



v5 Equipment Controller

Service Manual

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REV	BY	DATE	DESCRIPTION
1.0.1	MTS	04/22/2020	FOR APPROVAL
1.0.3	MTS	04/23/2020	MINOR REDLINE EDITS (PG 2-5, 13, 14, 16-22, 28) FOUND BY SH
1.0.5	SH	04/24/2020	MINOR REDLINE EDITS FOUND BY AD, ADDED INSTALL NOTE PGS 29 - 34

NOTES:






- STANDARD SUPPLY VOLTAGE IS 120/220VAC 60/50Hz.
- WASHLINK SYSTEMS RECOMMENDS INDIVIDUAL HOUSE PANEL CIRCUIT. (120VAC 50A MAXIMUM or 220VAC 10A MAXIMUM.)
- WASHLINK SYSTEMS RECOMMENDS AWG 18 (0,75 mm2) STRANDED COPPER WIRE FOR CIRCUITS LESS THAN 200 FEET.
- CABLE MUST BE SHIELDED. ALL CONNECTION POINTS SHOULD BE SOLDERED.
- CUSTOMER SUPPLIED FIELD WIRING.
- GROUNDING OF 24VAC NEUTRAL AT TRANSFORMER ENSURES PROPER CIRCUIT ISOLATION.
- TO AVOID RISK OF FIRE AND INJURY REPLACE ONLY WITH MANUFACTURER'S ORIGINAL RATED FUSE.**
- TYPICAL TRANSFORMER WIRING. REFER TO MANUFACTURER'S TRANSFORMER INSTALLATION MANUAL FOR SPECIFIC CONNECTIONS.
- INPUTS 1-64 ARE 24VDC+ ONLY. ANY OTHER VOLTAGE WILL DAMAGE CONTROLLER AND VOID MANUFACTURER'S WARRANTY.**
- ANY UNUSED STOP (INPUT 9-12) AND/OR LOW LEVEL (INPUT 15,16, 32 TYPICAL) INPUT MUST BE JUMPERED TO 24VDC+ FOR PROPER OPERATION.**
- WASHLINK SYSTEMS RECOMMENDS PROVIDING MULTIPLE STOP BUTTONS THRU OUT THE TUNNEL FOR EASE OF ACCESS.
- STOP INPUTS (INPUT 9-12 TYPICAL) ARE A SYSTEM PAUSE, NOT AN EMERGENCY STOP.**
- ALL OUTPUTS ARE PREWIRED AS A 24VAC CIRCUIT.**
- PREWIRED AT MANUFACTURER.
- USE SHIELED CABLE AND SOLDER ALL CONNECTION POINTS.
- USE CAT5e or CAT6 CABLE WIRED TO 568B STANDARD.
-
-
-
- WASHLINK SYSTEMS SUPPLIED PHOTO EYE ONLY. REFER TO MANUFACTURER'S PHOTO EYE MANUAL IF SUPPLIED BY OTHERS.
- OPTIONAL UPGRADED HARDWARE.
- CUSTOMER SUPPLIED HARDWARE AND/OR WIRE.

LEGEND:

- BE - BLUE
- BK - BLACK
- BN - BROWN
- GN - GREEN
- GY - GRAY
- OE - ORANGE
- PE - PURPLE
- RD - RED
- VT - VIOLET
- WE - WHITE
- YW - YELLOW

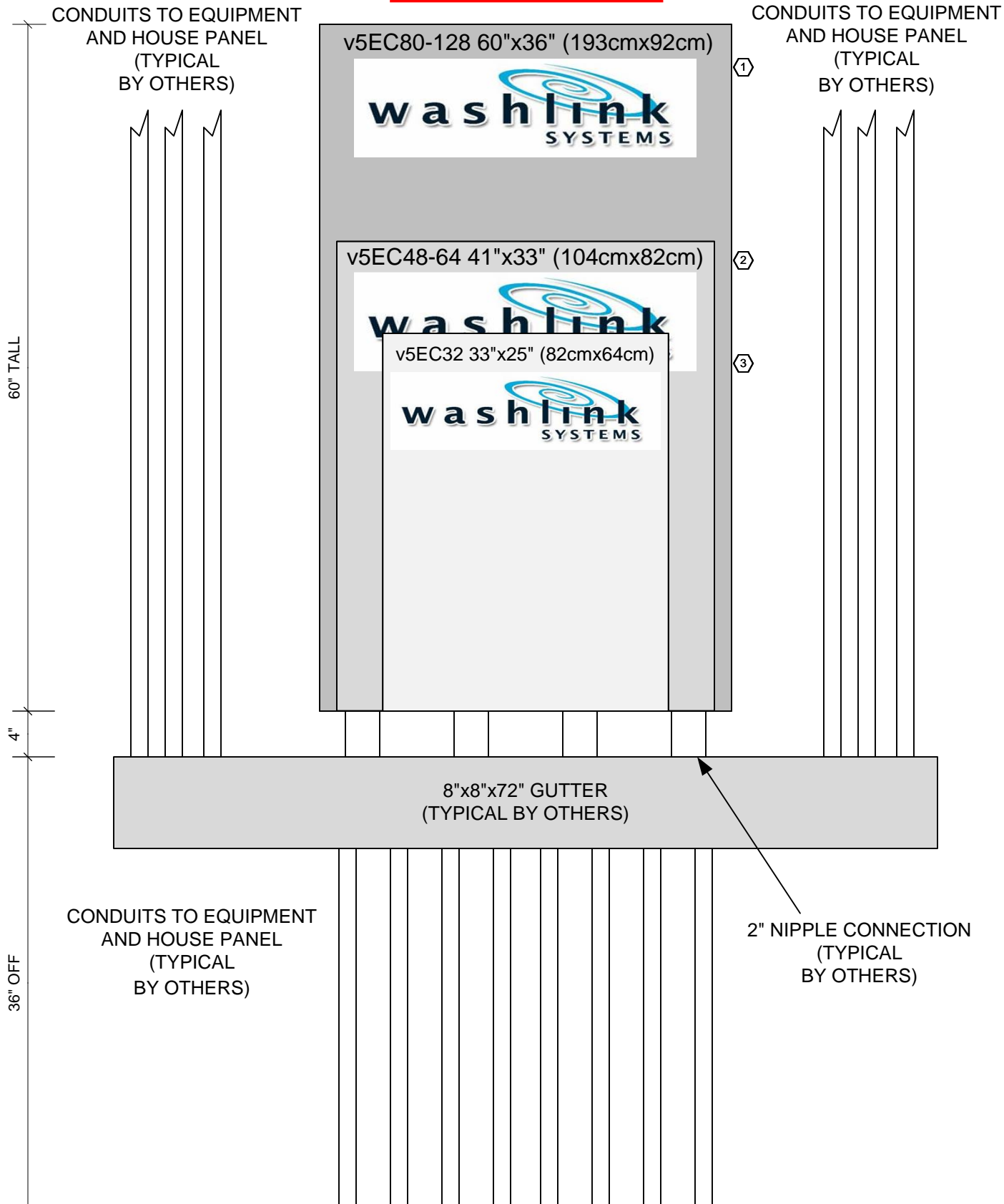
 BILL OF MATERIALS ITEM NUMBER

FIELD WIRING
ENCLOSURE WIRING _____

-  **ALL ELECTRICAL WORK SHOULD BE PERFORMED BY A QUALIFIED AND LICENSED ELECTRICIAN.**
-  **ALL ELECTRICAL WORK SHOULD MEET OR EXCEED NATIONAL AND LOCAL CODES AND ORDINANCES.**
-  **RISK OF ELECTRICAL SHOCK. MORE THAN ONE DISCONNECT MAY NEED TO BE DE-ENERGIZED BEFORE SERVICING THE EQUIPMENT.**
-  **TO REDUCE THE RISK OF FIRE, ONLY CONNECT TO A 120VAC CIRCUIT PROVIDED WITH 15A MAXIMUM BRANCH CIRCUIT PROTECTION IN ACCORDANCE WITH THE NEC, ANSI/NFPA 70 AND LOCAL CODE AUTHORITIES.**
-  **BONDING BETWEEN CONDUIT CONNECTION IS NOT AUTOMATIC AND MUST BE PROVIDED AT INSTALLATION.**

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REV	DATE	PAGE DESCRIPTION:	
1.0.5	4/24/2020	CONTENTS INDEX / NOTES / WARNINGS / LEGEND	
DRAWN BY: MTS			
CHECKED BY: SRH			
DRAWN DATE: 4/24/2020		v5 EC Page 1 of 36	

NO TOP PENETRATIONS



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PAGE DESCRIPTION:
INSTALLATION
 ENCLOSER SIZING & MOUNTING

Installation

The Washlink EQUIPMENT CONTROLLER (EC) should be mounted securely to a stable and permanent wall. Choose a location in the equipment room that is easily accessible and provides protection from the elements.

Care should be taken to avoid accidental water leaks and only penetrate the enclosure from the bottom. Washlink Systems recommends installing a gutter below the enclosure to simplify installation and conduit termination.

Power Requirements

The EC requires 120/220VAC 60/50Hz 15/10Amps Branch Circuit protection (provided by customer). This circuit should be connect to **Breaker CB101**.

The EC uses **24VAC** as the standard Output voltage (provided by customer) and needs to be connected to **Red Terminal Blocks marked incoming 24VAC**.

The EC allows the customer to supply multiple Output voltages. This circuit(s) should be connected to **Breakers CB102 and/or CB103**.

Inputs

The Electronic Fuse Unit (EF1) supplies the Input power for all Inputs (Channel 3 - Inputs). Inputs configured as **Stop**, **Low Level**, or **Low Air** (typically 9-14 and 32) should be wired as a N/C Circuit. These Inputs **MUST** be **high/ON** for normal car wash operation. If they are **low/OFF**, the system will **NOT** start. If they are not used, they **MUST** have a jumper installed from +24VDC.

Any Input can be configured to be any type of Event with the ECAdjuster app on the Washlink Systems Server. Pages 11 and 13 describe the typical Inputs configuration from the Factory.

The Open Bed Detector (OBD) is an Analog 0-10vdc signal wired to convenience terminals per page 10.

The **Pulse Input** is used in conjunction with the **Enter Input** for equipment activation.
The **Roller Detect Input** is used to locate and accurately supply the needed number of conveyor rollers.
The **Tire Location Input** is used to locate the position of the tires & wheels for equipment activation.
The **Collision Avoidance Inputs** are used to help prevent an exiting vehicle from colliding with another.
The **Start Inputs** will start the Conveyor and any other Outputs configured to turn on with the Conveyor.
The **Stop Inputs** and **Low Level Inputs** must be high/ON for the Conveyor to start.
The **Stop Inputs** will pause the Conveyor and any other functions configured accordingly.
The **Low Level Inputs** work the same way as the **Stop Inputs**, but give different customer alerting.
The **Package and Option Inputs** are not required if the Entrance Touch Screen is being used.
The **Clear, Roller & Wet Down Inputs** are not required if the Entrance Touch Screen is being used.

Outputs

Any Output can be configured to be any type of Function with the ECAdjuster app on the Washlink Systems Server. Page 12 describes the typical **Horn / Conveyor / Fork** Outputs configuration from the Factory.

Warning Horn turns on before the Conveyor starts automatically or when there is a Collision Avoidance condition.
Conveyor turns on when the system starts automatically.
Fork is dedicated for Roller Raiser functionality.

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1.0.5	20-04-22		
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DRAWN DATE: 4/24/2020			Page 3 of 36

FROM	TO	WIRES	PURPOSE	NOTES
House Panel	Equipment Controller CB101	14 H,N,G	24VDC Power Supply 5A	
House Panel	Equipment Controller AUX1 CB102	14 H,N,G	Accessories Power 10amp	
House Panel	Equipment Controller AUX2 CB103	14 H,N,G	Accessories Power 10amp	
House Panel	24VAC Transformer	Per Code	24vac Transformer Power	Shown for Convenience
24VAC Transformer	E.C. Incoming 24VAC Terminals	Per Code	24VAC Controls	
Equipment Controller	Director PC (In Office, typically)	CAT 5	Equipment Controller Communication	Terminate 568B
Equipment Controller	Entrance Touch Screen	CAT 5	Touch Screen Communication	Terminate 568B
Equipment Controller	Entrance Touch Screen	3 #18	24VDC, 0VDC, Ground (EF1 Ch1)	
Equipment Controller	Accu-Pulse	3 #18	24VDC, 0VDC & Input 1	
Equipment Controller	D/S Entrance Photo Eye	2 #18	24VDC, 0VDC	
Equipment Controller	P/S Entrance Photo Eye	3 #18	24VDC, 0VDC & Input 2	
Equipment Controller	Tire Detect Switch	2 #18	24VDC & Input 3	Optional
Equipment Controller	Roller Detect Switch	2 #18	24VDC & Input 4	Optional
Equipment Controller	Start Stop Stations (each)	3 #18	24VDC & Inputs 5-8 & Inputs 9-12	Stop Inputs MUST be high/ON
Equipment Controller	Fluid Low Level #1	2 #18	24VDC & Input 13	LL Input MUST be high/ON
Equipment Controller	Fluid Low Level #2	2 #18	24VDC & Input 14	LL Input MUST be high/ON
Equipment Controller	D/S Collision Photo Eye	2 #18	24VDC, 0VDC	Optional
Equipment Controller	P/S Collision Photo Eye	3 #18	24VDC, 0VDC & Input 15	Optional
Equipment Controller	Collision Loop Pad	18/2 Cable	Loop Signal (Input 16 wired to Socket)	Use Shielded Cable & Solder splices
Equipment Controller	Conveyor Low Air Pressure	2 #18	24VDC & Input 32	LL Input MUST be high/ON
Equipment Controller	Open Bed Detector	18/3 Cable	Analog Input Signal (Input 1)	Use Shielded Cable & Solder splices
Equipment Controller	Motor Control Center	Per MCC	Control Power	
Equipment Controller	Each Solenoid Control	2 #18	Control Power	Typically 24vac
Equipment Controller	Each Extra Service Sign	14 H,N,G	Control Power	Typically 120vac
Equipment Controller	Warning Horn	2 #18	Control Power	Typically 24vac



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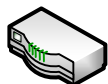
INSTALLATION
WIRING REQUIREMENTS

INSTALL

WASHLINK SYSTEMS SERVER (TYPICAL)

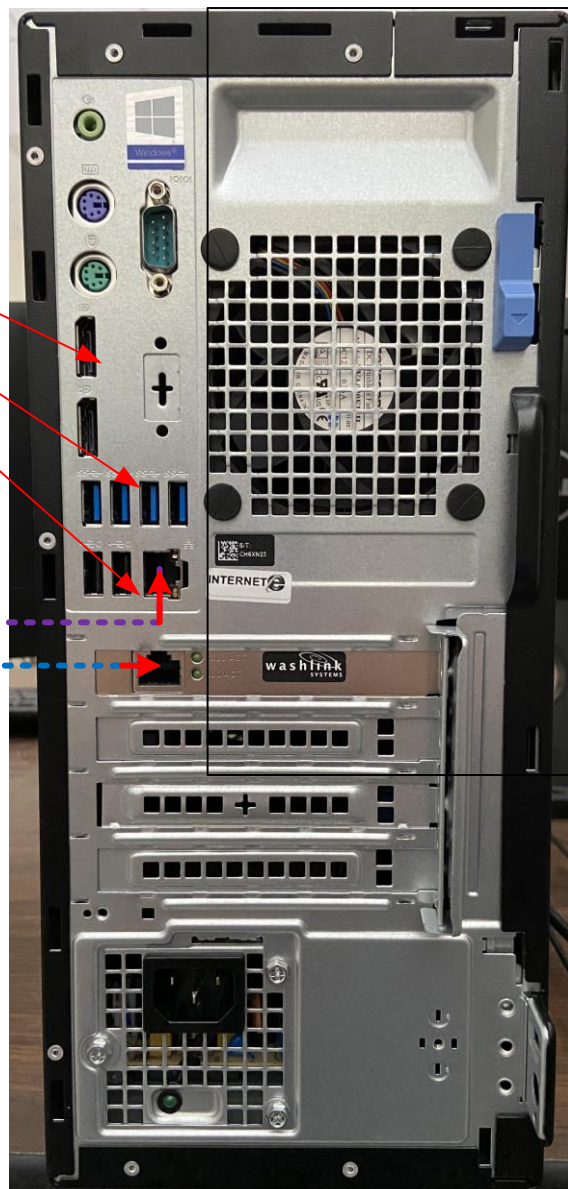
WASHLINK SYSTEMS EQUIPMENT CONTROLLER

MONITOR DISPLAYPORT CONNECTIONS
 USB PORTS (MOUSE / KEYBOARD / ETC)
 INTERNET AND WASHLINK NICs (LABELED)



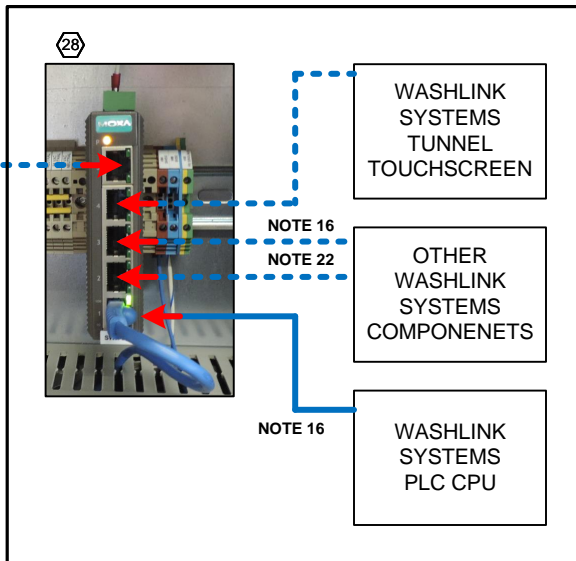
CUSTOMER SUPPLIED
 INTERNET MODEM / ROUTER

NOTE 16
 NOTE 22



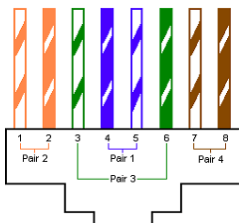
7

NOTE 16
 NOTE 22



NOTE 16
 NOTE 22

ALL CABLES MUST BE 568B



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PAGE DESCRIPTION:
SERVER
 ETHERNET CONNECTIONS

SERVER

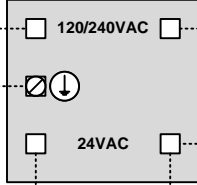
**CUSTOMER SUPPLIED TRANSFORMER
24VAC TRANSFORMER**

NOTE 1
NOTE 2
NOTE 8

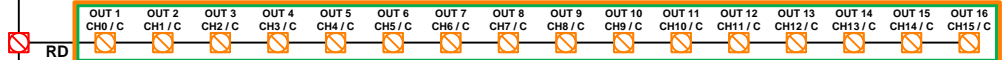
NOTE 7

INCOMING
24VAC HOT
RD

INCOMING
24VAC NEUT
WE/ND

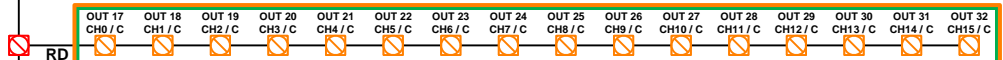


24VAC FOR OUTPUTS 1 - 16

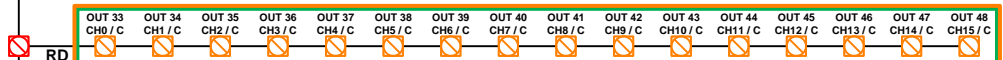


17 x 16

24VAC FOR OUTPUTS 17 - 32



24VAC FOR OUTPUTS 33 - 48



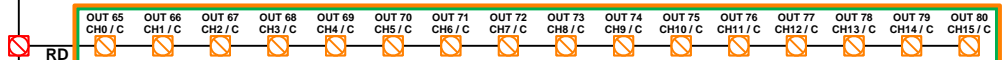
NOTE 21

24VAC FOR OUTPUTS 49 - 64



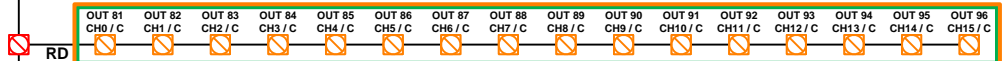
NOTE 21

24VAC FOR OUTPUTS 65 - 80



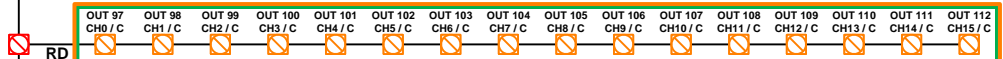
NOTE 21

24VAC FOR OUTPUTS 81 - 96



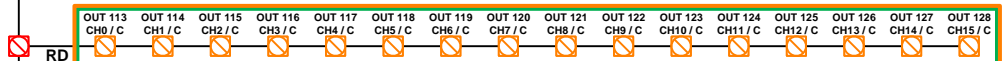
NOTE 21

24VAC FOR OUTPUTS 97 - 112



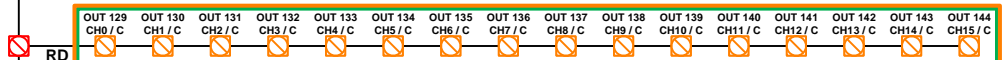
NOTE 21

24VAC FOR OUTPUTS 112 - 128



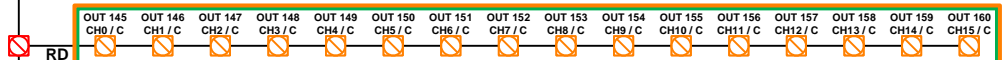
NOTE 21

24VAC FOR OUTPUTS 129 - 144



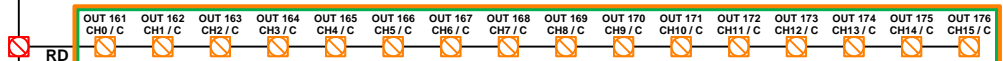
NOTE 21

24VAC FOR OUTPUTS 145 - 160



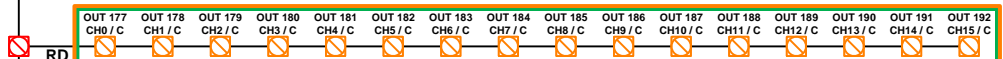
NOTE 21

24VAC FOR OUTPUTS 161 - 176



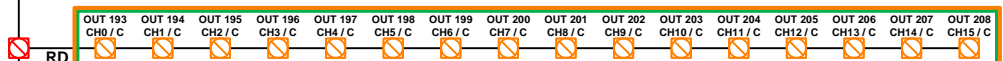
NOTE 21

24VAC FOR OUTPUTS 175 - 192



NOTE 21

24VAC FOR OUTPUTS 193 - 208



NOTE 21

24VAC FOR OUTPUTS 209 - 224



NOTE 21

24VAC FOR OUTPUTS 225 - 240



NOTE 21

24VAC FOR OUTPUTS 241 - 256



NOTE 21

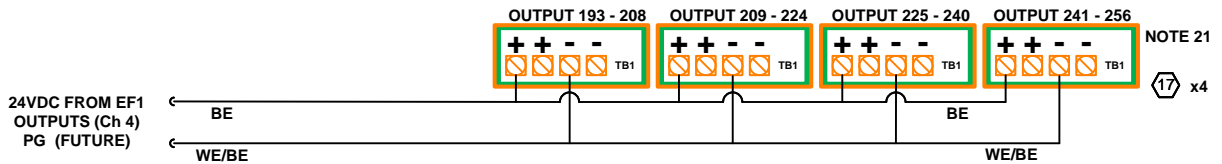
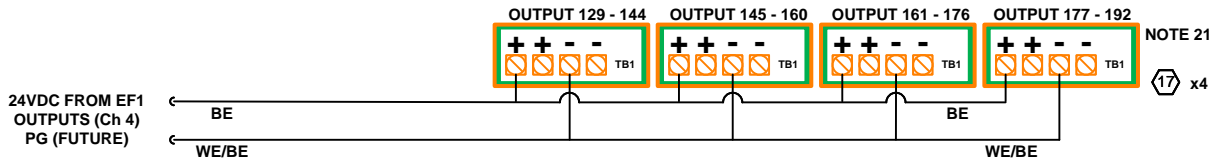
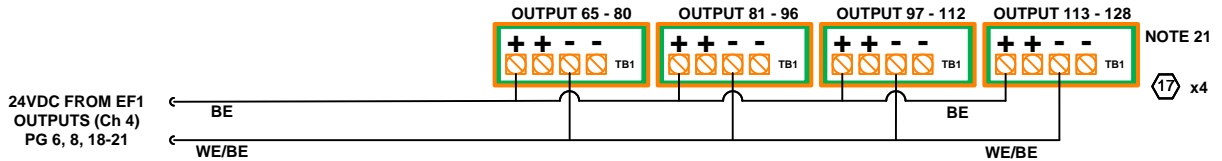
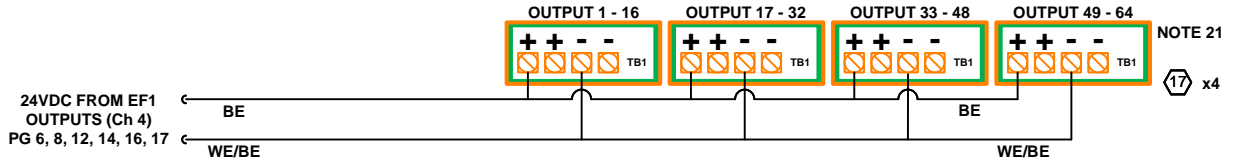
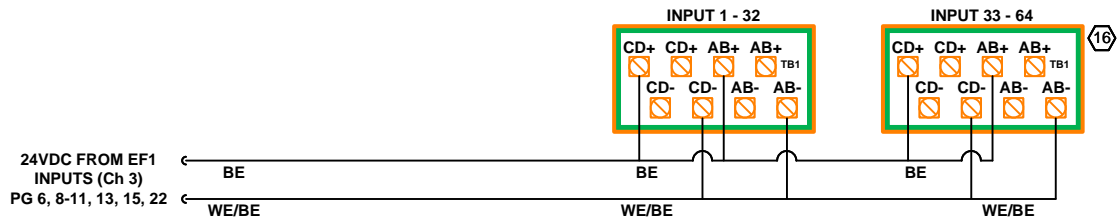


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PAGE DESCRIPTION:
POWER
24VAC TO OUTPUT BOARDS

POWER

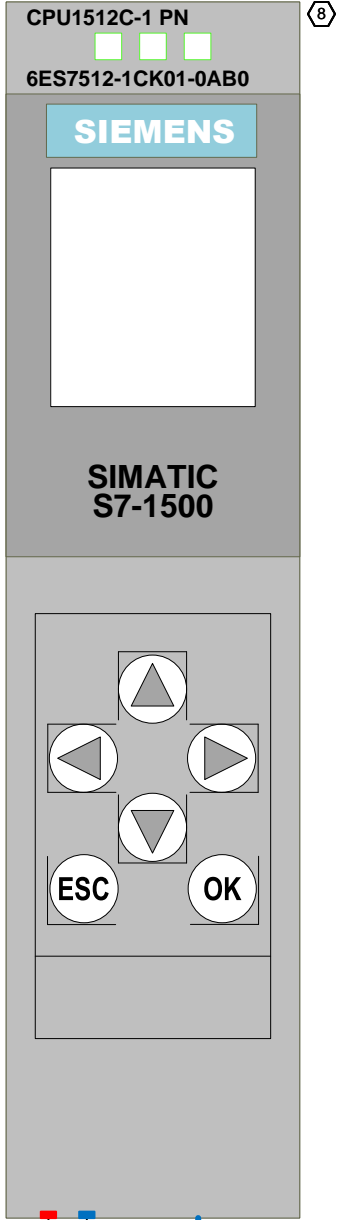


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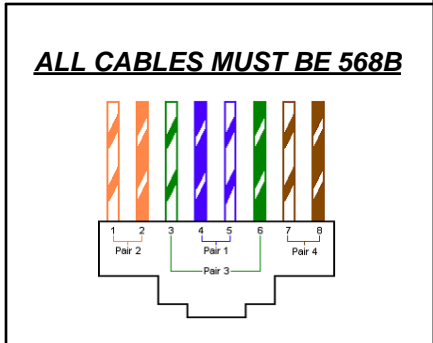
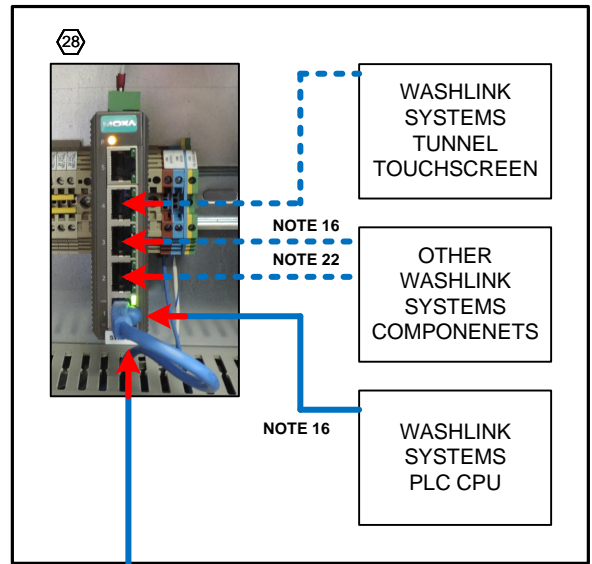
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24VDC TO I/O BOARDS

POWER
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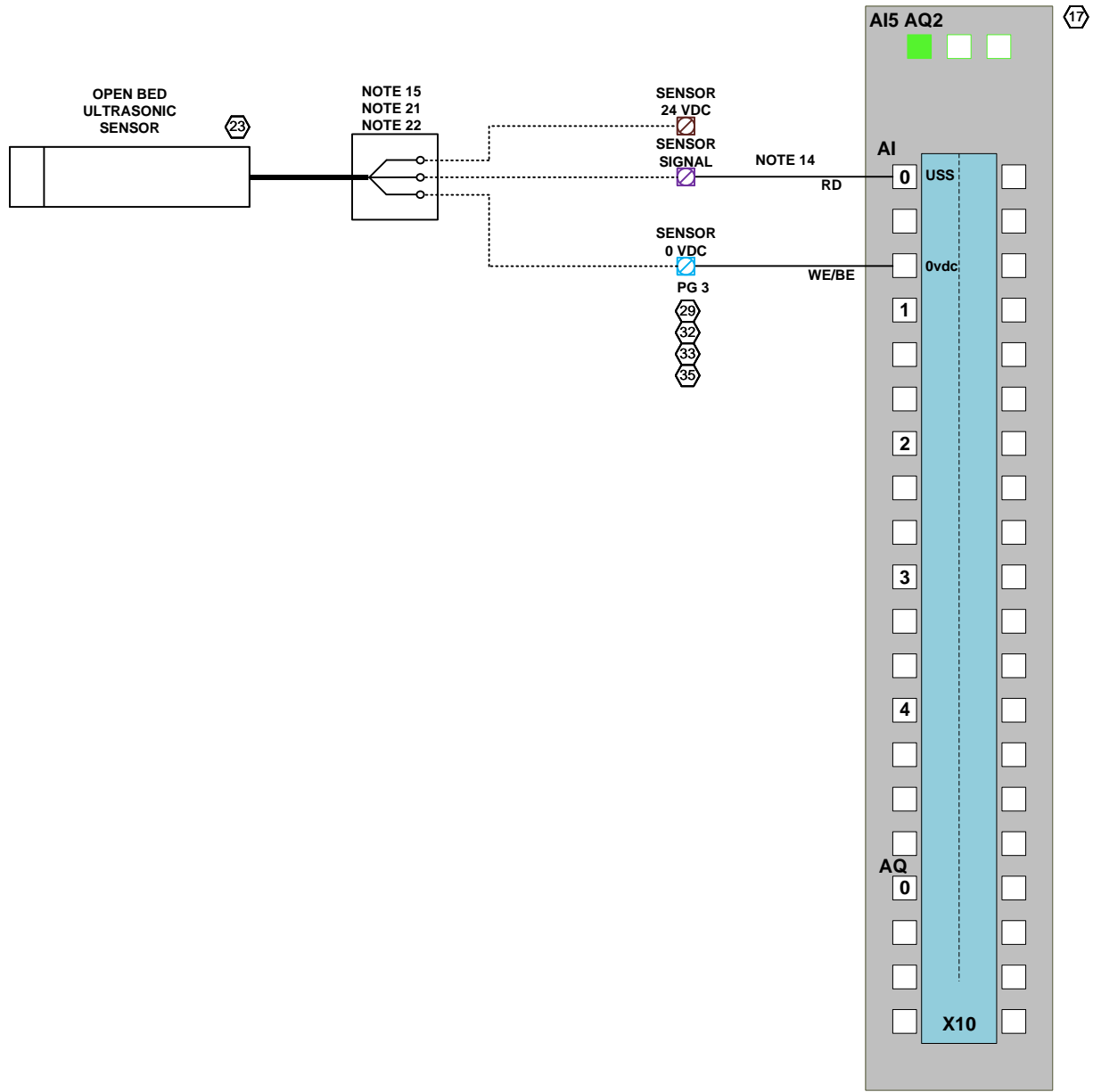
24VDC FROM EF1
PLC (CH1)
PAGE 6, 8

WASHLINK SYSTEMS EQUIPMENT CONTROLLER



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REV	DATE	PAGE DESCRIPTION: PLC Ethernet and Power	CPU
1.0.5	4/24/2020		
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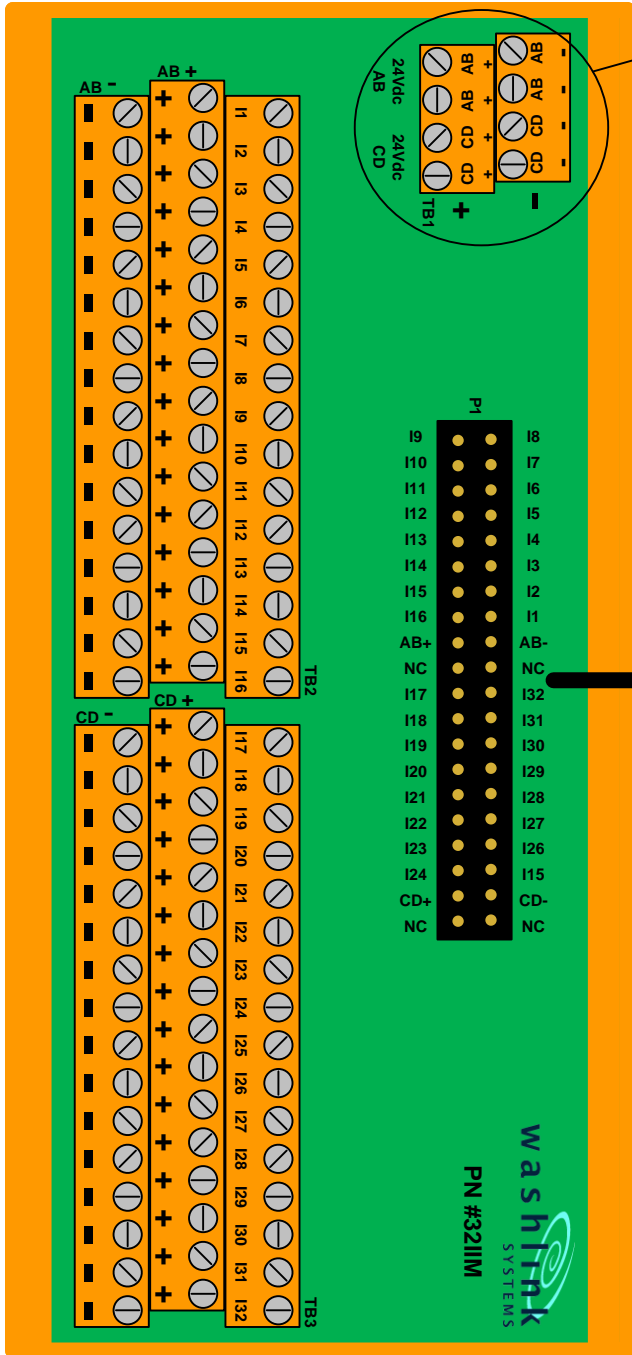
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PLC
 Analog Inputs

SLOT1
 Page 10 of 36

NOTE 9
NOTE 10

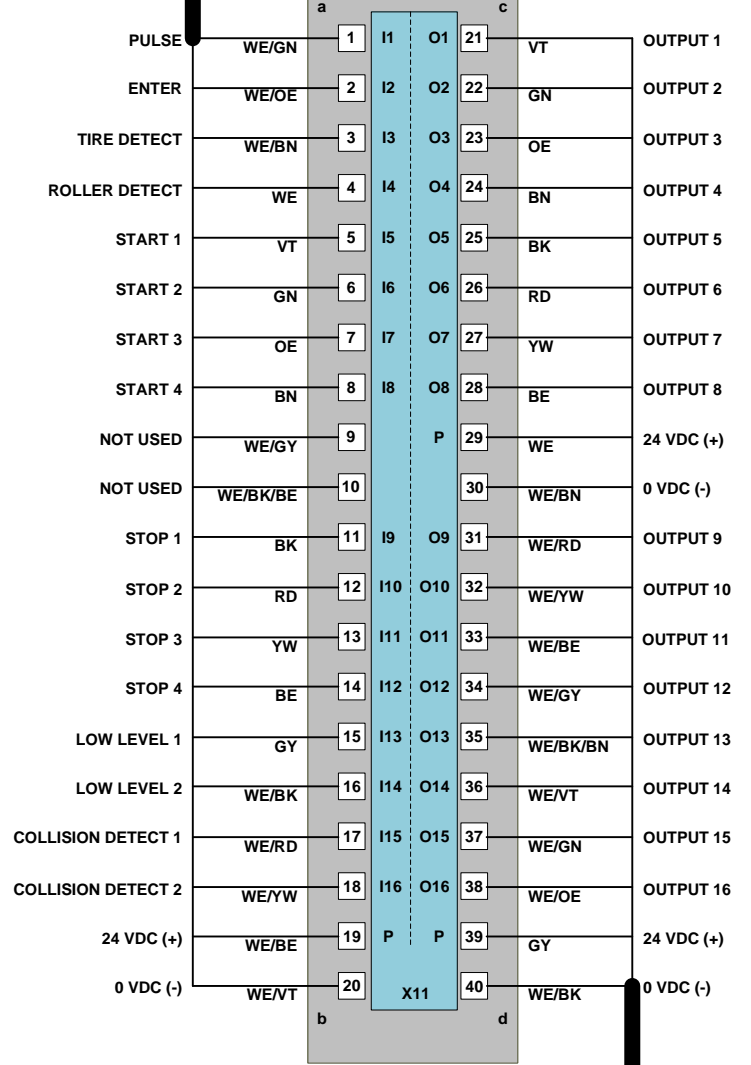
- PULSE → I1
- ENTER → I2
- TIRE DETECT → I3
- ROLLER DETECT → I4
- START 1 → I5
- START 2 → I6
- START 3 → I7
- START 4 → I8
- STOP 1 → I9
- STOP 2 → I10
- STOP 3 → I11
- STOP 4 → I12
- LOW LEVEL 1 → I13
- LOW LEVEL 2 → I14
- COLLISION DETECT 1 → I15
- COLLISION DETECT 2 → I16
- SEND ROLLER → I17
- CLEAR CURRENT PK/OP → I18
- SEND PACKAGE → I19
- WETDOWN REQUEST → I20
- PACKAGE 1 → I21
- PACKAGE 2 → I22
- PACKAGE 3 → I23
- PACKAGE 4 → I24
- PACKAGE 5 → I25
- PACKAGE 6 → I26
- OPTION 1 → I27
- OPTION 2 → I28
- OPTION 3 → I29
- OPTION 4 → I30
- OPTION 5 → I31
- CONV LOW AIR PRESS → I32

INPUTS 17-32
PG 13



24 VDC
PG 6, 8

NOTE 14



OUTPUTS 1-16
PG 12

NOTE 14



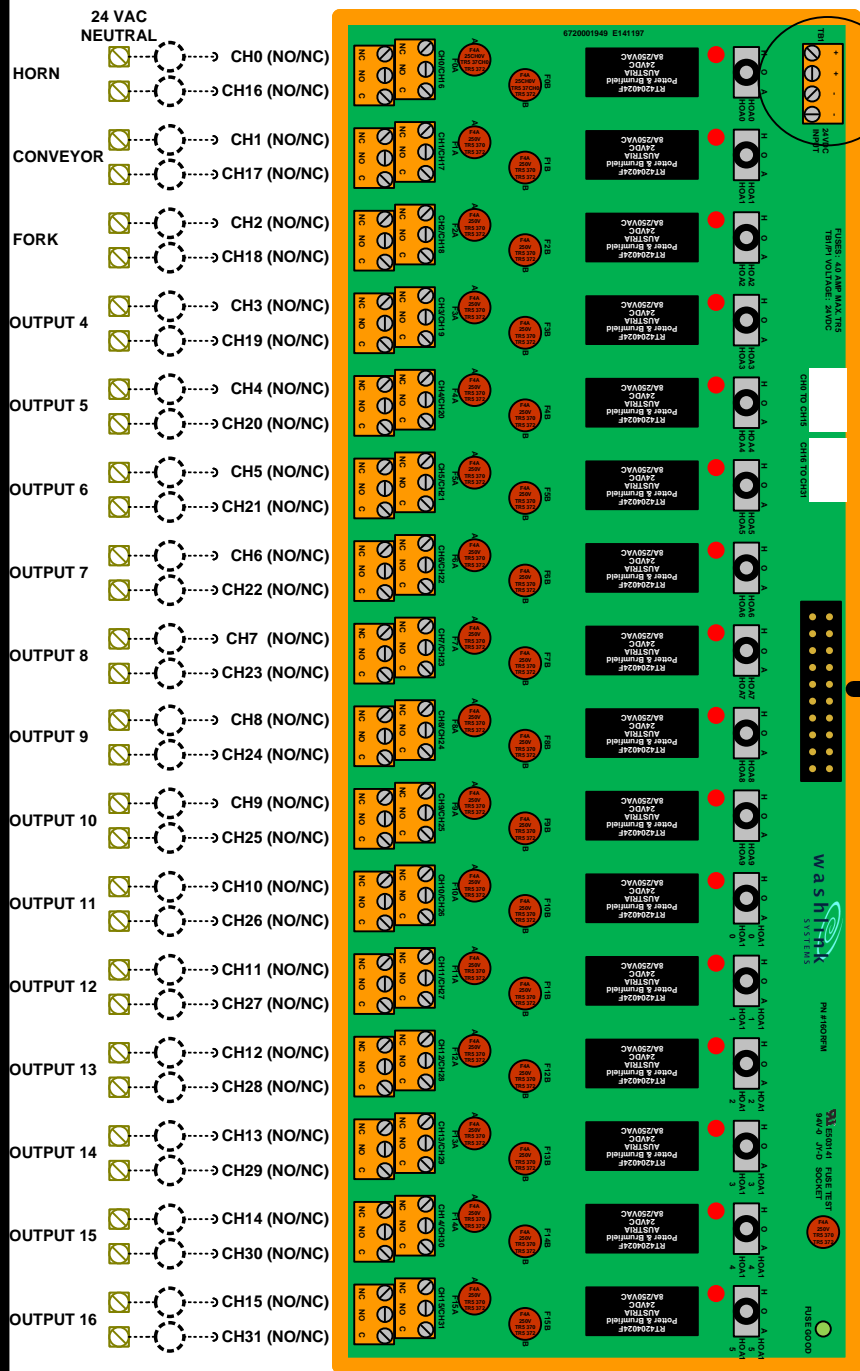
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PAGE DESCRIPTION:
PLC
Input 1-16

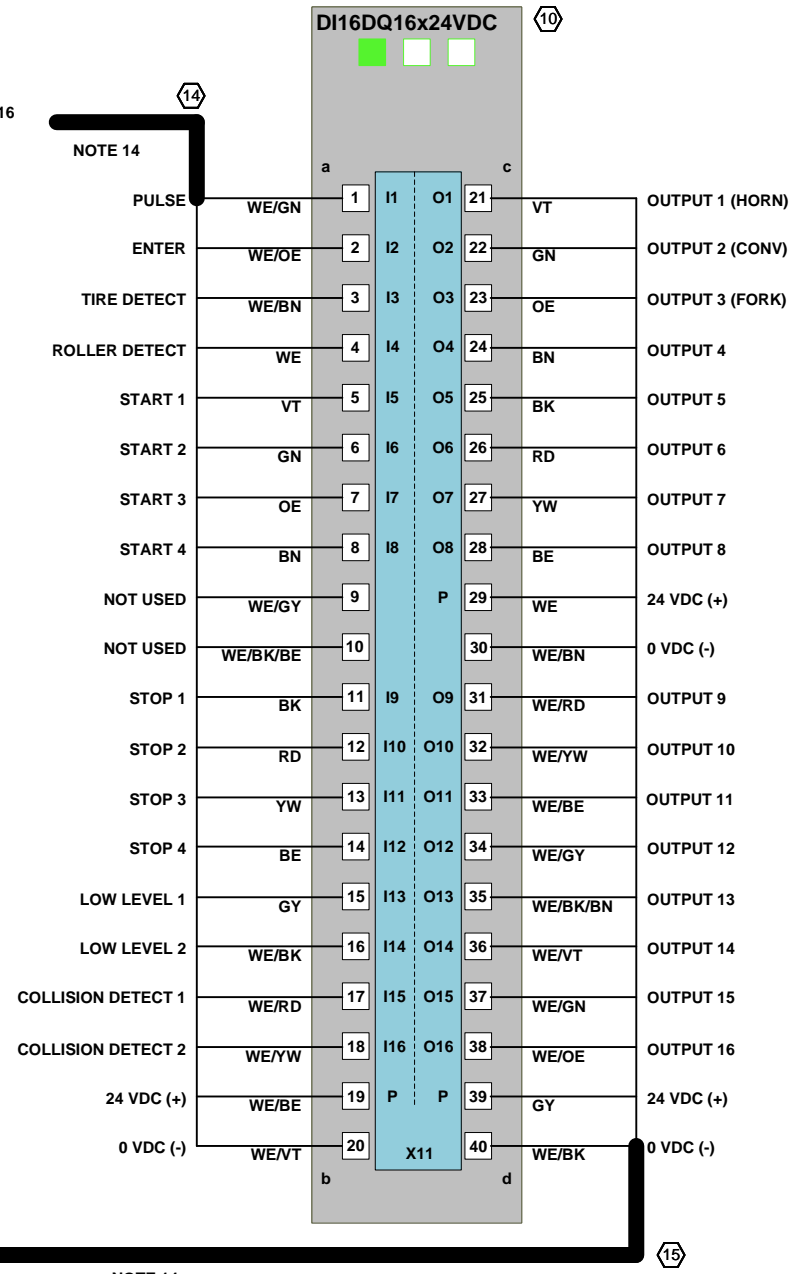
SLOT2

Page 11 of 36



24 VDC
PG 6, 8

INPUTS 1-16
PG 11



24 VAC HOT
WIRED TO TERMINAL C
ON ALL CHANNELS
PG 7

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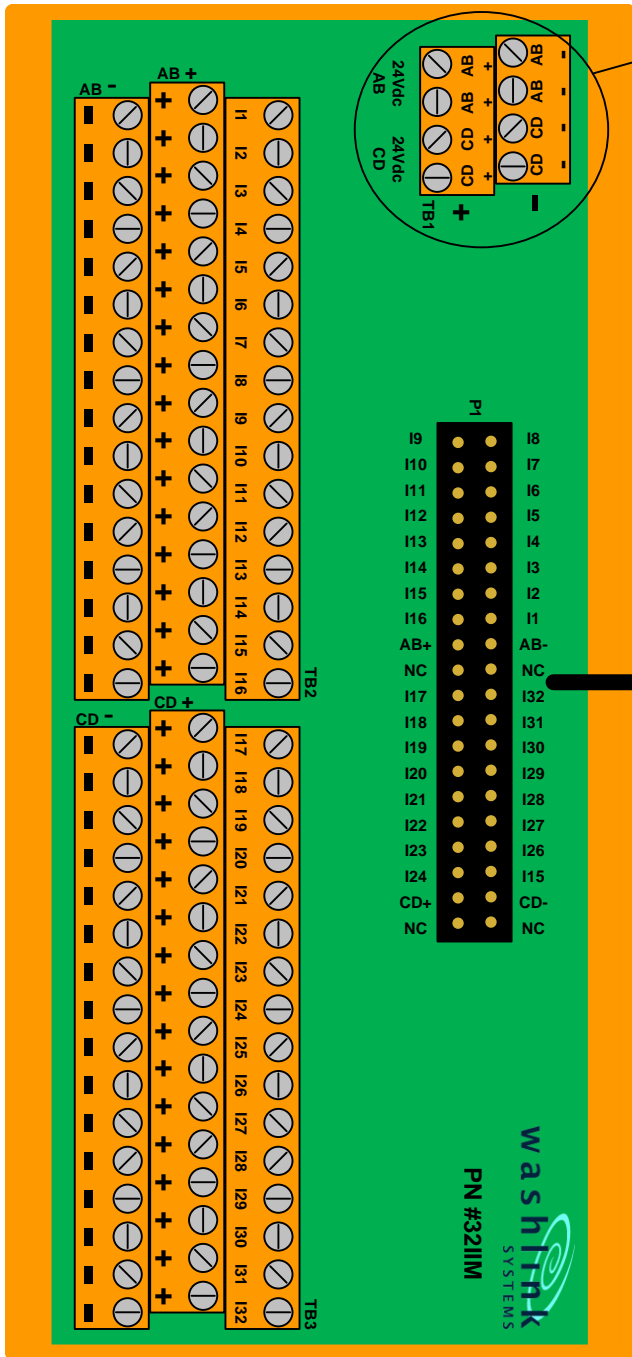
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CHECKED BY: SRH			
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NOT TO SCALE

NOTE 9
NOTE 10

- PULSE → I1
- ENTER → I2
- TIRE DETECT → I3
- ROLLER DETECT → I4
- START 1 → I5
- START 2 → I6
- START 3 → I7
- START 4 → I8
- STOP 1 → I9
- STOP 2 → I10
- STOP 3 → I11
- STOP 4 → I12
- LOW LEVEL 1 → I13
- LOW LEVEL 2 → I14
- COLLISION DETECT 1 → I15
- COLLISION DETECT 2 → I16
- SEND ROLLER → I17
- CLEAR CURRENT PK/OP → I18
- SEND PACKAGE → I19
- WETDOWN REQUEST → I20
- PACKAGE 1 → I21
- PACKAGE 2 → I22
- PACKAGE 3 → I23
- PACKAGE 4 → I24
- PACKAGE 5 → I25
- PACKAGE 6 → I26
- OPTION 1 → I27
- OPTION 2 → I28
- OPTION 3 → I29
- OPTION 4 → I30
- OPTION 5 → I31
- CONV LOW AIR PRESS → I32

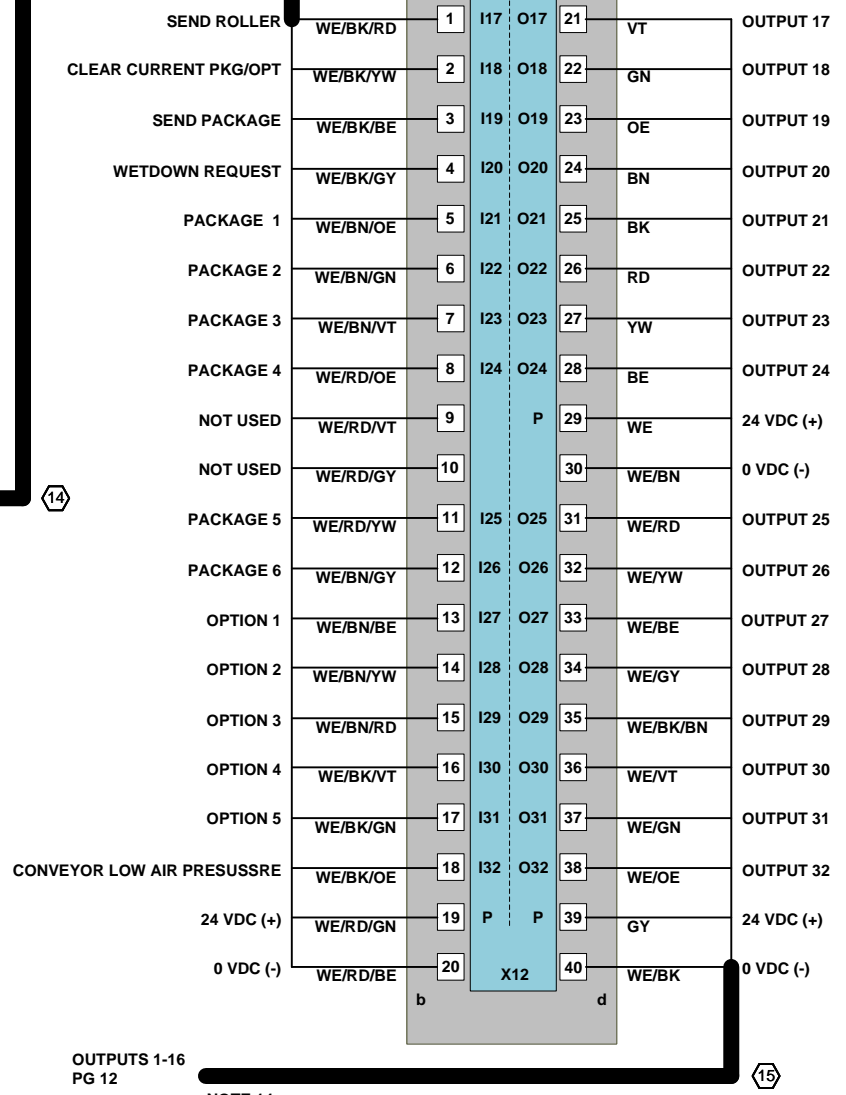
INPUTS 1-16
PG 11



24 VDC
PG 6, 8

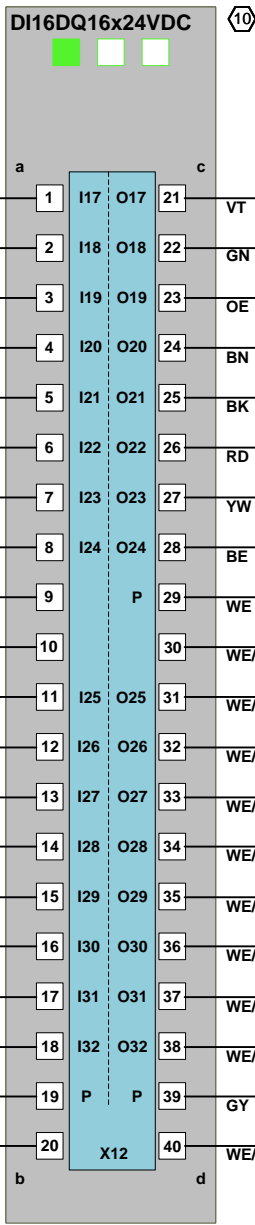


NOTE 14



OUTPUTS 1-16
PG 12

NOTE 14

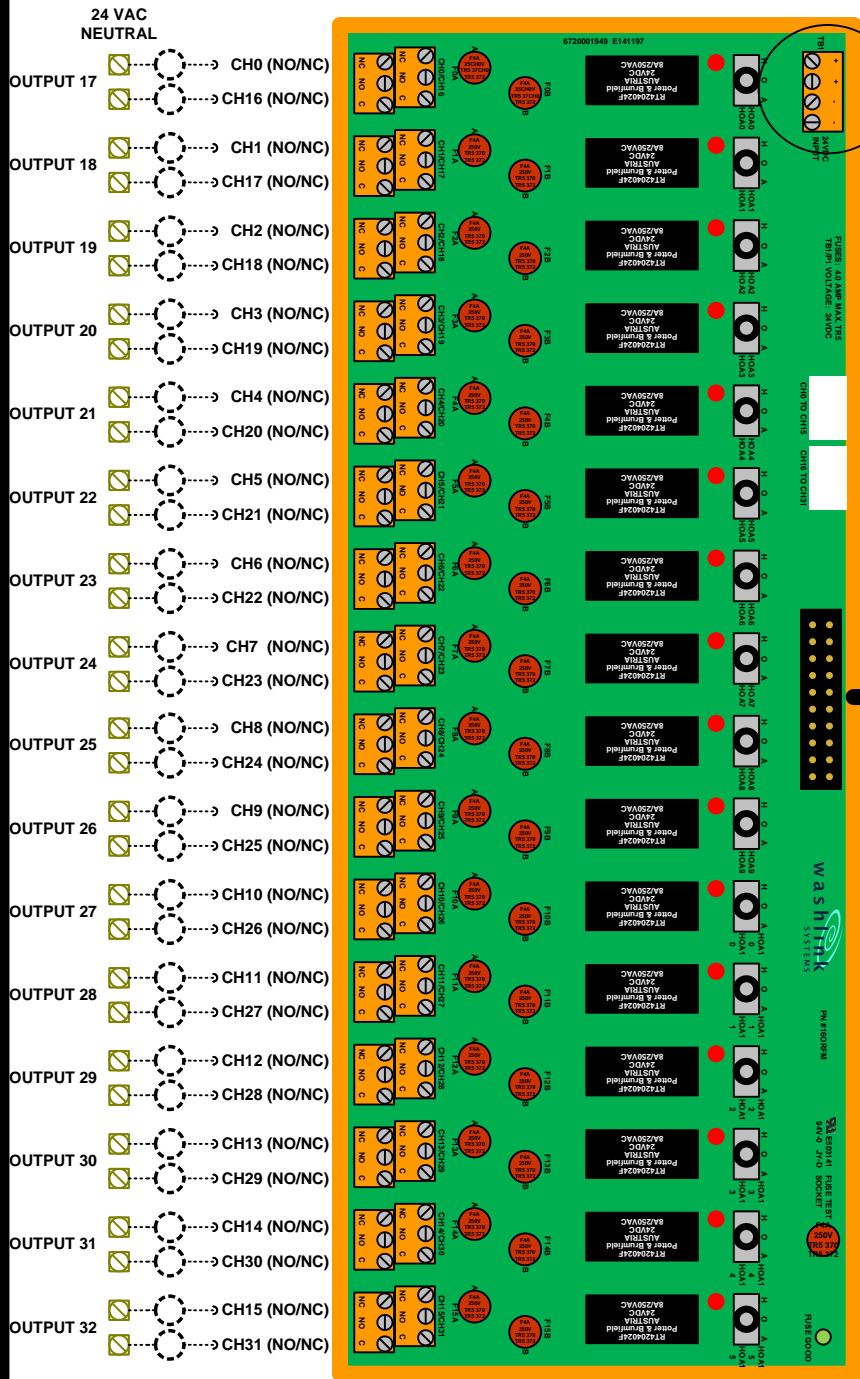


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PAGE DESCRIPTION:
PLC
Input 17-32

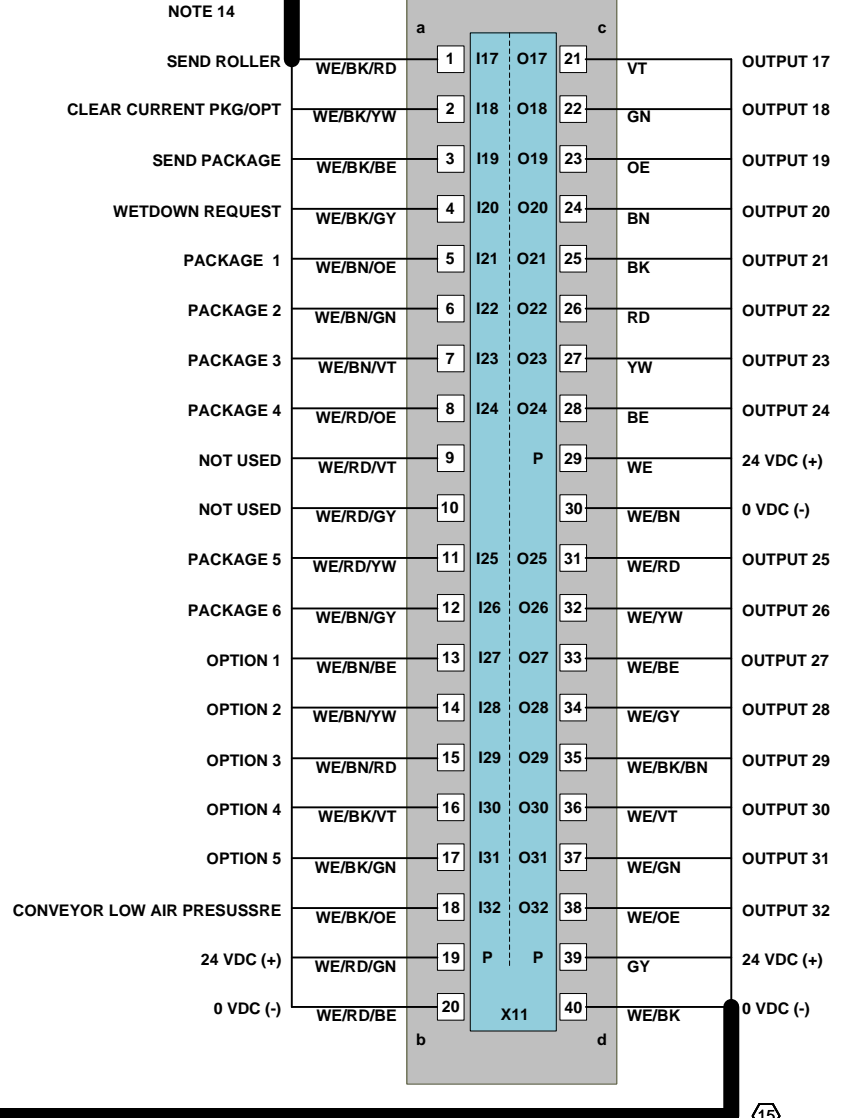
SLOT3
Page 13 of 36



24 VAC HOT
WIRED TO TERMINAL C
ON ALL CHANNELS
PG 7

24 VDC
PG 6, 8

INPUTS 17-32
PG 13



NOTE 14

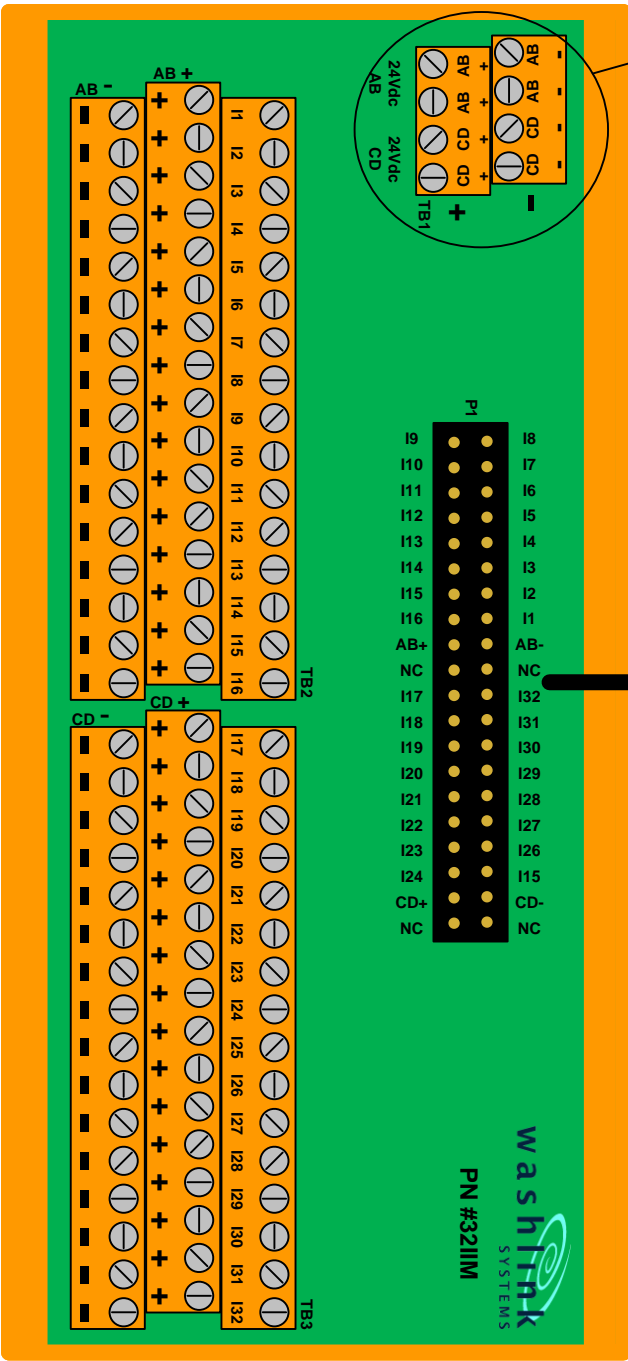
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REV	DATE	PAGE DESCRIPTION: PLC Output 17-32	SLOT3
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DRAWN DATE: 4/24/2020			

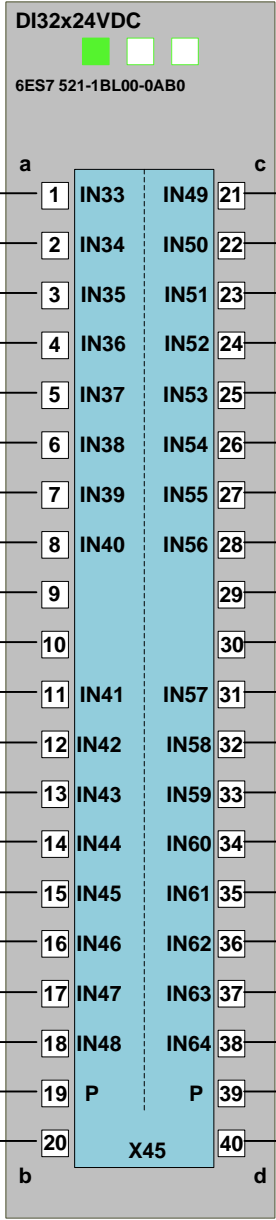
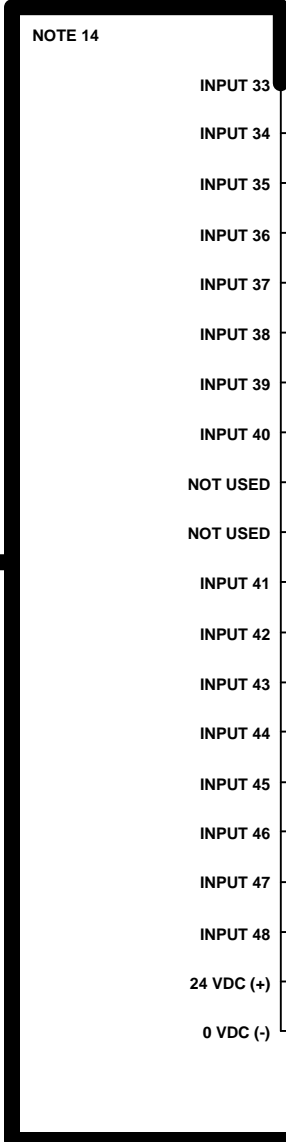
Page 14 of 36

- INPUT 33 → I1
- INPUT 34 → I2
- INPUT 35 → I3
- INPUT 36 → I4
- INPUT 37 → I5
- INPUT 38 → I6
- INPUT 39 → I7
- INPUT 40 → I8
- INPUT 41 → I9
- INPUT 42 → I10
- INPUT 43 → I11
- INPUT 44 → I12
- INPUT 45 → I13
- INPUT 46 → I14
- INPUT 47 → I15
- INPUT 48 → I16

- INPUT 49 → I17
- INPUT 50 → I18
- INPUT 51 → I19
- INPUT 52 → I20
- INPUT 53 → I21
- INPUT 54 → I22
- INPUT 55 → I23
- INPUT 56 → I24
- INPUT 57 → I25
- INPUT 58 → I26
- INPUT 59 → I27
- INPUT 60 → I28
- INPUT 61 → I29
- INPUT 62 → I30
- INPUT 63 → I31
- INPUT 64 → I32



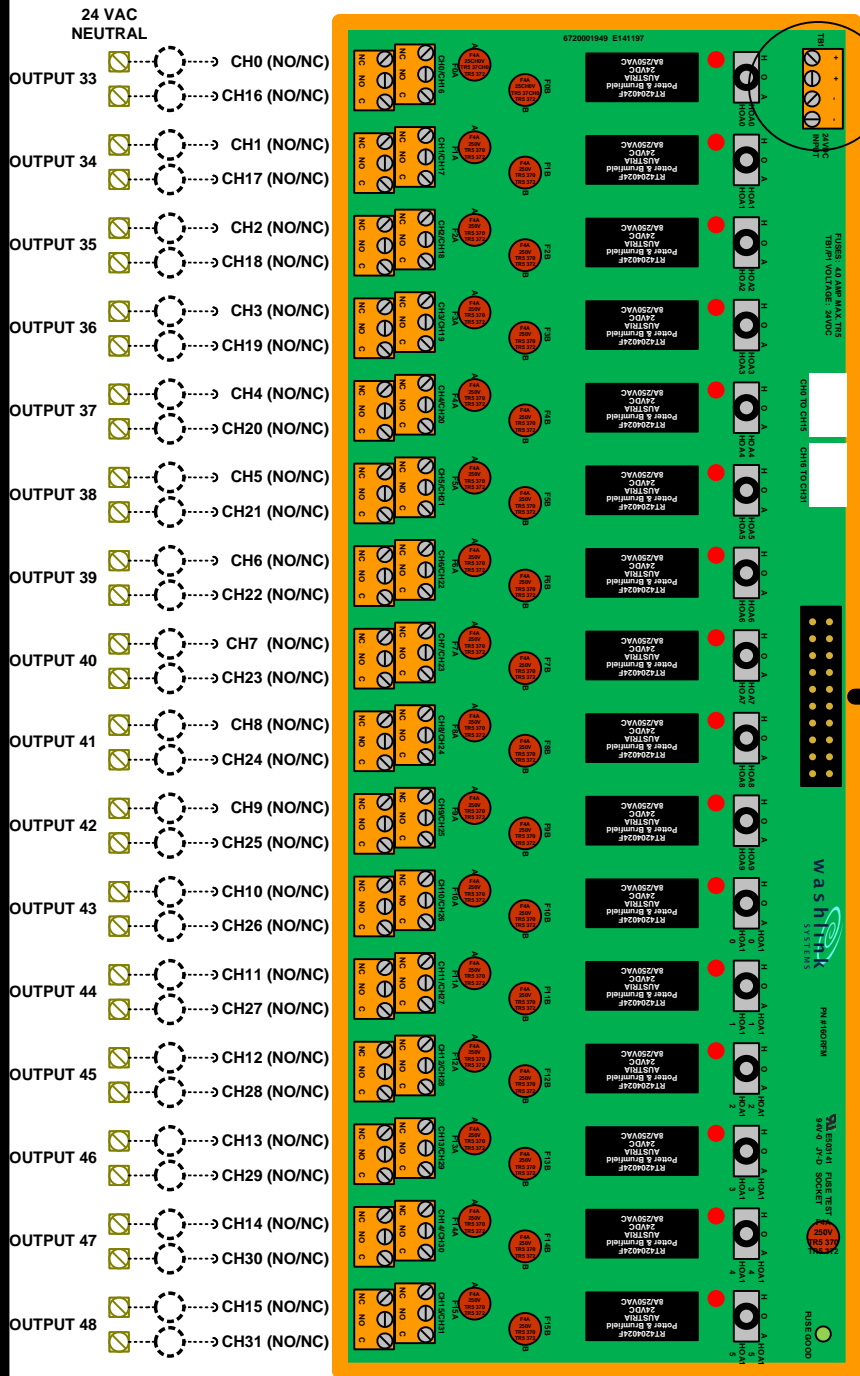
24 VDC
PG 6, 8



NOTE 14

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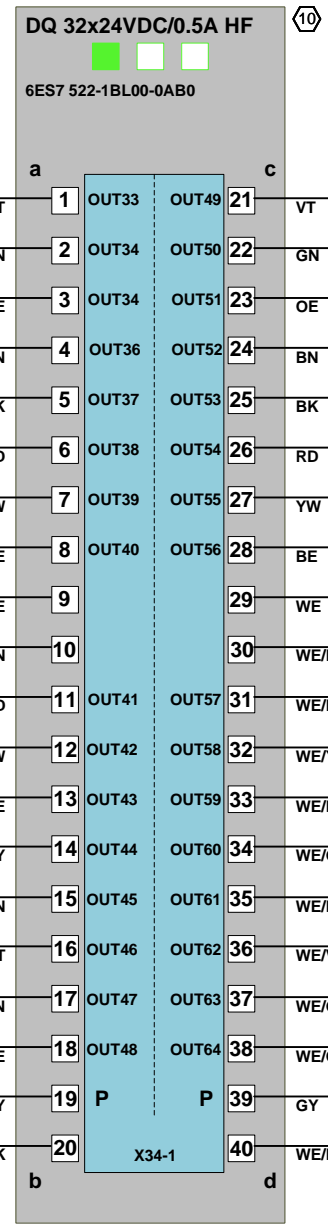
REV	DATE	PAGE DESCRIPTION: PLC Input 33-64	SLOT4 Page 15 of 36
1.0.5	4/24/2020		
DRAWN BY: MTS			
CHECKED BY: SRH			
DRAWN DATE: 4/24/2020			



24 VDC
PG 6, 8

NOTE 14

14



OUTPUT 33	VT	1	OUT33	OUT49	21	VT	OUTPUT 49
OUTPUT 34	GN	2	OUT34	OUT50	22	GN	OUTPUT 50
OUTPUT 35	OE	3	OUT34	OUT51	23	OE	OUTPUT 51
OUTPUT 36	BN	4	OUT36	OUT52	24	BN	OUTPUT 52
OUTPUT 37	BK	5	OUT37	OUT53	25	BK	OUTPUT 53
OUTPUT 38	RD	6	OUT38	OUT54	26	RD	OUTPUT 54
OUTPUT 39	YW	7	OUT39	OUT55	27	YW	OUTPUT 55
OUTPUT 40	BE	8	OUT40	OUT56	28	BE	OUTPUT 56
NOT USED	WE	9			29	WE	24 VDC (+)
NOT USED	WE/BN	10			30	WE/BN	0 VDC (-)
OUTPUT 41	WE/RD	11	OUT41	OUT57	31	WE/RD	OUTPUT 57
OUTPUT 42	WE/YW	12	OUT42	OUT58	32	WE/YW	OUTPUT 58
OUTPUT 43	WE/BE	13	OUT43	OUT59	33	WE/BE	OUTPUT 59
OUTPUT 44	WE/GY	14	OUT44	OUT60	34	WE/GY	OUTPUT 60
OUTPUT 45	WE/BK/BN	15	OUT45	OUT61	35	WE/BK/BN	OUTPUT 61
OUTPUT 46	WE/VT	16	OUT46	OUT62	36	WE/VT	OUTPUT 62
OUTPUT 47	WE/GN	17	OUT47	OUT63	37	WE/GN	OUTPUT 63
OUTPUT 48	WE/OE	18	OUT48	OUT64	38	WE/OE	OUTPUT 64
24 VDC (+)	GY	19	P	P	39	GY	24 VDC (+)
0 VDC (-)	WE/BK	20		X34-1	40	WE/BK	0 VDC (-)

OUTPUTS 49-64
PG 17

NOTE 14

15

24 VAC HOT
WIRED TO TERMINAL C
ON ALL CHANNELS
PG 7

16



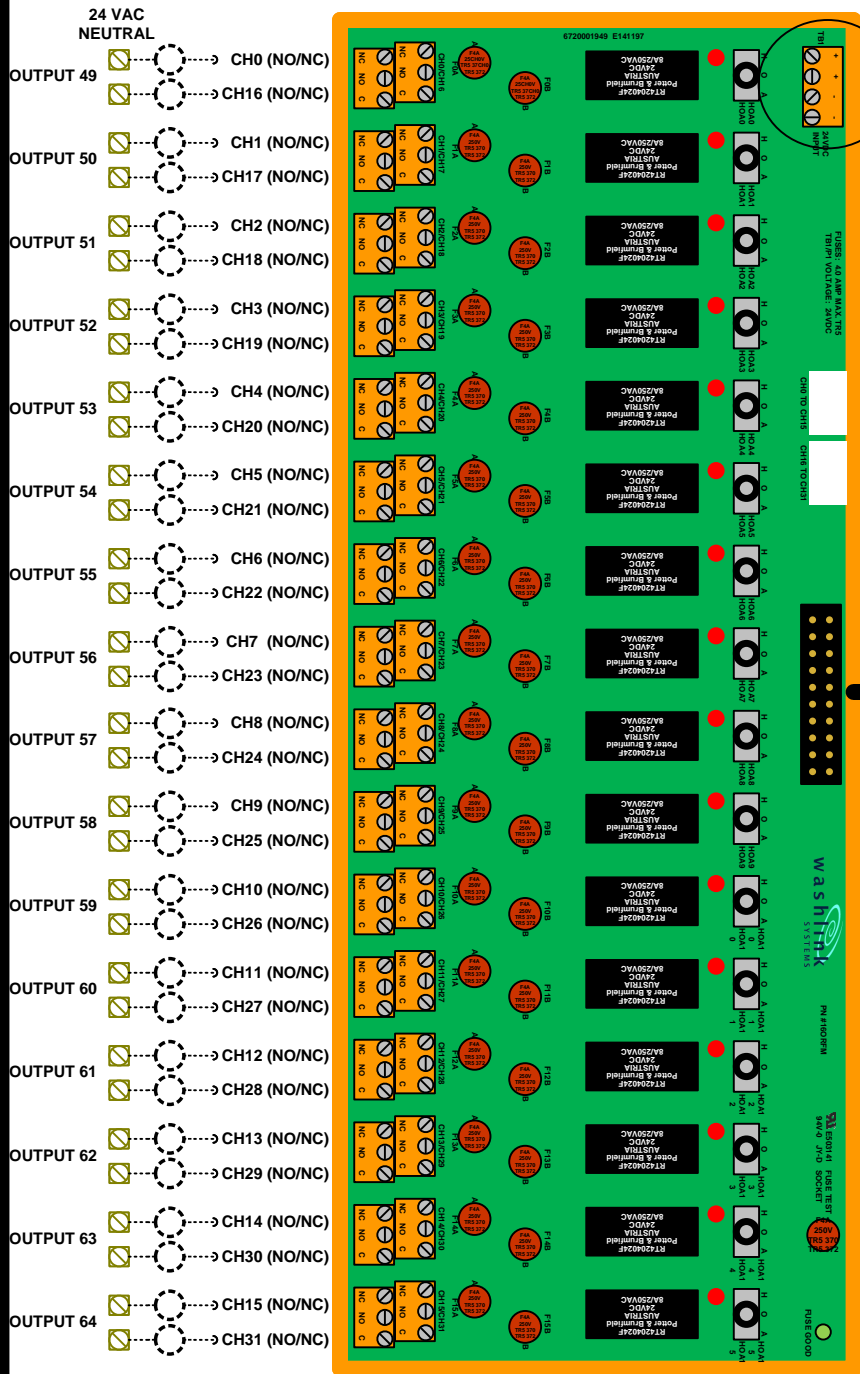
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PAGE DESCRIPTION:
PLC
Output 33-48

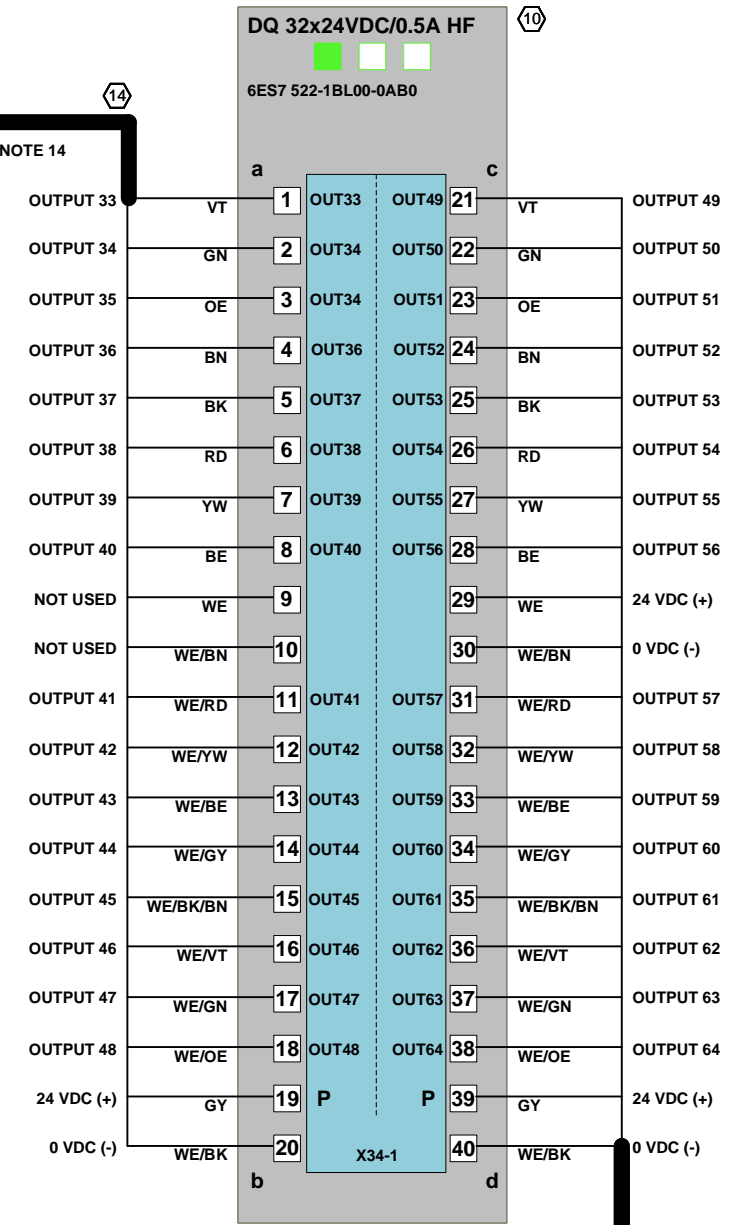
SLOT5

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OUTPUTS 33-48
PG 16

NOTE 14

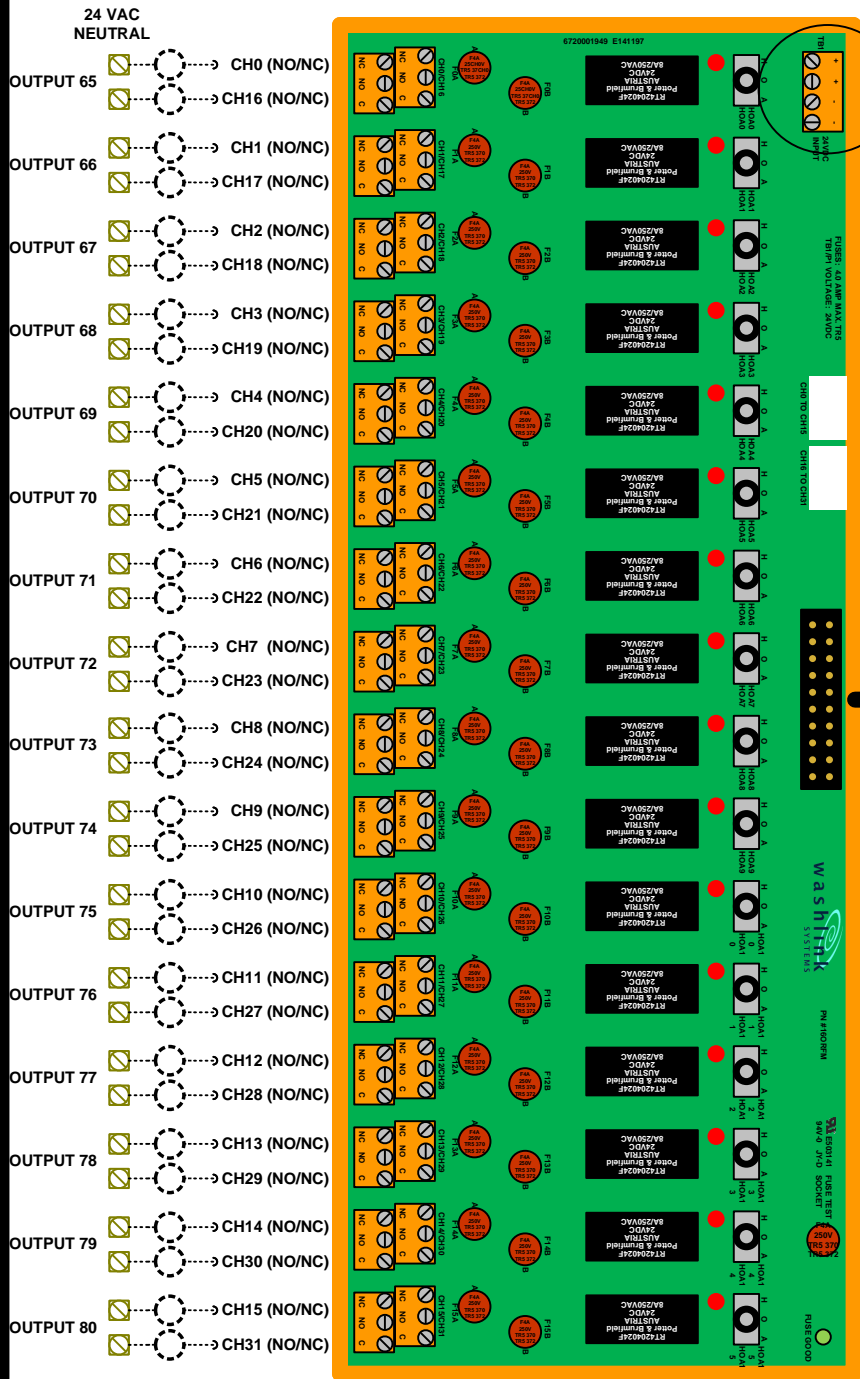


NOTE 14

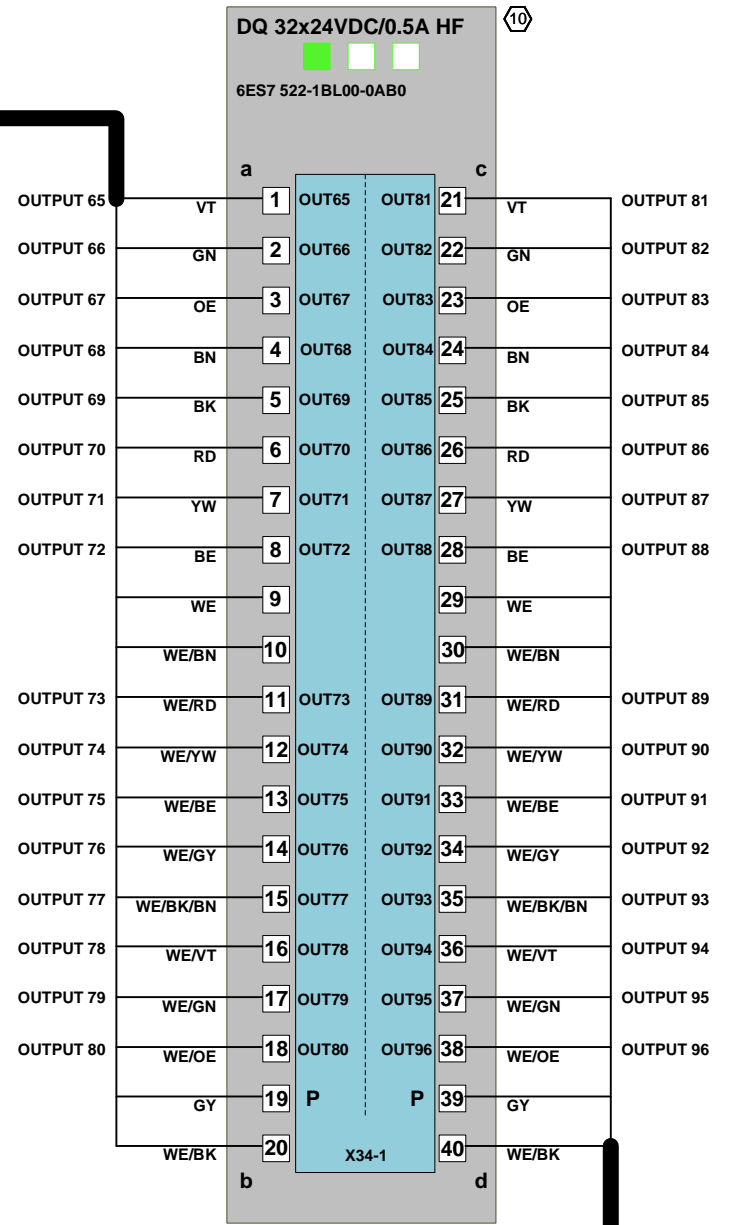
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NOTE 14



NOTE 14



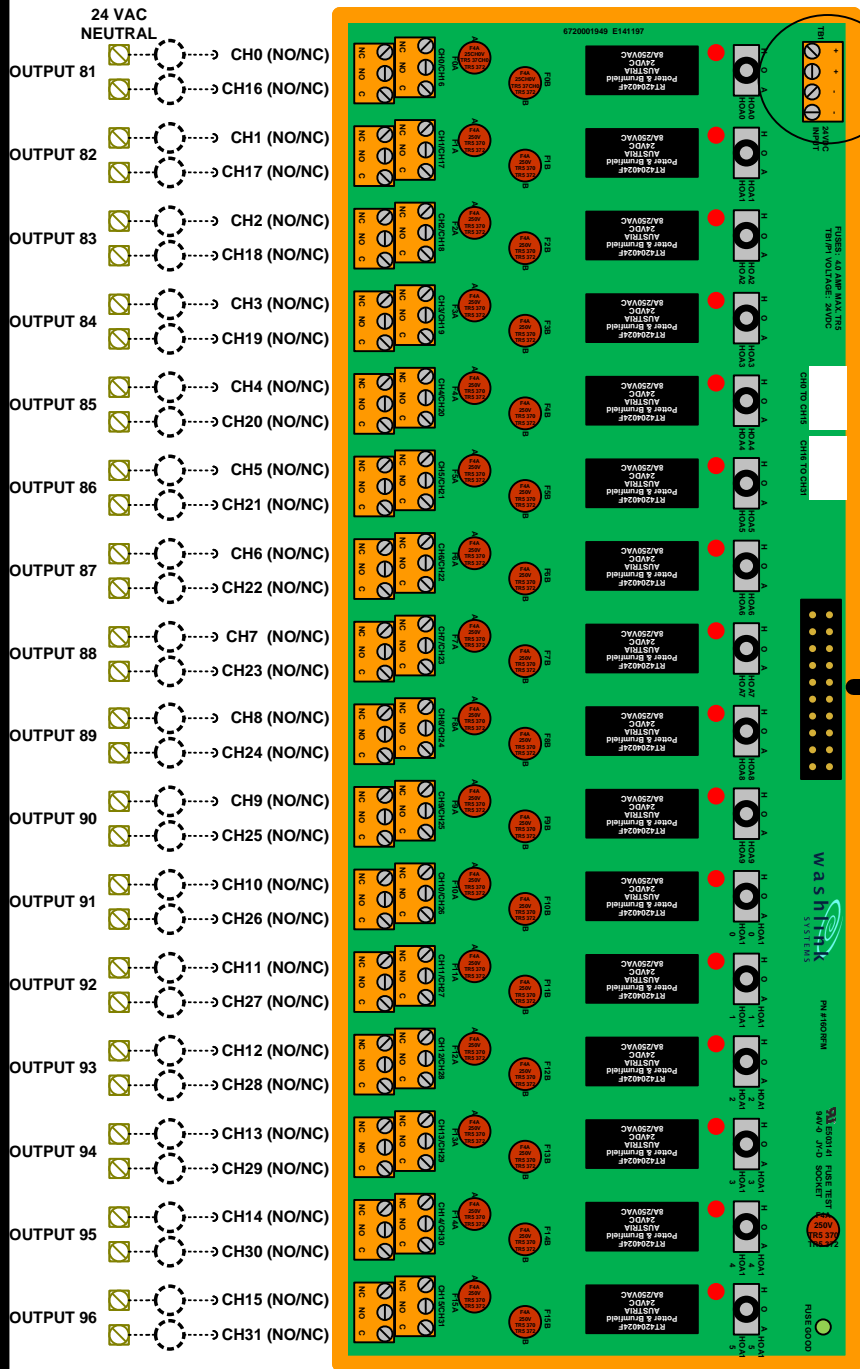
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1.0.5	4/24/2020
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DRAWN DATE: 4/24/2020	

PAGE DESCRIPTION:
PLC
Output 65-80

SLOT6

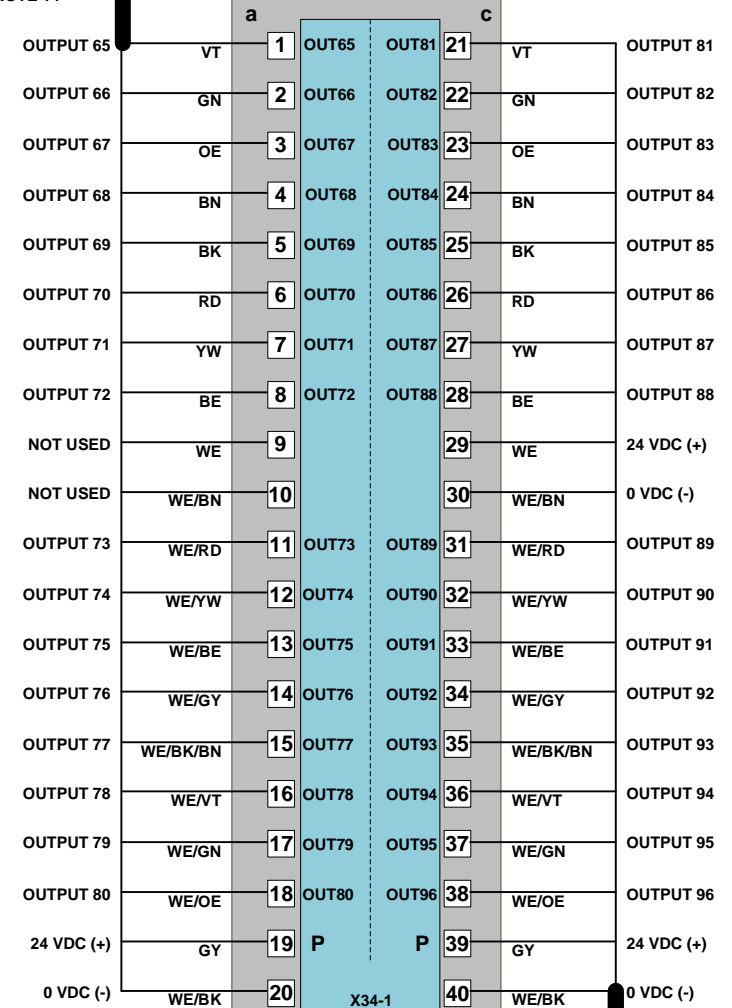
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24 VAC HOT
WIRED TO TERMINAL C
ON ALL CHANNELS
PG 7

OUTPUTS 65-80
PG 18

NOTE 14



NOTE 14

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SYSTEMS

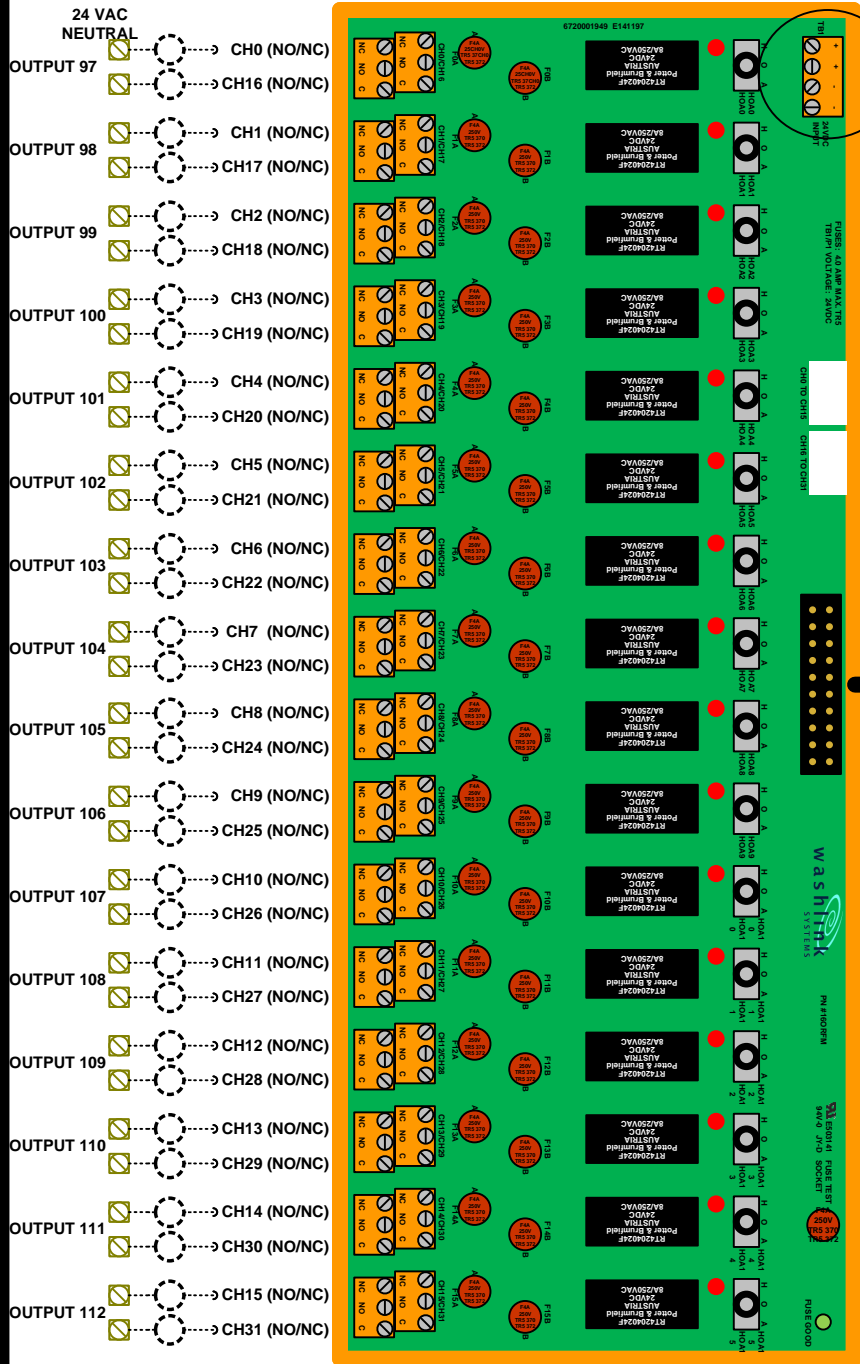
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1.0.5	4/24/2020
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PAGE DESCRIPTION:
PLC
Output 81-96

SLOT6

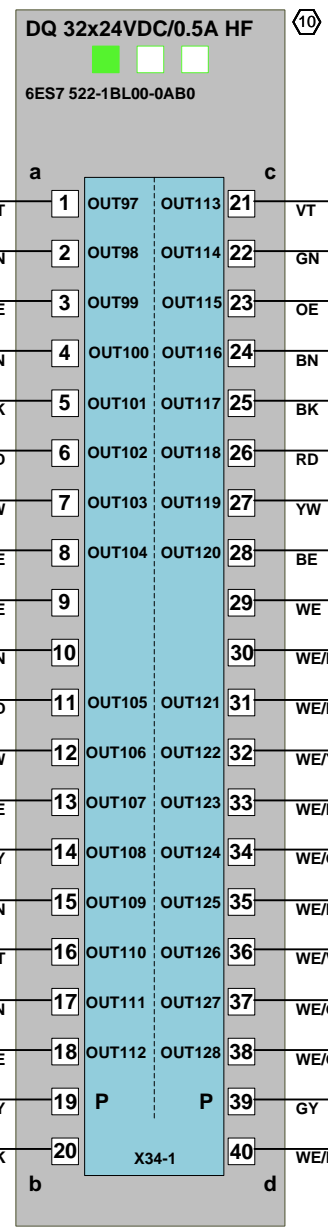
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24 VAC HOT
WIRED TO TERMINAL C
ON ALL CHANNELS
PG 7

NOTE 14

14



OUTPUTS 113-128
PG 21

NOTE 14

15



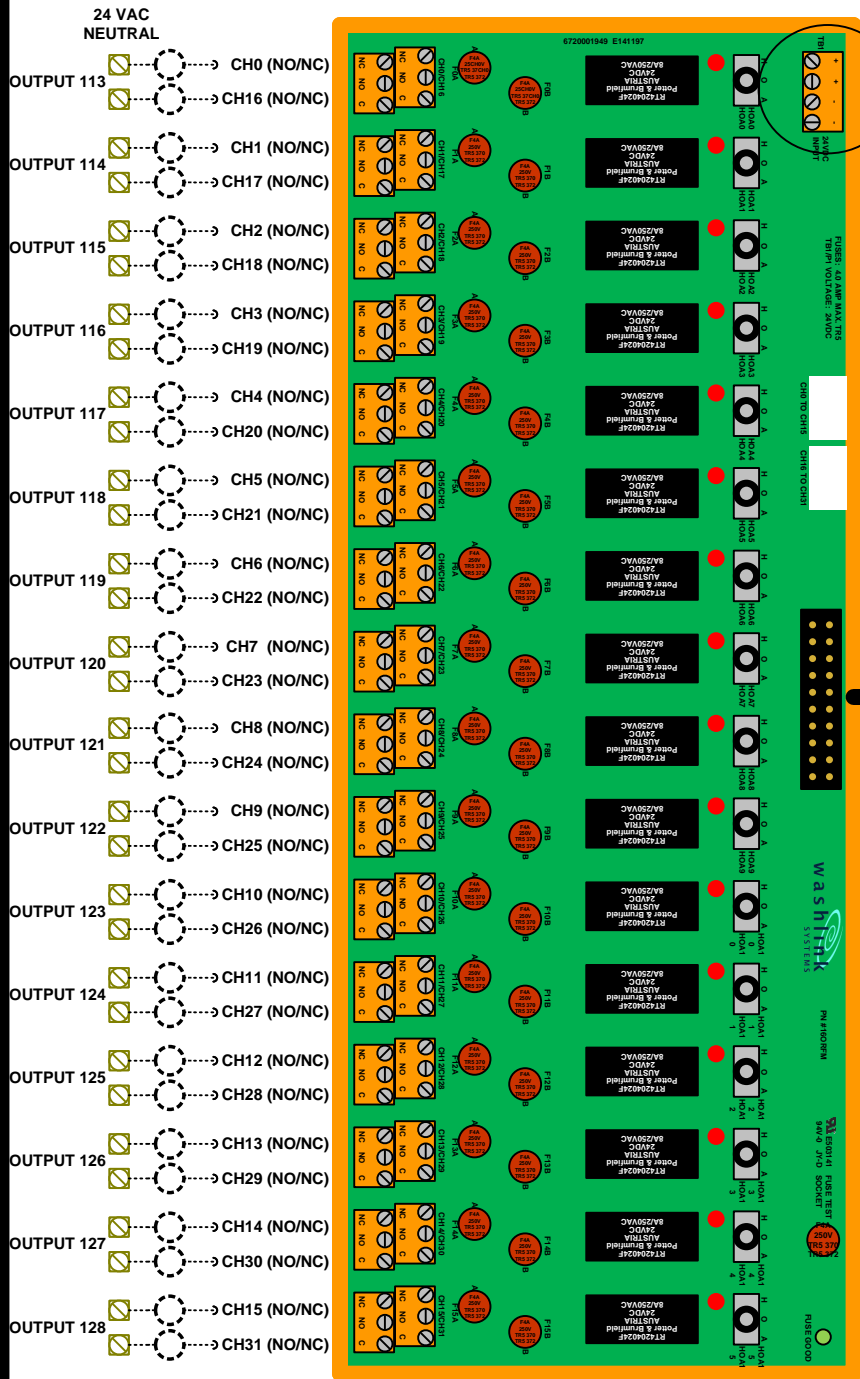
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1.0.5	4/24/2020
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PAGE DESCRIPTION:
PLC
Output 97-112

SLOT7

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OUTPUTS 97-112
PG 20

NOTE 14

	a		c	
OUTPUT 97	VT 1	OUT97	OUT113 21	VT OUTPUT 113
OUTPUT 98	GN 2	OUT98	OUT114 22	GN OUTPUT 114
OUTPUT 99	OE 3	OUT99	OUT115 23	OE OUTPUT 115
OUTPUT 100	BN 4	OUT100	OUT116 24	BN OUTPUT 116
OUTPUT 101	BK 5	OUT101	OUT117 25	BK OUTPUT 117
OUTPUT 102	RD 6	OUT102	OUT118 26	RD OUTPUT 118
OUTPUT 103	YW 7	OUT103	OUT119 27	YW OUTPUT 119
OUTPUT 104	BE 8	OUT104	OUT120 28	BE OUTPUT 120
NOT USED	WE 9		29	WE 24 VDC (+)
NOT USED	WE/BN 10		30	WE/BN 0 VDC (-)
OUTPUT 105	WE/RD 11	OUT105	OUT121 31	WE/RD OUTPUT 121
OUTPUT 106	WE/YW 12	OUT106	OUT122 32	WE/YW OUTPUT 122
OUTPUT 107	WE/BE 13	OUT107	OUT123 33	WE/BE OUTPUT 123
OUTPUT 108	WE/GY 14	OUT108	OUT124 34	WE/GY OUTPUT 124
OUTPUT 109	WE/BK/BN 15	OUT109	OUT125 35	WE/BK/BN OUTPUT 125
OUTPUT 110	WE/VT 16	OUT110	OUT126 36	WE/VT OUTPUT 126
OUTPUT 111	WE/GN 17	OUT111	OUT127 37	WE/GN OUTPUT 127
OUTPUT 112	WE/OE 18	OUT112	OUT128 38	WE/OE OUTPUT 128
24 VDC (+)	GY 19	P	P 39	GY 24 VDC (+)
0 VDC (-)	WE/BK 20		40	WE/BK 0 VDC (-)

X34-1

NOTE 14

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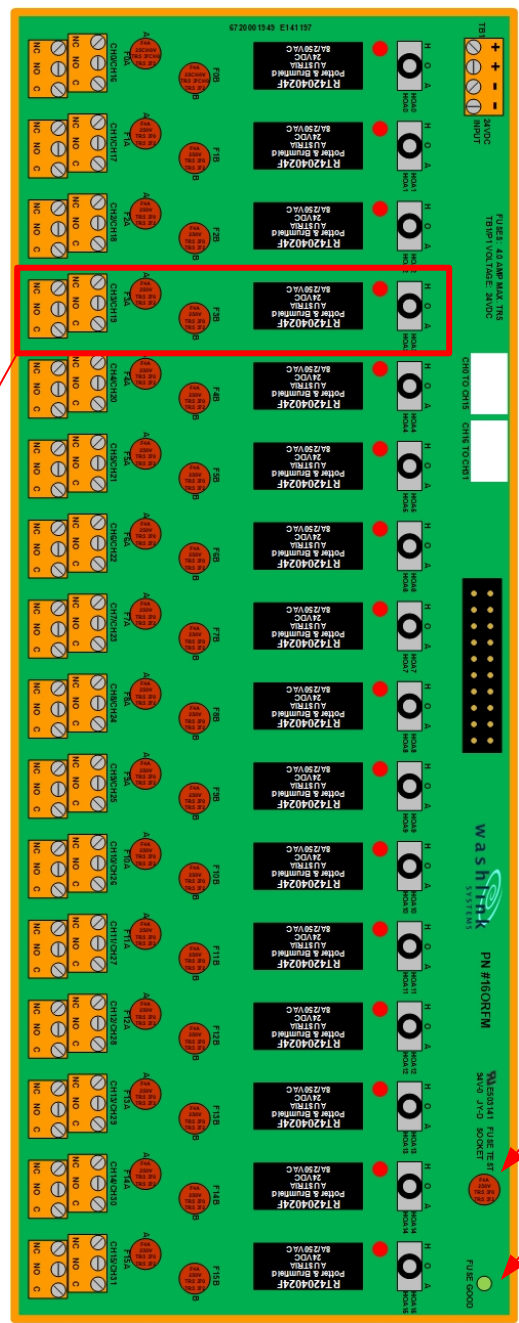
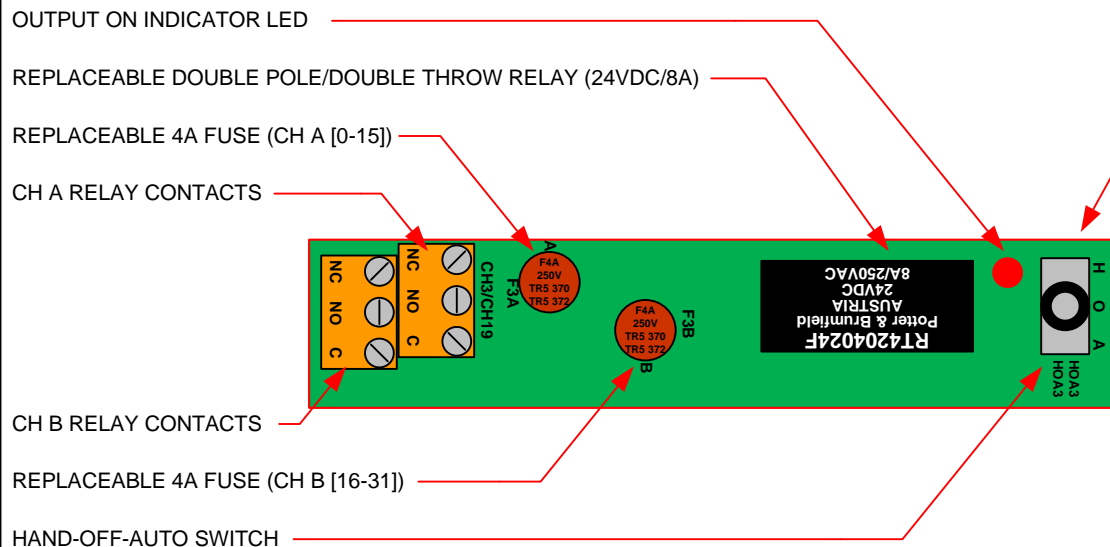
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PAGE DESCRIPTION:
DETAIL
INPUT BOARD (TYPICAL)

DETAIL
Page 22 of 36

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FUSE TEST SOCKET

FUSE GOOD LED



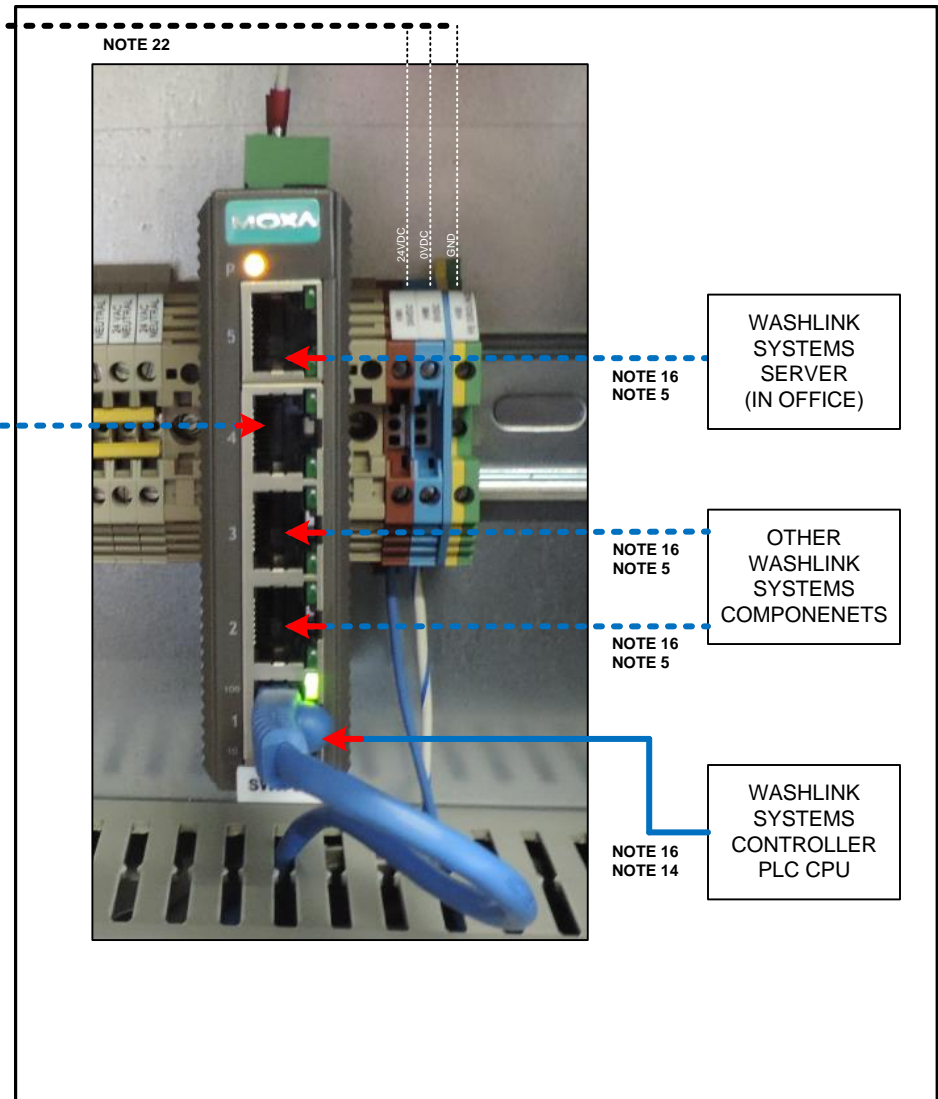
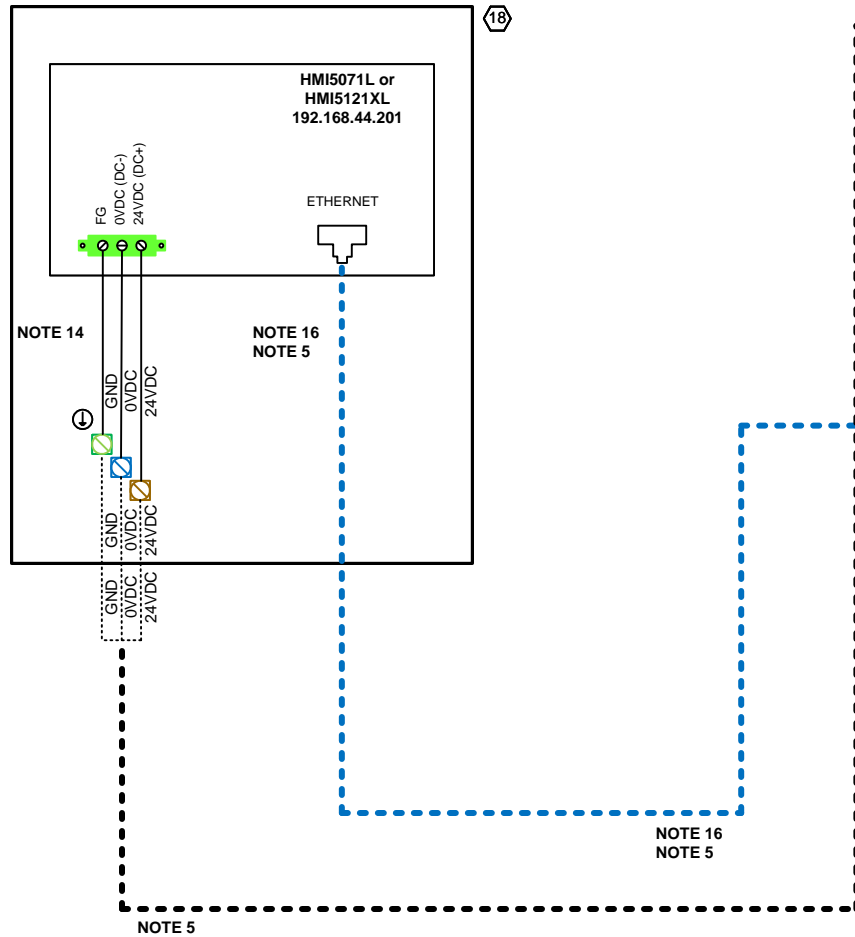
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DETAIL
 OUTPUT BOARD (TYPICAL)

WASHLINK SYSTEMS TOUCH SCREEN

WASHLINK SYSTEMS EQUIPMENT CONTROLLER



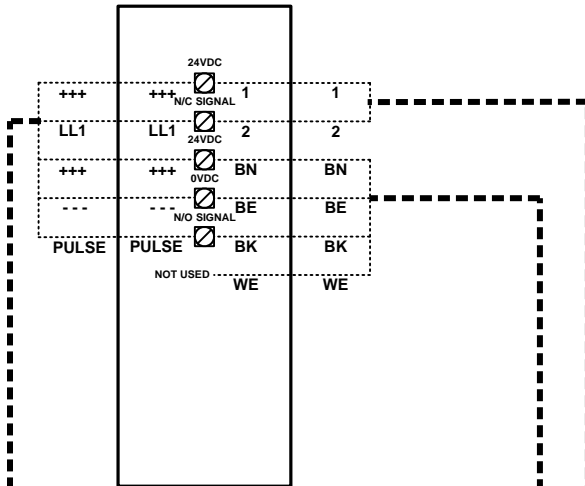
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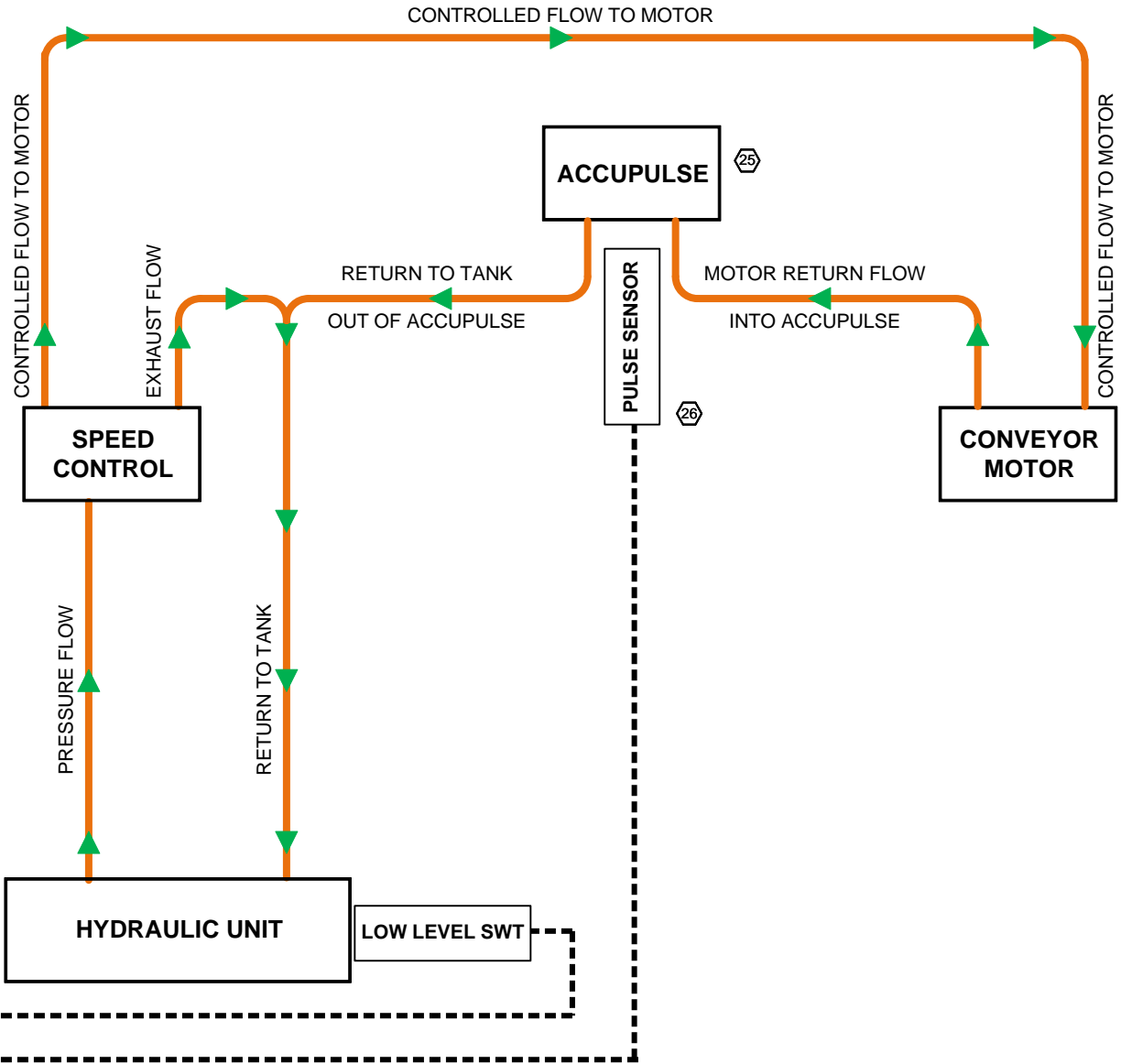
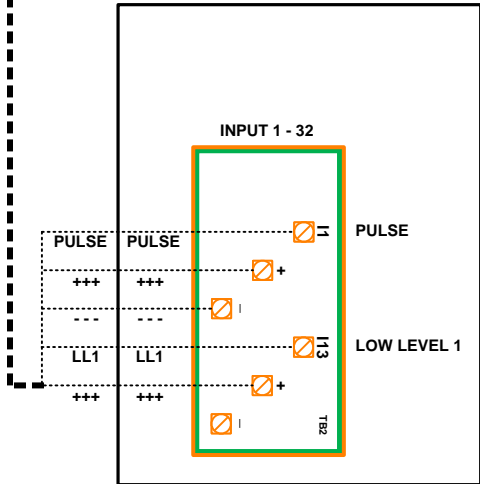
PAGE DESCRIPTION:
FIELD PARTS
TUNNEL TOUCHSCREEN INTERFACE

FIELD

FIELD MOUNTED J-BOX



WASHLINK EQUIPMENT CONTROLLER



CUSTOMER SUPPLIED HYDRAULIC HOSE & FITTINGS —————



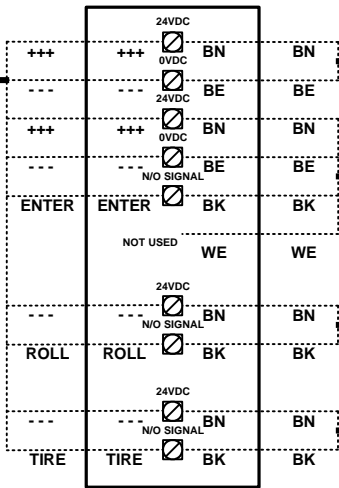
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FIELD PARTS
ACCUPULSE PLUMBING & WIRING

FIELD
Page 25 of 36

FIELD MOUNTED J-BOX

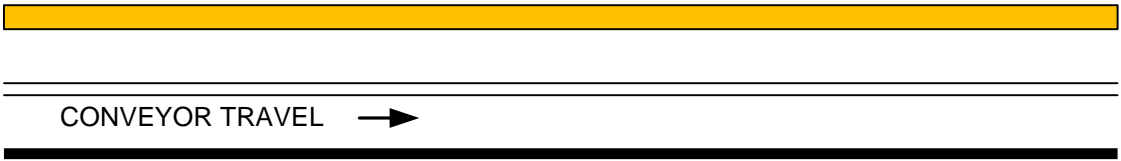


NOTE 20

NOTE 20

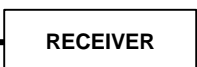
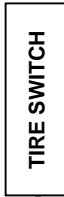


EMITTER PHOTO EYE
MOUNTED 16" (40cm) FROM FLOOR SURFACE



CONVEYOR TRAVEL →

SYSTEM CENTERLINE

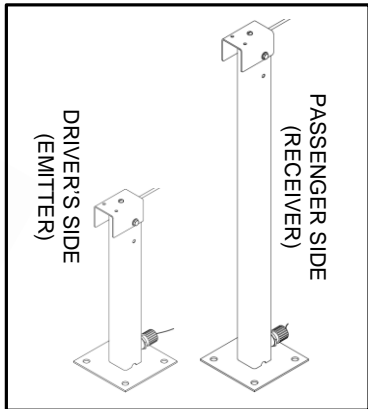
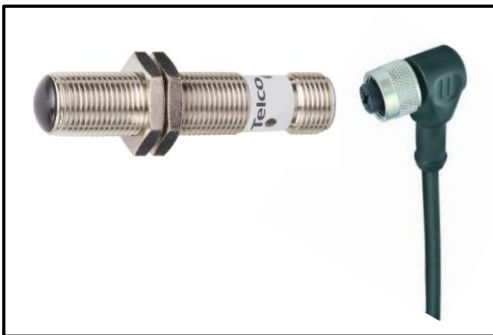
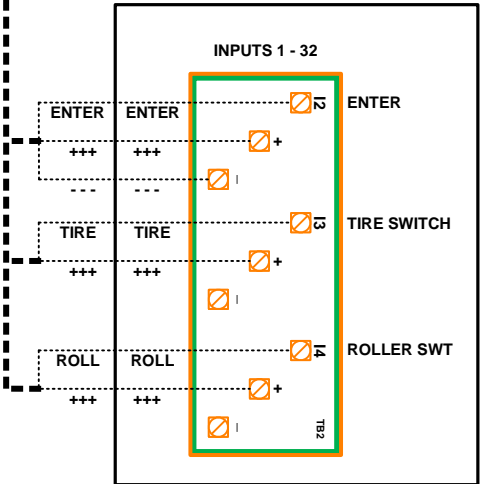


NOTE:
WHEN MOUNTING PHOTO EYES,
OFFSET PHOTO EYES 4" (10cm)
FROM ENTRANCE OF CONVEYOR



RECEIVER PHOTO EYE
MOUNTED 30" (75cm) FROM FLOOR SURFACE

WASHLINK EQUIPMENT CONTROLLER

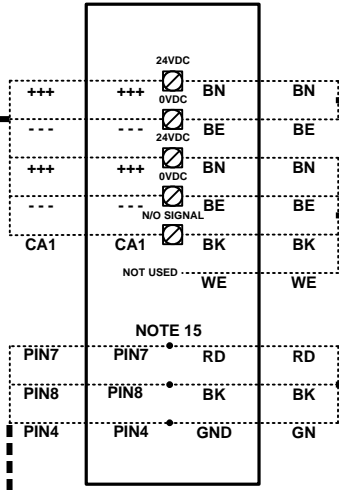


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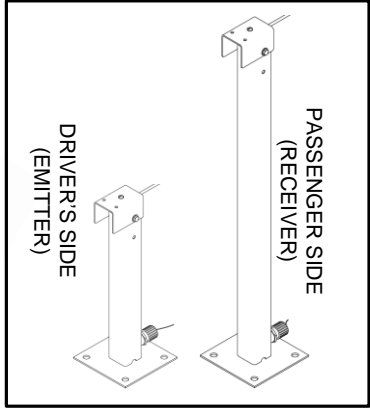
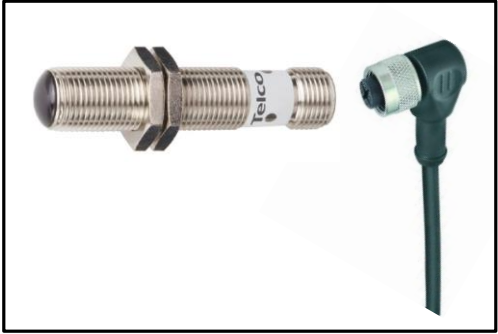
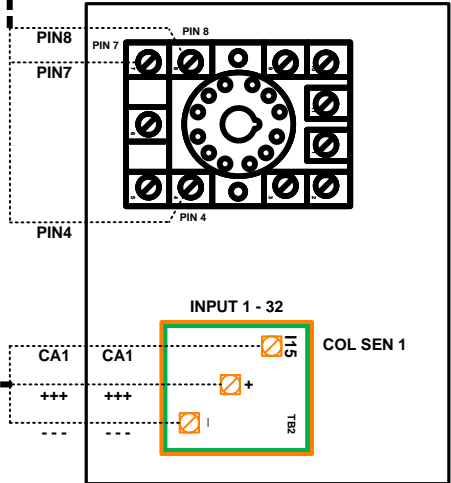
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PAGE DESCRIPTION:
FIELD PARTS
ENTER/TIRE/ROLLER SWT WIRING

FIELD MOUNTED J-BOX



WASHLINK EQUIPMENT CONTROLLER



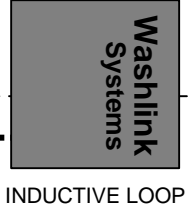
EMITTER PHOTO EYE
MOUNTED 16" (40cm) FROM FLOOR SURFACE



66" (165cm) 36" (90cm)



72-90"
(180-230cm)



SYSTEM CENTERLINE

36" (90cm)

FRONT EDGE OF TRAPDOOR



70" (175cm)

RECEIVER PHOTO EYE
MOUNTED 30" (75cm) FROM FLOOR SURFACE

NOTE 15



CAUTION! DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY. INCREASE THE DISTANCE BETWEEN CARS BEFORE STOPPAGE BY INCREASING THE DISTANCE BETWEEN THE SENSOR LOCATIONS. DECREASE THE DISTANCE BETWEEN CARS BEFORE STOPPAGE BY DECREASING THE DISTANCE BETWEEN THE SENSOR LOCATIONS.



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PAGE DESCRIPTION:
FIELD PARTS
COLLISION AVD MOUNTING & WIRING

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	wm603610nc	RITTAL WALLMOUNT ENCLOSURE FOR 80 – 128 OUTPUT CONTROLLER
2	1	wm423008nc/8017558	RITTAL WALLMOUNT ENCLOSURE FOR 48 – 64 OUTPUT CONTROLLER
3	1	wm302008nc/8017551	RITTAL WALLMOUNT ENCLOSURE FOR 32 OUTPUT CONTROLLER
4	-	-	-
5	-	-	-
6	-	-	-
7	1	slposbase	WASHLINK SYSTEMS SERVER
8	1	6es7512-1ck01-0ab0	SIEMENS PLC CPU
9	1	6es7532-5hf00-0ab0	SIEMENS PLC ANALOG INPUT x4
10	1	6es7512-1ck01-0ab0	SIEMENS PLC 16 INPUT / 16 OUTPUT
11	1	6es7521-1bl00-0ab0	SIEMENS PLC 32 INPUT
12	1	6es7522-1bl01-0ab0	SIEMENS PLC 32 OUTPUT
13	-	6720002074	WEIDMULLER PLC INPUT/OUTPUT INTERCONNECTION CABLE
14	1	6720002075	WEIDMULLER PLC INPUT/OUTPUT INTERCONNECTION CABLE
15	1	6720002076	WEIDMULLER PLC INPUT/OUTPUT INTERCONNECTION CABLE
16	1	32iim/6720001986	WEIDMULLER INPUT FIELD TERMINATION BOARD
17	1	16orf/6720001949	WEIDMULLER OUTPUT FIELD TERMINATION BOARD
18	1	hmi5071l	MAPLE SYSTEMS 7" HUMAN-MACHINE-INTERFACE (HMI) TOUCHSCREEN
19	1	smt3000hctbj	TELCO PHOTO ELECTRIC EMITTER
20	1	smr3306tbj	TELCO PHOTO ELECTRIC RECEIVER
21	1	iq80-60nup-kk0	SICK PROXIMITY SENSOR
22	1	ilpag	XXX MAGNETIC LOOP
23	1	usstspc	XXX ULTRASONIC EMITTER
24	-	-	-
25	1	1011001	WASHLINK SYSTEMS ACCU-PULSE HYDRAULIC MOTOR
26	1	ae1-ap-3a	WASHLINK SYSTEMS ACCU-PULSE PROXIMITY SENSOR
27	-	-	-
28	1	eds-205	MOXA 5-PORT ETHERNET SWITCH
29	-	1061200000	WEIDMULLER END BARRIER
30	1	1020040000	WEIDMULLER RED CONVENIENCE TERMINAL
31	1	1036800000	WEIDMULLER WHITE CONVENIENCE TERMINAL
32	1	1020080000	WEIDMULLER BLUE CONVENIENCE TERMINAL
33	1	1037710000	WEIDMULLER BROWN CONVENIENCE TERMINAL
34	1	1020010000	WEIDMULLER BLACK CONVENIENCE TERMINAL
35	1	1037700000	WEIDMULLER PURPLE CONVENIENCE TERMINAL
36	1	1020000000	WEIDMULLER TAN CONVENIENCE TERMINAL
37	-	1010000000	WEIDMULLER GROUNDING TERMINAL
38	-	1469490000	WEIDMULLER 240W 24V 10A POWER SUPPLY
39	-	2081820000	WEIDMULLER ELECTRONIC FUSE 4 CHANNEL
40	-	-	-
41	-	br1d6uc	WEIDMULLER SINGLE POLE CIRCUIT BREAKER 6A
42	-	br1d10uc	WEIDMULLER SINGLE POLE CIRCUIT BREAKER 10A



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PAGE DESCRIPTION:
BILL OF MATERIALS
ITEMIZED PARTS LIST

BOM

INPUTS 1-32

#	DEFAULT NAME	ACTUAL NAME	NOTES
1	PULSE		
2	ENTER		
3	TIRE DETECT		
4	ROLLER DETECT		
5	START 1		
6	START 2		
7	START 3		
8	START 4		
9	STOP 1		
10	STOP 2		
11	STOP 3		
12	STOP 4		
13	LOW LEVEL 1		
14	LOW LEVEL 2		
15	COLLISION 1		
16	COLLISION 2		
17	SEND ROLLER		
18	CLEAR PK/OPT		
19	SEND PACKAGE		
20	WETDOWN		
21	PACKAGE 1		
22	PACKAGE 2		
23	PACKAGE 3		
24	PACKAGE 4		
25	PACKAGE 5		
26	PACKAGE 6		
27	OPTION 1		
28	OPTION 2		
29	OPTION 3		
30	OPTION 4		
31	OPTION 5		
32	LOW CONV AIR		

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REV 1.0.5	DATE 20-04-22	PAGE DESCRIPTION: INSTALL NOTES THINGS THAT NEED TO BE REMEMBERED	NOTES Page 29 of 36
DRAWN BY: MTS CHECKED BY: SRH DRAWN DATE: 4/24/2020			

INPUTS 33-64

#	DEFAULT NAME	ACTUAL NAME	NOTES
33	INPUT 33		
34	INPUT 34		
35	INPUT 35		
36	INPUT 36		
37	INPUT 37		
38	INPUT 38		
39	INPUT 39		
40	INPUT 40		
41	INPUT 41		
42	INPUT 42		
43	INPUT 43		
44	INPUT 44		
45	INPUT 45		
46	INPUT 46		
47	INPUT 47		
48	INPUT 48		
49	INPUT 49		
50	INPUT 50		
51	INPUT 51		
52	INPUT 52		
53	INPUT 53		
54	INPUT 54		
55	INPUT 55		
56	INPUT 56		
57	INPUT 57		
58	INPUT 58		
59	INPUT 59		
60	INPUT 60		
61	INPUT 61		
62	INPUT 62		
63	INPUT 63		
64	INPUT 64		

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OUTPUT 1-32

#	NAME	ACTIVATED BY	LOCATION	NOTES
1				
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OUTPUT 33-64

#	NAME	ACTIVATED BY	LOCATION	NOTES
33				
34				
35				
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64				

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OUTPUT 65-96

#	NAME	ACTIVATED BY	LOCATION	NOTES
65				
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OUTPUT 97-128

#	NAME	ACTIVATED BY	LOCATION	NOTES
97				
98				
99				
100				
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128				

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