

CHAPTER

24

ELECTRICAL POWER

CHAPTER 24
ELECTRICAL POWER

CH-SC-SU	Schem	Page	Sheet	Date	CH-SC-SU	Schem	Page	Sheet	Date
24-EFFECTIVE PAGES					24-21-31		101		Jun 30/2009
		1 thru 3		Mar 07/2012					
		4		BLANK	24-21-51		101		Jun 30/2009
24-CONTENTS							101		Jun 30/2009
		1		Oct 05/2011	24-21-52				
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24-ALPHABETICAL INDEX					24-22-21		101		May 02/2008
		1		May 02/2008					
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24-00-00									
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A = Added, R = Revised, D = Deleted, O = Overflow

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24-28-11		101		Jun 30/2009	24-33-13		101		Jan 11/2006
		102		Jun 30/2009	24-34-11		101		Jun 30/2009
24-28-21		101		May 02/2008			102		Jun 30/2009
24-28-22		101		Jan 11/2006	24-41-11		101		Jun 30/2009
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		102		Jan 11/2006				1	Jun 30/2009
24-31-11		101		Jun 30/2009				2	Jun 30/2009
		102		Jun 30/2009	24-51-21		101	1	Jun 30/2009
24-31-12		101		Jun 30/2009			102	2	Jun 30/2009
24-32-11		101		Jun 30/2009				1	Jun 30/2009
		101		Jun 30/2009	24-52-11		101	2	Jun 30/2009
24-33-11		101		Jun 30/2009				1	Jun 30/2009
								2	Jun 30/2009
					24-53-11		101	1	Jun 30/2009

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24-53-11 (cont.)		101							
			2	May 02/2008					
24-54-11									
		101		Jun 30/2009					
24-61-11									
		101		May 02/2008					

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ELECTRICAL POWER**

Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
<u>ELECTRICAL POWER</u>						
ELECTRICAL POWER SIMPLIFIED	24-00-00		101		Jan 11/2006	YD001-YD006
			102		May 02/2008	YD007-YD020
ELECTRICAL POWER UNIT LOCATION	24-00-10		101		Jan 11/2006	YD001-YD006
			102		Jan 11/2006	YD007-YD020
<u>AC GENERATOR DRIVE SYSTEM</u>						
IDG NO. 1	24-11-11		101		Jun 30/2009	ALL
IDG NO. 2	24-11-21		101		Jun 30/2009	ALL
<u>AC GENERATION SYSTEM</u>						
GENERATOR POWER AND REGULATION - NO. 1	24-21-11		101		Oct 05/2011	ALL
GENERATOR POWER AND REGULATION - NO. 2	24-21-21		101		Oct 05/2011	ALL
GENERATOR POWER AND REGULATION - APU	24-21-31		101		Jun 30/2009	YD001-YD007
GENERATOR CONTROL UNITS BLOCK (G10, G12, G14)	24-21-51		101		Jun 30/2009	ALL
BUS POWER CONTROL UNIT BLOCK (G15)	24-21-52		101		Jun 30/2009	ALL
<u>AC GENERATION CONTROL SYSTEM</u>						
GENERATOR CONTROL UNIT NO.1	24-22-11		101		May 02/2008	ALL
GENERATOR CONTROL UNIT NO.2	24-22-21		101		May 02/2008	ALL
GENERATOR CONTROL UNIT APU	24-22-31		101		May 02/2008	ALL
<u>AC GENERATION BUS CONTROL</u>						
TRANSFER BUS CONTROL NO.1	24-23-11		101		May 02/2008	ALL
TRANSFER BUS CONTROL NO.2	24-23-21		101		Jan 11/2006	ALL
AC TIE BUS	24-23-31		101		Oct 05/2011	ALL
GROUND SERVICE BUS CONTROL	24-23-51		101		May 02/2008	ALL

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Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
<u>DIFFERENTIAL CURRENT PROTECTION</u>						
DIFFERENTIAL CURRENT PROTECTION GEN NO.1	24-24-11		101		Jun 30/2009	ALL
DIFFERENTIAL CURRENT PROTECTION GEN NO.2	24-24-21		101		Jun 30/2009	ALL
DIFFERENTIAL CURRENT PROTECTION APU GEN	24-24-31		101		Jun 30/2009	ALL
<u>AC GENERATION METERS</u>						
AC INDICATION P5-13	24-28-11		101		Jun 30/2009	YD001-YD006
			102		Jun 30/2009	YD007-YD020
AC SYSTEM GENERATOR & APU INDICATION P5-4	24-28-21		101		May 02/2008	ALL
SWITCHING P5-4	24-28-22		101		Jan 11/2006	ALL
GENERATOR DRIVE & STANDBY POWER SWITCHING INDICATION P5-5	24-28-31		101		May 02/2008	ALL
AUTOMATIC LOAD SHED GALLEYS & MAIN BUSES	24-28-41		101		Jan 11/2006	YD001-YD006
			102		Jan 11/2006	YD007
<u>DC GENERATION SYSTEM</u>						
BATTERY AND BATTERY CHARGER	24-31-11		101		Jun 30/2009	YD001-YD005
			102		Jun 30/2009	YD006-YD020
BATTERY BUS	24-31-12		101		Jun 30/2009	ALL
<u>MAIN DC BUSES</u>						
MAIN DC BUSES	24-32-11		101		Jun 30/2009	ALL
<u>DC GENERATION SYSTEM AND INDICATIONS</u>						
DC VOLTAGE AND CURRENT INDICATIONS	24-33-11		101		Jun 30/2009	ALL
ELEC LIGHT AND ALPHANUMERIC DISPLAY	24-33-12		101		Jun 30/2009	ALL
DC BUS INDICATION DFDAU	24-33-13		101		Jan 11/2006	ALL

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Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
<u>STANDBY POWER SYSTEM</u>						
STANDBY POWER	24-34-11		101		Jun 30/2009	YD001-YD006
			102		Jun 30/2009	YD007-YD020
<u>AC EXTERNAL POWER</u>						
EXTERNAL POWER	24-41-11		101		Jun 30/2009	ALL
<u>MAIN 115-VOLT AC POWER DISTRIBUTION</u>						
115V AC TRANSFER BUS 1	24-51-11		101	1	Jun 30/2009	YD001-YD006
				2	Jun 30/2009	YD001-YD006
			102	1	Jun 30/2009	YD007
				2	Jun 30/2009	YD007
115V AC TRANSFER BUS 2	24-51-21		101	1	Jun 30/2009	YD001-YD006
				2	Jun 30/2009	YD001-YD006
			102	1	Jun 30/2009	YD007
				2	Jun 30/2009	YD007
<u>GROUND SERVICE 115-VOLT AC POWER DISTRIBUTION</u>						
115V AC GROUND SERVICE BUS	24-52-11		101	1	Jun 30/2009	YD001-YD007
				2	Jun 30/2009	YD001-YD007
<u>28V AC BUSES</u>						
28V AC BUSES	24-53-11		101	1	Jun 30/2009	YD001-YD007
				2	May 02/2008	YD001-YD007
<u>115V AC STANDBY BUS</u>						
115V AC STANDBY BUS	24-54-11		101		Jun 30/2009	ALL

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Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
<u>DC POWER DISTRIBUTION</u>						
28V DC BUSES	24-61-11		101		May 02/2008	ALL

For training purposes only!

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24-52-11	115V AC GROUND SERVICE BUS
24-54-11	115V AC STANDBY BUS
24-51-11	115V AC TRANSFER BUS 1
24-51-21	115V AC TRANSFER BUS 2
24-53-11	28V AC BUSES
24-61-11	28V DC BUSES
24-28-11	AC INDICATION P5-13
24-28-21	AC SYSTEM GENERATOR & APU INDICATION P5-4
24-23-31	AC TIE BUS
24-28-41	AUTOMATIC LOAD SHED GALLEYS & MAIN BUSES
24-31-11	BATTERY AND BATTERY CHARGER
24-31-12	BATTERY BUS
24-21-52	BUS POWER CONTROL UNIT BLOCK (G15)
24-33-13	DC BUS INDICATION DFDAU
24-33-11	DC VOLTAGE AND CURRENT INDICATIONS
24-24-31	DIFFERENTIAL CURRENT PROTECTION APU GEN
24-24-11	DIFFERENTIAL CURRENT PROTECTION GEN NO.1
24-24-21	DIFFERENTIAL CURRENT PROTECTION GEN NO.2
24-33-12	ELEC LIGHT AND ALPHANUMERIC DISPLAY

CH-SC-SU	Title
24-00-00	ELECTRICAL POWER SIMPLIFIED
24-00-10	ELECTRICAL POWER UNIT LOCATION
24-41-11	EXTERNAL POWER
24-22-31	GENERATOR CONTROL UNIT APU
24-22-11	GENERATOR CONTROL UNIT NO.1
24-22-21	GENERATOR CONTROL UNIT NO.2
24-21-51	GENERATOR CONTROL UNITS BLOCK (G10, G12, G14)
24-28-31	GENERATOR DRIVE & STANDBY POWER SWITCHING INDICATION P5-5
24-21-31	GENERATOR POWER AND REGULATION - APU
24-21-11	GENERATOR POWER AND REGULATION - NO. 1
24-21-21	GENERATOR POWER AND REGULATION - NO. 2
24-23-51	GROUND SERVICE BUS CONTROL
24-11-11	IDG NO. 1
24-11-21	IDG NO. 2
24-32-11	MAIN DC BUSES
24-34-11	STANDBY POWER
24-28-22	SWITCHING P5-4
24-23-11	TRANSFER BUS CONTROL NO.1
24-23-21	TRANSFER BUS CONTROL NO.2

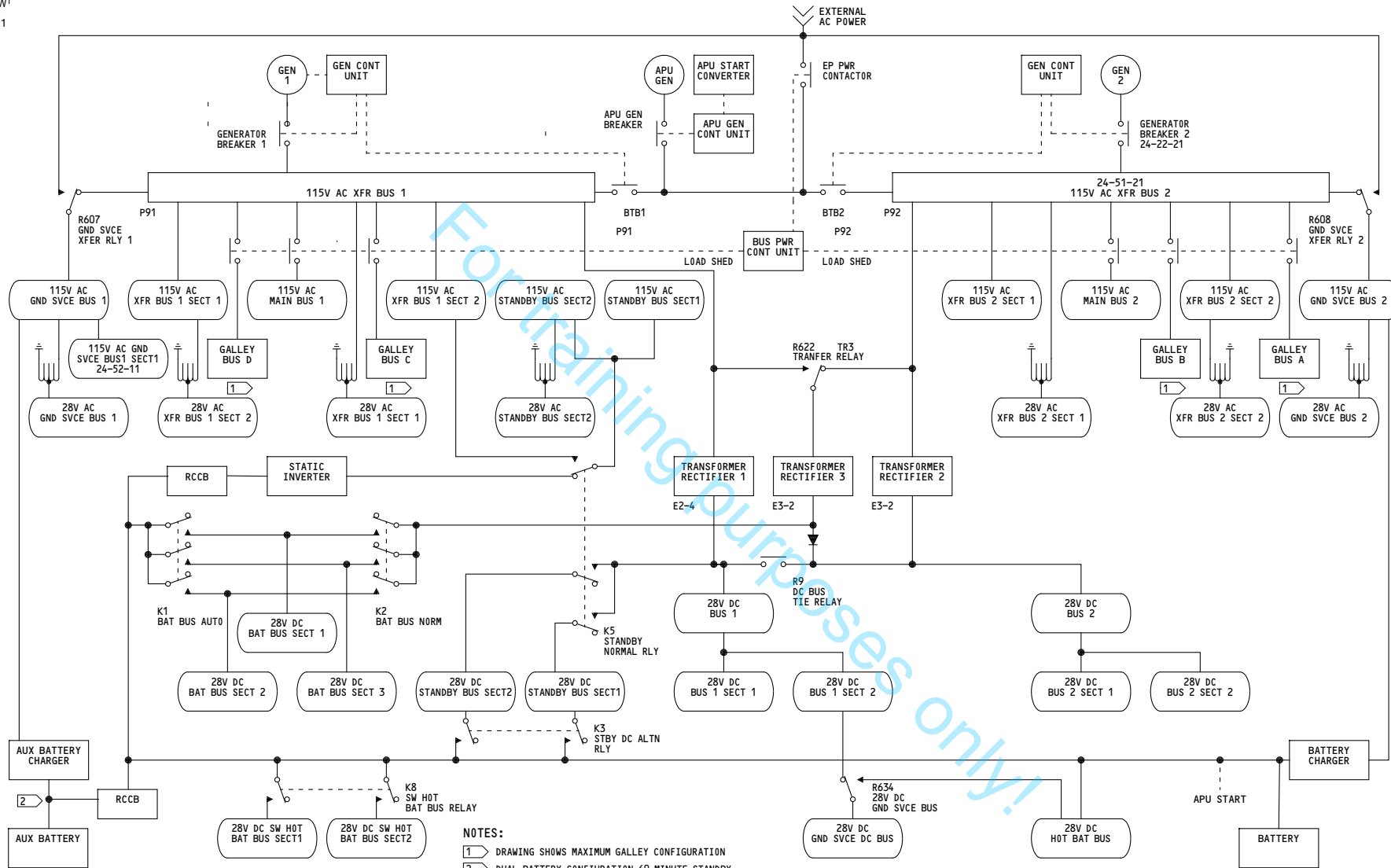
24-ALPHABETICAL INDEX

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YD001-YD006

ELECTRICAL POWER SIMPLIFIED

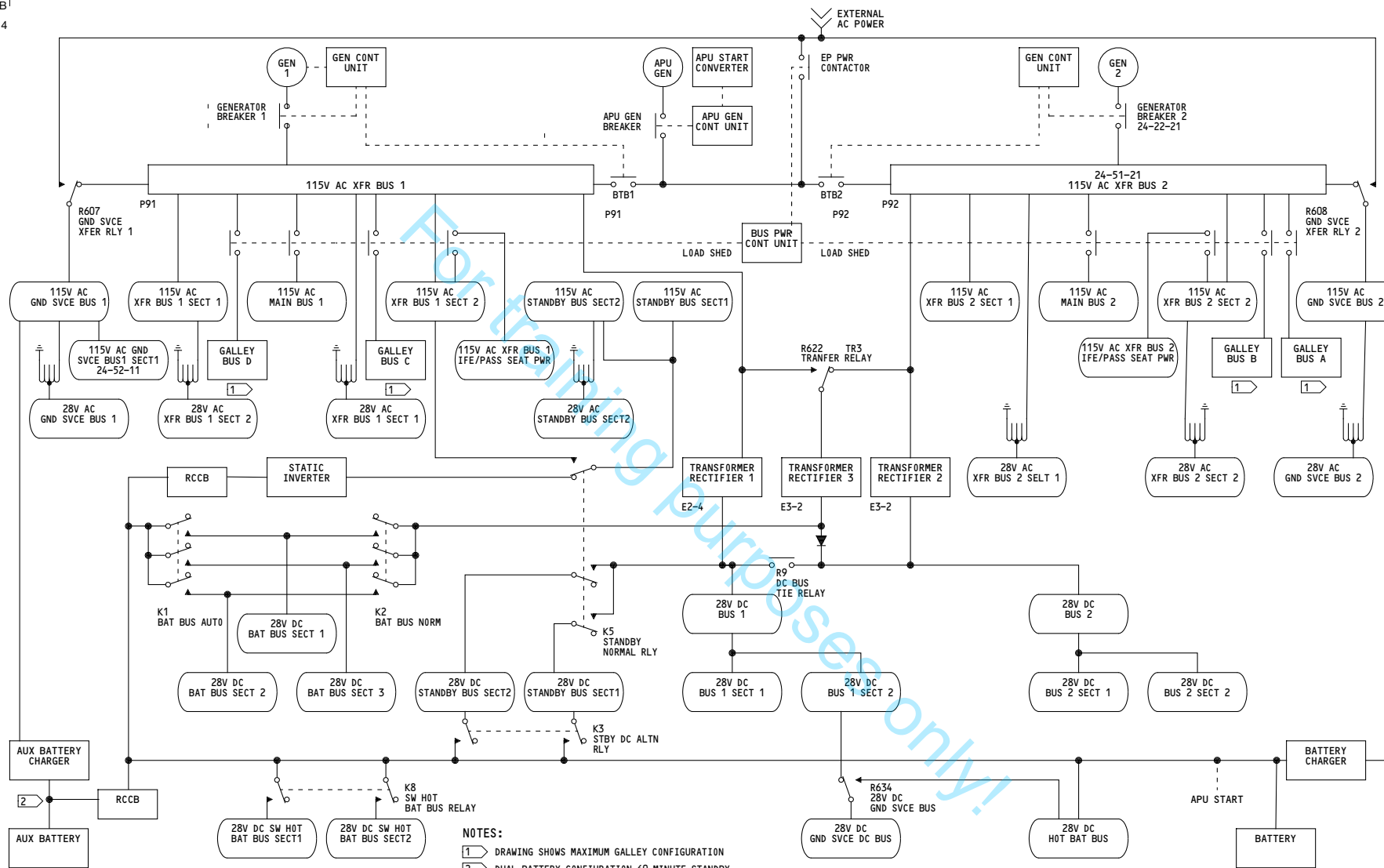
D280A238

24-00-00

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Jan 11/2006

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4



YD007-YD020

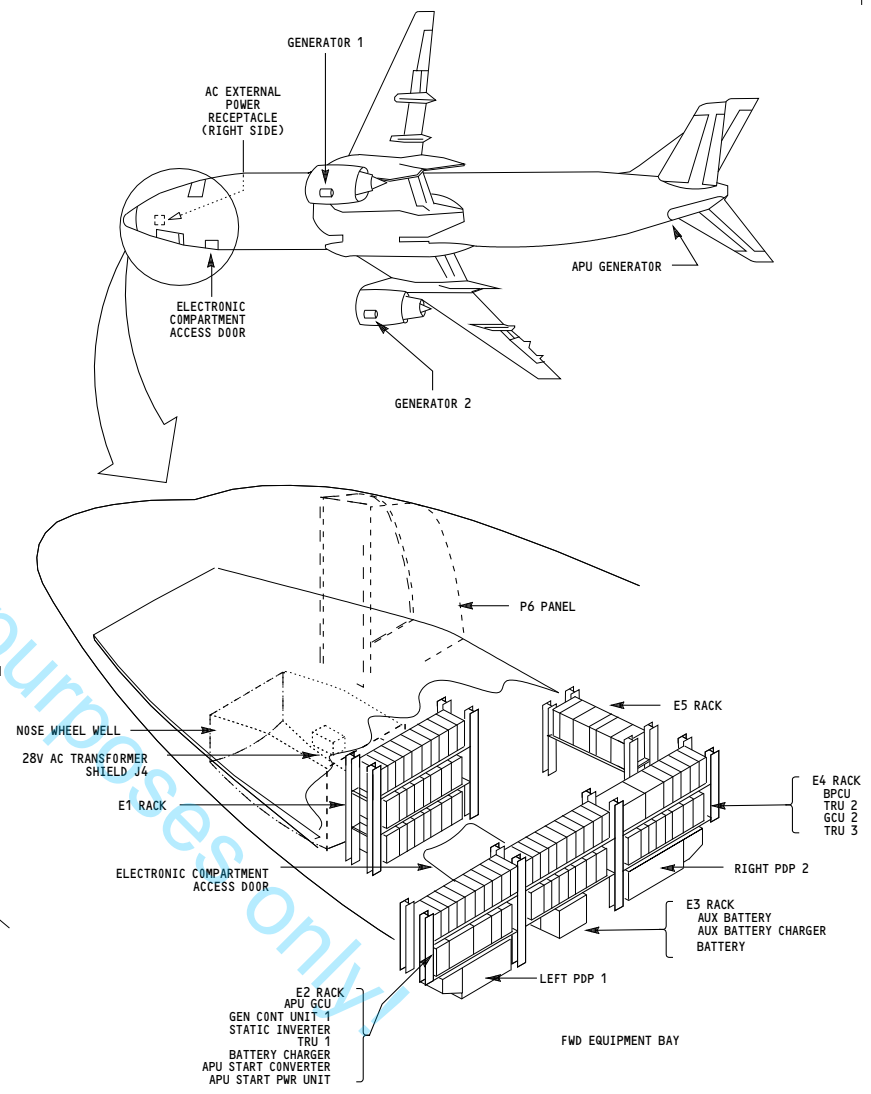
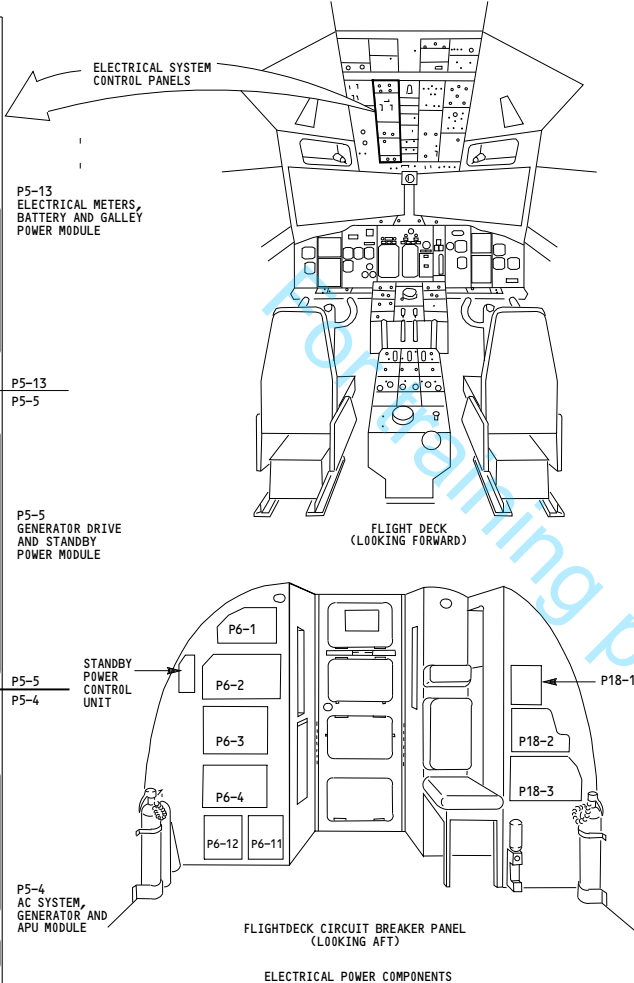
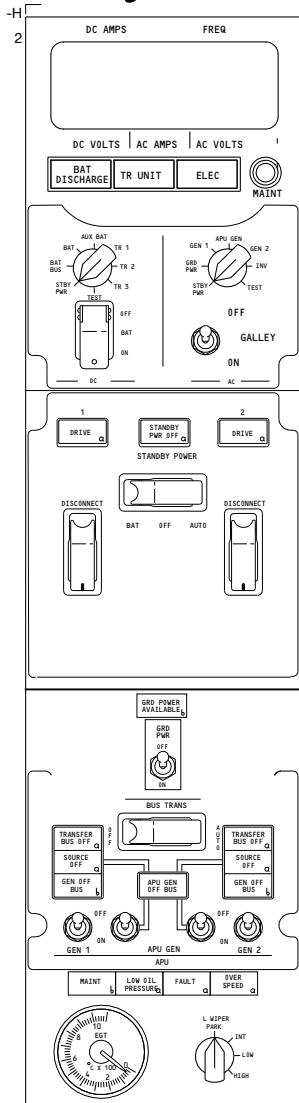
ELECTRICAL POWER SIMPLIFIED

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24-00-00

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YD001-YD006

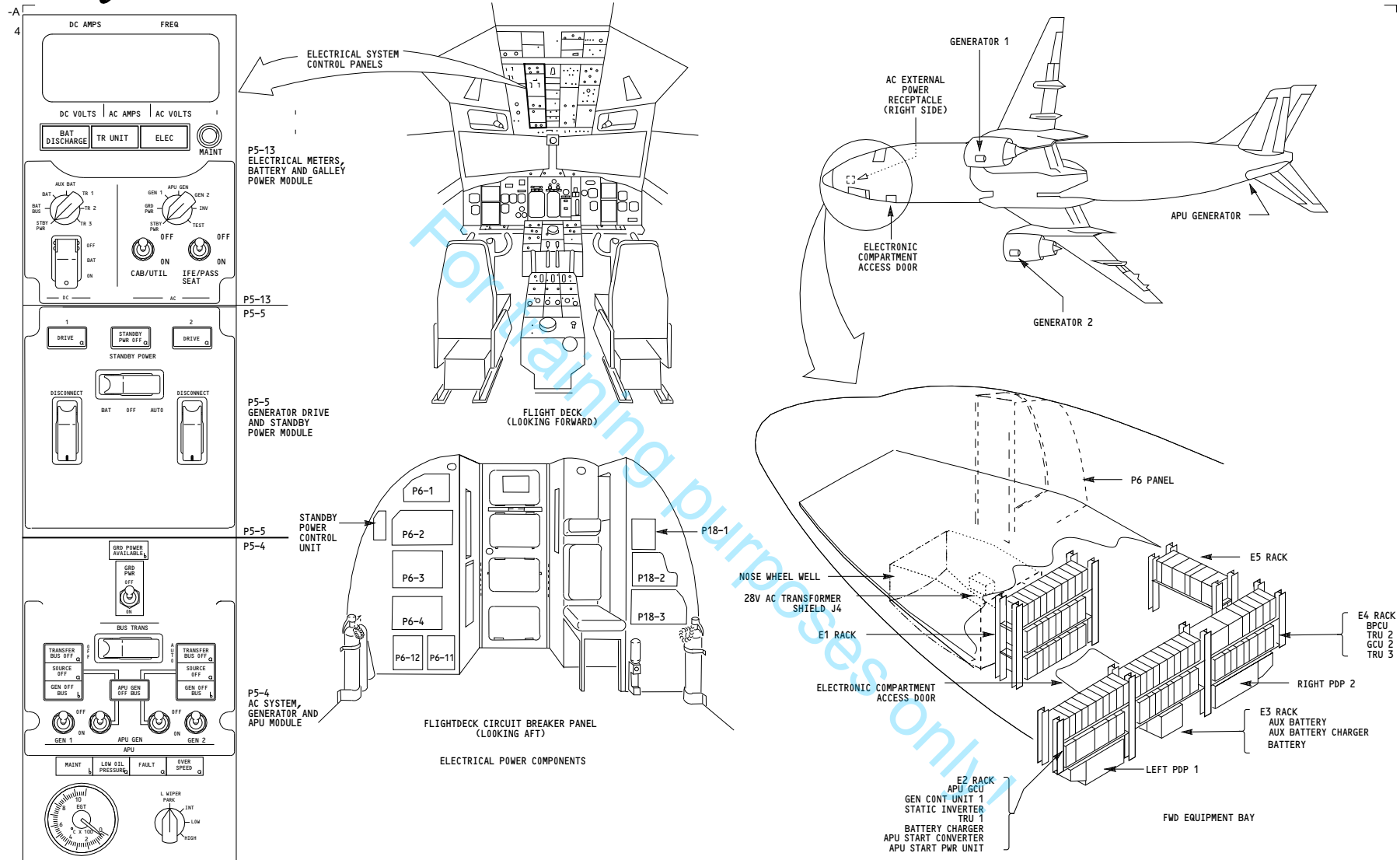
ELECTRICAL POWER UNIT LOCATION

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YD007-YD020

ELECTRICAL POWER UNIT LOCATION

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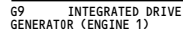
24-00-10

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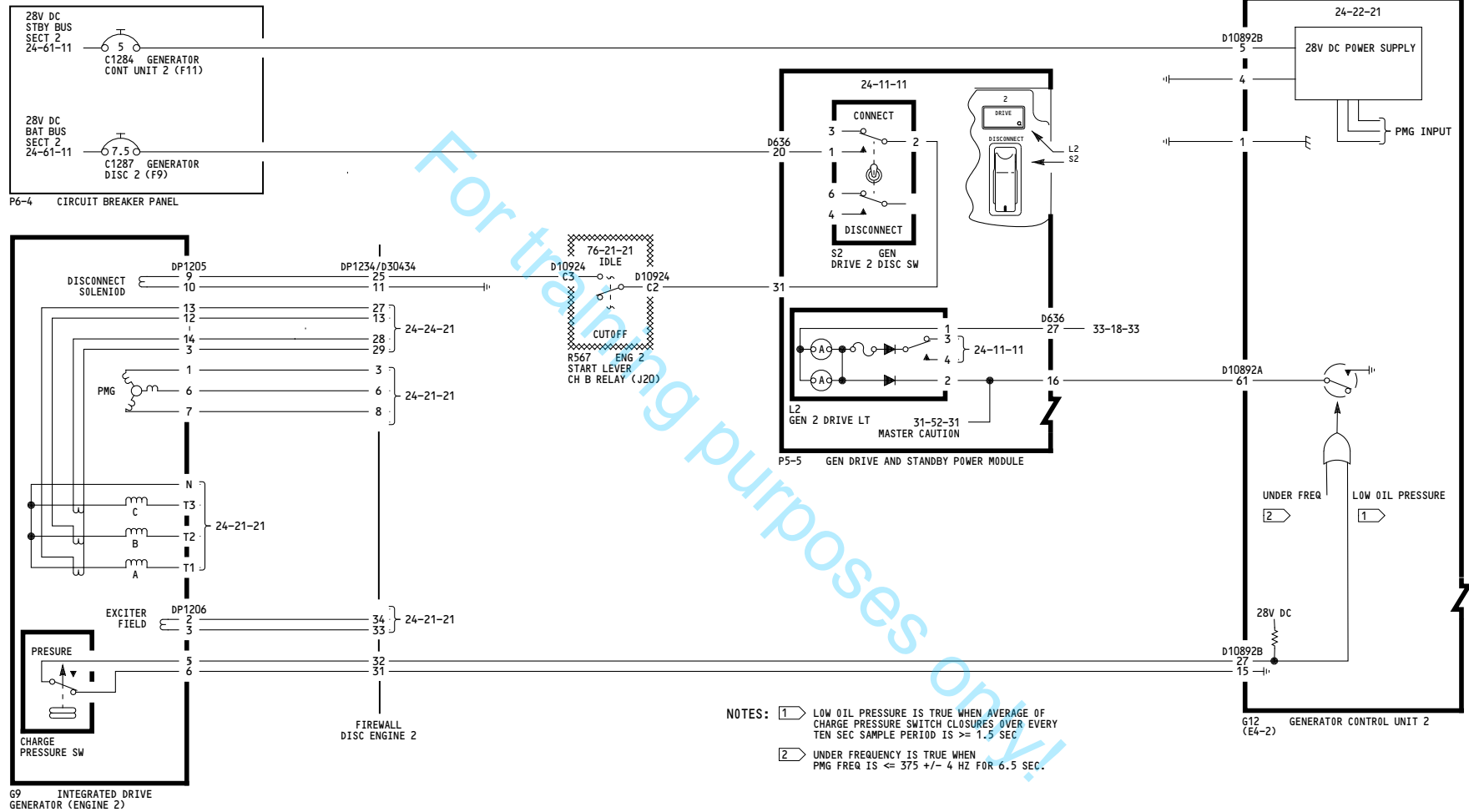


WIRING DIAGRAMS



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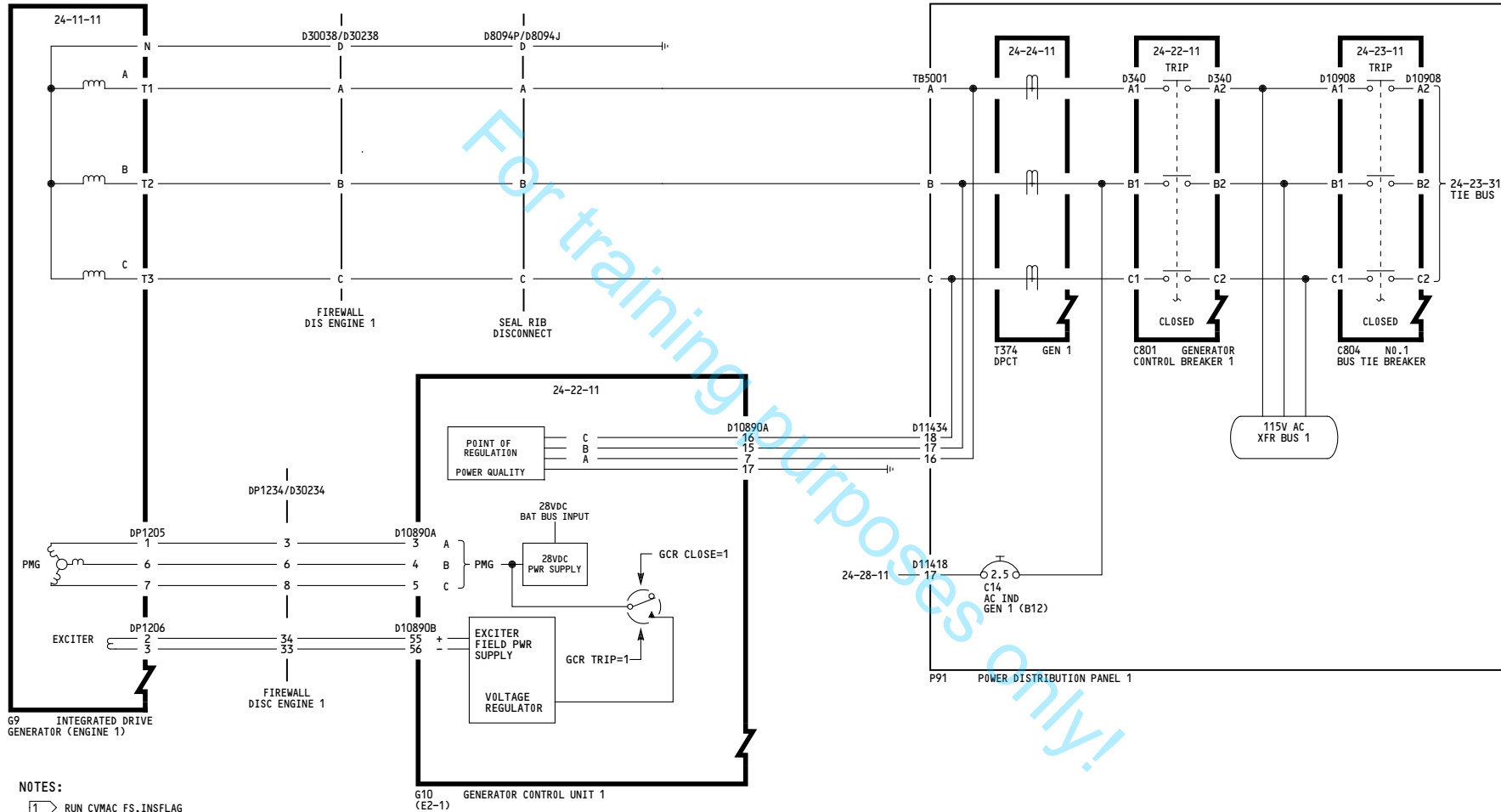
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	D280A238

24-11-21

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AD 1



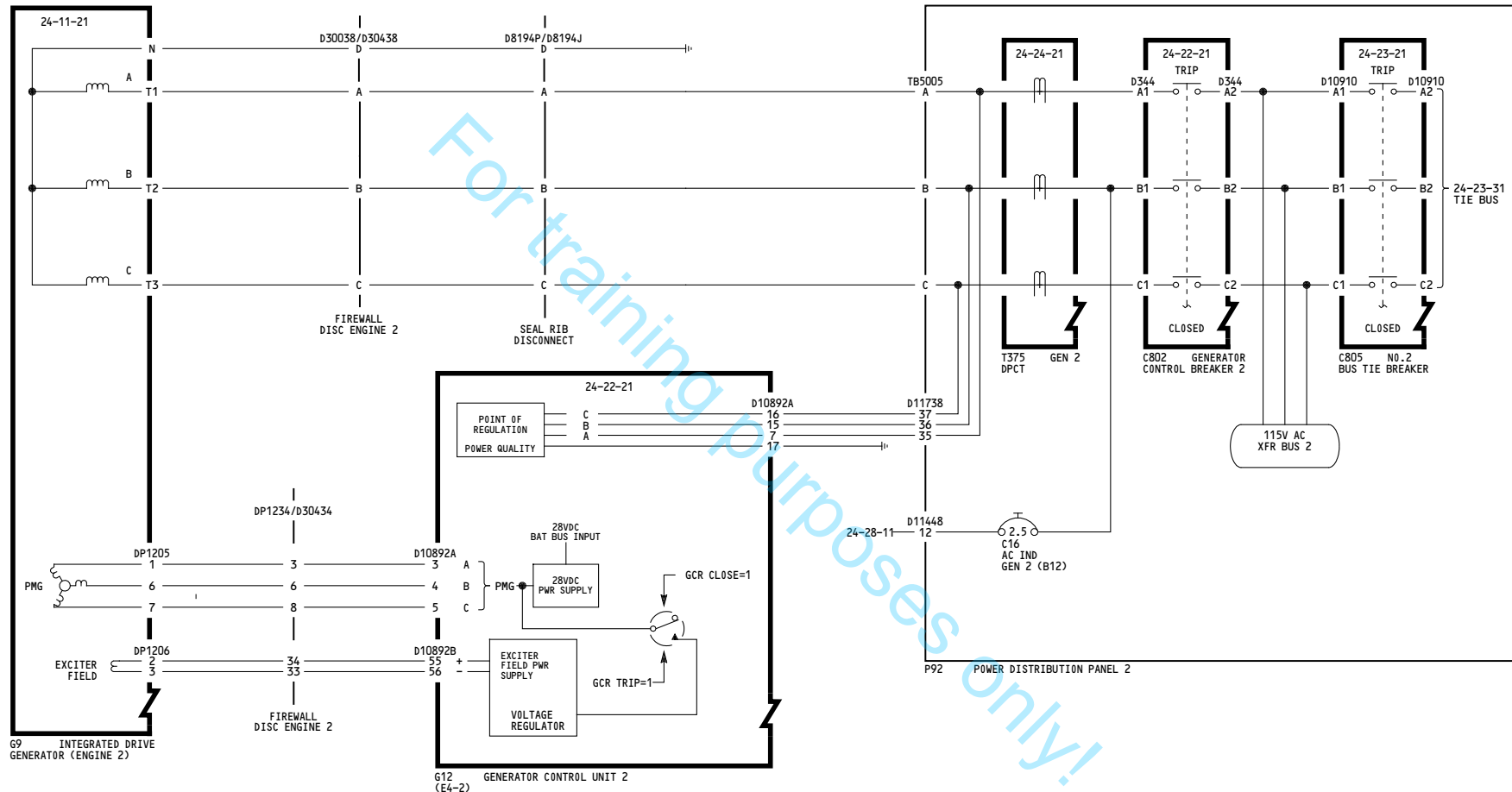
24-21-11

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AC
1

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24-21-21



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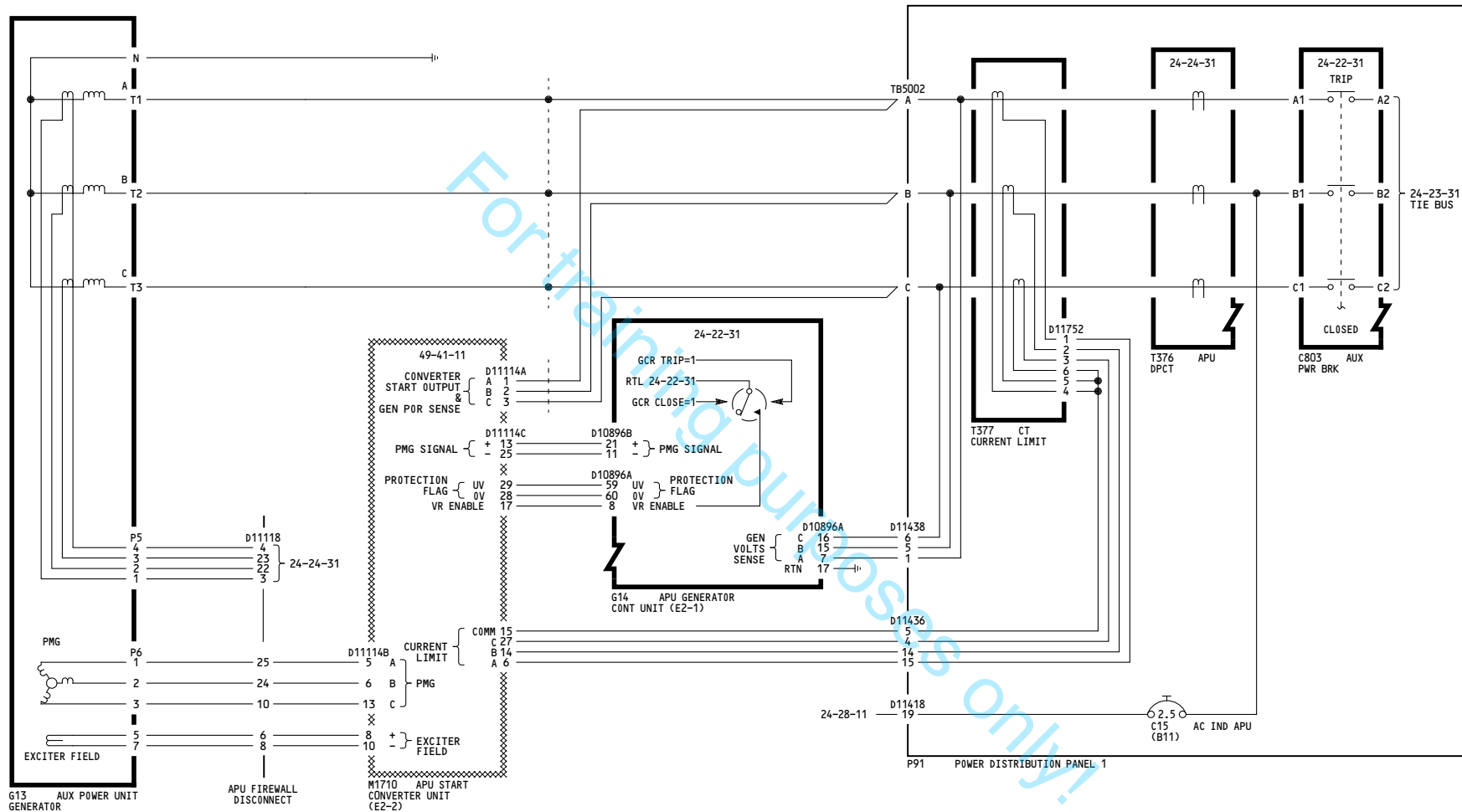
GENERATOR POWER AND
REGULATION - NO. 2

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YD001-YD007

**GENERATOR POWER AND
REGULATION - APU**

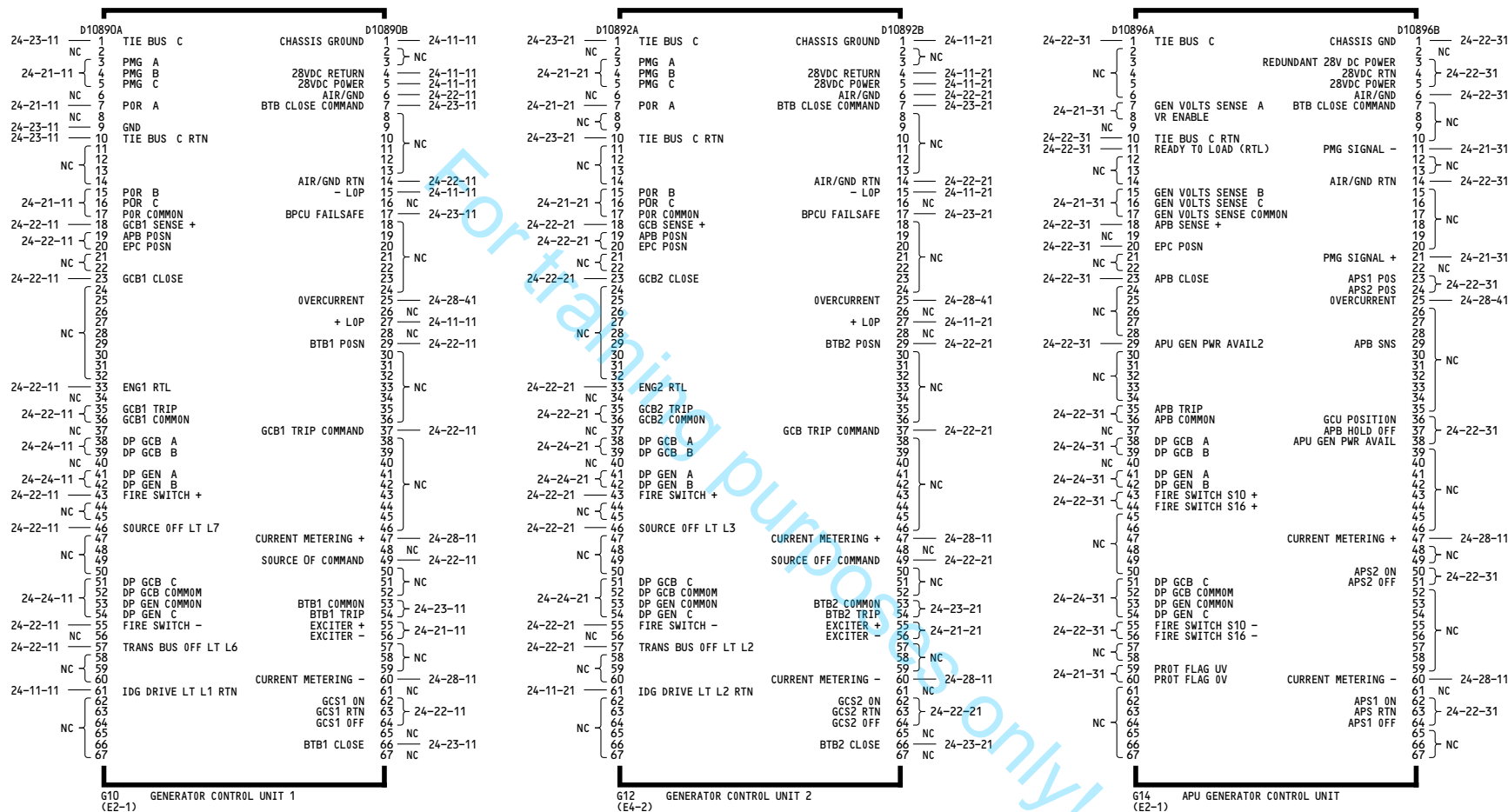
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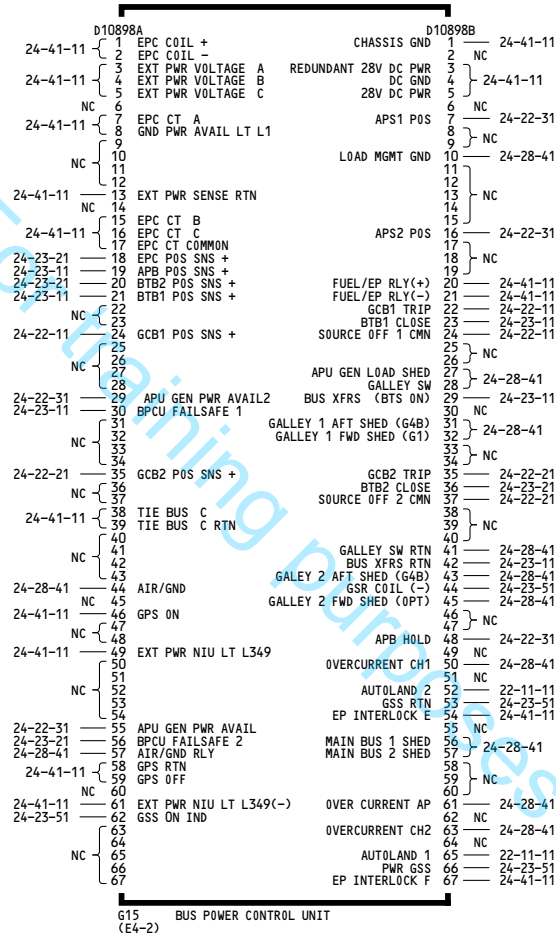
GENERATOR CONTROL UNITS BLOCK (G10, G12, G14)

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24-21-51

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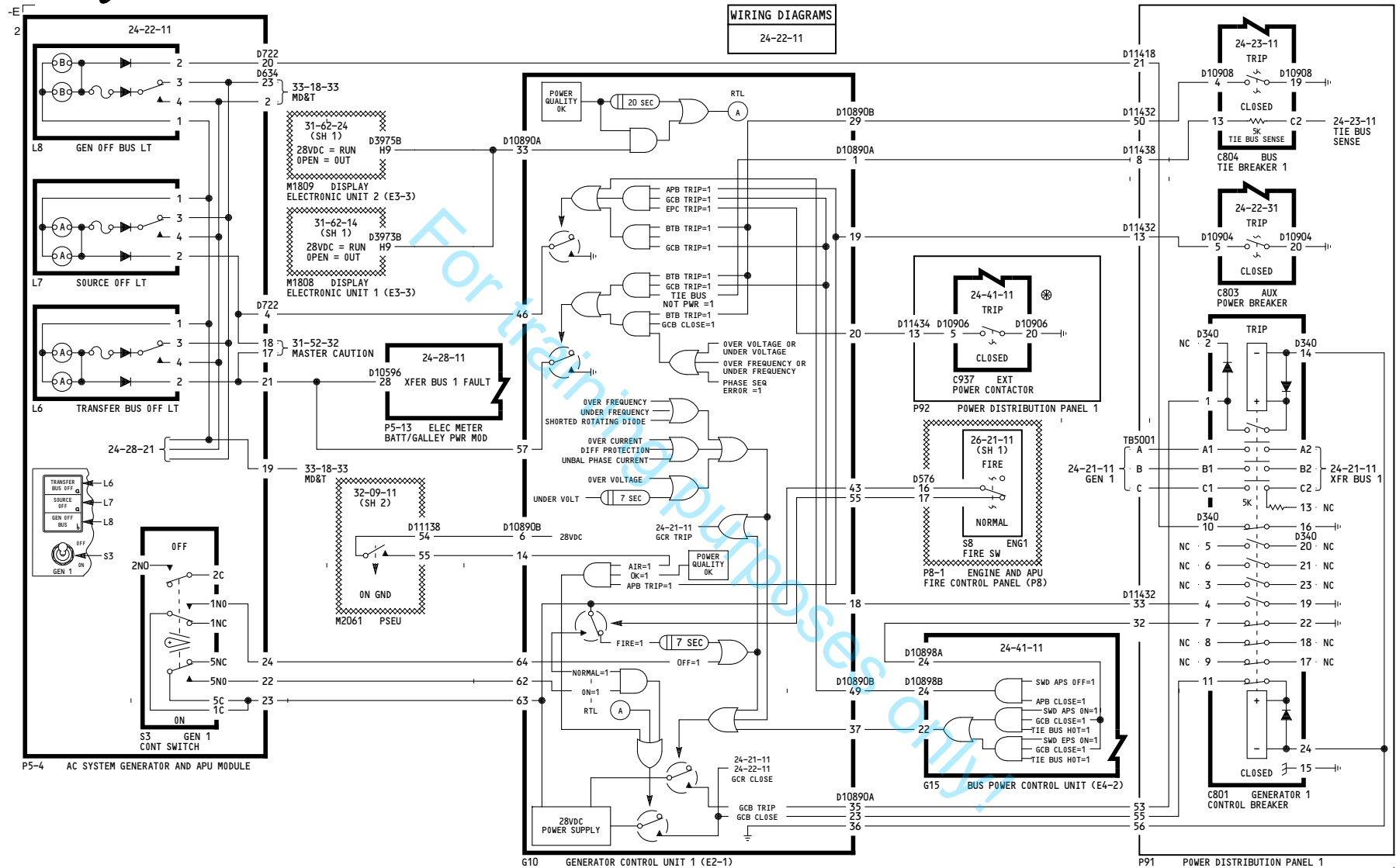
**BUS POWER CONTROL UNIT
BLOCK (G15)**

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24-21-52

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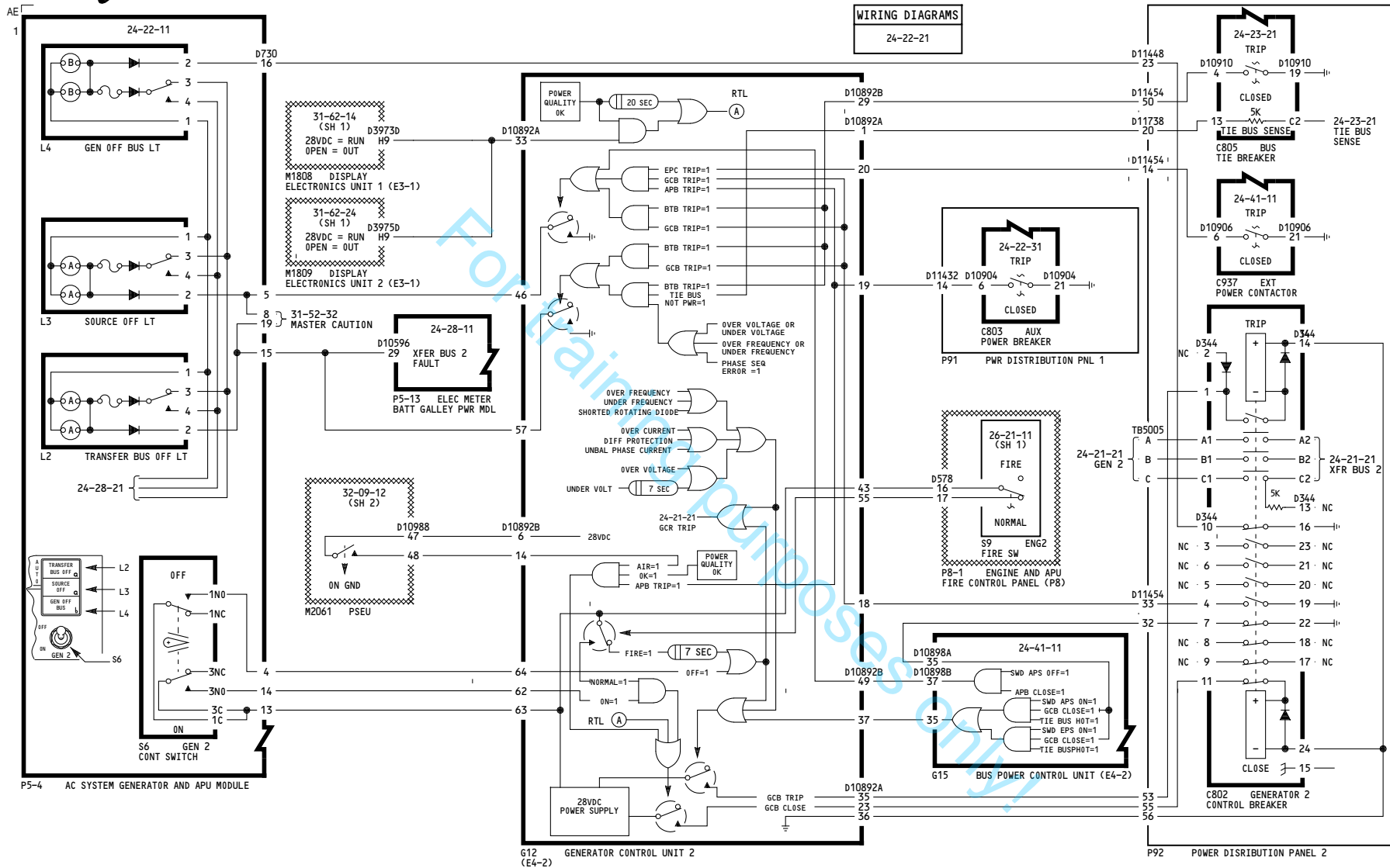
GENERATOR CONTROL UNIT NO.1

24-22-11

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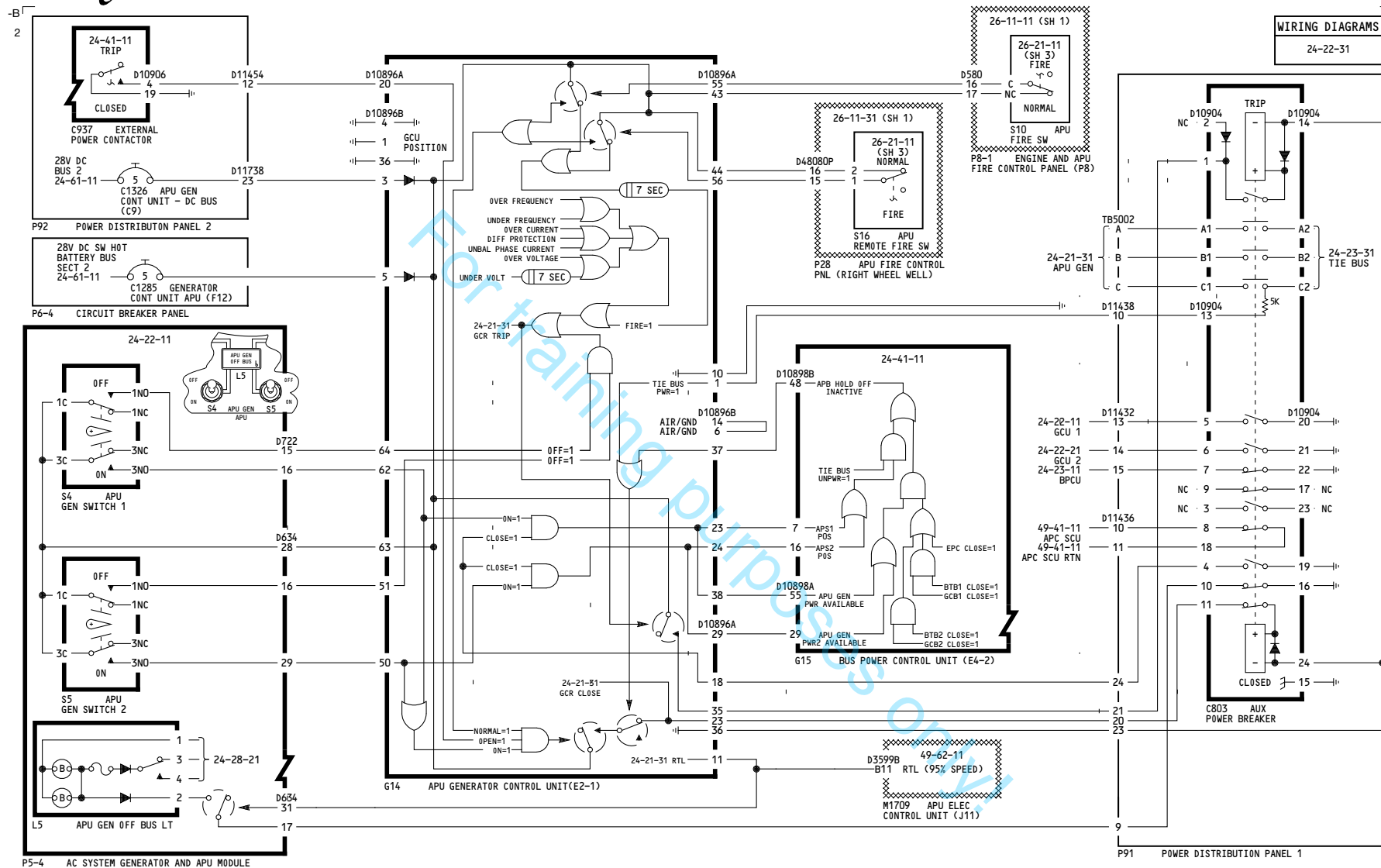
GENERATOR CONTROL UNIT NO.2

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GENERATOR CONTROL UNIT APU

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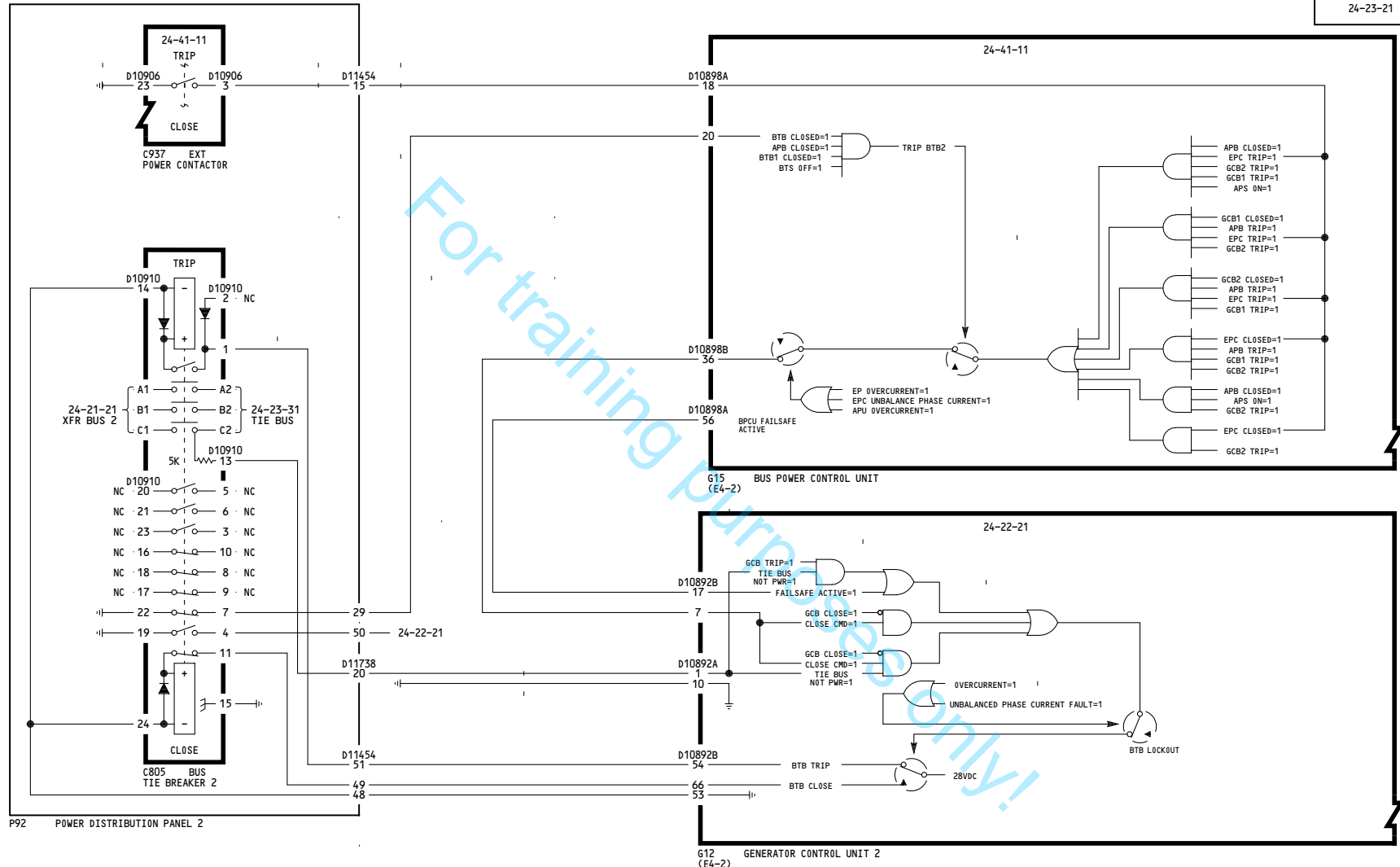
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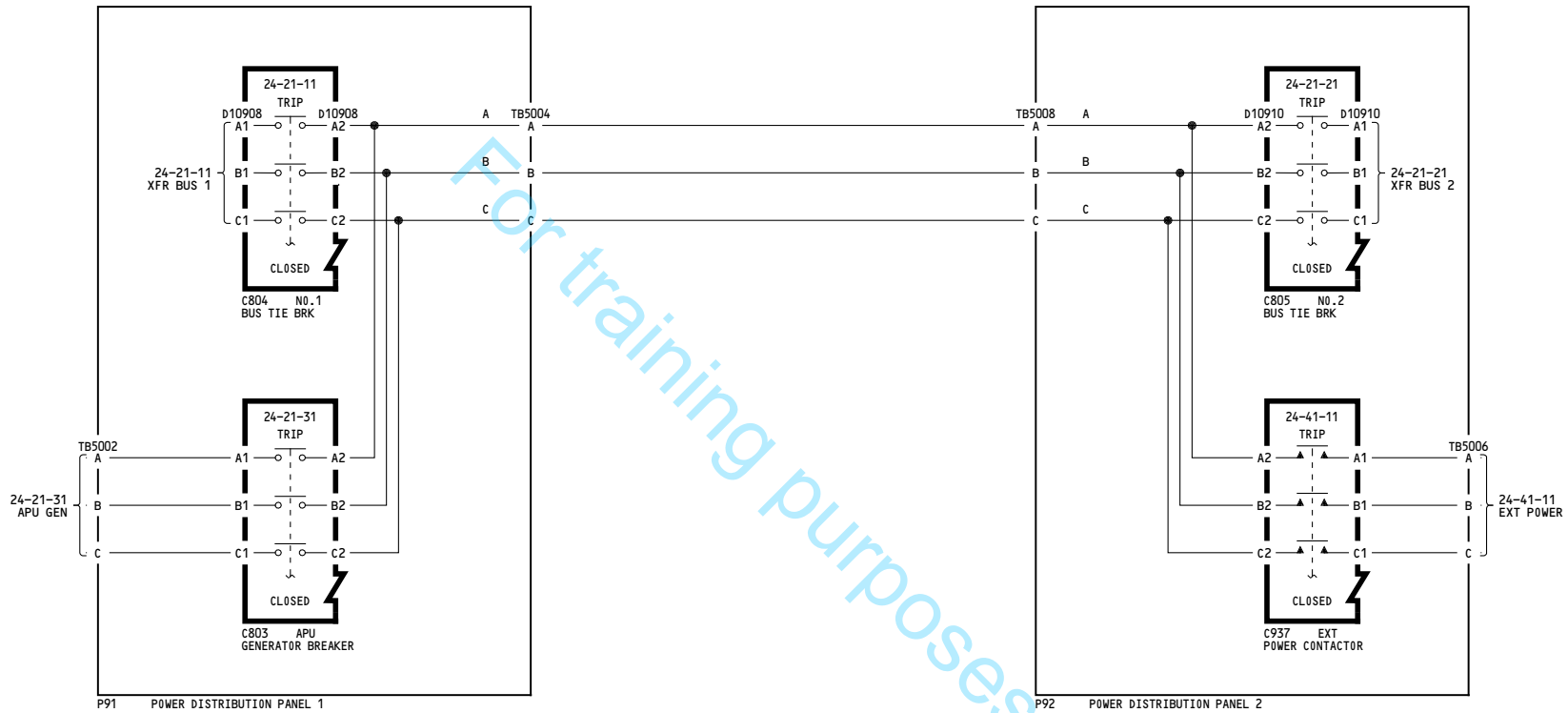
**TRANSFER BUS CONTROL
NO.2**

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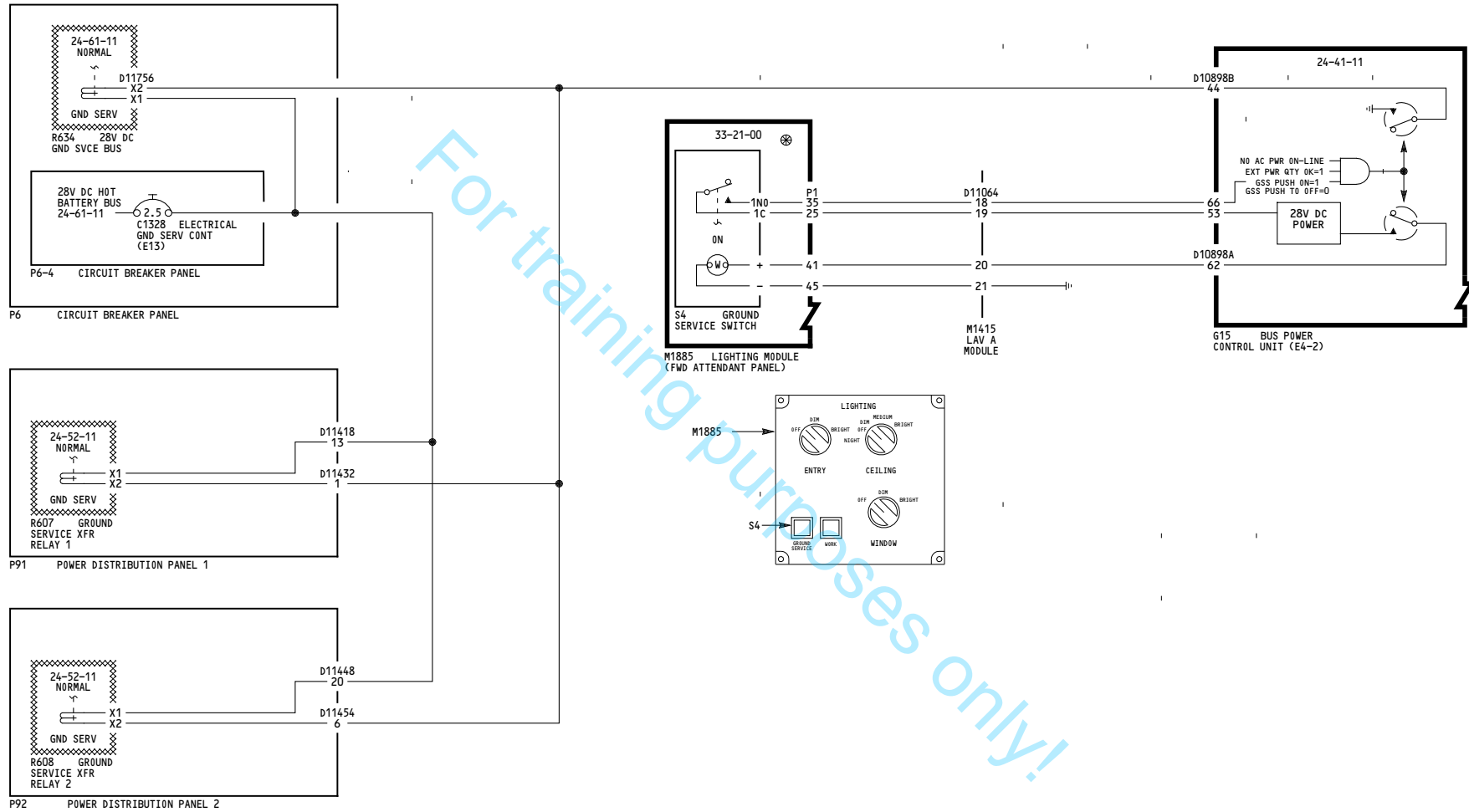
ALL	AC TIE BUS
	D280A238

24-23-31

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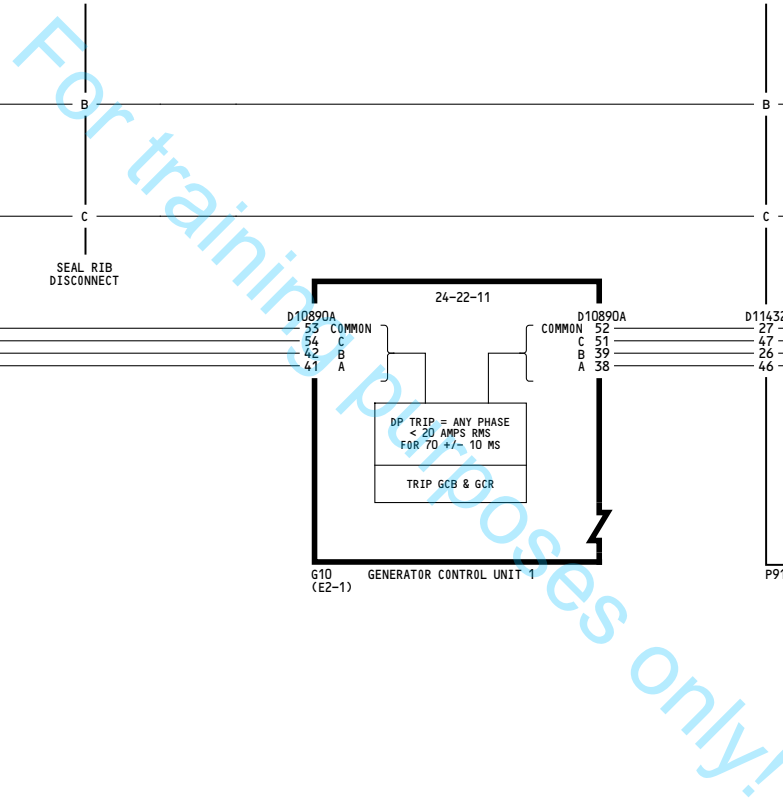
**GROUND SERVICE BUS
CONTROL**

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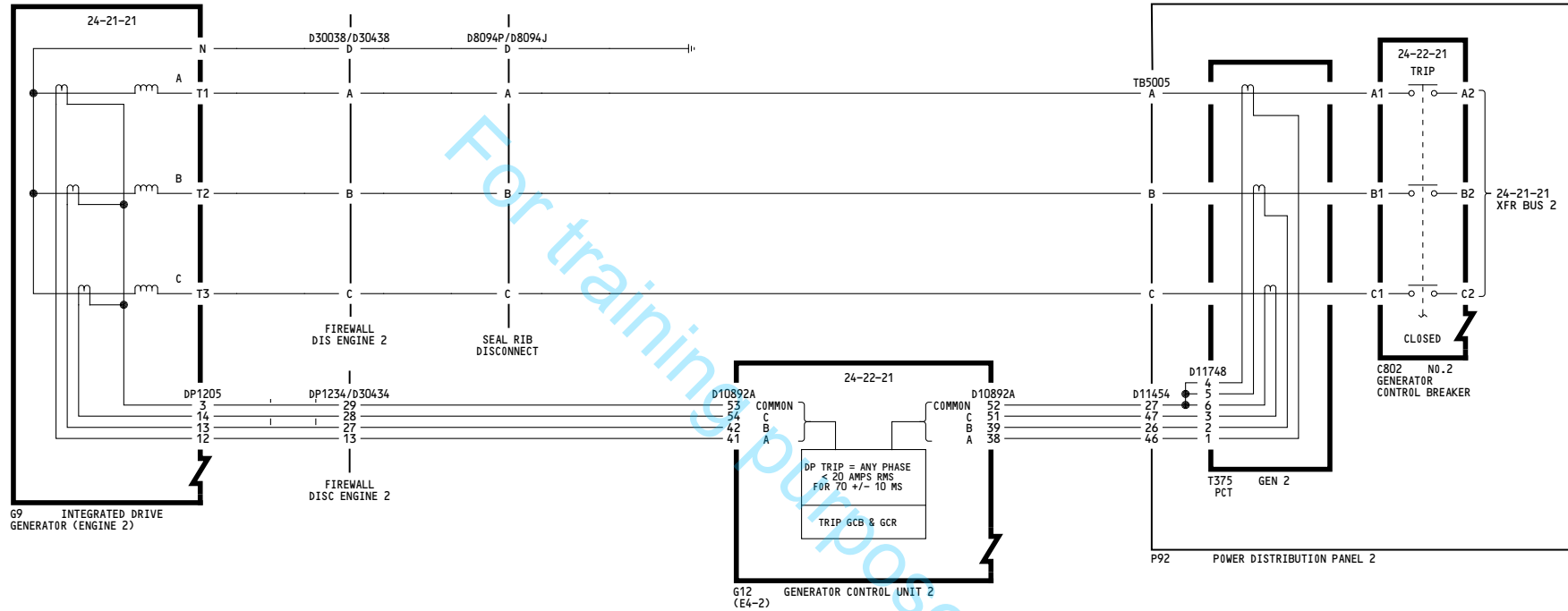
24-23-51

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ALL

**DIFFERENTIAL CURRENT
PROTECTION GEN NO.2**

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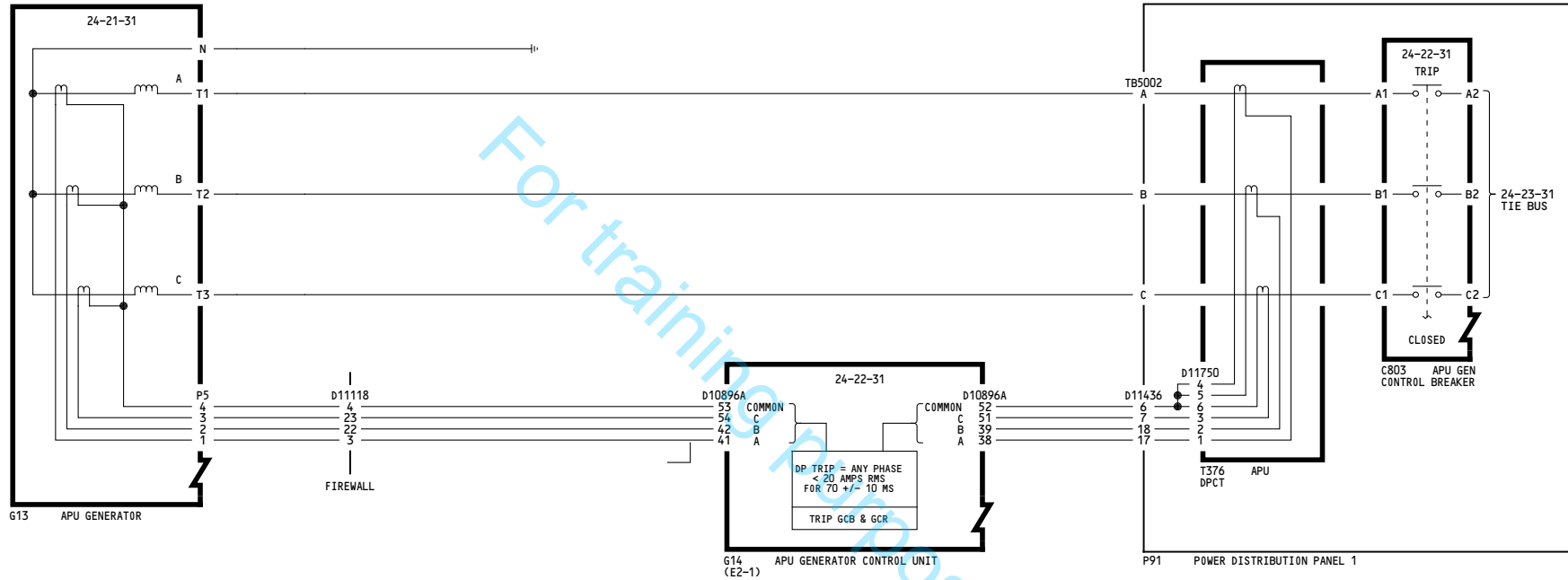
24-24-21

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24-24-31



ALL

**DIFFERENTIAL CURRENT
PROTECTION APU GEN**

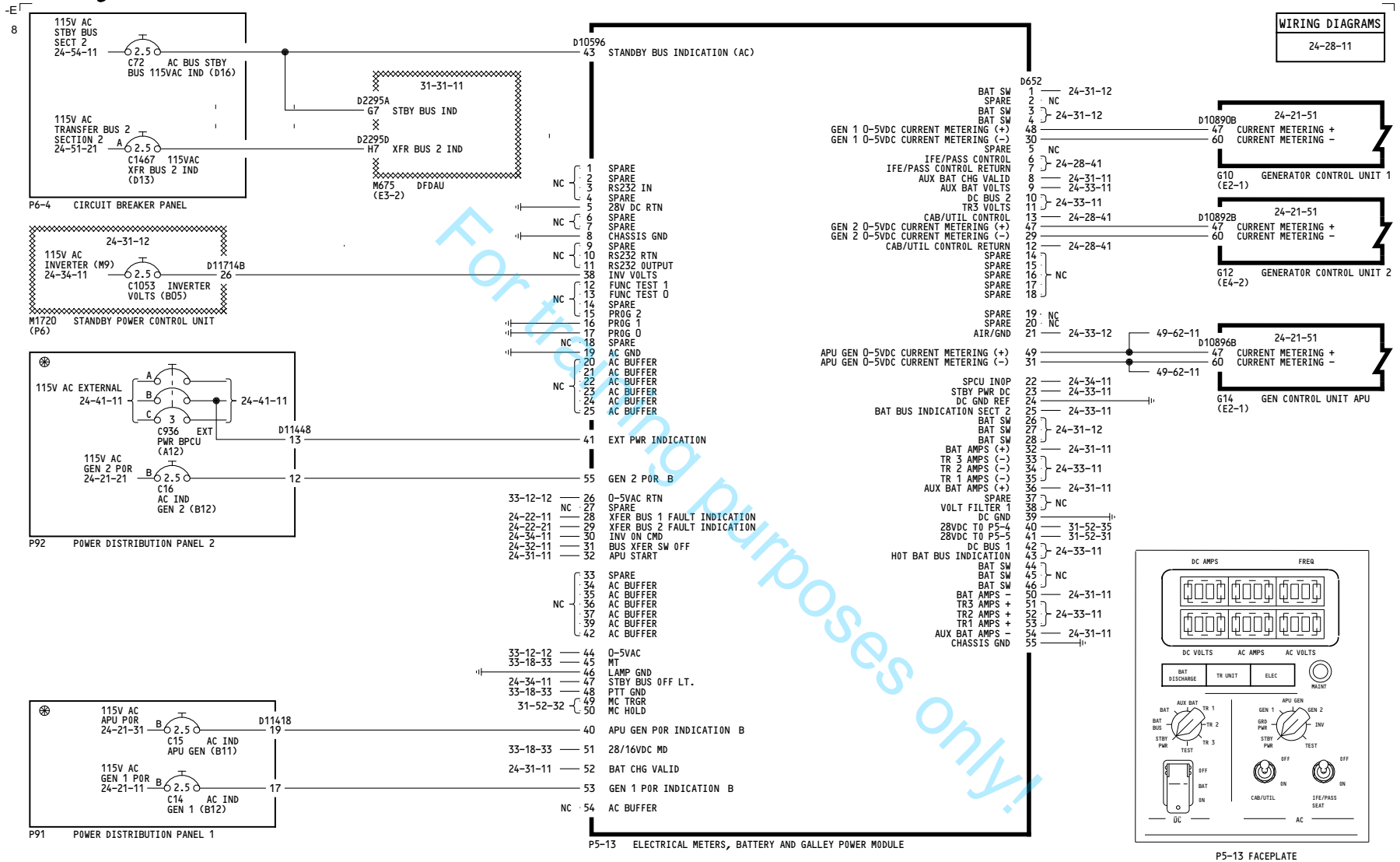
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YD007-YD020

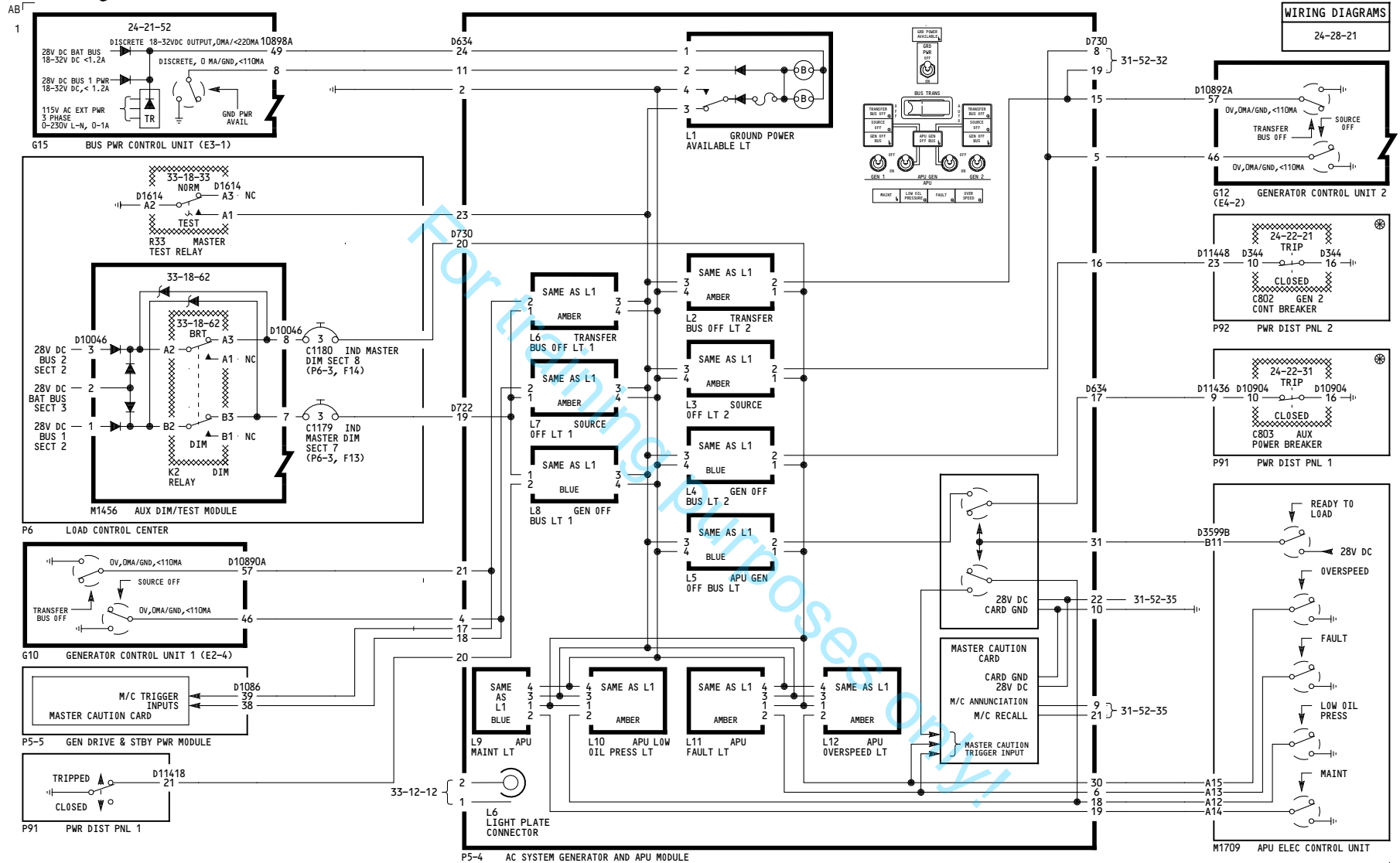
AC INDICATION P5-13

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24-28-11

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ALL

AC SYSTEM GENERATOR & APU INDICATION P5-4

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24-28-21

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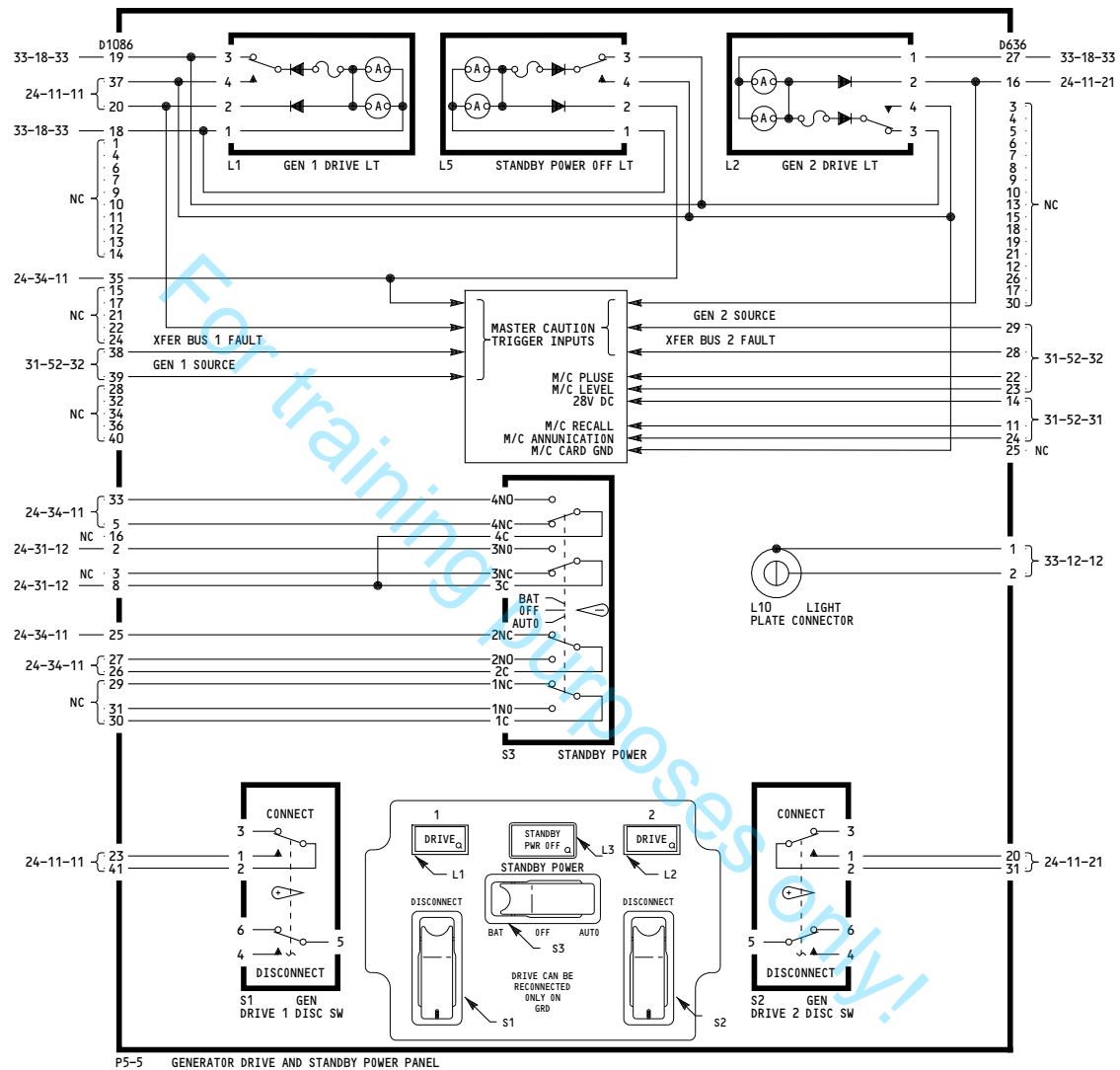
May 02/2008



24-28-21



Jan 11/2006



P5-5 GENERATOR DRIVE AND STANDBY POWER PANEL

ALL

**GENERATOR DRIVE & STANDBY
POWER SWITCHING INDICATIO
N P5-5**

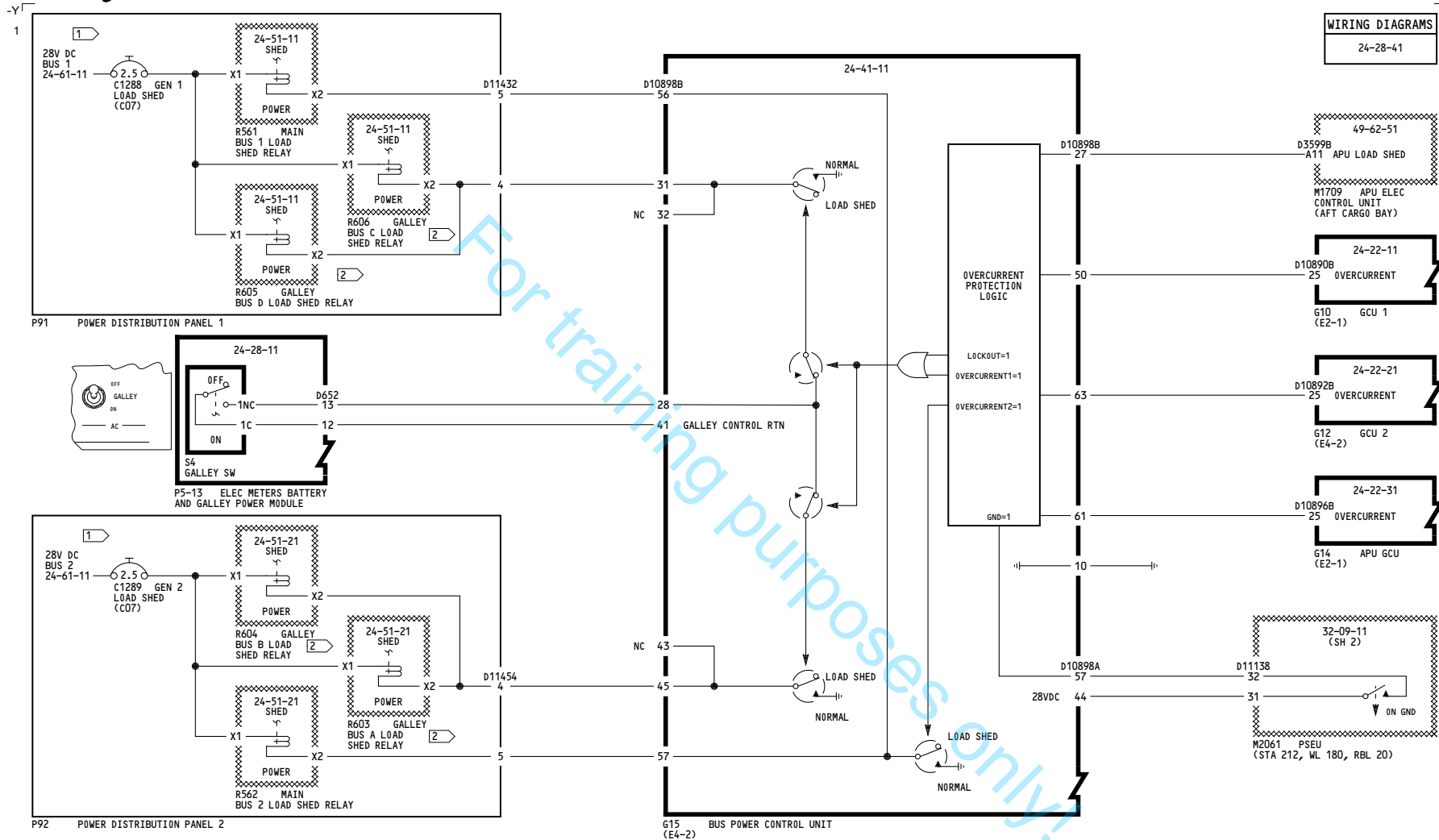
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WIRING DIAGRAMS 24-28-41



NOTES:

- 1 ALL INTERNAL WIRING IS SUPPLIER FURNISHED.
- 2 IF INSTALLED.

YD001-YD006

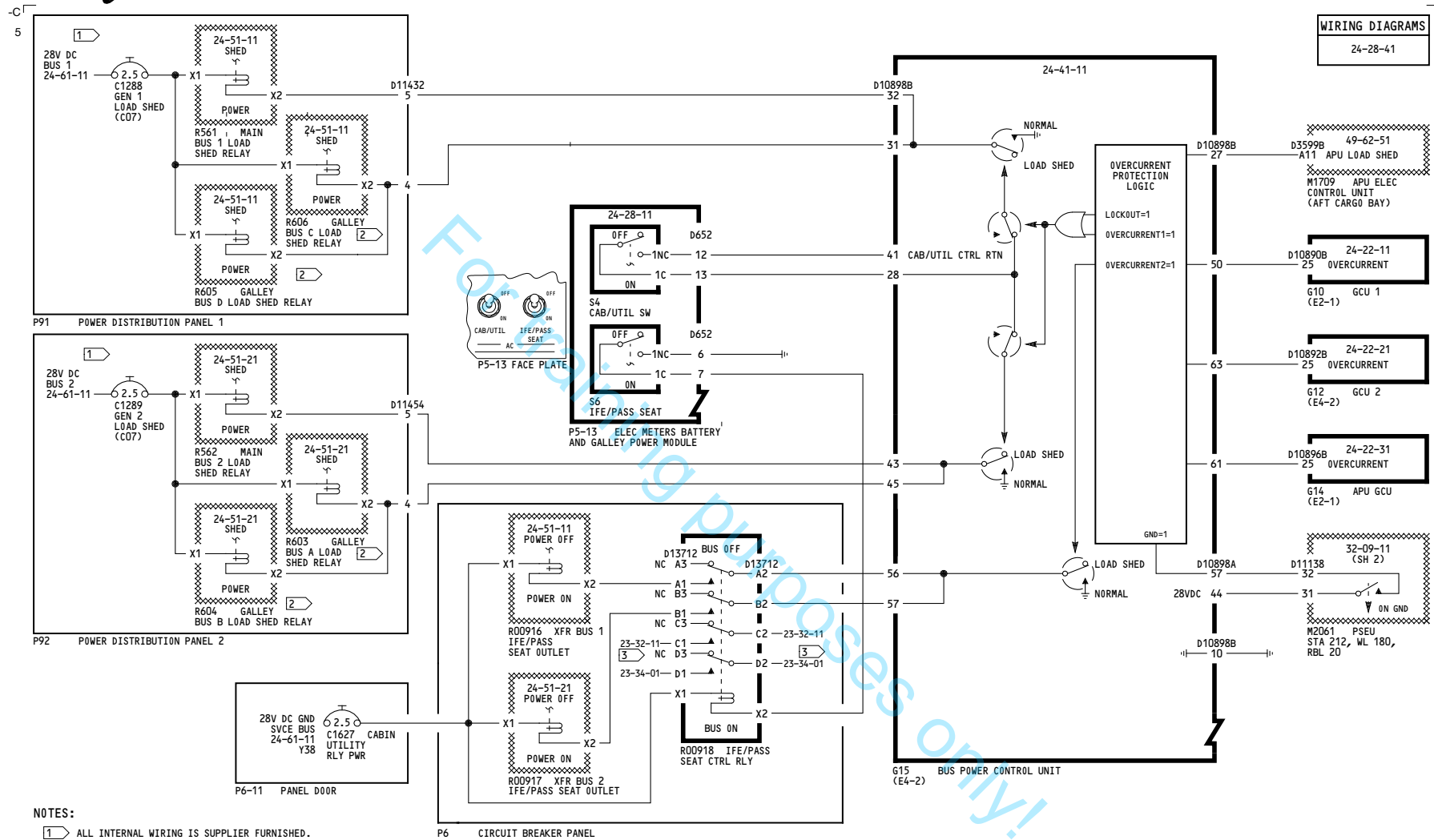
AUTOMATIC LOAD SHED GALLEYS & MAIN BUSES

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NOTES:

- 1 ALL INTERNAL WIRING IS SUPPLIER FURNISHED.
- 2 IF INSTALLED.
- 3 AUDIO OR VIDEO DC CB IF INSTALLED.

YD007

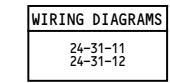
AUTOMATIC LOAD SHED GALLEYS & MAIN BUSES

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24-28-41

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A1

24-34-11

C1341 STATIC
INVERTER RCCB (J9)

[illegible]

5
10 =L 24-33-11
TO VOLTM

BATTERY
VOLTMETER (J9)

XXXXXXXXXXXX

1 ————— D10596
1 ————— 51
3 ————— 45 } 33-18-3
4 ————— 48 } MD&T
2 ————— X

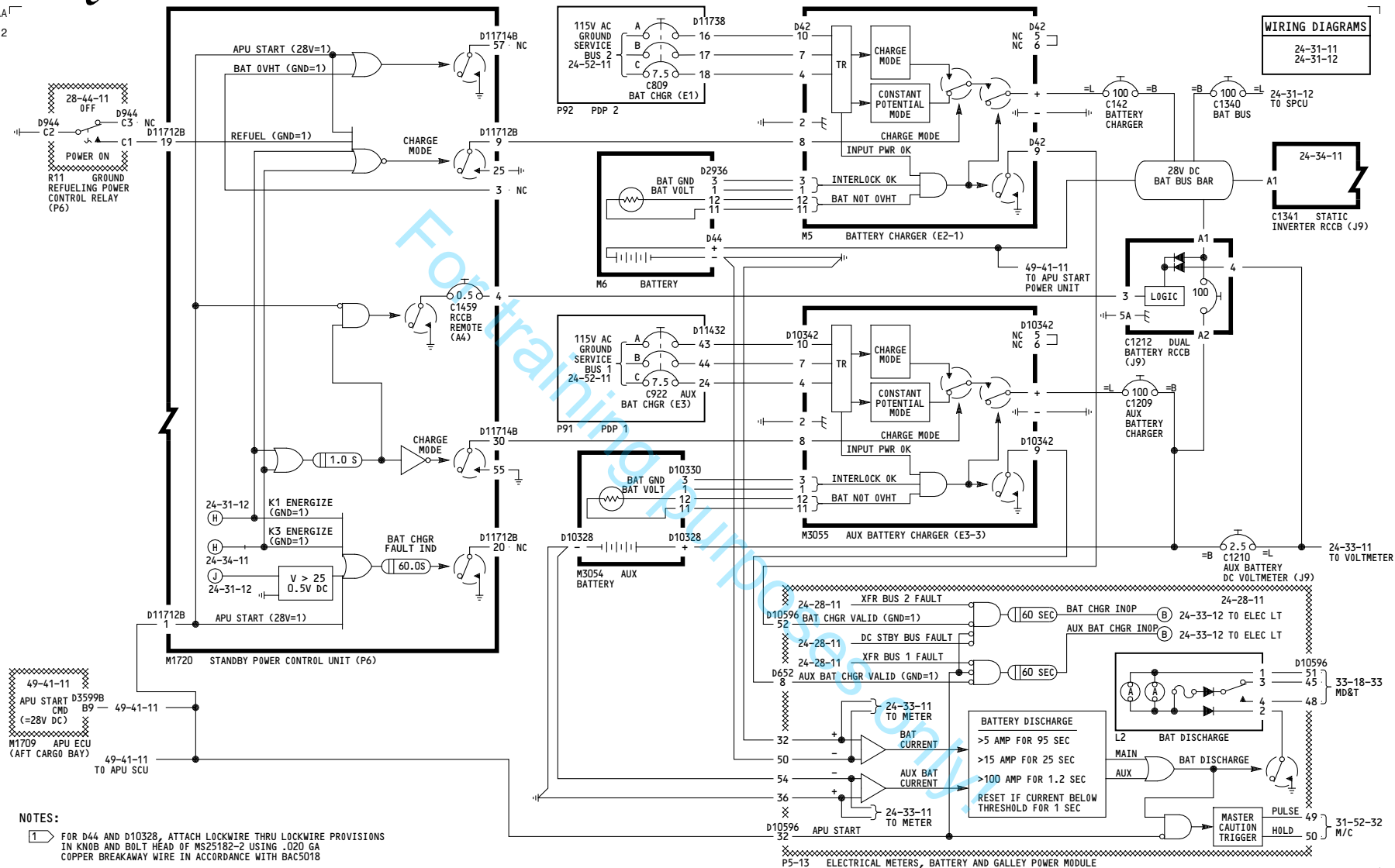
PULSE	49	} 31-52- M/C
	HOLD 50	

BATTERY AND BATTERY CHARGER

24-31-11

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$$AA \begin{array}{|c} \hline \end{array}$$


NOTES:

- 1 FOR D44 AND D10328, ATTACH LOCKWIRE THRU LOCKWIRE PROVISIONS IN KNOB AND BOLT HEAD OF MS25182-2 USING .020 GA COPPER BREAKAWAY WIRE IN ACCORDANCE WITH BAC5018

YD006-YD020

BATTERY AND BATTERY CHARGER

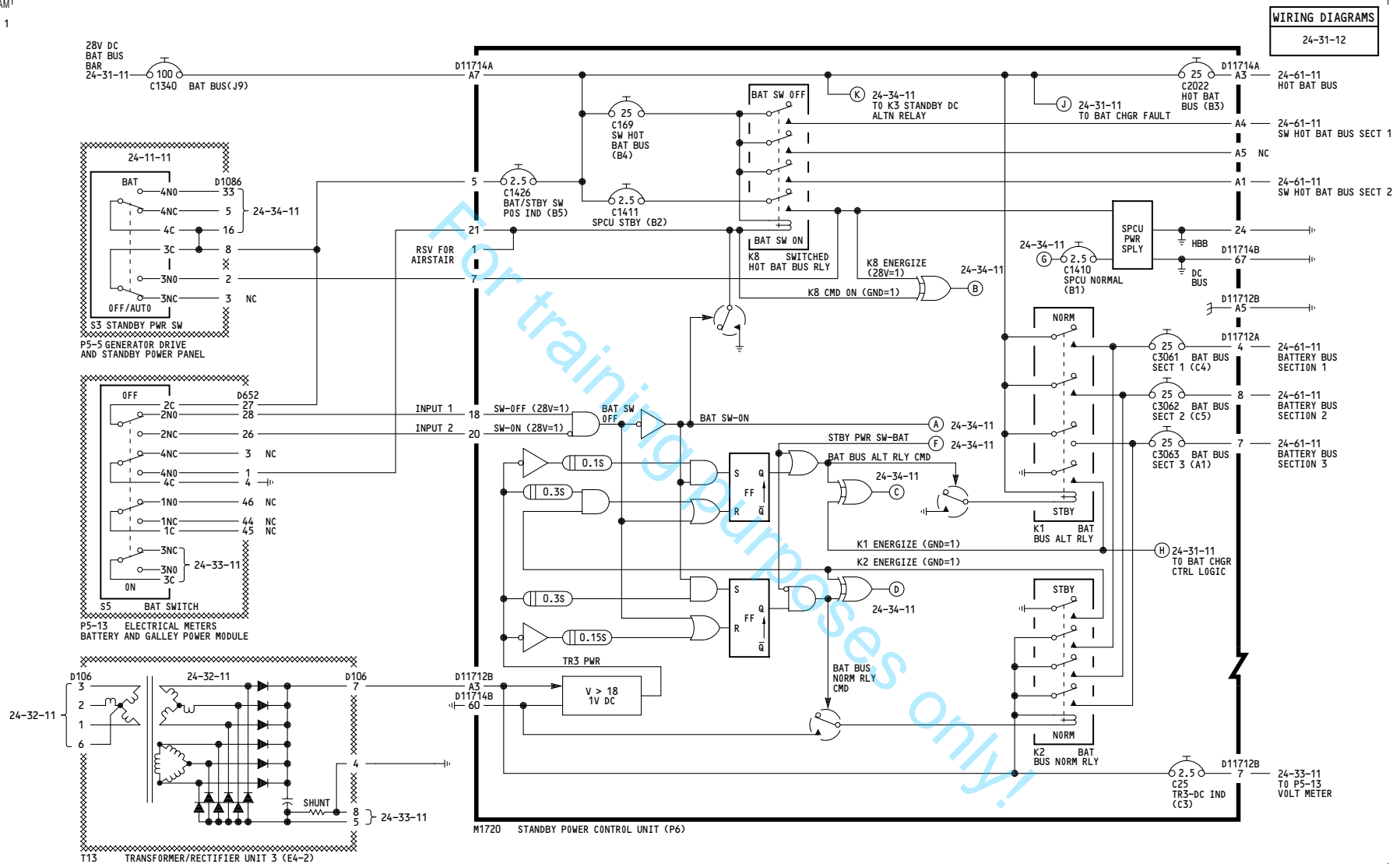
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24-31-11

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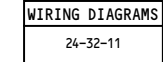
BATTERY BUS

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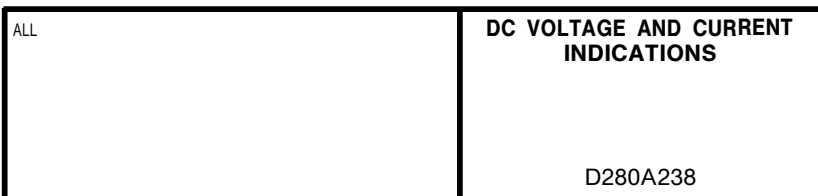
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MAIN DC BUSES

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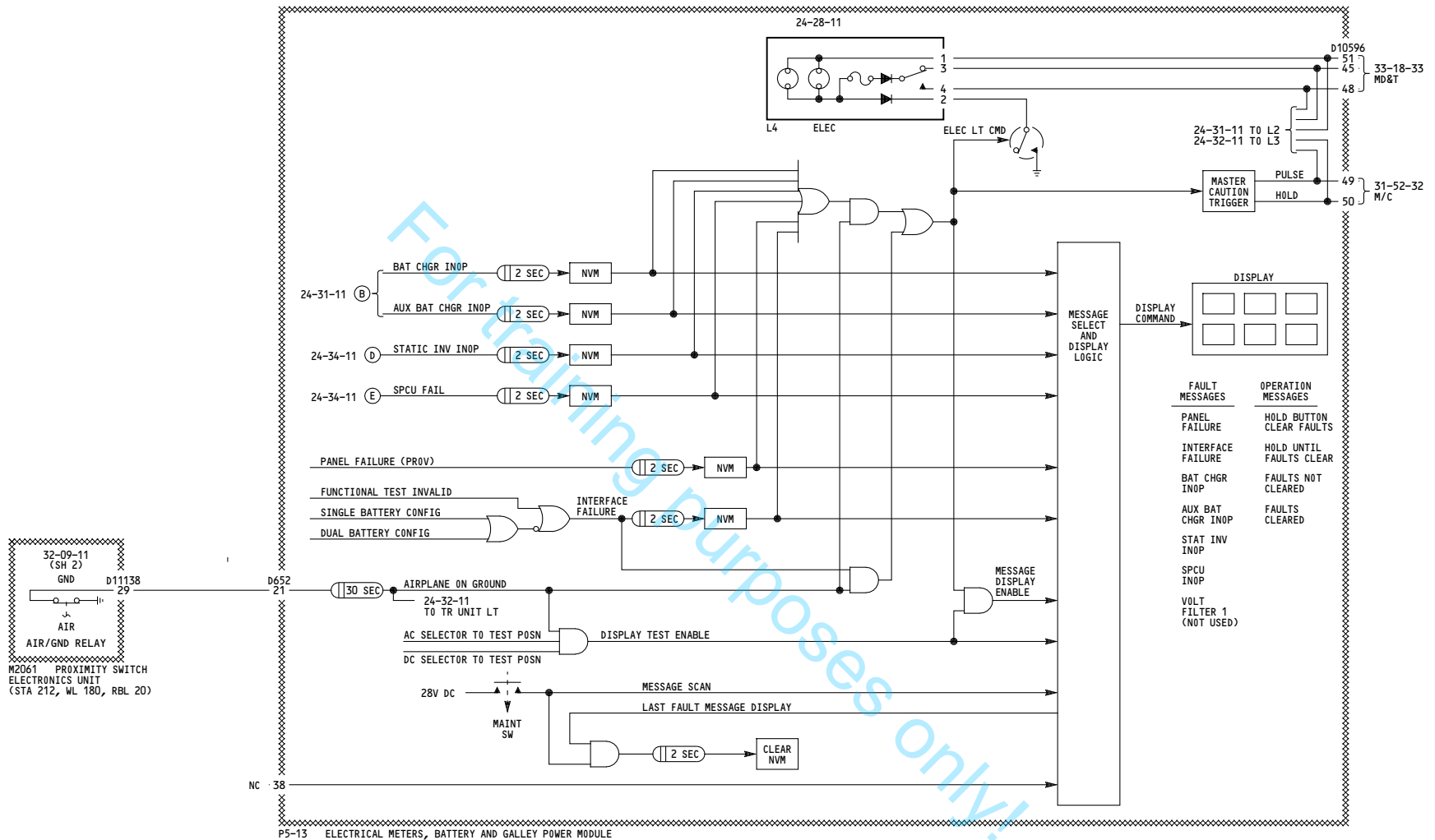


WIRING DIAGRAMS



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**ELEC LIGHT AND
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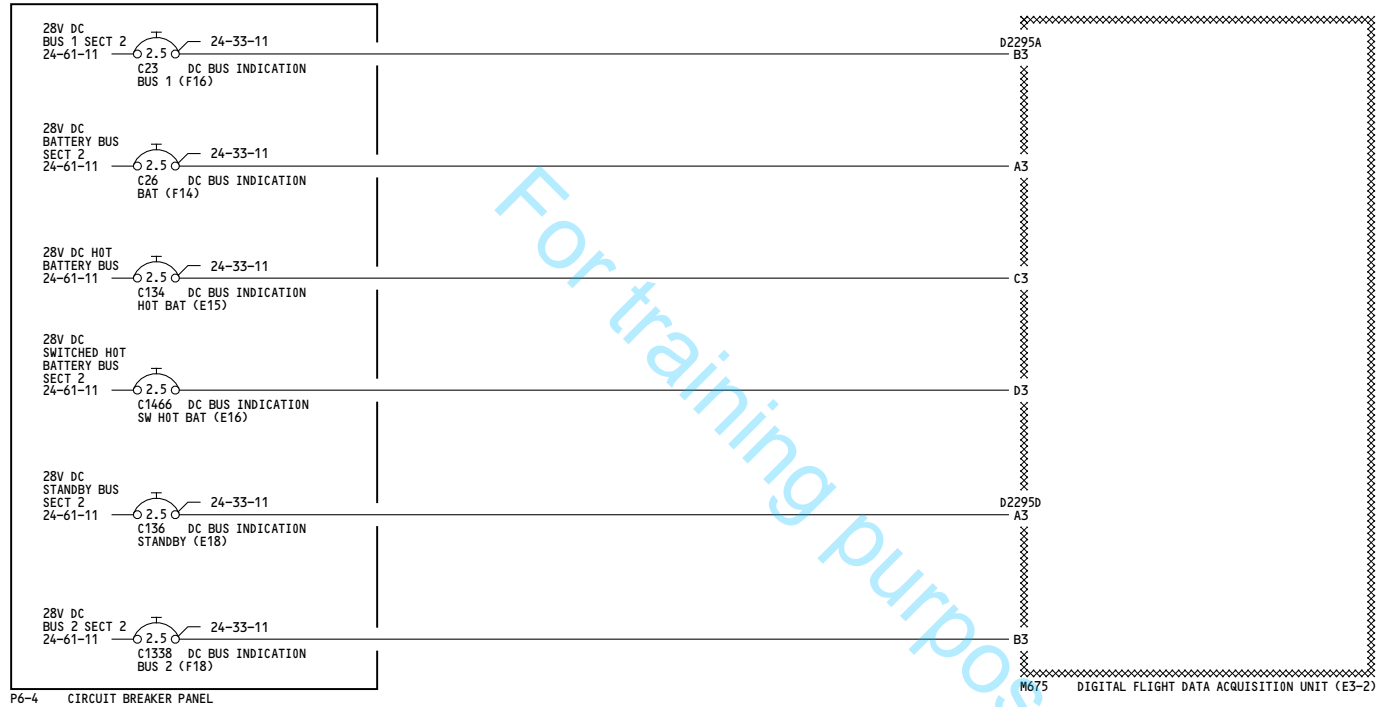
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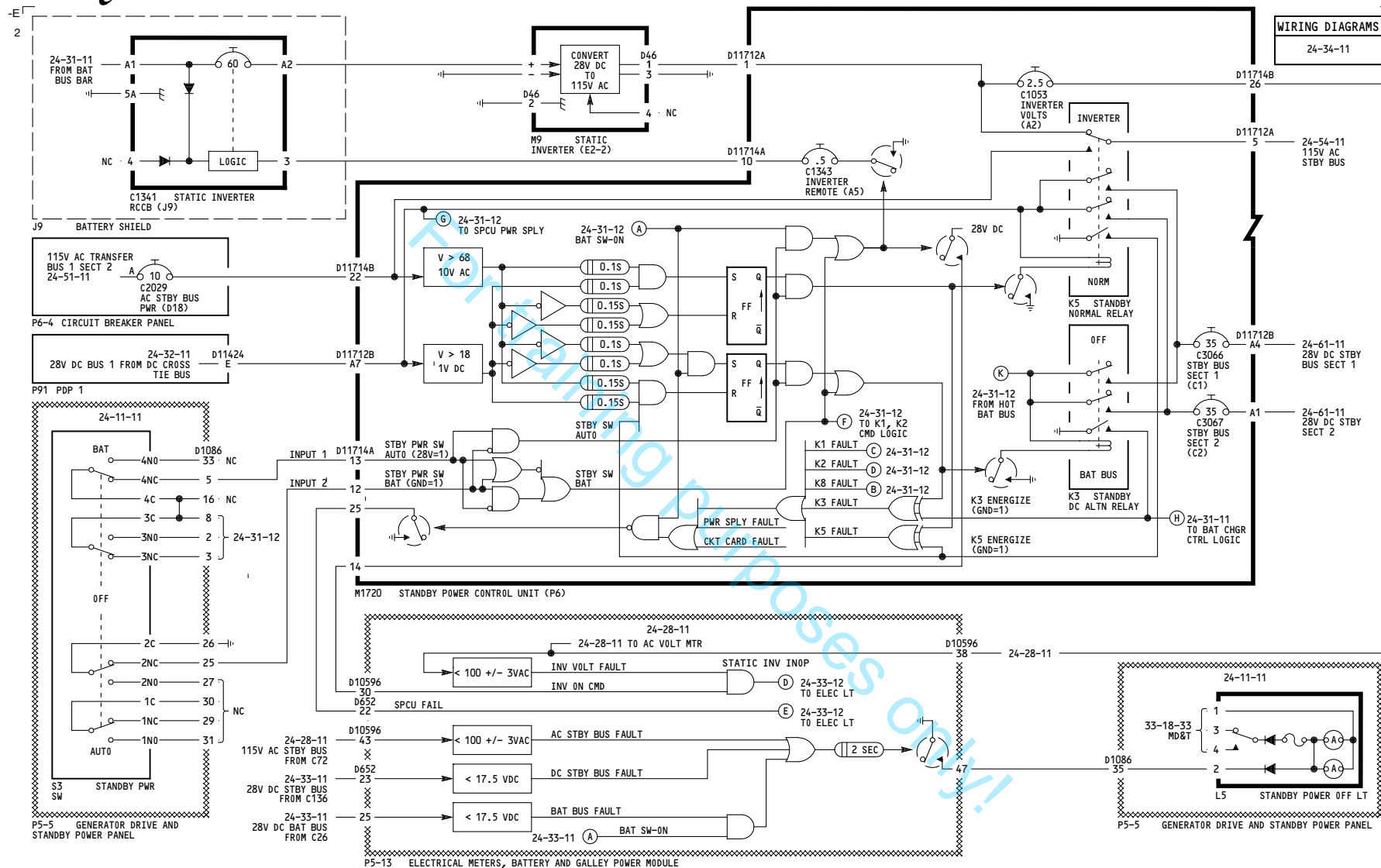
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YD001-YD006

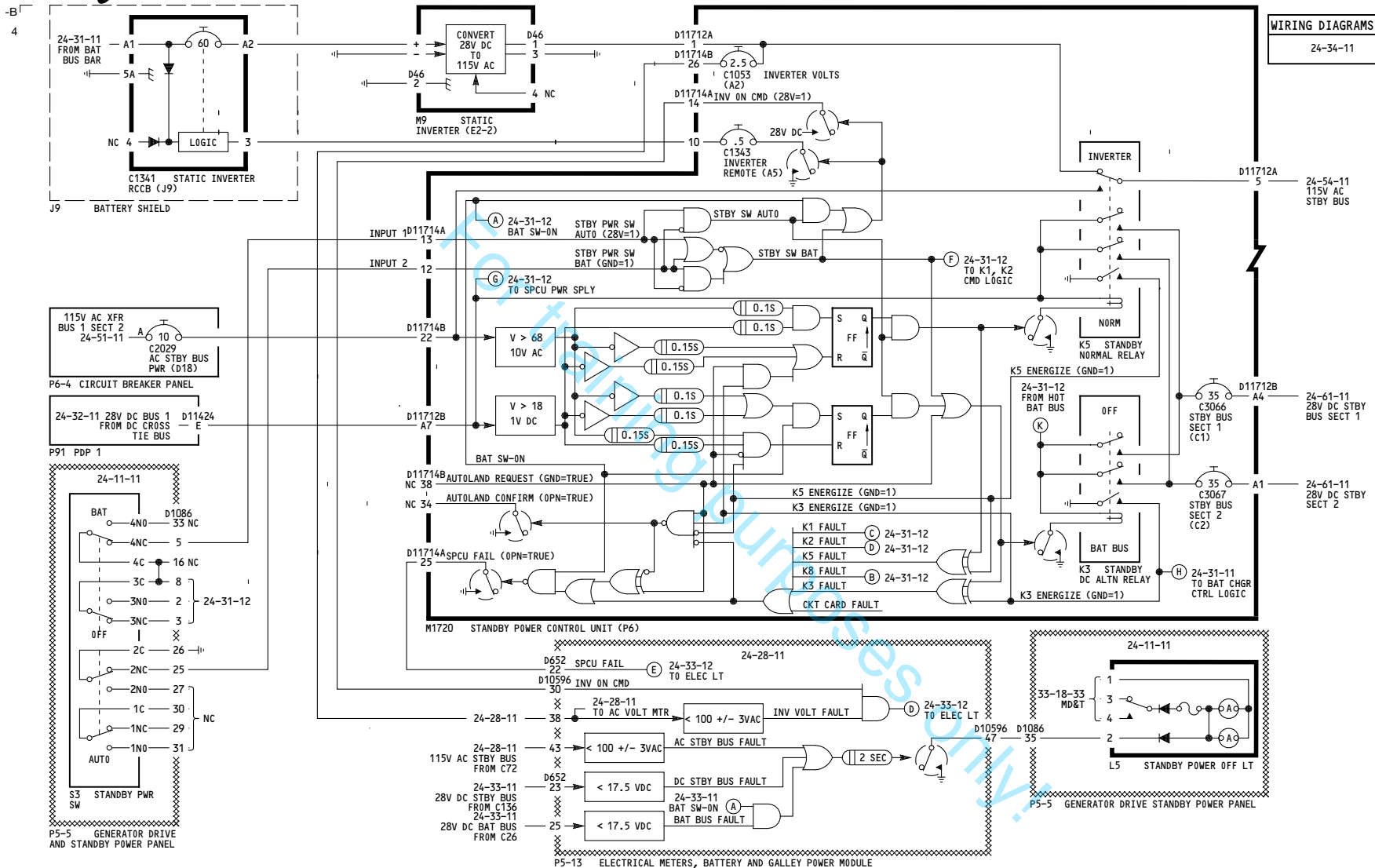
STANDBY POWER

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YD007-YD020

STANDBY POWER

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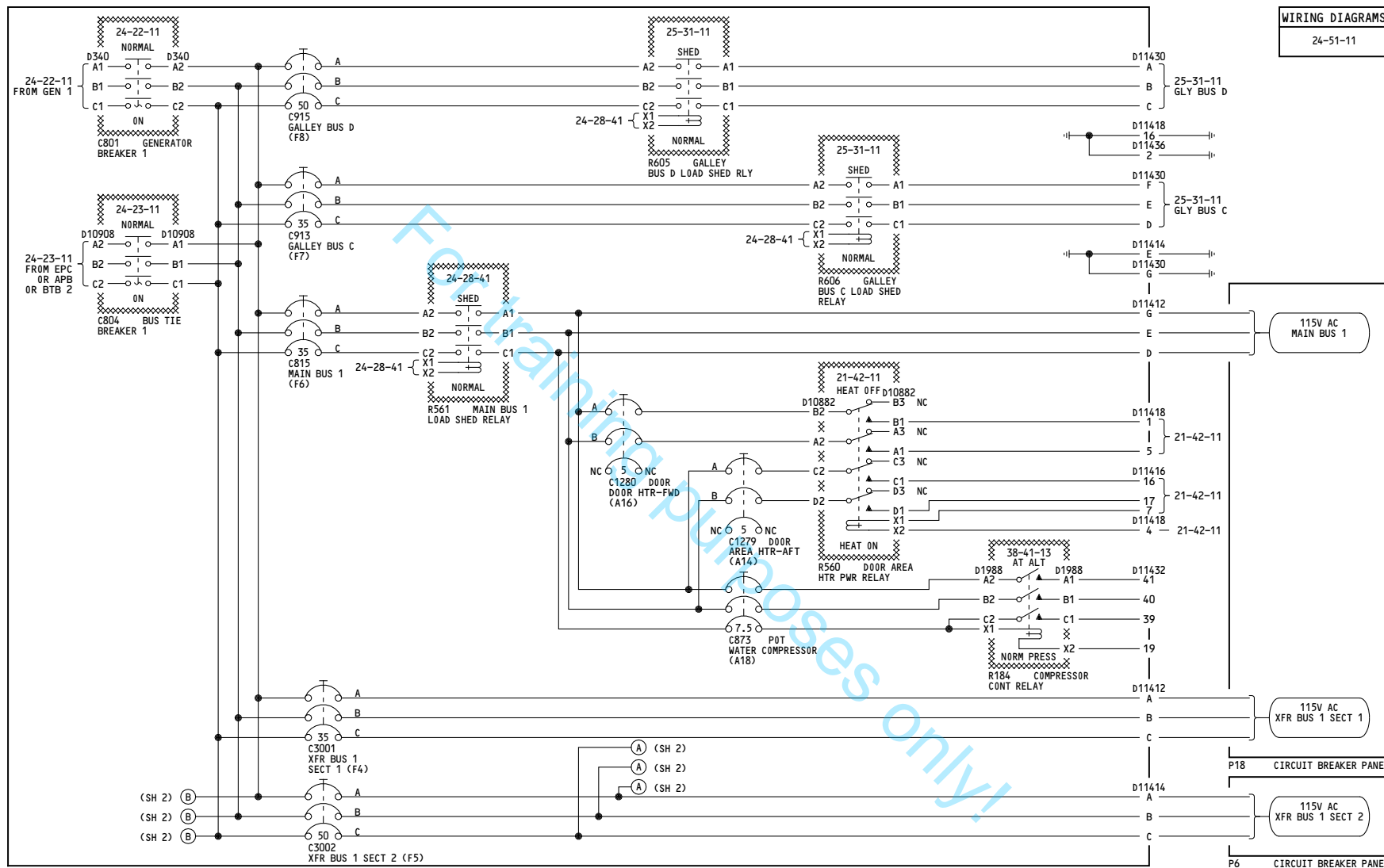
WIRING DIAGRAMS

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WIRING DIAGRAMS
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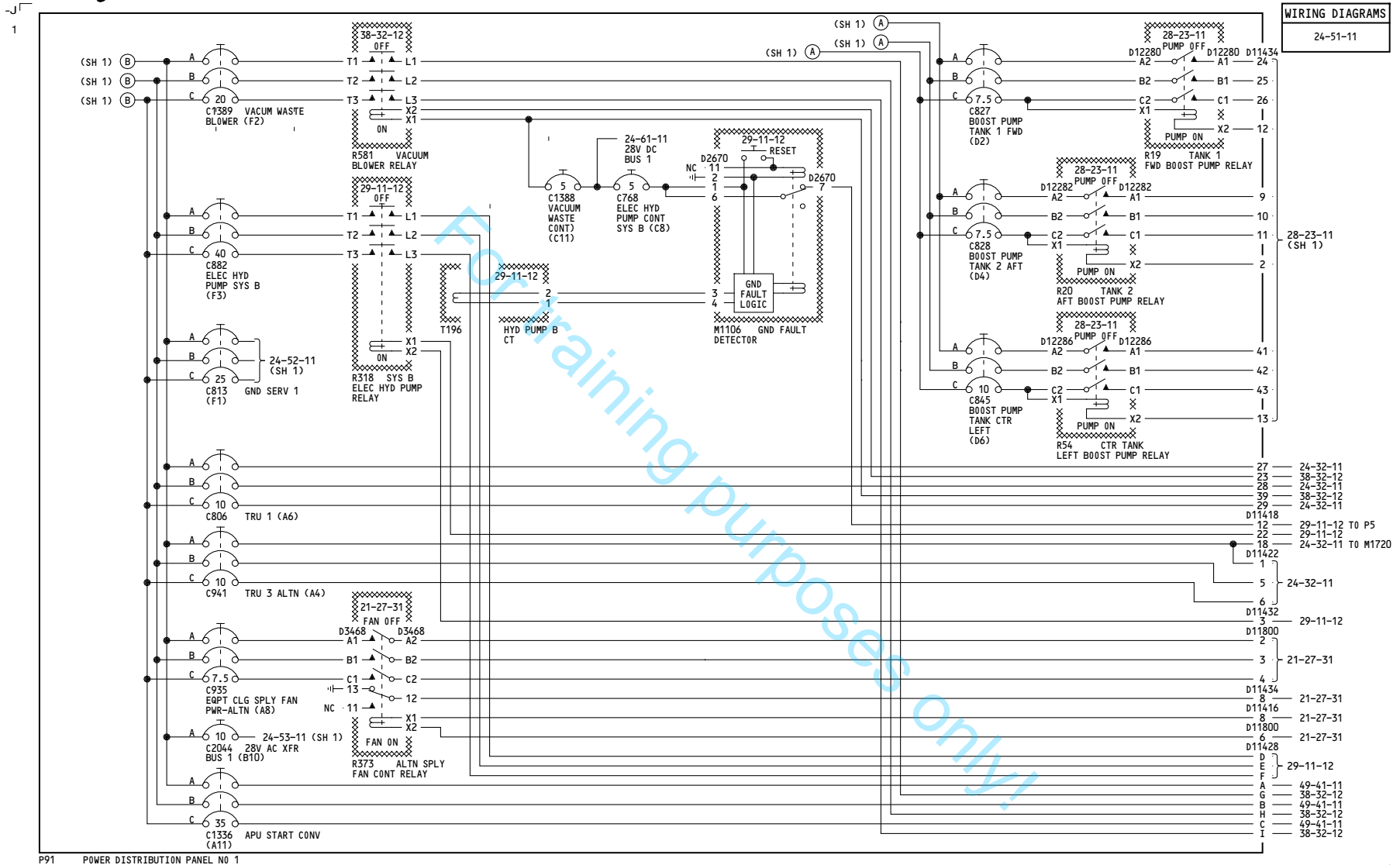
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115V AC TRANSFER BUS 1

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YD001-YD006

115V AC TRANSFER BUS 1

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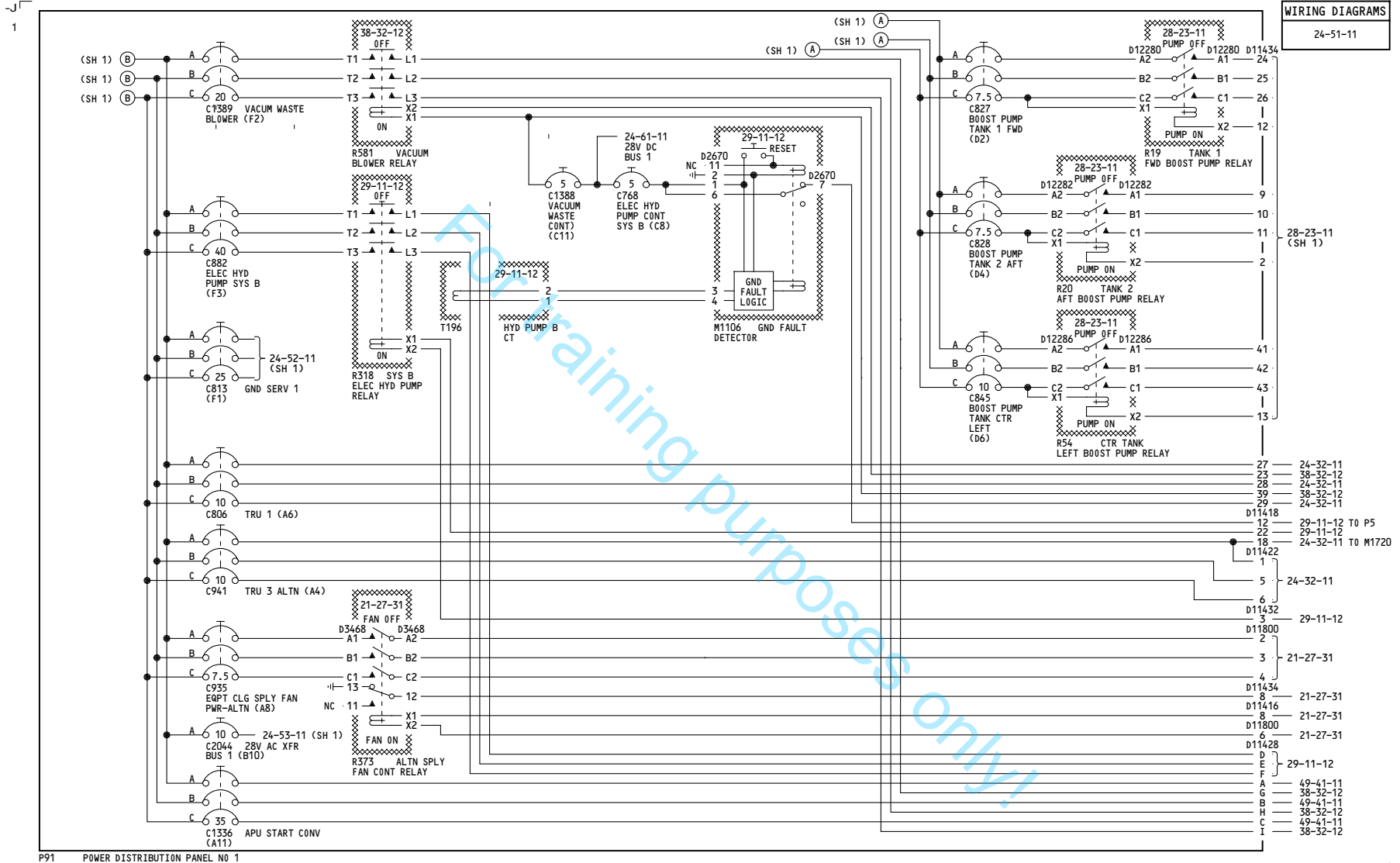
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YD007

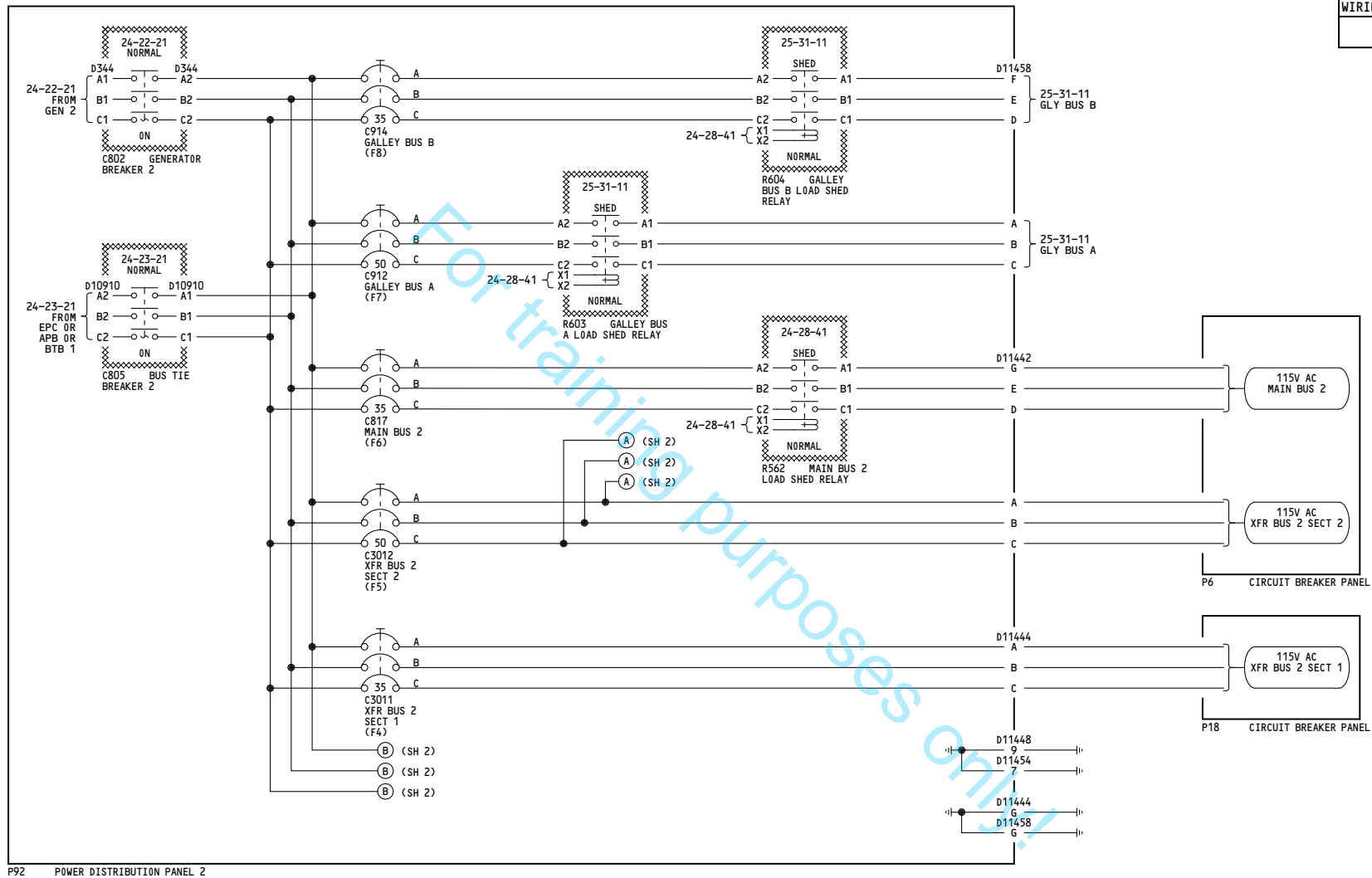
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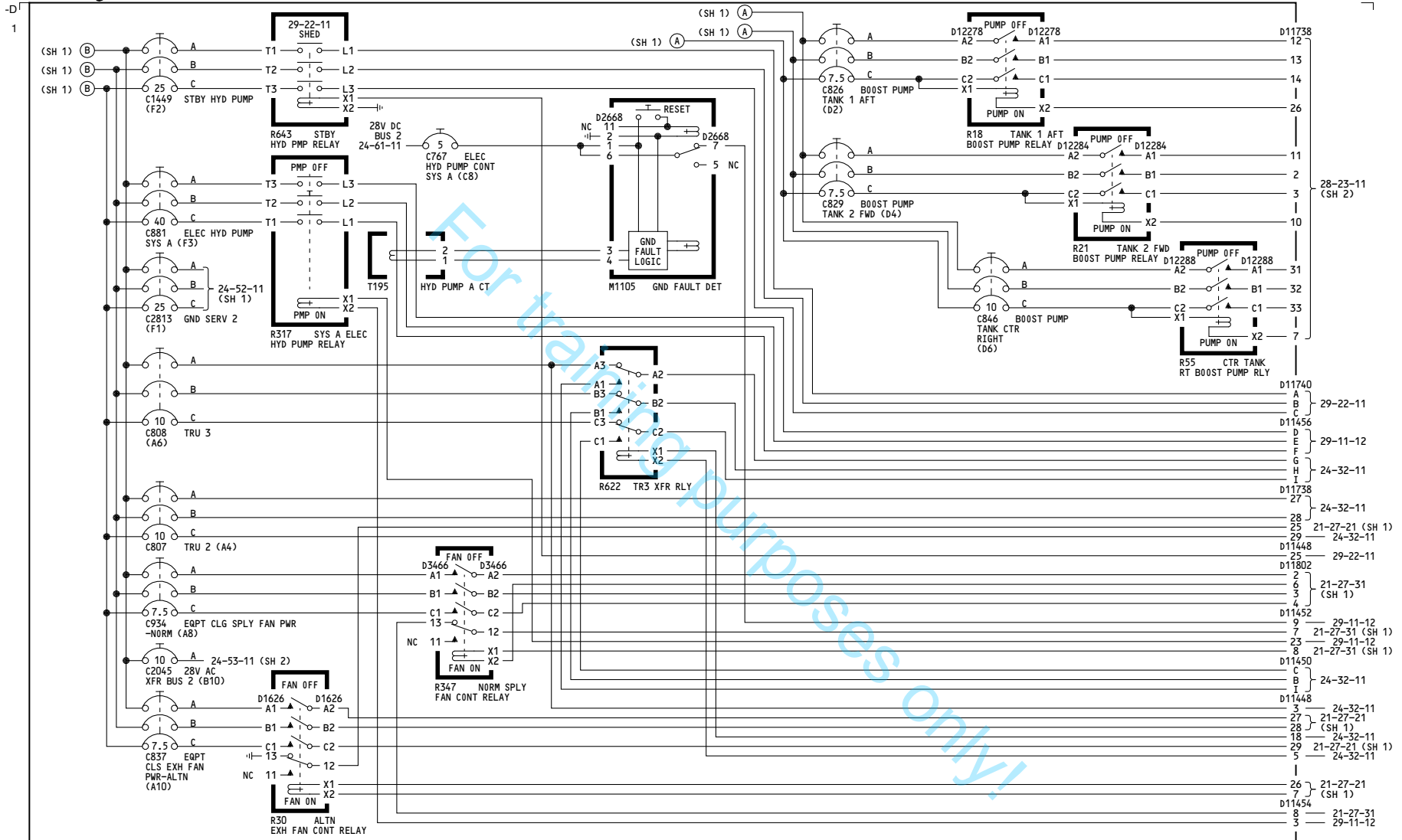


P92 POWER DISTRIBUTION PANEL 2

YD001-YD006	115V AC TRANSFER BUS 2
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P92 POWER DISTRIBUTION PANEL NO 2

YD001-YD006

115V AC TRANSFER BUS 2

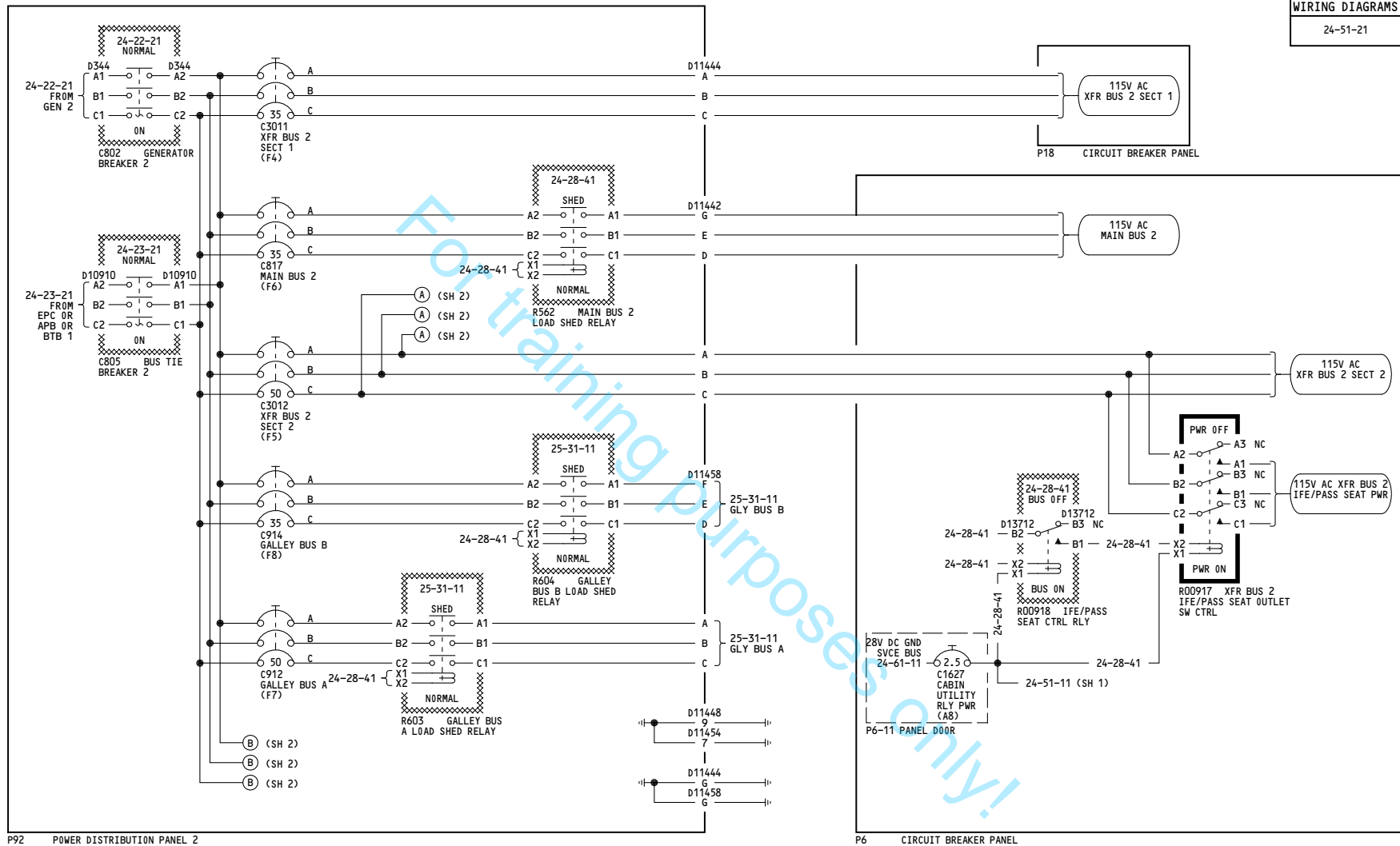
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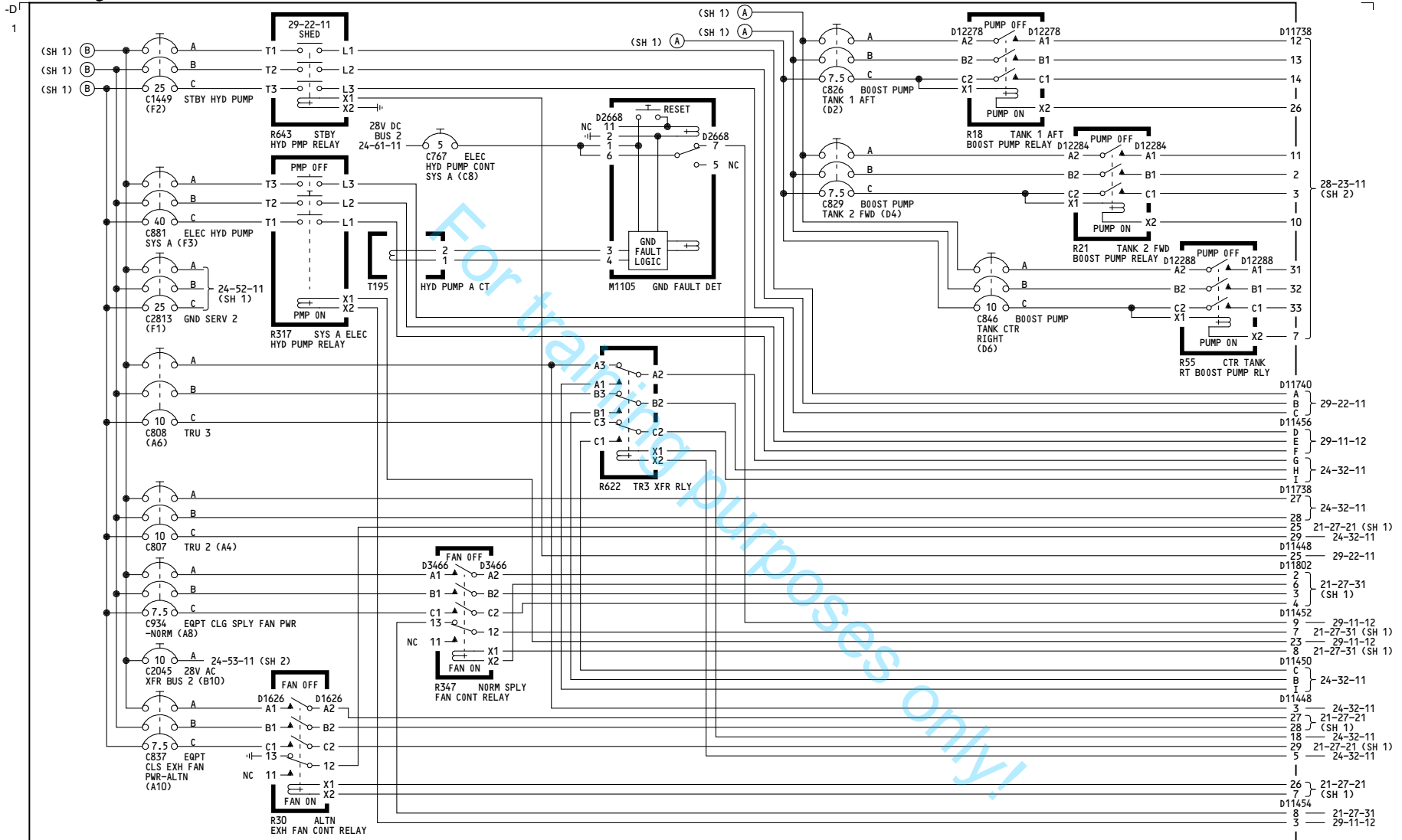
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115V AC TRANSFER BUS 2

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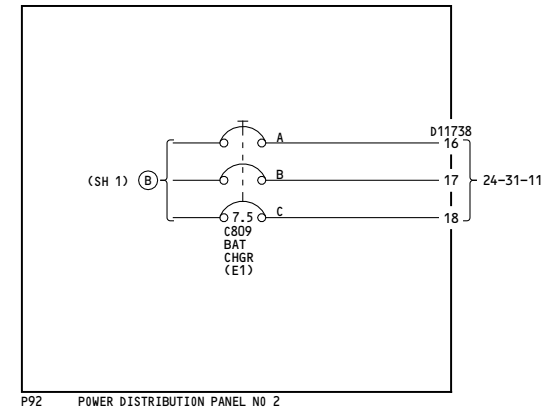
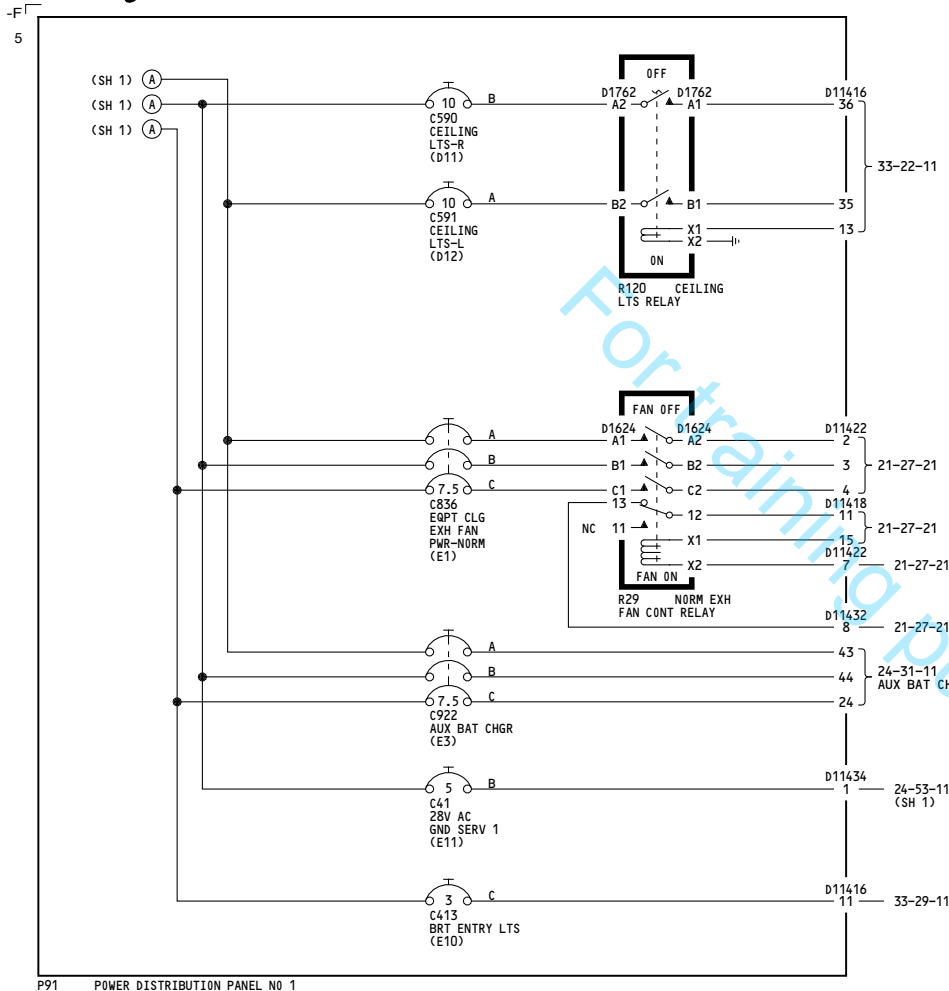
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WIRING DIAGRAMS



YD001-YD007	115V AC GROUND SERVICE BUS
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YD001-YD007

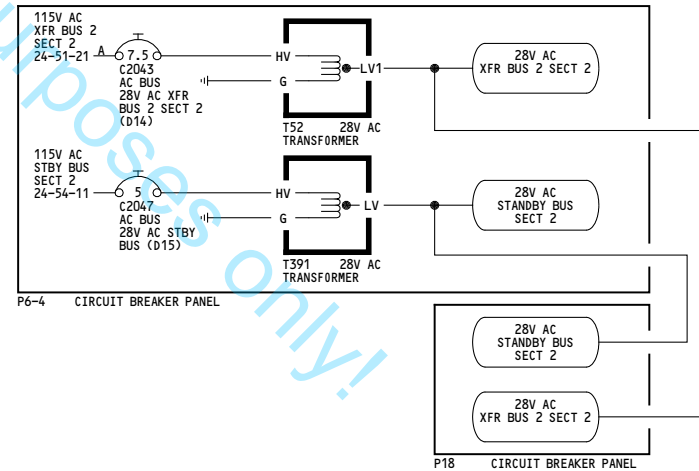
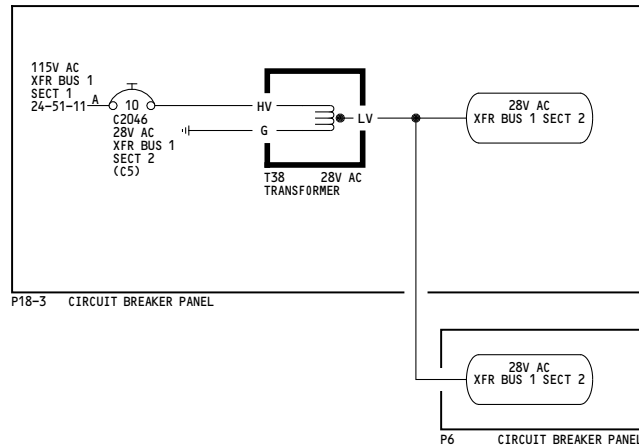
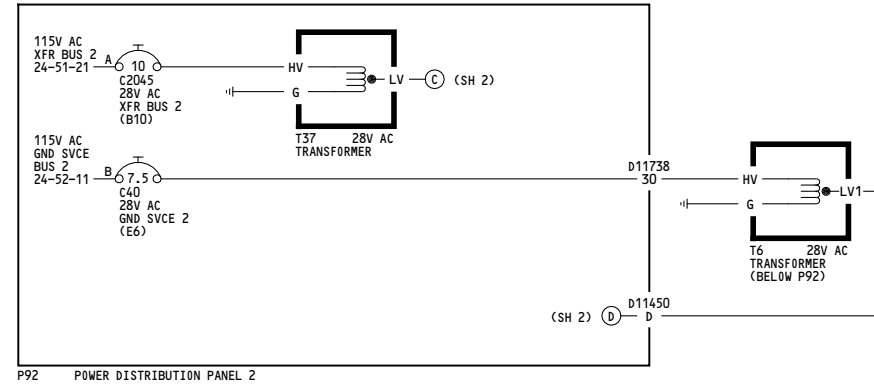
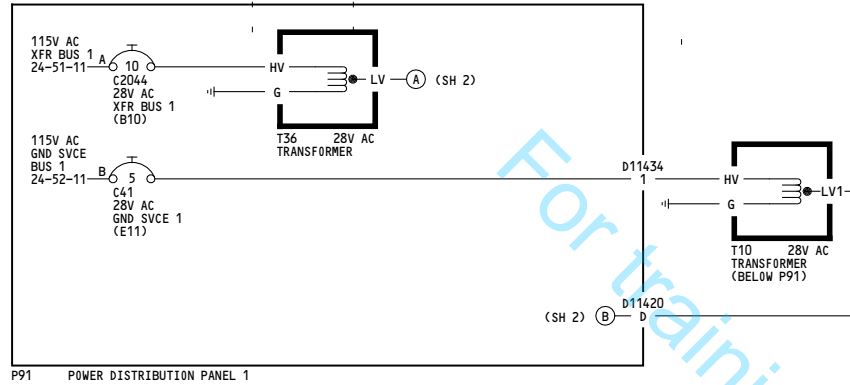
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SERVICE BUS**

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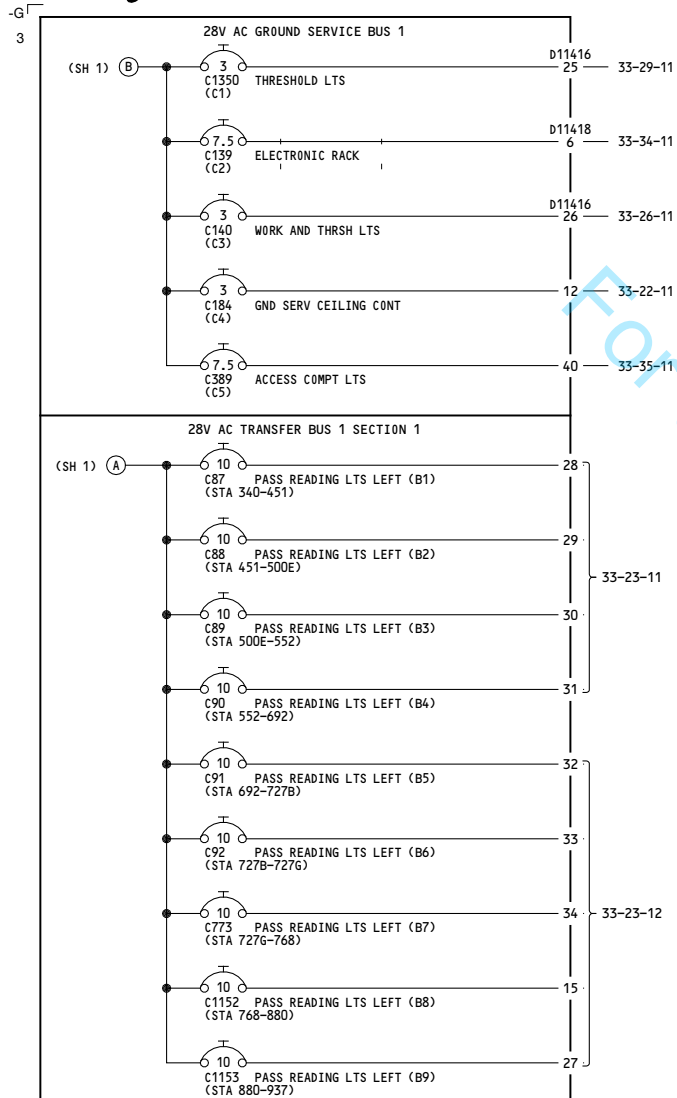
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YD001-YD007	28V AC BUSES
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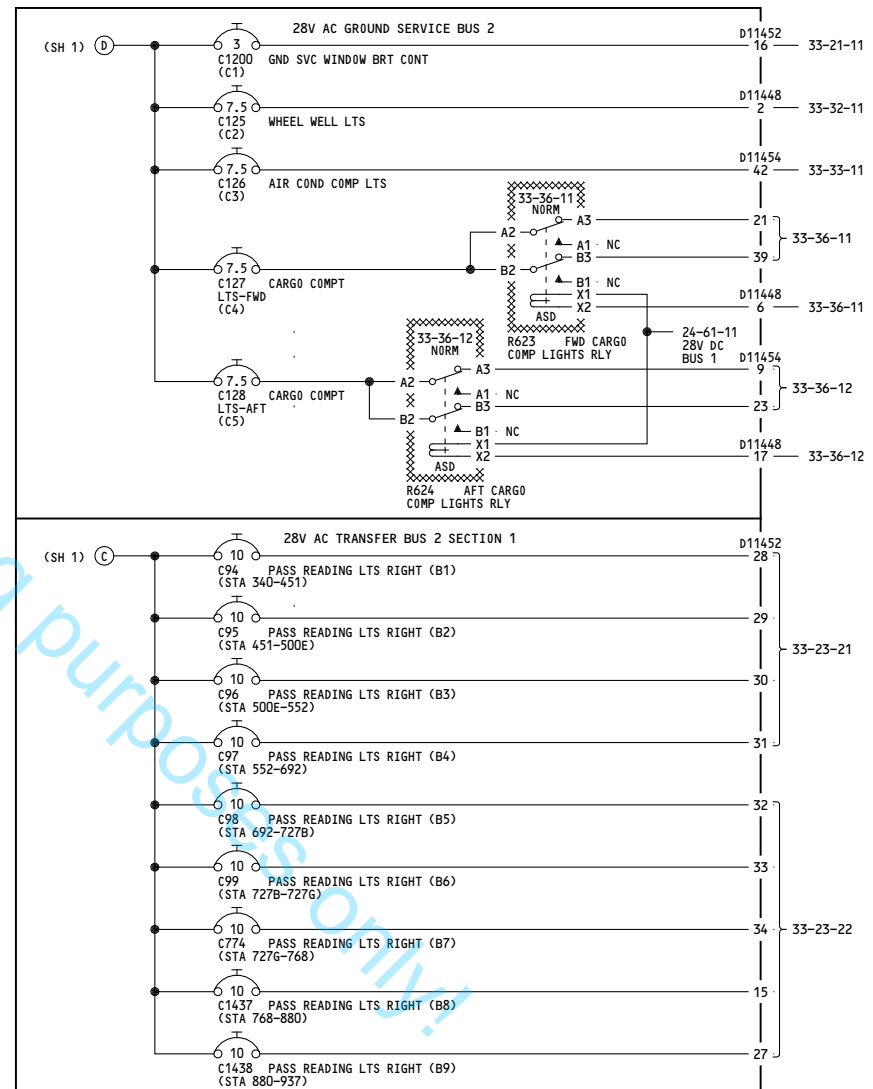


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28V AC BUSES

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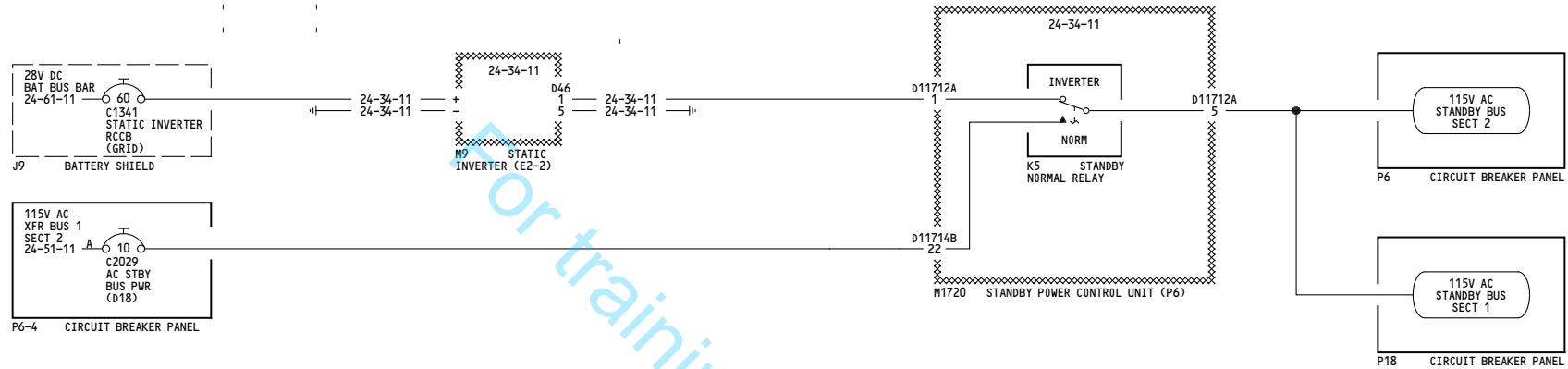


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24-54-11



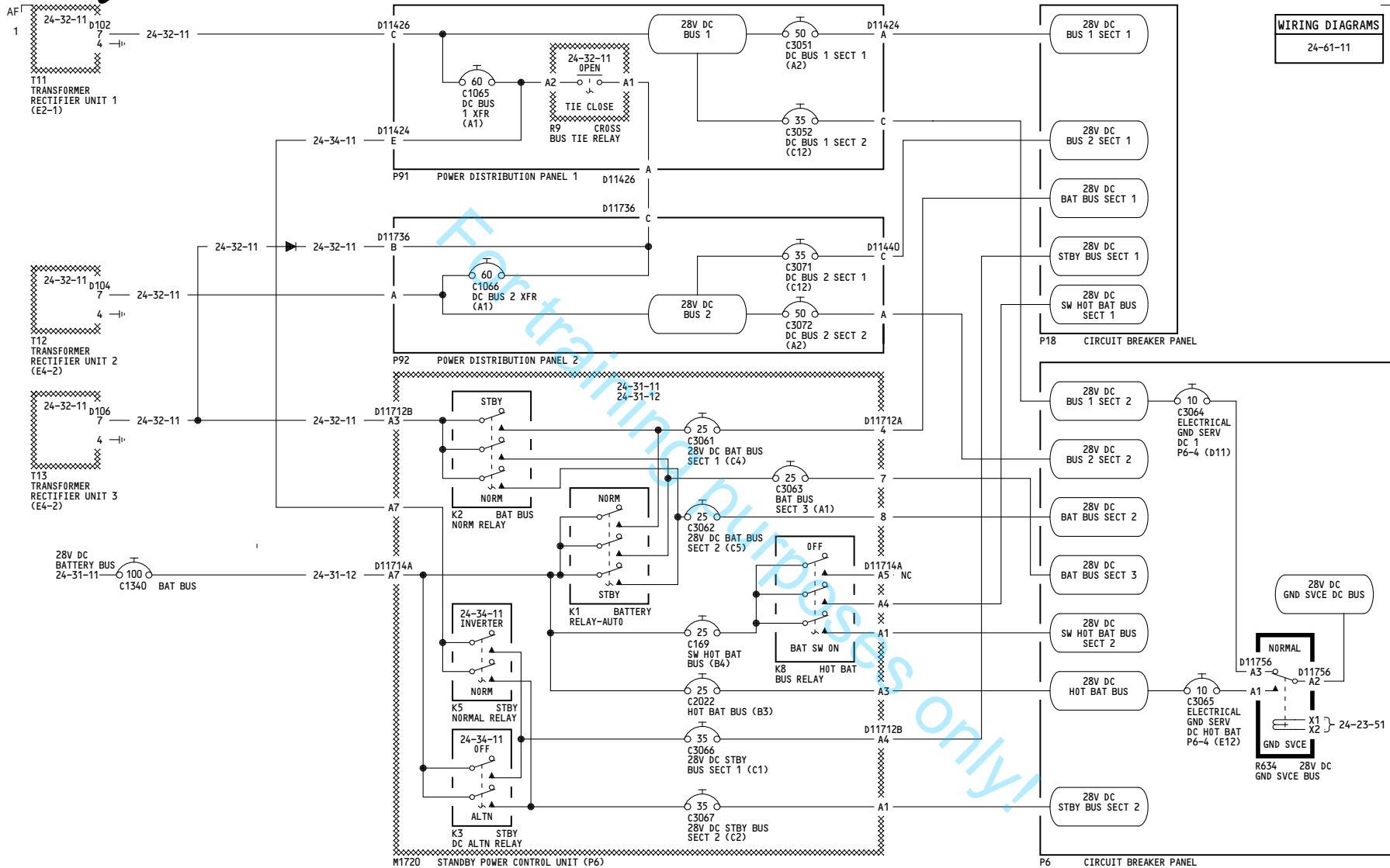
ALL	115V AC STANDBY BUS
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737-800 SYSTEM SCHEMATIC MANUAL



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28V DC BUSES

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