V FEED
2	PH LOSS OUT
3	PRECHG IN
4	SCRTRIG IN
5	+7.5V FEED

TABLE 4
OPTIONAL HARMONIC FILTER LOGIC BOARD - J3 PINOUT

CONNECTOR PIN	IDENTIFIER	FUNCTION
1	552	TO 6T-X2 - OPTION
2	551	TO 6T-X1 - OPTION
3	554	TO 7T-X2 - OPTION
4	553	TO 7T-X1 - OPTION
5	WHITE	TO 1DCCT - OPTION
6	RED	TO 1DCCT - OPTION
7	BLK	TO 1DCCT - OPTION
8	-	TO J3 PIN 9
9	-	TO J3 PIN 8
10	RED	TO 2DCCT - OPTION
11	BLK	TO 2DCCT - OPTION
12	WHITE	TO 2DCCT - OPTION

TABLE 5
OPTONAL HARMONIC FILTER LOGIC BOARD - J5 PINOUT

CONNECTOR PIN	IDENTIFIER	FUNCTION
1	530	TO J2-1, OPTIONAL 2022 BOARD
2	529	TO J2-2, OPTIONAL 2022 BOARD
3	528	TO J2-3, OPTIONAL 2022 BOARD
4	527	TO J2-4, OPTIONAL 2022 BOARD
5	523	TO J2-3, OPTIONAL 1624 BOARD
6	522	TO J2-2, OPTIONAL 1624 BOARD
7	521	TO J2-1, OPTIONAL 1624 BOARD
8	——	NOT USED

TABLE 6
SW3 POSITIONS

POSITION NUMBER	MODBUS PROTOCOL MODELS
1	ON
2	OFF
4	OFF
8	OFF
16	OFF
32	OFF
64	OFF
FLTR RCV	ON

LD17900

FIGURE 7 - WIRING DIAGRAM - VYPER DRIVE - 380/60HZ - FRAME B (CONT'D)

PANEL WIRING - VYPER DRIVE - 380/60HZ - FRAME B

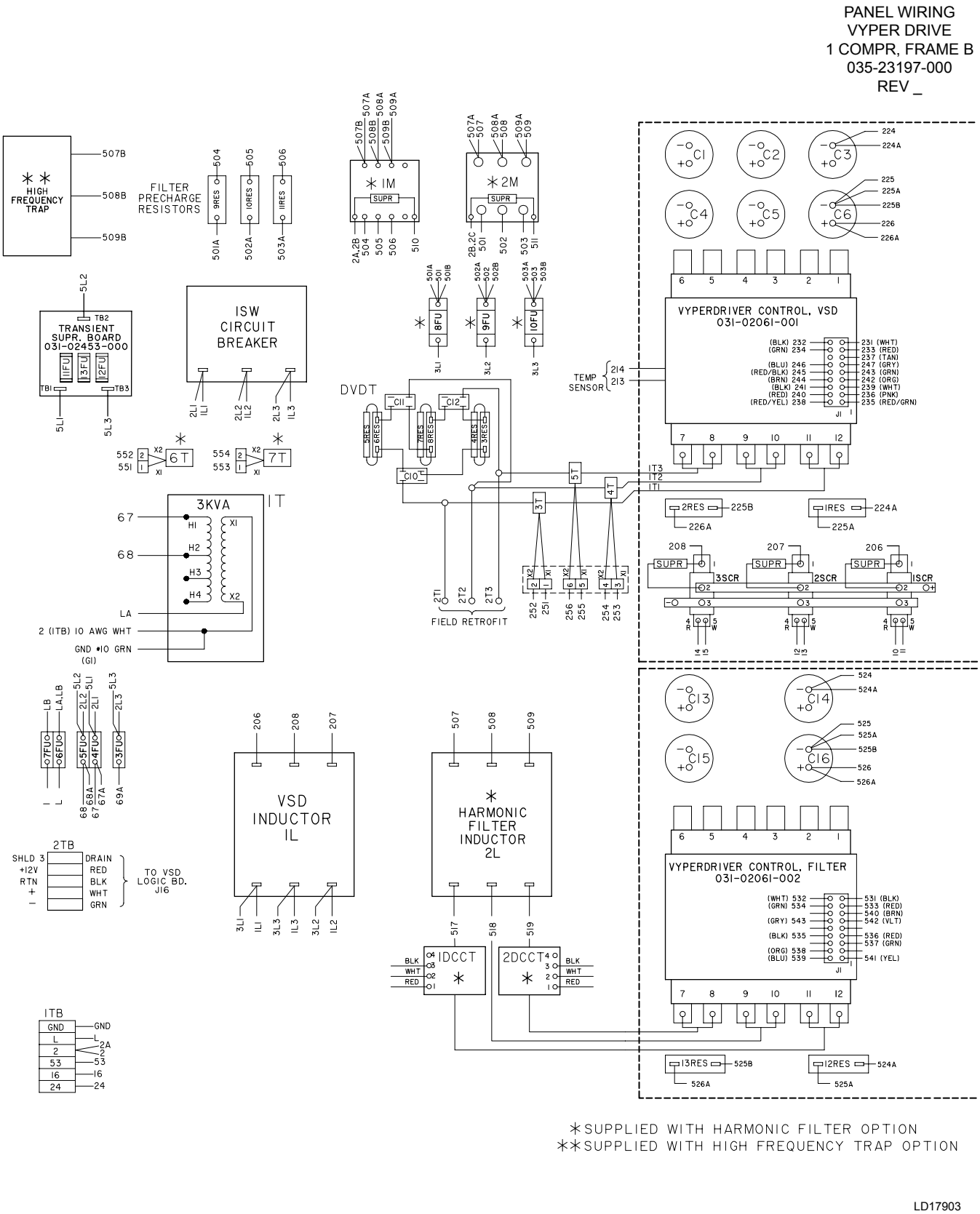


FIGURE 8 - PANEL WIRING - VYPER DRIVE - 380/60HZ - FRAME B

PANEL WIRING - VYPER DRIVE - 380/60HZ - FRAME B (CONT'D)

PANEL WIRING
VYPER DRIVE
1 COMPR, FRAME B
035-23197-000
REV _

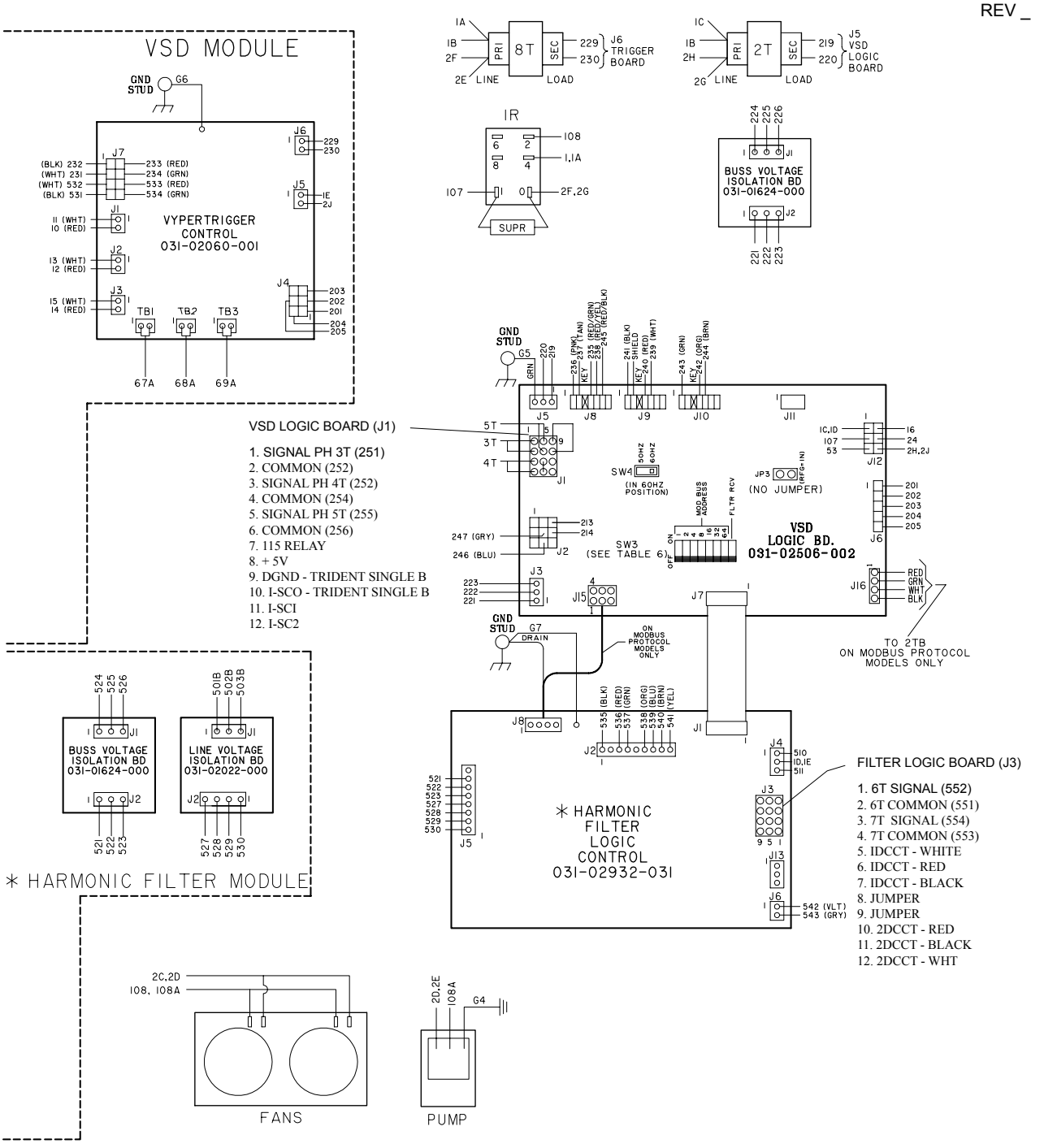


FIGURE 8 - PANEL WIRING - VYPER DRIVE - 380/60HZ - FRAME B (CONT'D)

PANEL LAYOUT

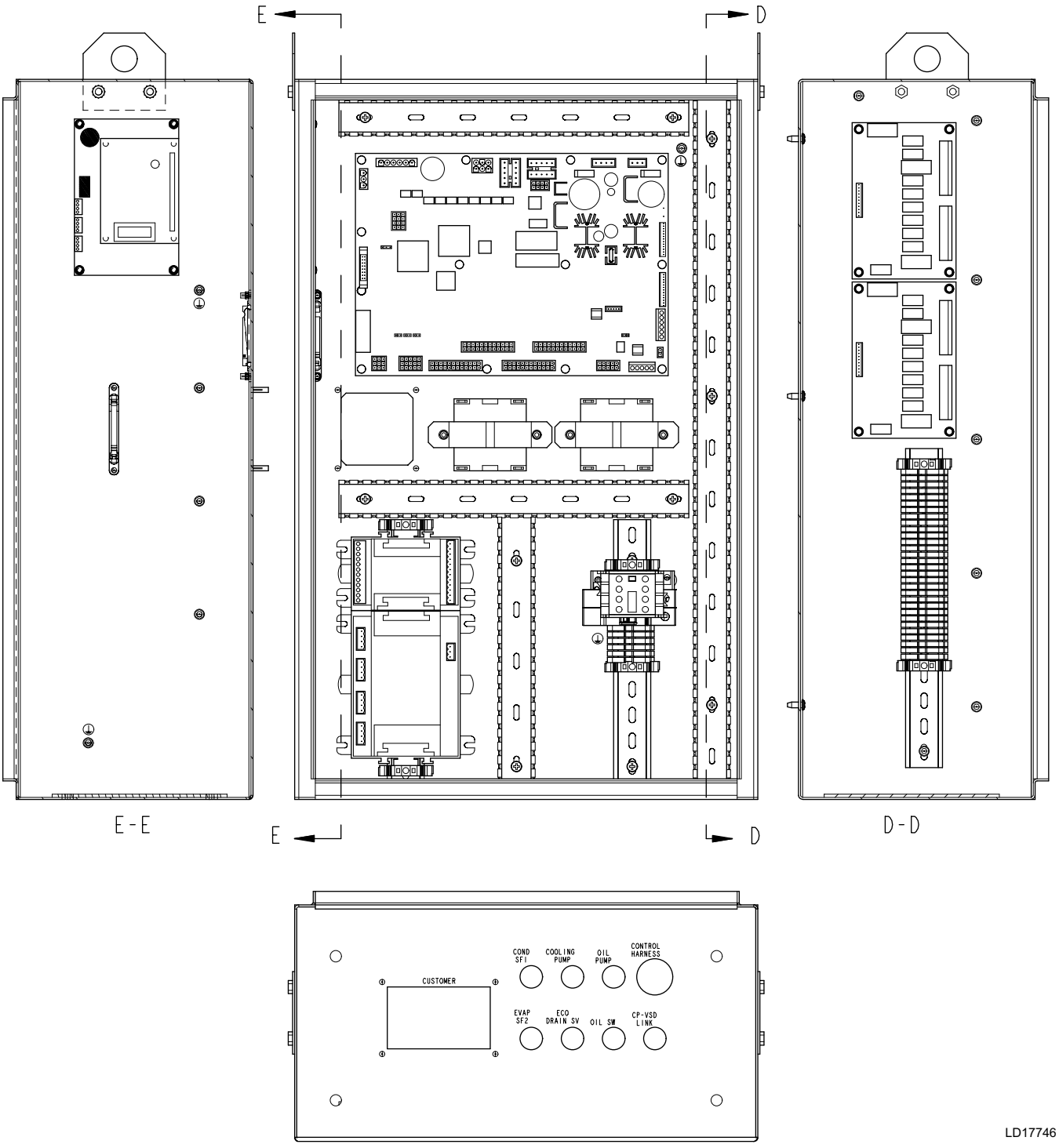


FIGURE 9 - PANEL LAYOUT

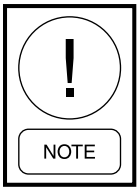
FIELD CONNECTIONS

NOTES

1. All field wiring shall be in accordance with the current edition of the relevant electric code as well as other applicable codes and specifications.
2. The Variable Speed Drive (VSD) shall be grounded in accordance with the related standards.
3. The branch circuit over current protection device for the YORK VSD must be a time delay type with a rating, which is the standard fuse/circuit breaker size required to protect the field supply wiring conductors per the relevant electric code as well as other applicable codes and specifications.
4. The main power transformer should be adequately sized such that the transformer voltage drop does not exceed 10% during unit start-up.
5. The YORK VSD power supply wiring ampacity shall be calculated as follows: Model YVWA Minimum Circuit Ampacity: 1.25 (JOB FLA) where 125 X (System 1 (RLA0) + (System 2 RLA0) + control transformer amps.
6. A removable cover plate with pilot knockouts is supplied for connection of power supply conduits.
7. Each field-conducted inductive load, i.e. relay coil, motor starter coil, etc. shall have a transient suppressor wired (by others) in parallel with its coil, physically located at the coil.
8. Control wiring and input power wiring out the VSD/Control Panel by the customer.
9. Water pump and cooling fan are the customer's equipment, referenced only as wiring reference here.
10. The autotransformer is used only for a 200V/3P/60 Hz, 230/3P/60 Hz or 575V/3P/60 Hz power system. The autotransformer kit is designed as an ption. For additional information on weight, size , wiring lugs and installation location, please see drawing and instructions of autotransformer kit.

    The Enclosure Protection Class is IP23.

    Fasten the wires with 1/2 in. (M12) hardware. Torque the screws 19-22 ft-lb (25.7-29.8 N-m), and wrap all of the wiring connections with high temperature tape (P/N 025-40165-000). The tape must cover the entire terminal surface.



Johnson Controls does not provide installation and harnesses between the autotransformer and the VSD as well as the primary side of the autotransformer.

FIELD WIRING CONNECTIONS

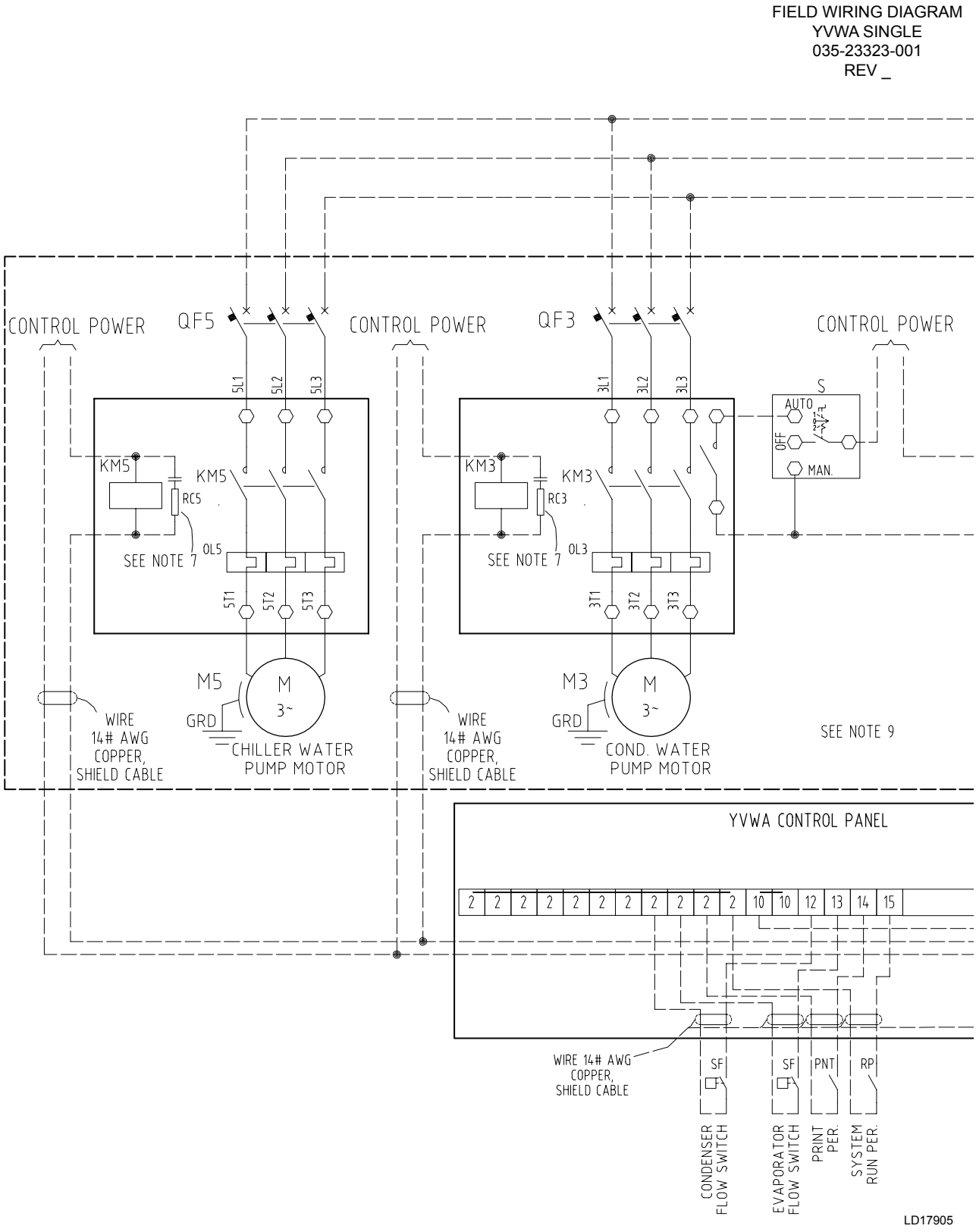


FIGURE 10 - FIELD WIRING CONNECTIONS

FIELD WIRING CONNECTIONS (CONT'D)

FIELD WIRING DIAGRAM
YVWA SINGLE
035-23323-001
REV _

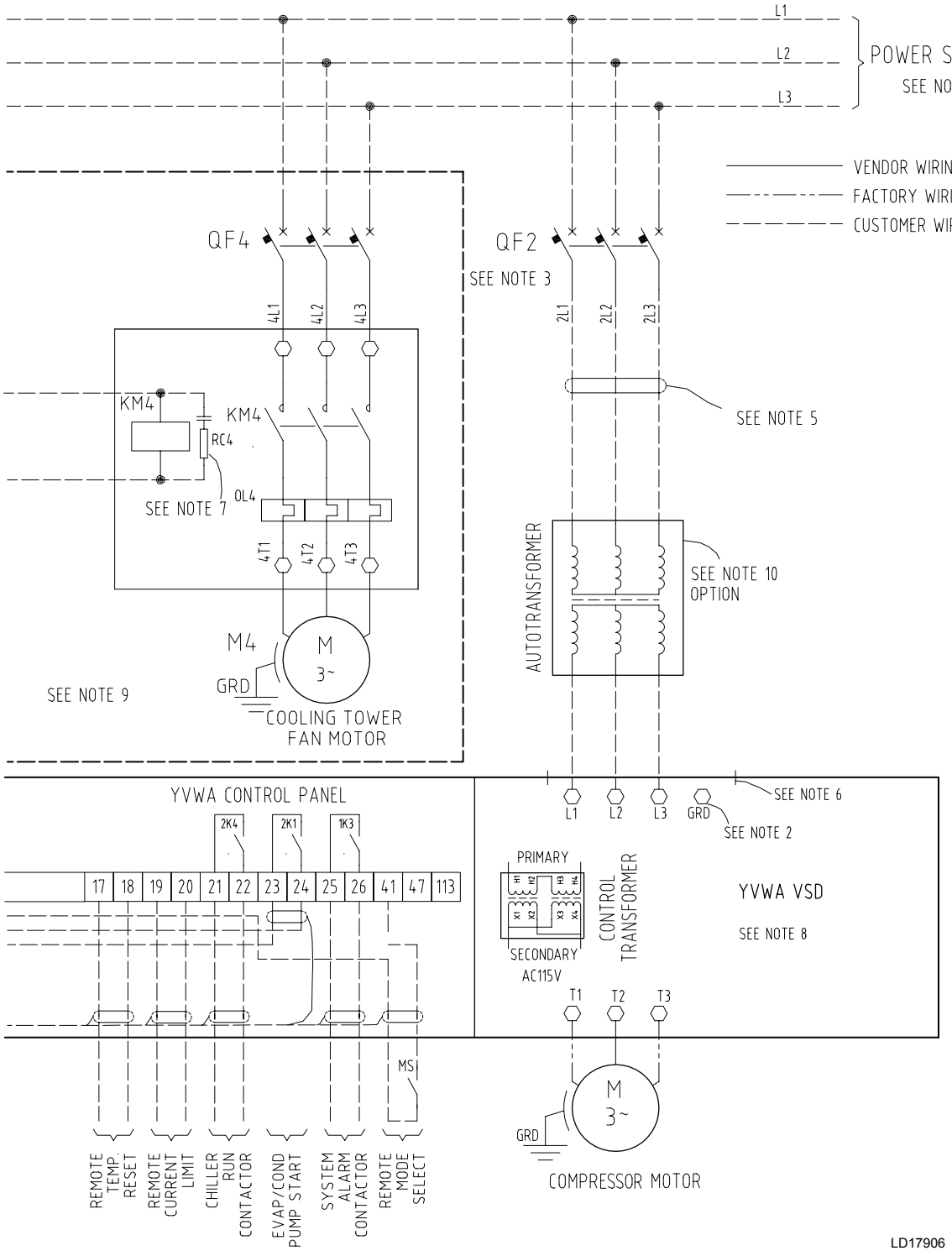
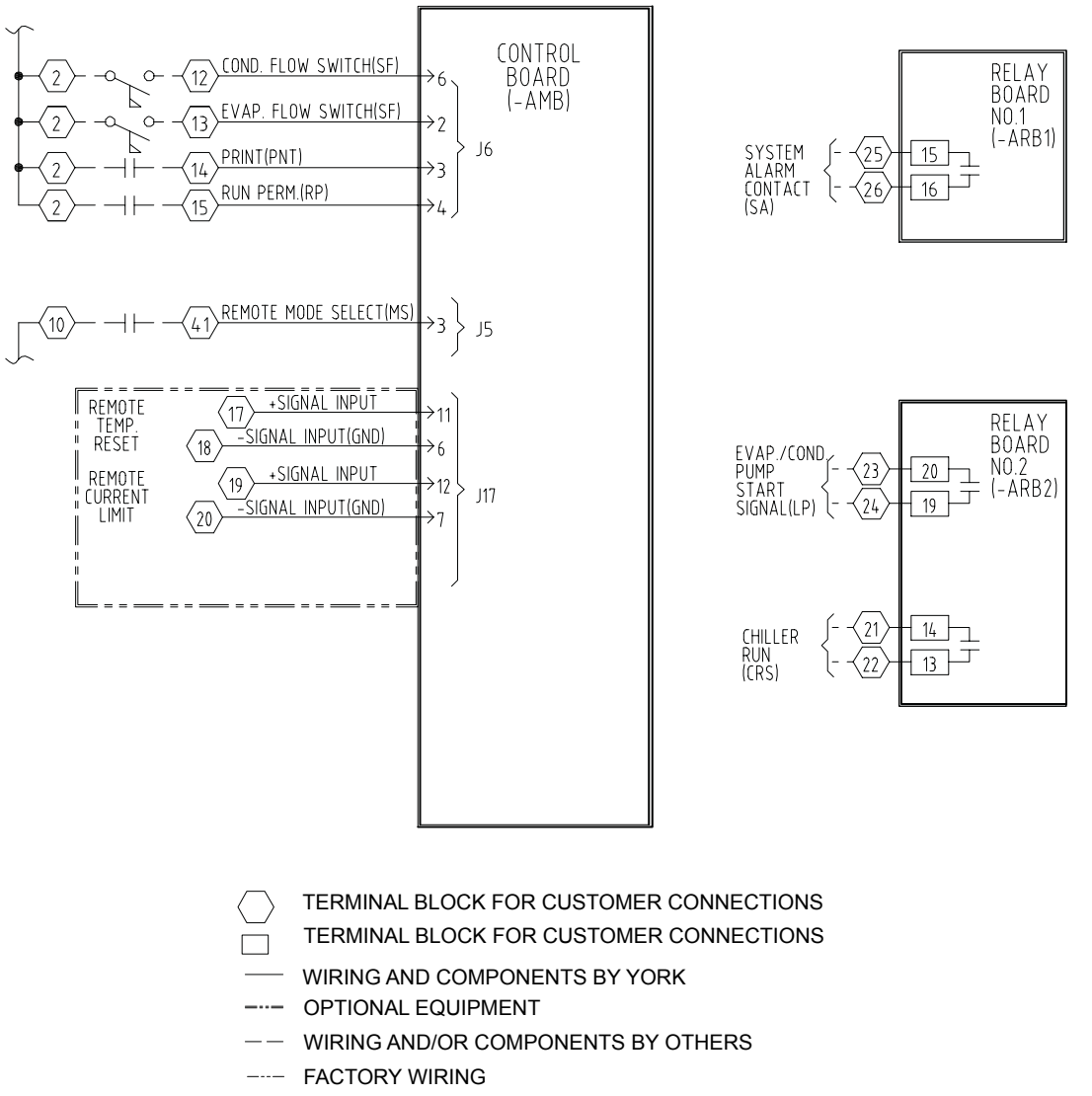


FIGURE 10 - FIELD WIRING CONNECTIONS (CONT'D)

CUSTOMER CONTROL WIRING

FIELD WIRING DIAGRAM
YVWA SINGLE
035-23323-001
REV _



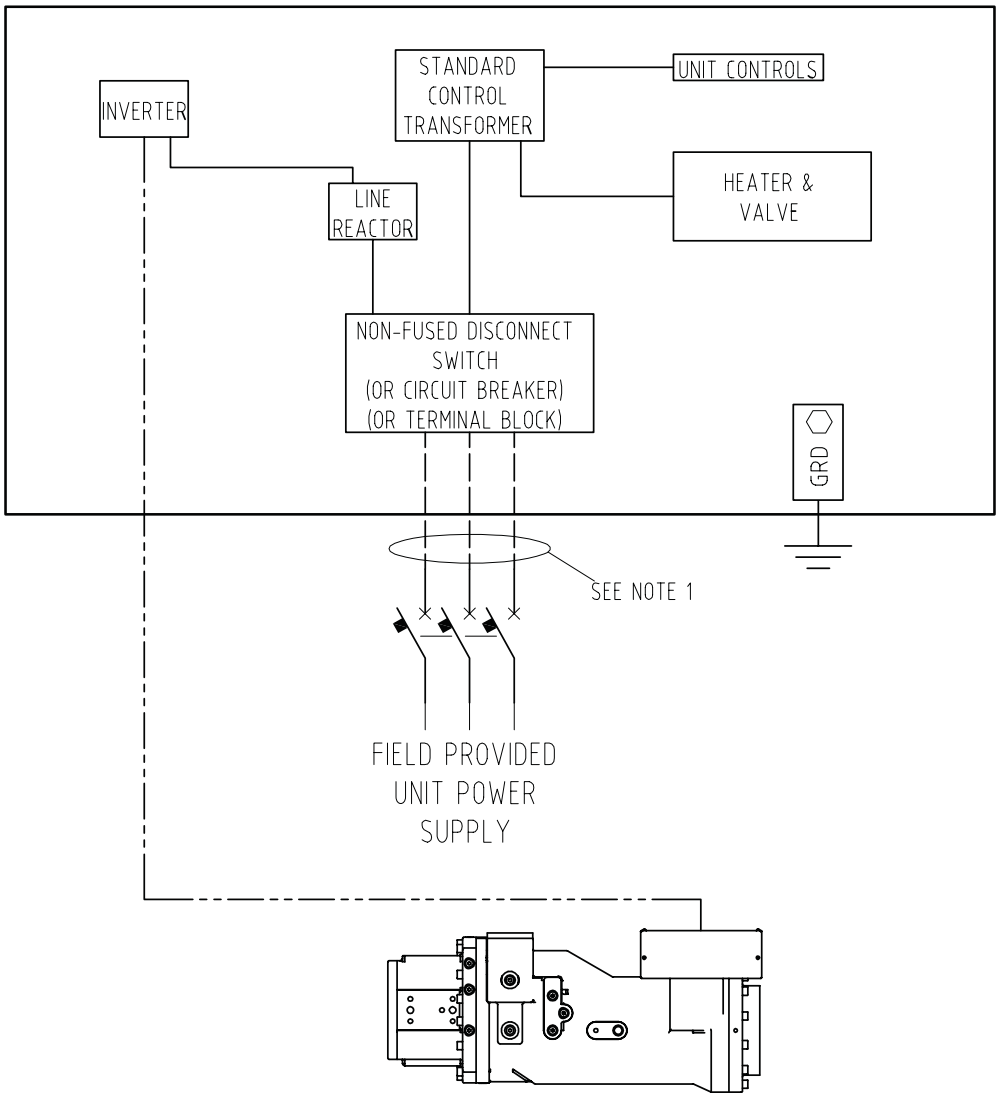
TERMINAL BLOCK FOR CUSTOMER CONNECTIONS
TERMINAL BLOCK FOR CUSTOMER CONNECTIONS
WIRING AND COMPONENTS BY YORK
OPTIONAL EQUIPMENT
WIRING AND/OR COMPONENTS BY OTHERS
FACTORY WIRING

LD17908

FIGURE 11 - CUSTOMER CONTROL WIRING

CUSTOMER POWER WIRING

FIELD WIRING DIAGRAM
YVWA SINGLE
035-23323-001
REV _



LD17907

FIGURE 12 - CUSTOMER POWER WIRING

TERMINAL WIRING

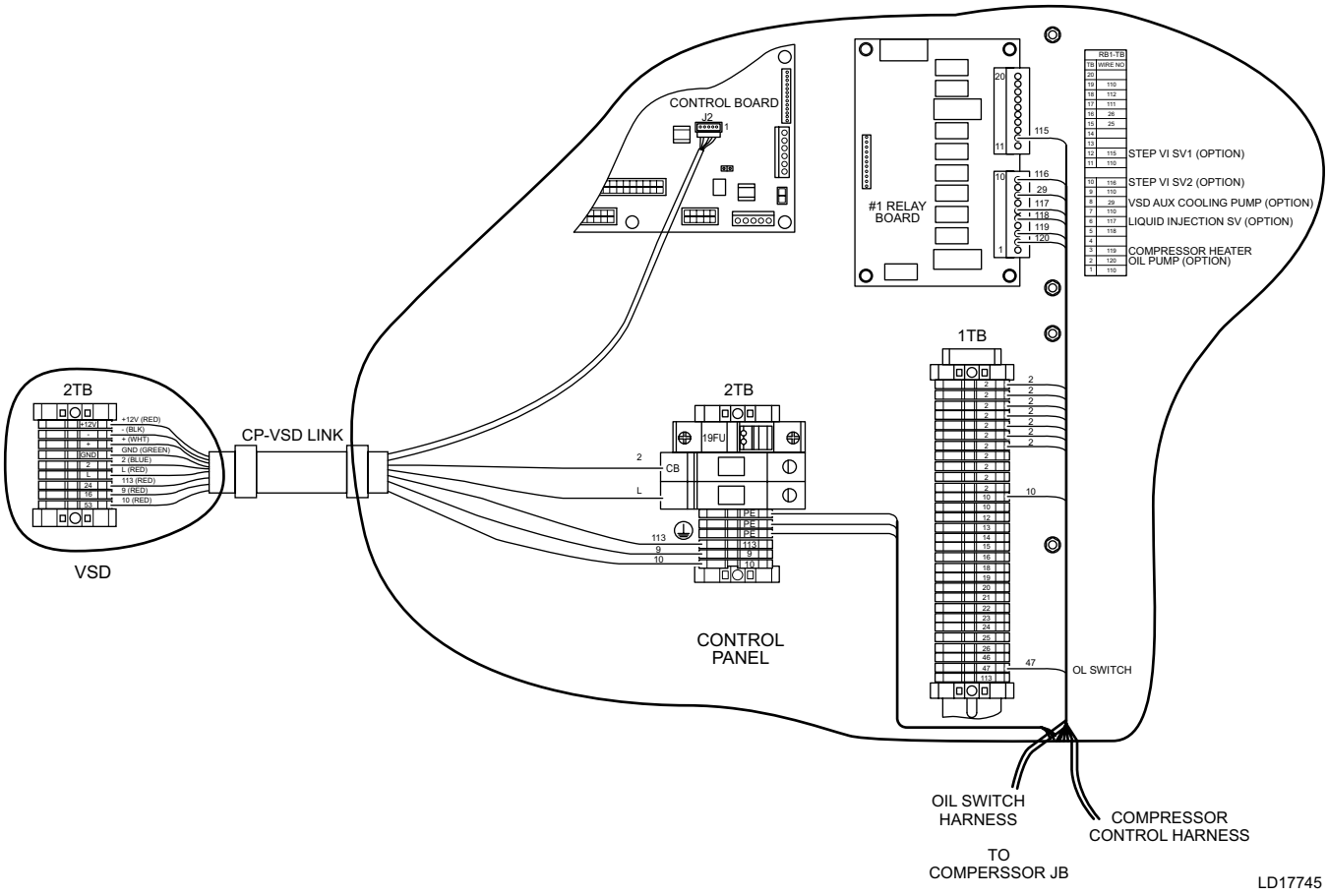


FIGURE 13 - CONTRL PANEL TO VSD WIRING

COMPRESSOR ELECTRICAL ASSEMBLY

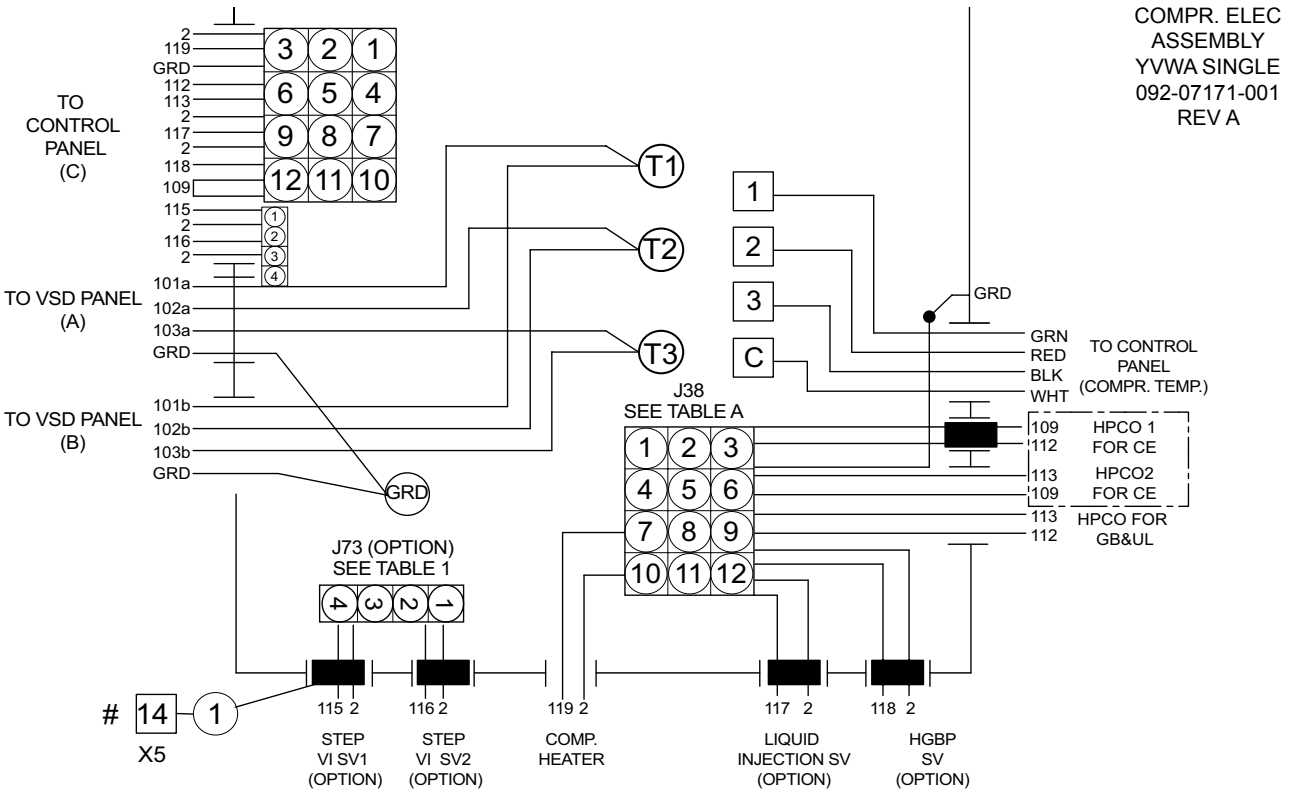


FIGURE 14 - COMPRESSOR ELECTRICAL ASSEMBLY

LD16464b

TABLE 1 - COMPRESSOR ELECTRICAL ASSEMBLY WIRING

COMPRESSOR SUB WIRING (CONNECTS TO CONTROL DEVICES)								
CAP DETAIL	CAP P/N	CAP "J" NUMBER	GB AND UL			CE (DUAL HPCO)		
			CAP PIN NUMBER	WIRING NUMBER	FUNCTION	CAP PIN NUMBER	WIRING NUMBER	FUNCTION
1 2 3 / 4 5 6 / 7 8 9 / 10 11 12	025-20787-000 (White)	J38	1	112	HPCO	1	112	HPCOI
			2	113		2	109	
			3	117	Liquid Injection Valve	3	117	Liquid Injection Valve
			4	2		4	2	
			5	118	HGBP Valve	5	118	HGBP Valve
			6	2		6	2	
			7	119	Compressor Heater	7	119	Compressor Heater
			8	2		8	2	
			9	GND		9	GND	
			10		N/A	10		N/A
			11			11	113	HPCO2
			12			12	109	
1 / 2 / 3 / 4	025-21756-000 (White)	J73 (Option)	1	115	Step VI Valve 1	1	115	Step VI Valve 1
			2	2		2	2	
			3	116	Step VI Valve 2	3	116	Step VI Valve 2
			4	2		4	2	

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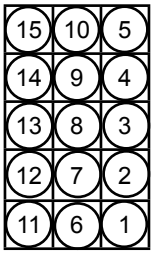
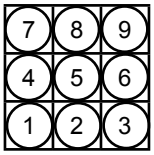
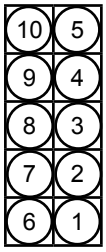
SHIELDED CABLE ASSEMBLY

TABLE 2 - SHIELDED CABLE ASSEMBLY

SHIELD CABLE ASSEMBLY (CONNECTS TO CONTROL DEVICES)							
PLUG DETAIL	**PLUG PART NUMBER**	**PLUG "P" NUMBER**	**PLUG PIN NUMBER**	**WIRING COLOR**	**CABLE CODE**	**FUNCTION**	**HARNESS P/N**
	025-28385-000 (White)	P17 See Note 6	14	BLK	50	Eductor Temperature	592-07172-050
			9	RED			
			4	DRAIN			
	025-28383-000 (White)	P18	7	BLK	1	Leaving Chilled Temperature	592-07172-001
			4	RED			
			1	DRAIN			
			8	BLK	2	Entering Chilled Temperature	592-07172-002
			5	RED			
			2	DRAIN			
	025-39839-000 (White)	P19	1	GRN	4	Compressor Motor Temperature	592-07172-004
			2	RED			
			3	BLK			
			4	WHT			
			5	DRAIN			

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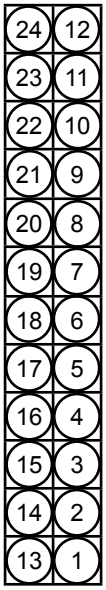
SHIELDED CABLE ASSEMBLY (CONT'D)

TABLE 2 (CONT'D) - SHIELDED CABLE ASSEMBLY

SHIELD CABLE ASSEMBLY (CONNECTS TO CONTROL DEVICES)							
PLUG DETAIL	**PLUG PART NUMBER**	**PLUG "P" NUMBER**	**PLUG PIN NUMBER**	**WIRING COLOR**	**CABLE CODE**	**FUNCTION**	**HARNESS P/N**
	025-34533-000 (White)	P21	12	BLK	6	Leaving Condenser Termperature	592-07172-006
			1	RED			
			2	DRAIN			
			3	BLK	7	Evaporator Temperature	592-07172-007
			15	RED			
			14	DRAIN			
			16	BLK	8	Discharge Temperature	592-07172-008
			4	RED			
			5	DRAIN			
			6	WHT	9	Condenser Level	592-07172-009
			18	RED			
			17	BLK			
				DRAIN			
			20	WHT	10	Evaporator Pressure	592-07172-010
			8	RED			
			7	BLK			
			19	DRAIN			
			22	WHT	11	Oil Pressure	592-07172-011
			10	RED			
			9	BLK			
			21	DRAIN			
			24	WHT	12	Discharge Pressure	592-07172-012
			12	RED			
			11	BLK			
			23	DRAIN			

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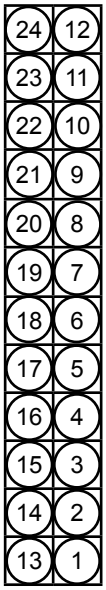
SHIELDED CABLE ASSEMBLY (CONT'D)

TABLE 2 (CONT'D) - SHIELDED CABLE ASSEMBLY

SHIELD CABLE ASSEMBLY (CONNECTS TO CONTROL DEVICES)							
PLUG DETAIL	**PLUG PART NUMBER**	**PLUG "P" NUMBER**	**PLUG PIN NUMBER**	**WIRING COLOR**	**CABLE CODE**	**FUNCTION**	**HARNESS P/N**
	025-34533-000 (White)	P22	13	BLK	13	Entering Condenser Termperature	592-07172-013
			1	RED			
			2	DRAIN			

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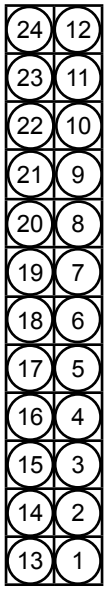
SHIELDED CABLE ASSEMBLY (CONT'D)

TABLE 2 (CONT'D) - SHIELD CABLE ASSEMBLY

SHIELD CABLE ASSEMBLY (CONNECTS TO CONTROL DEVICES)							
PLUG DETAIL	**PLUG PART NUMBER**	**PLUG "P" NUMBER**	**PLUG PIN NUMBER**	**WIRING COLOR**	**CABLE CODE**	**FUNCTION**	**HARNESS P/N**
	025-34533-000 (White)	P23	12	BLK	27	Leaving Condenser Termperature	592-07172-006
			1	RED			
			2	DRAIN			
			3	BLK	28	Evaporator Temperature	592-07172-007
			15	RED			
			14	DRAIN			
			20	WHT	31	Discharge Temperature	592-07172-008
			8	RED			
			7	BLK			
			19	DRAIN			
			22	WHT	32	Condenser Level	592-07172-009
			10	RED			
			9	BLK			
			21	DRAIN			

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Form 201.30-PW1 (1113)
Issue Date: November 21, 2013
New Release