

87654321

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N430WB ELECTRICAL SYSTEM
SCHEMATIC

MFGR	PN	SN	PURCHAS ED
GARMIN	GDU-460	350002240	5/29/2017
GARMIN	GDU-460	350002238	5/29/2017
GARMIN	GSA-28	2PG004041	3/12/2017
GARMIN	GSA-28	2PG004040	3/12/2017
GARMIN	GAD-27	4A8000GG1	5/29/2017
GARMIN	GEA-24	2J2002790	5/29/2017
GARMIN	GAP-26	34F101300	5/29/2017
GARMIN	GMU-22	278002360	5/29/2017
GARMIN	GMC-307	4DH200592	7/10/2017
GARMIN	GSU-25	2SA003861	5/29/2017
GARMIN	GTX-45R	4YC000398	7/10/2017
GARMIN	GTR-20	2QP000758	7/10/2017
GARMIN	GPS-20A	4CK000455	2/2/17
GARMIN	GA-35	133335	5/29/2017
ARTEX	ELT	?	?
?	COMM ANT	?	?
?	XPDR ANT	?	?
WHELEN	L STROBE	?	?
WHELEN	R STROBE	?	?
WHELEN	TAIL STROBE	?	?
WHELEN	BATT. BU.	?	?

ALL UNSHIELDED WIRE: MIL-W-22759/16; 22 AWG UNLESS NOTED.

ALL SHIELDED WIRE: MIL-C-27500-22TG

○

TB## TERMINAL BLOCK SPLICE

ST
R

▽

GND TO STRUCTURE

G

▽

SHIELD GND (LOCAL BACKSHELL).

TAB
S

≡

POWER RETURN GROUND ("FOREST OF TABS").

<<

IN-LINE SPLICE (NO CONNECTOR SHELL).

—

XNN/
AA

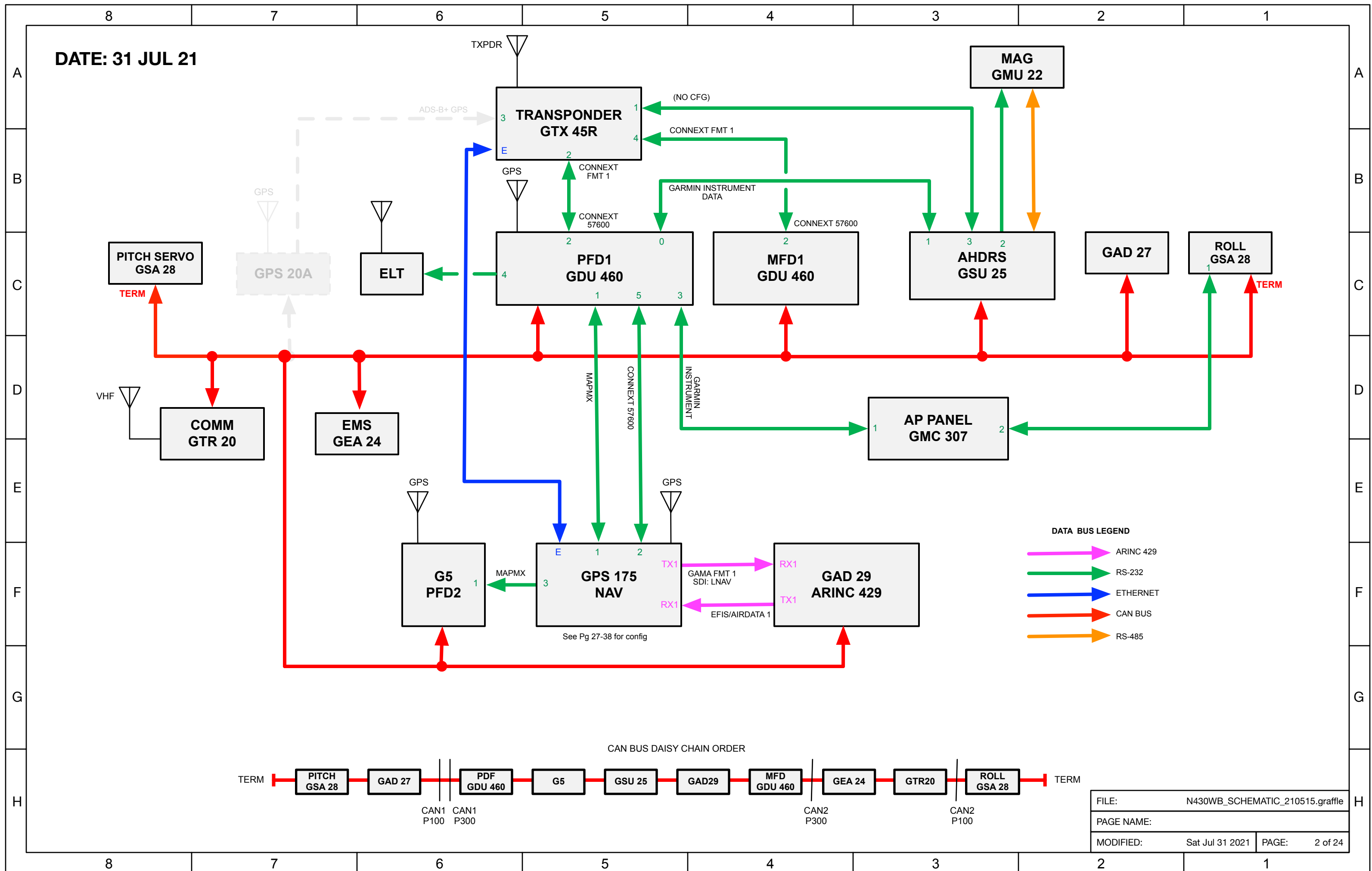
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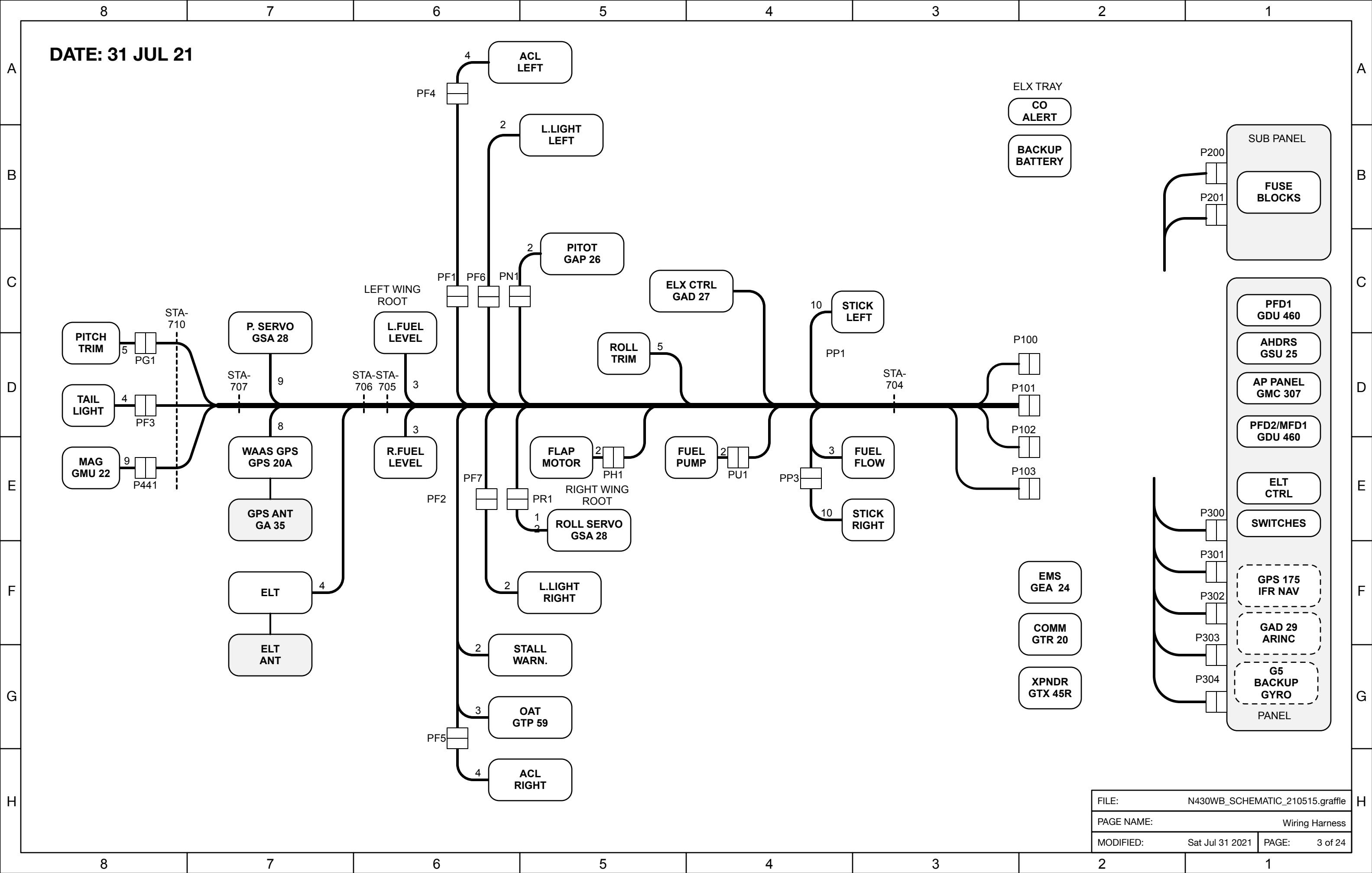
WIRE IDENTIFICATION.
WIRE ID/AWG (22 AWG IF NO INDICATION GIVEN)

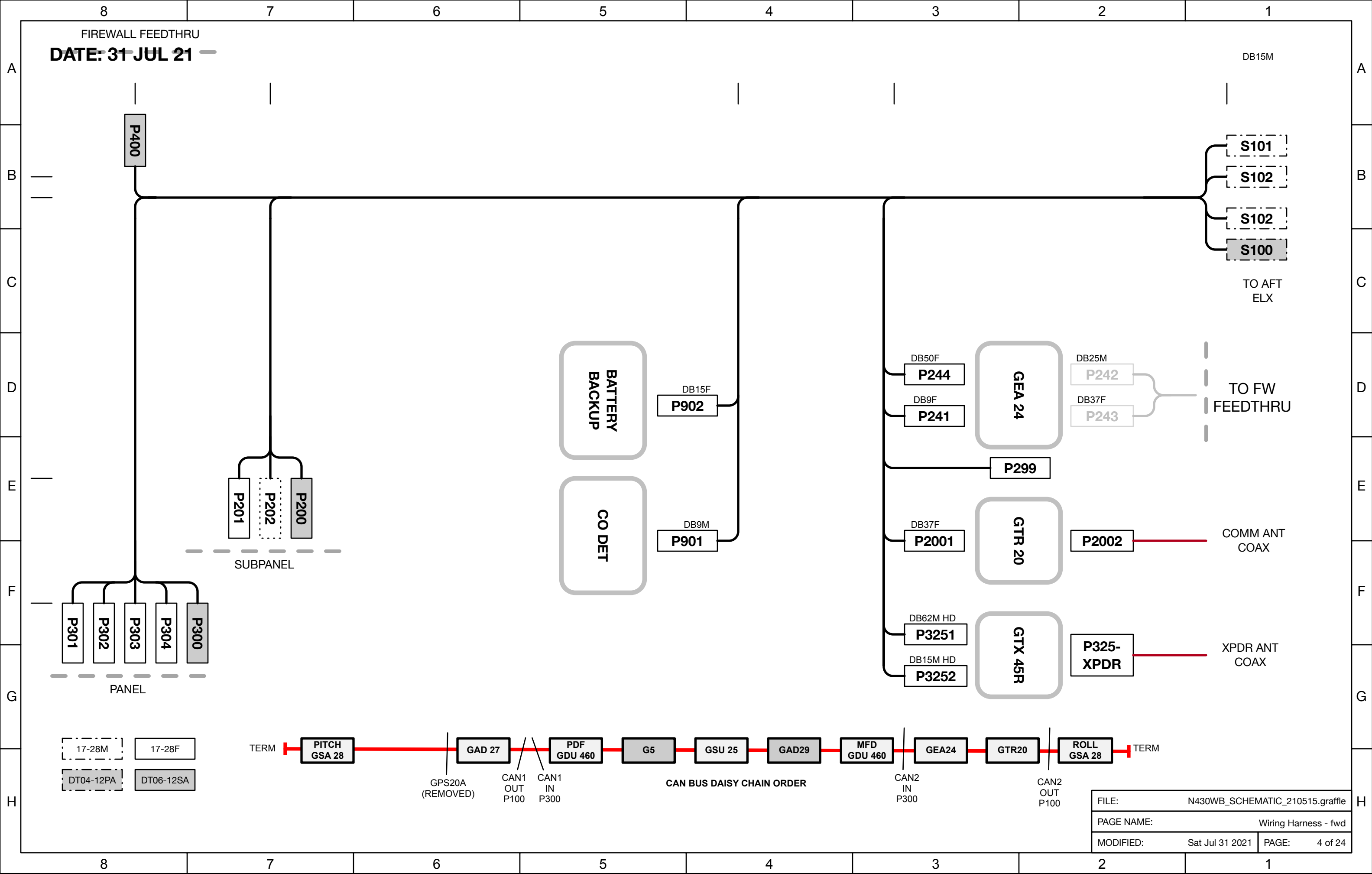
N430WB ELECTRICAL

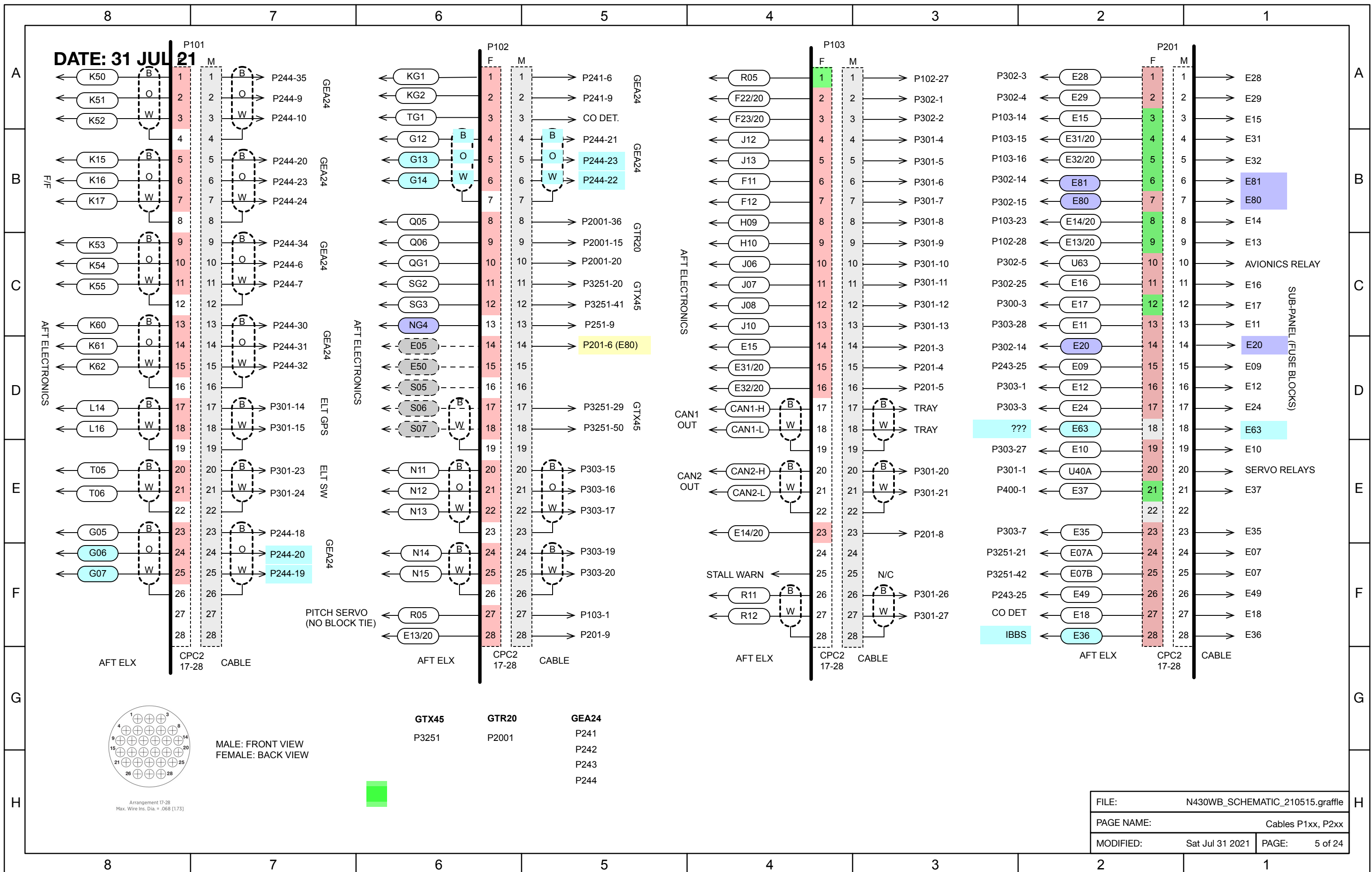
SIZE B	FSCM NO	DWG NO	REV
SCALE		NONE	REVISED
		2021-04-19	SHEET
		1 OF 24	

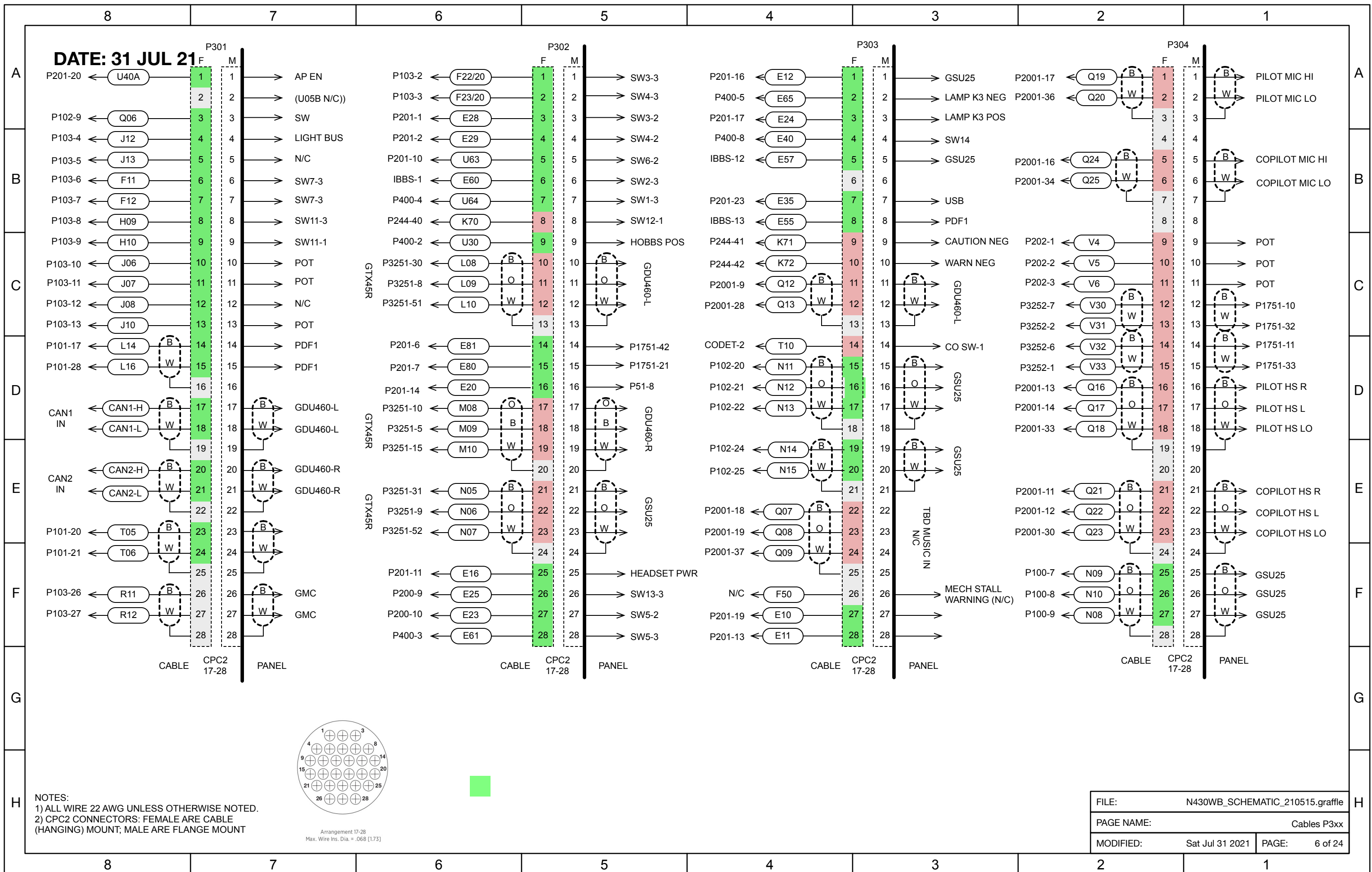
87654321











8 7 6 5 4 3 2 1

A

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E

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G

H

DATE: 31 JUL 21

P200
F M

P100-3 ← E26/14 → 1 → 1 → E26

P100-4 ← E33/14 → 2 → 2 → E33

P100-7 ← E27/14 → 3 → 3 → E27

P300-2 ← E34/14 → 4 → 4 → E34

5 → 5

P300-4 ← E30/14 → 6 → 6 → TBD

GTR20 ← E08/20 → 7 → 7 → E08

8 → 8

P302-26 ← E25 → 9 → 9 → E25

P302-27 ← E23 → 10 → 10 → E23

11 → 11

12 → 12

DT12

SUB-PANEL (FUSE BLOCKS)

P300
F M

P100-1 ← U11/14 → 1 → 1 → SW8-3

P200-4 ← E34/14 → 2 → 2 → SW8-2

P201-12 ← E17 → 3 → 3 → GMC307

P200-6 ← E30/14 → 4 → 4 → SW9-2

P100-2 ← U10/14 → 5 → 5 → SW9-3

TABS ← UG3/14 → 6 → 6 → PNL

7 → 7

8 → 8

9 → 9

10 → 10

11 → 11

12 → 12

DT12

PANEL (POWER)

TO FF

P400
P S

P201-21 ← E37 → 1 → 1 → SW30-1

P302-9 ← U30 → 2 → 2 → SW30-2

P302-28 ← E61 → 3 → 3 → ALT FIELD

P302-7 ← U64 → 4 → 4 → MASTER RELAY

P303-2 ← E65 → 5 → 5 → ALT STATUS

GEA24 ← E41 → 6 → 6 → SHUNT POS

GEA24 ← E42 → 7 → 7 → SHUNT NEG

P303-4 ← E40 → 8 → 8 → STARTER RELAY

9 → 9

10 → 10

11 → 11

12 → 12

DT12

FW F/T

FF CONNECTIONS

P202
F M

P304-9 ← V4 → 1 → 1 → LED CTL

P304-10 ← V5 → 2 → 2 → LED CTL

P304-11 ← V6 → 3 → 3 → LED CTL

4 → 4

5 → 5

6 → 6

7 → 7

8 → 8

9 → 9

DT12

SUB-PANEL

P100
F M

← U11/14 → 1 → 1 → P300-1

← U10/14 → 2 → 2 → P300-5

← E26/14 → 3 → 3 → P200-1

← E33/14 → 4 → 4 → P200-2

← E27/14 → 5 → 5 → P200-3

← UG3/14 → 6 → 6 → P300-6

← N09 → 7 → 7 → P304-25

← N10 → 8 → 8 → P304-26

← N08 → 9 → 9 → P304-27

10 → 10

11 → 11 → BATT BU

12 → 12

DT12

AFT ELECTRONICS

TRAY BUNDLE

NOTES:

1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

2) CPC2 CONNECTORS: FEMALE ARE CABLE (HANGING) MOUNT; MALE ARE FLANGE MOUNT.

3) DT12 CONNECTORS: FEMALE ARE CABLE (HANGING) MOUNT; MALE ARE FLANGE MOUNT.

FILE: N430WB_SCHEMATIC_210515.graffle

PAGE NAME: Cables, Pwr

MODIFIED: Sat Jul 31 2021

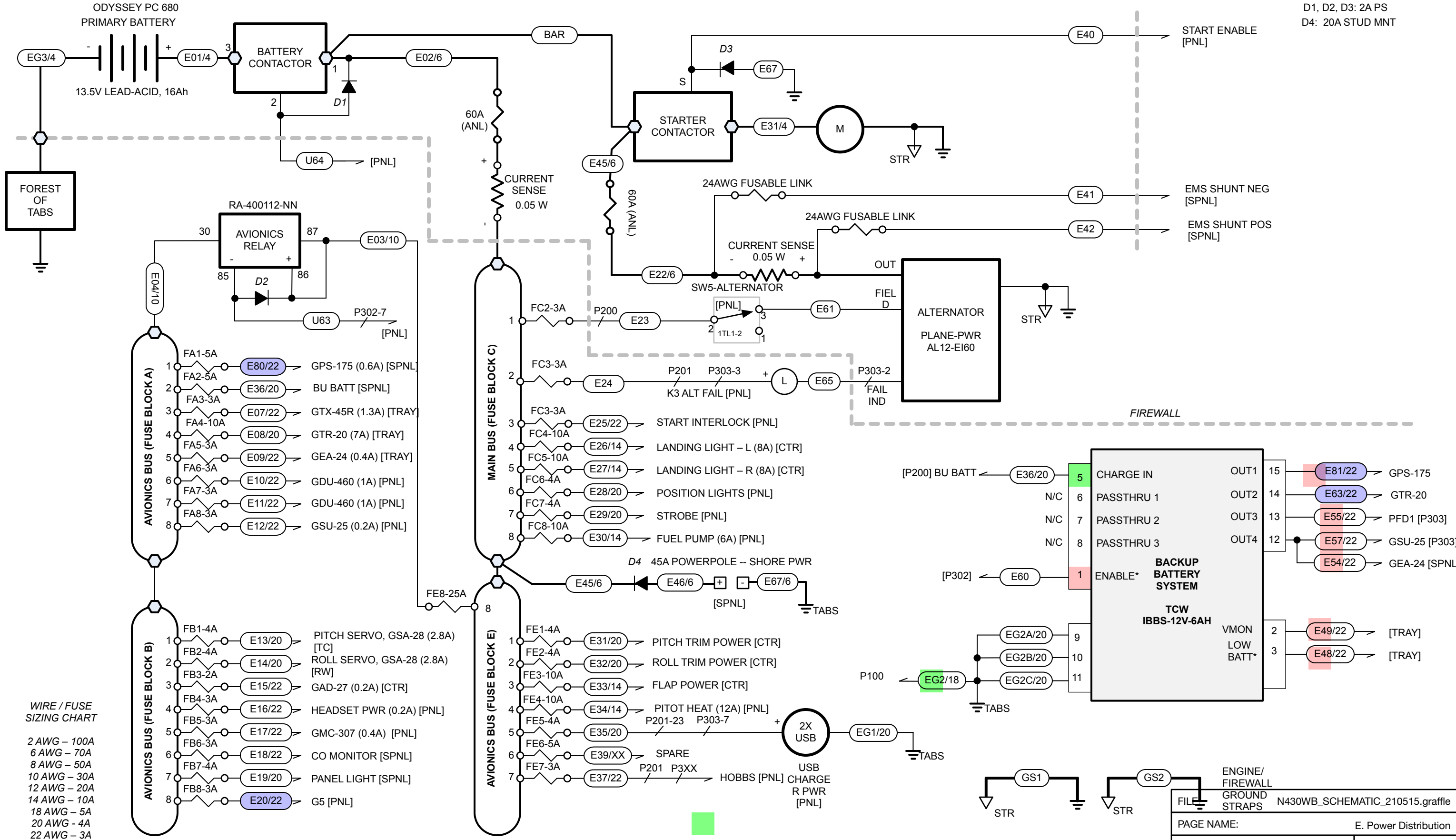
PAGE: 7 of 24

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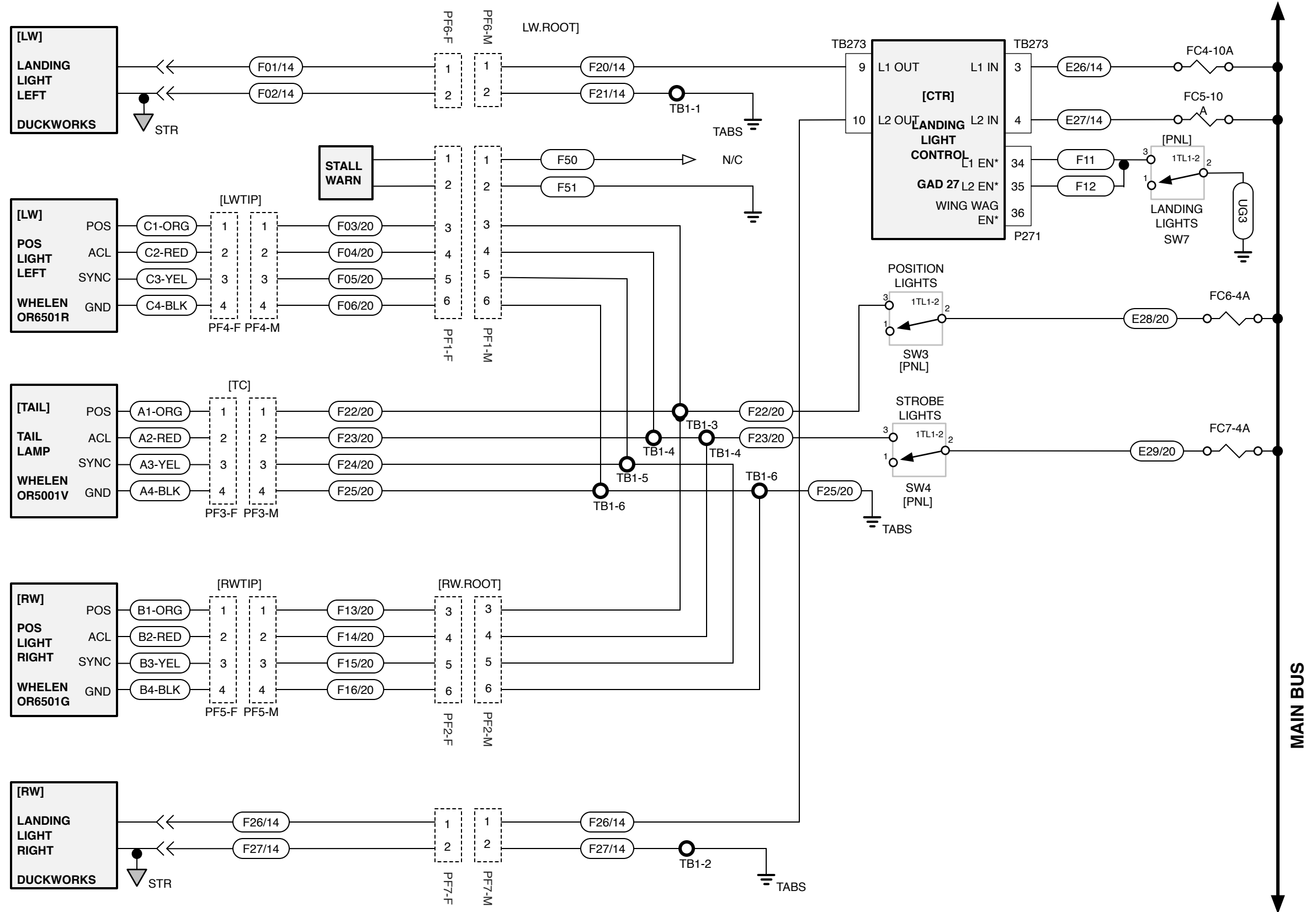
DATE: 31 JUL 21

NOTES

D1, D2, D3: 2A PS
D4: 20A STUD MNT



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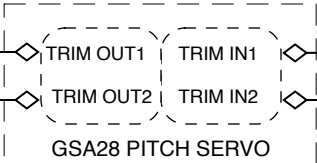
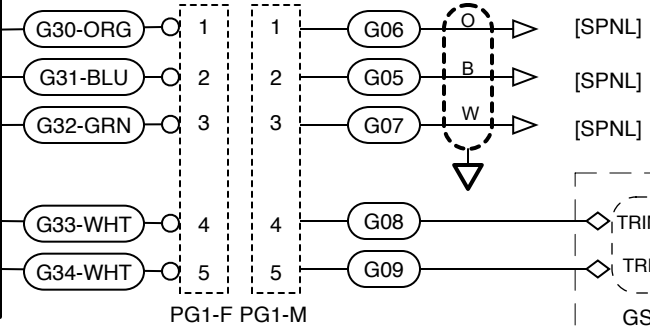
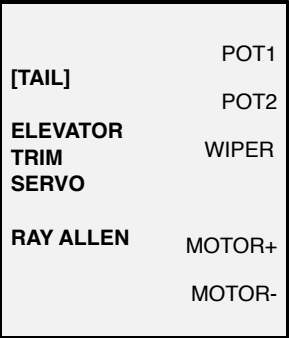


NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.
2) TB: TERMINAL BLOCK

FILE:	N430WB_SCHEMATIC_210515.graffle		
PAGE NAME:	F. GAD27/Ext Lighting		
MODIFIED:	Sat Jul 31 2021	PAGE:	9 of 24

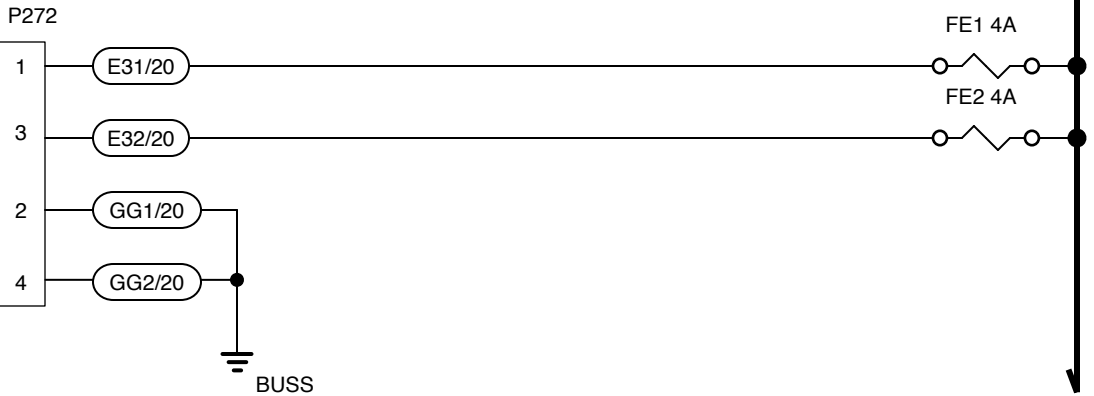
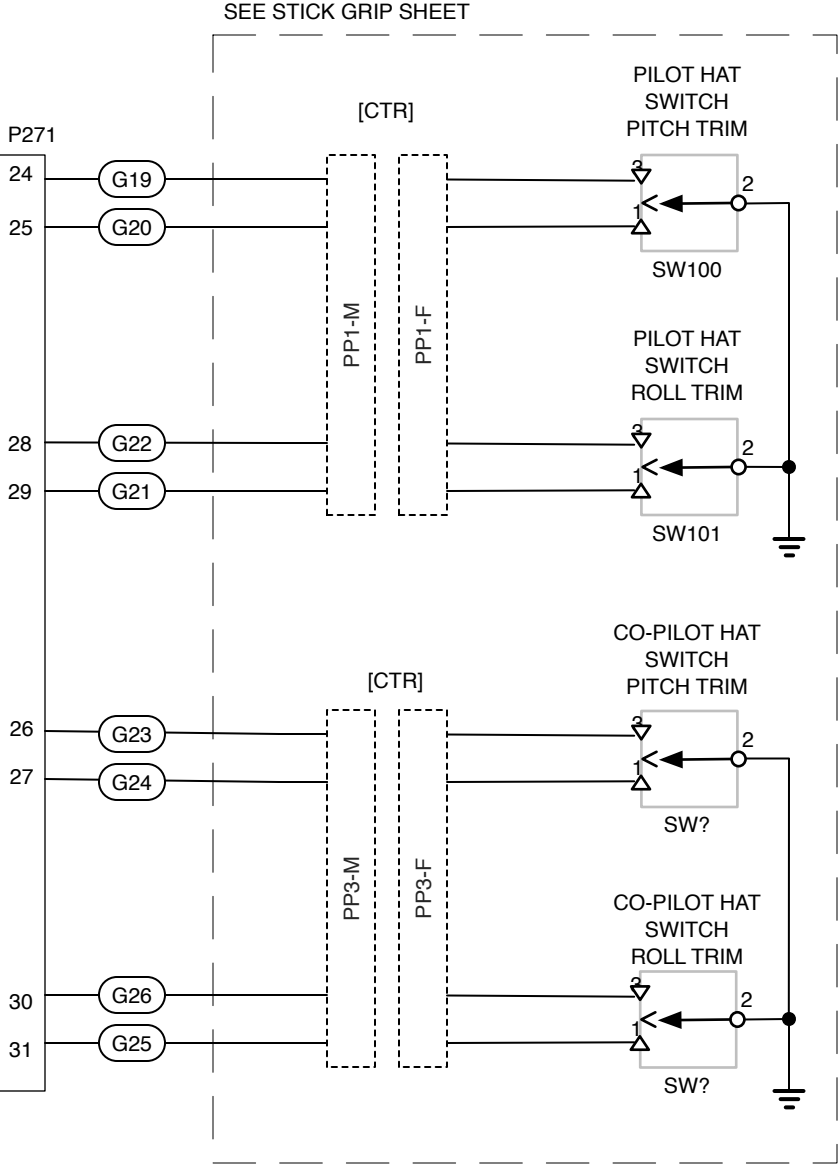
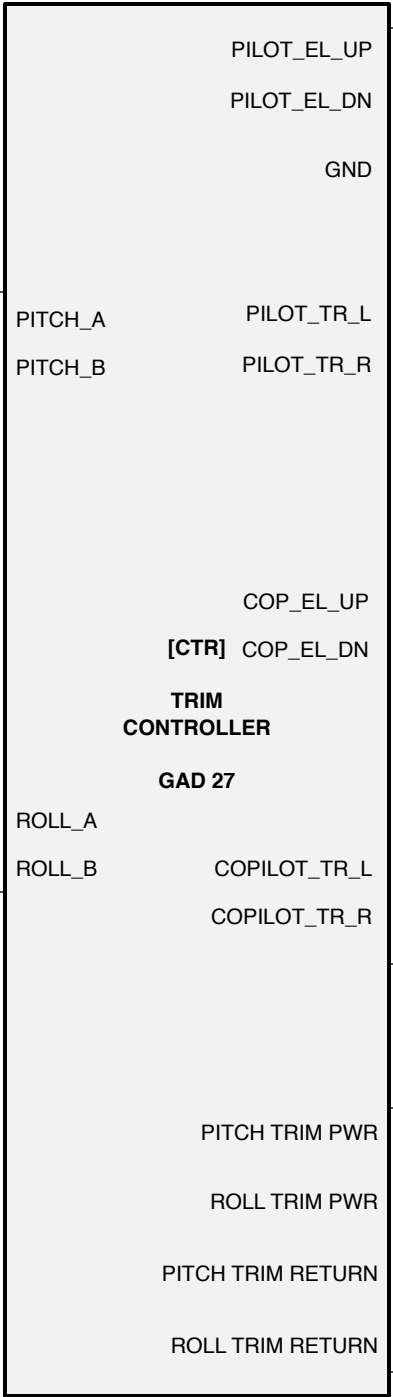
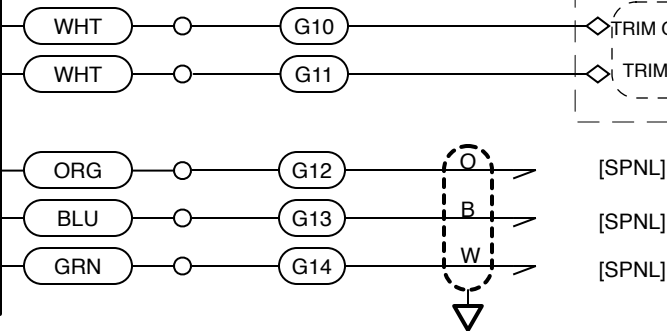
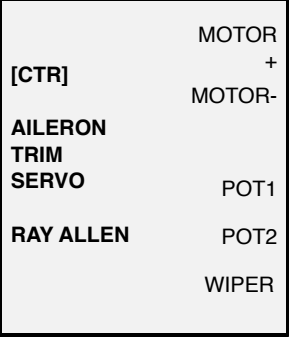
DATE: 31 JUL 21

HORZ STAB



SEE AUTO PILOT SHEET (R)

SEAT PAN

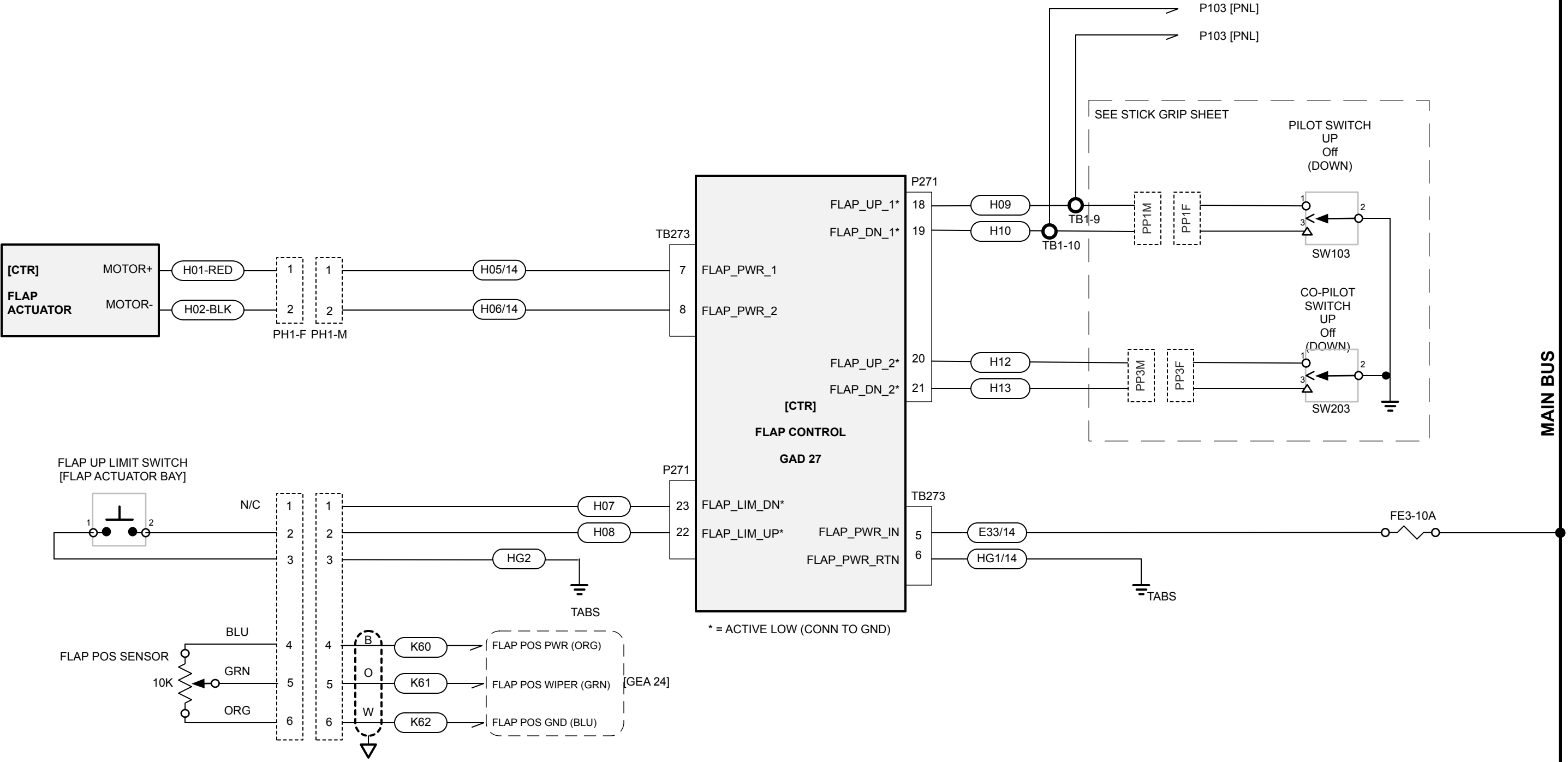


MAIN BUS

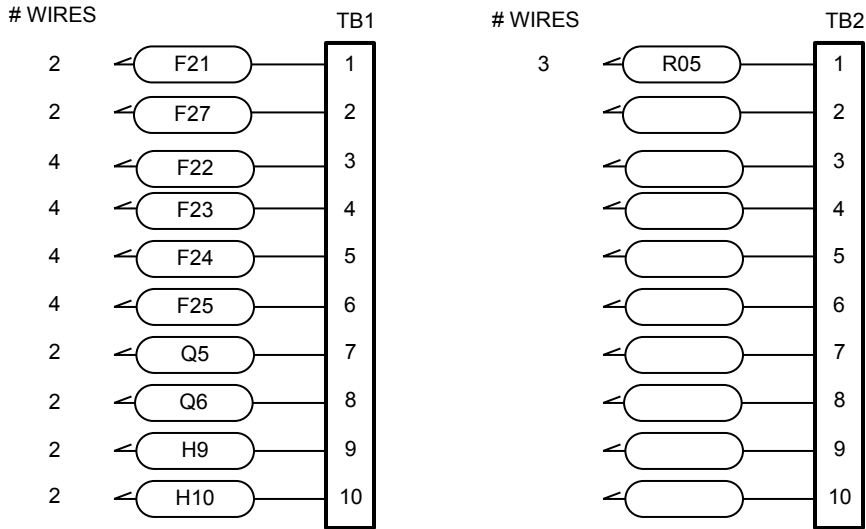
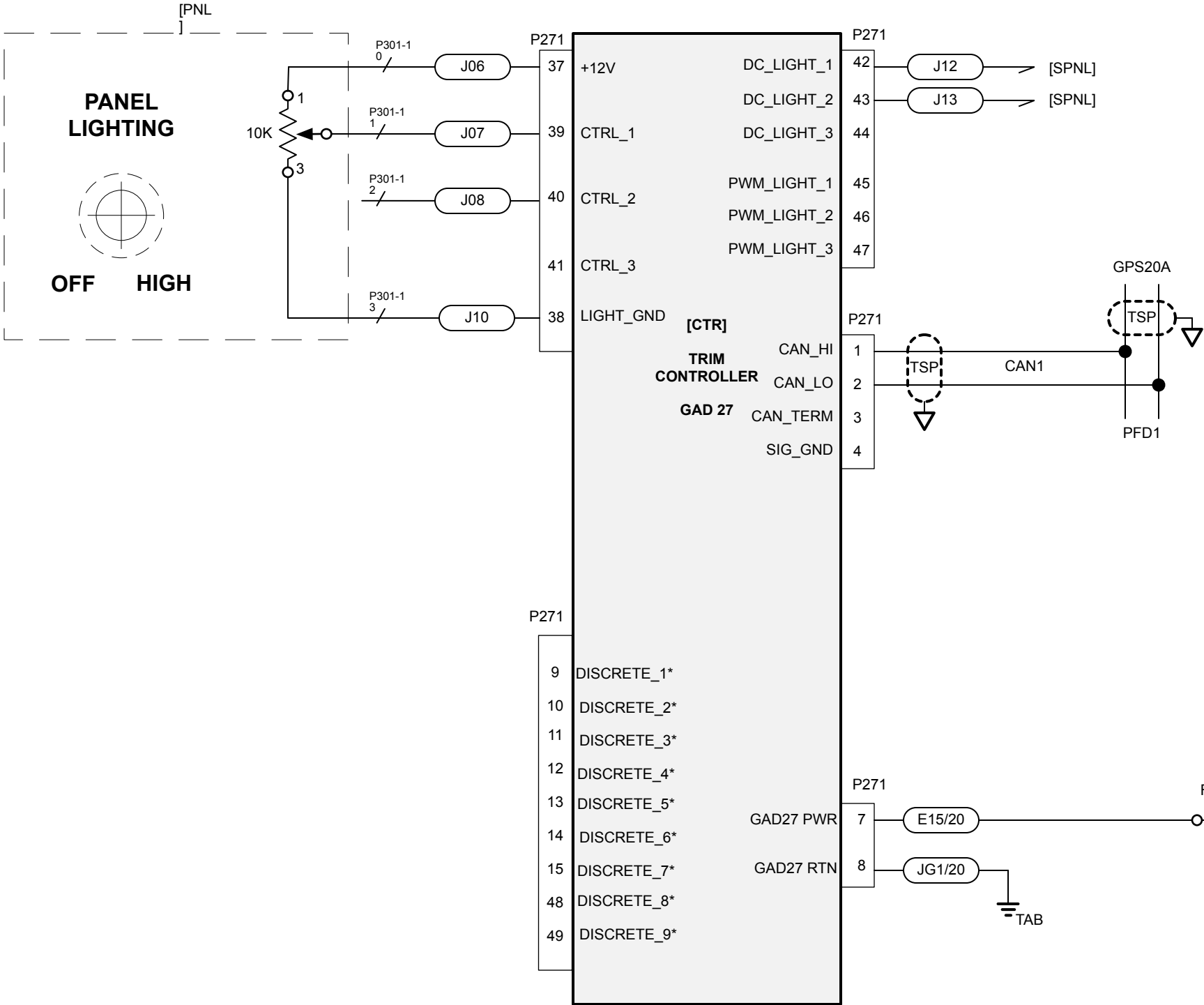
NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

FILE:	N430WB_SCHEMATIC_210515.graffle		
PAGE NAME:	G. GAD27/Trim		
MODIFIED:	Sat Jul 31 2021	PAGE:	10 of 24

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DATE: 31 JUL 21

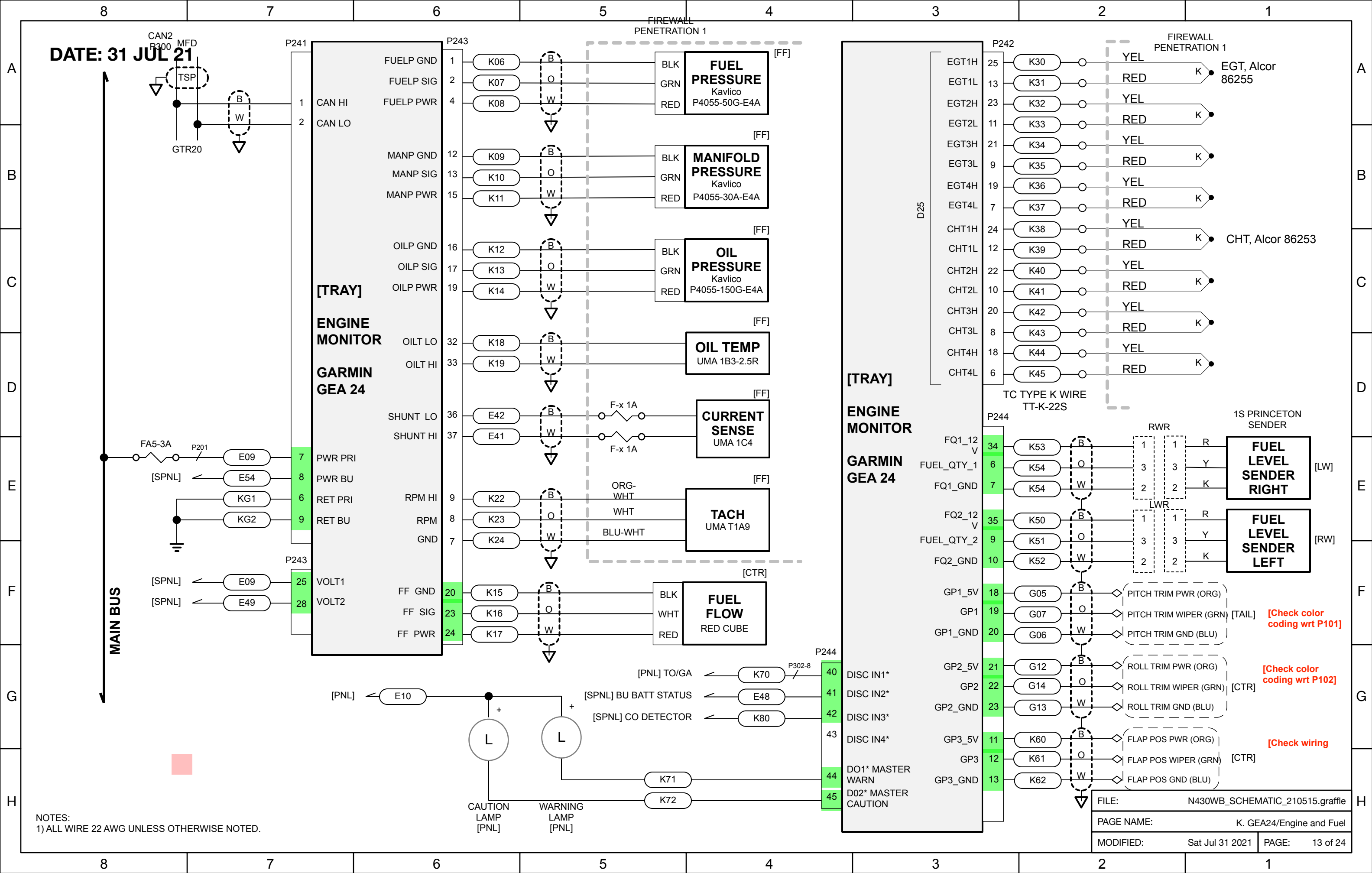


TERMINAL BLOCKS MOUNTED NEAR GAD27 UNDER SEAT PAN

← FORWARD →

NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

FILE:	N430WB_SCHEMATIC_210515.graffle		
PAGE NAME:	J. GAD27/light+ctrl		
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DATE: 31 JUL 21

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8 7 6 5 4 3 2 1

GPS175 RS-232 RX 1
GTX45R RS-232 TX 1
GND

[PNL]

TP

V11
V10
V12

B
O
W

P4602

48 RS-232 TX 1
47 RS-232 RX 1
44 GND

GTX45R RS-232 RX 2
GTX45R RS-232 TX 2
GND

[SPNL]

TP

P302-10
P301-11
P301-12

L08
L09
L10

B
O
W

P4602

30 RS-232 TX 2
14 RS-232 RX 2
37 GND

GMC307 RS-232 RX 1
GMC307 RS-232 TX 1
GND

[PNL]

TP

L11
L12
L13

B
O
W

P4602

13 RS-232 TX 3
29 RS-232 RX 3
36 GND

ELT RS-232 RX 1
GND

[TC]

TP

P301-14
P301-15

L14
L16

B
W

P4602

40 RS-232 TX 4
23 RS-232 RX 4
35 GND

GPS175 RS-232 RX 2
GPS175 RS-232 TX 2
GND

[PNL]

TP

V14
V13
V15

B
O
W

P4602

41 RS-232 TX 5
24 RS-232 RX 5
34 GND

GSU25 RS-232 RX 1
GSU25 RS-232 TX 1
GSU25 GND

[PNL]

TP

L20
L21
L22

B
O
W

P4601

4 RS-232 TX
5 RS-232 RX
6 GND

ALL SHIELDS
GND TO
BACKSHELL

ALL SHIELDS
GND TO
BACKSHELL

TAOGLAS GPS
PATCH

L100

GPS ANT

STEREO AUDIO OUT L
STEREO AUDIO OUT R
STEREO AUTO OUT LO

P4602

3
19
2

MONO AUDIO OUT HI
MONO AUDIO OUT LO

1
18

B
W

Q12
Q13

P303-11
P303-12

GTR20 AUX2 IN
GTR20 AUX2 LO

[SPNL]

CDU ID 1
CDU ID 2
CDU ID 3
CDU ID 4
GND

P4602

10
9
25
32
27

L32
N/C
N/C
N/C

CFG PWR
CFG CLK
CFG DATA
CFG GND
LIGHT BUS

17
33
50
49
43

L33
L34
L35
L36
J12

RED
WHT
YEL
BLK

CONFIG
MODULE

P301

GAD27

TSP

TP

GSU25

P4602

46
45
28

B
W

CAN_HI
CAN_LO
CAN_TERM

PRI PWR
BU PWR
PRI RTN
BU RTN

P4602

32
31
15
16

E10
E55
LG1
LG2

P303-27
P303-8

FA6-3A

[SPNL]

IABS

MAIN BUS

[PNL]
DISPLAY
UNIT
GDU 460
PFD1

NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

FILE: N430WB_SCHEMATIC_210515.graffle
PAGE NAME: L. GDU460/PFD1
MODIFIED: Sat Jul 31 2021 PAGE: 14 of 24

8 7 6 5 4 3 2 1

DATE: 31 JUL 21

A

B

C

D

E

F

G

H

8 7 6 5 4 3 2 1

GPS175 RS-232 RX 1
GTX45R RS-232 TX 1
GND

[PNL]

TP

V11
V10
V12

B
O
W

P4602

48 RS-232 TX 1
47 RS-232 RX 1
44 GND

GTX45R RS-232 RX 2
GTX45R RS-232 TX 2
GND

[SPNL]

TP

P302-10
P301-11
P301-12

L08
L09
L10

B
O
W

P4602

30 RS-232 TX 2
14 RS-232 RX 2
37 GND

GMC307 RS-232 RX 1
GMC307 RS-232 TX 1
GND

[PNL]

TP

L11
L12
L13

B
O
W

P4602

13 RS-232 TX 3
29 RS-232 RX 3
36 GND

ELT RS-232 RX 1
GND

[TC]

TP

P301-14
P301-15

L14
L16

B
W

P4602

40 RS-232 TX 4
23 RS-232 RX 4
35 GND

GPS175 RS-232 RX 2
GPS175 RS-232 TX 2
GND

[PNL]

TP

V14
V13
V15

B
O
W

P4602

41 RS-232 TX 5
24 RS-232 RX 5
34 GND

GSU25 RS-232 RX 1
GSU25 RS-232 TX 1
GSU25 GND

[PNL]

TP

L20
L21
L22

B
O
W

P4601

4 RS-232 TX
5 RS-232 RX
6 GND

ALL SHIELDS
GND TO
BACKSHELL

ALL SHIELDS
GND TO
BACKSHELL

TAOGLAS GPS
PATCH

L100

GPS ANT

STEREO AUDIO OUT L
STEREO AUDIO OUT R
STEREO AUTO OUT LO

P4602

3
19
2

MONO AUDIO OUT HI
MONO AUDIO OUT LO

1
18

B
W

Q12
Q13

P303-11
P303-12

GTR20 AUX2 IN
GTR20 AUX2 LO

[SPNL]

CDU ID 1
CDU ID 2
CDU ID 3
CDU ID 4
GND

P4602

10
9
25
32
27

L32
N/C
N/C
N/C

CFG PWR
CFG CLK
CFG DATA
CFG GND
LIGHT BUS

17
33
50
49
43

L33
L34
L35
L36
J12

RED
WHT
YEL
BLK

CONFIG
MODULE

P301

GAD27

TSP

TP

GSU25

P4602

46
45
28

B
W

CAN_HI
CAN_LO
CAN_TERM

PRI PWR
BU PWR
PRI RTN
BU RTN

P4602

32
31
15
16

E10
E55
LG1
LG2

P303-27
P303-8

FA6-3A

[SPNL]

IABS

MAIN BUS

[PNL]
DISPLAY
UNIT
GDU 460
PFD1

NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

FILE: N430WB_SCHEMATIC_210515.graffle
PAGE NAME: L. GDU460/PFD1
MODIFIED: Sat Jul 31 2021 PAGE: 14 of 24

8 7 6 5 4 3 2 1

DATE: 31 JUL 21

A

B

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D

E

F

G

H

8 7 6 5 4 3 2 1

GPS175 RS-232 RX 1
GTX45R RS-232 TX 1
GND

[PNL]

TP

V11
V10
V12

B
O
W

P4602

48 RS-232 TX 1
47 RS-232 RX 1
44 GND

GTX45R RS-232 RX 2
GTX45R RS-232 TX 2
GND

[SPNL]

TP

P302-10
P301-11
P301-12

L08
L09
L10

B
O
W

P4602

30 RS-232 TX 2
14 RS-232 RX 2
37 GND

GMC307 RS-232 RX 1
GMC307 RS-232 TX 1
GND

[PNL]

TP

L11
L12
L13

B
O
W

P4602

13 RS-232 TX 3
29 RS-232 RX 3
36 GND

ELT RS-232 RX 1
GND

[TC]

TP

P301-14
P301-15

L14
L16

B
W

P4602

40 RS-232 TX 4
23 RS-232 RX 4
35 GND

GPS175 RS-232 RX 2
GPS175 RS-232 TX 2
GND

[PNL]

TP

V14
V13
V15

B
O
W

P4602

41 RS-232 TX 5
24 RS-232 RX 5
34 GND

GSU25 RS-232 RX 1
GSU25 RS-232 TX 1
GSU25 GND

[PNL]

TP

L20
L21
L22

B
O
W

P4601

4 RS-232 TX
5 RS-232 RX
6 GND

ALL SHIELDS
GND TO
BACKSHELL

ALL SHIELDS
GND TO
BACKSHELL

TAOGLAS GPS
PATCH

L100

GPS ANT

STEREO AUDIO OUT L
STEREO AUDIO OUT R
STEREO AUTO OUT LO

P4602

3
19
2

MONO AUDIO OUT HI
MONO AUDIO OUT LO

1
18

B
W

Q12
Q13

P303-11
P303-12

GTR20 AUX2 IN
GTR20 AUX2 LO

[SPNL]

CDU ID 1
CDU ID 2
CDU ID 3
CDU ID 4
GND

P4602

10
9
25
32
27

L32
N/C
N/C
N/C

CFG PWR
CFG CLK
CFG DATA
CFG GND
LIGHT BUS

17
33
50
49
43

L33
L34
L35
L36
J12

RED
WHT
YEL
BLK

CONFIG
MODULE

P301

GAD27

TSP

TP

GSU25

P4602

46
45
28

B
W

CAN_HI
CAN_LO
CAN_TERM

PRI PWR
BU PWR
PRI RTN
BU RTN

P4602

32
31
15
16

E10
E55
LG1
LG2

P303-27
P303-8

FA6-3A

[SPNL]

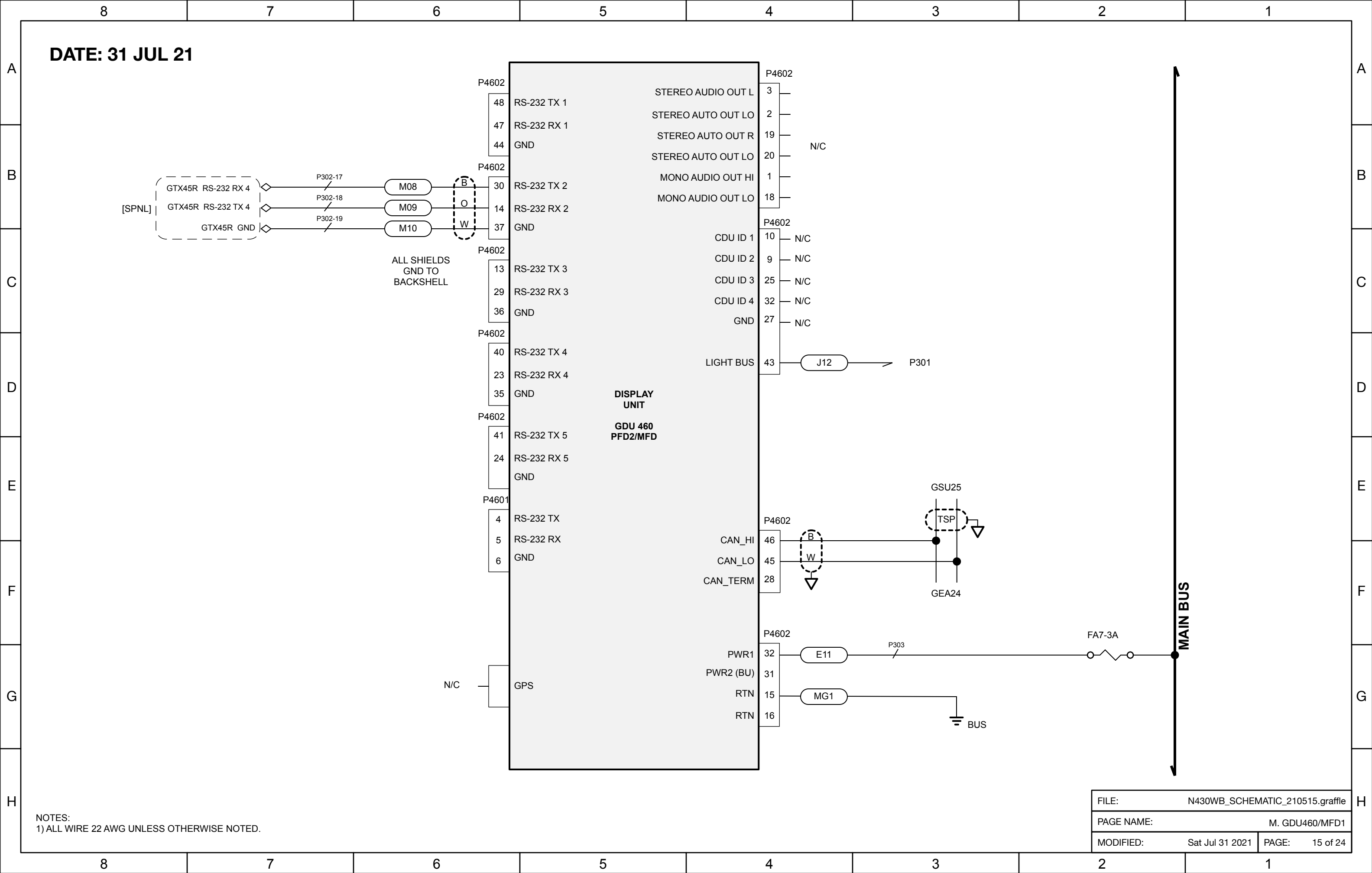
IABS

MAIN BUS

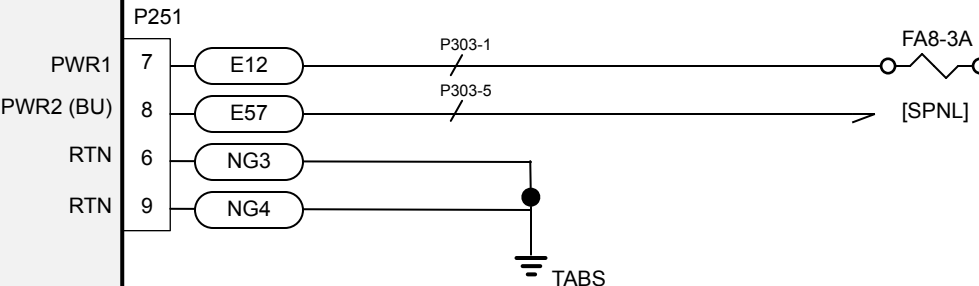
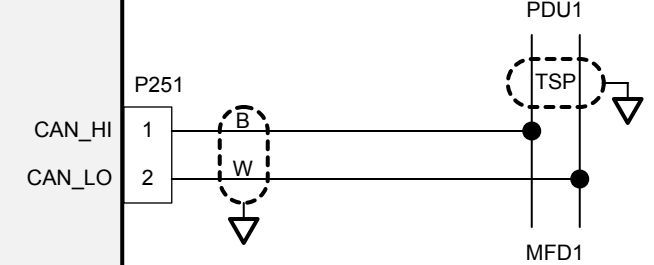
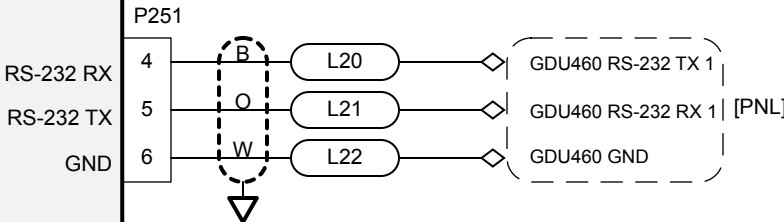
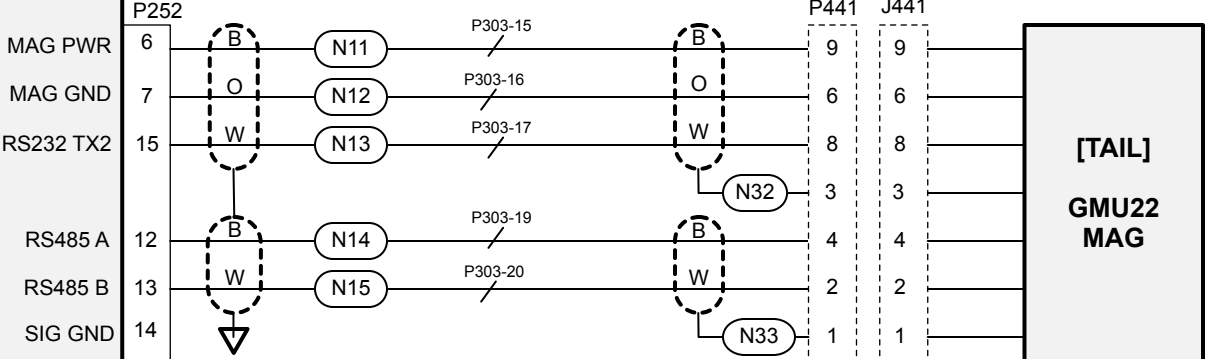
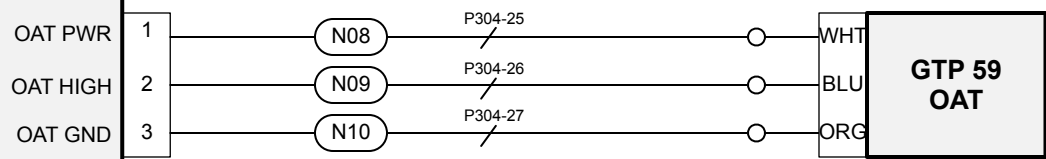
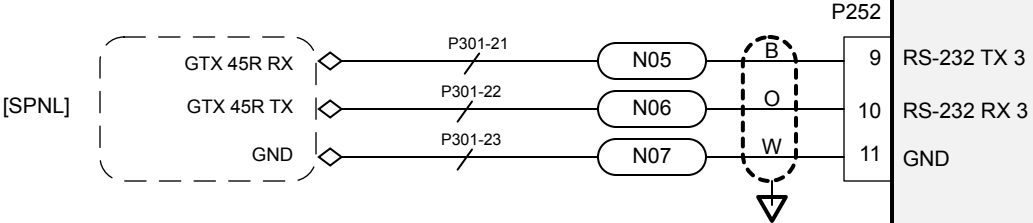
[PNL]
DISPLAY
UNIT
GDU 460
PFD1

NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

FILE: N430WB_SCHEMATIC_210515.graffle
PAGE NAME: L. GDU460/PFD1
MODIFIED: Sat Jul 31 2021 PAGE: 14 of 24

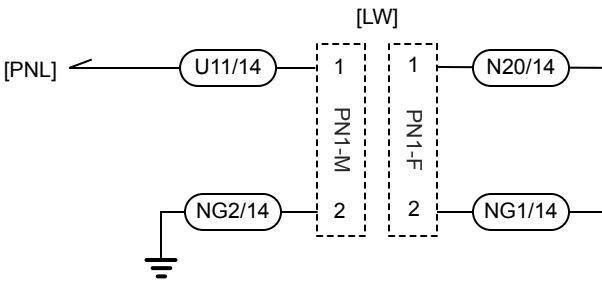
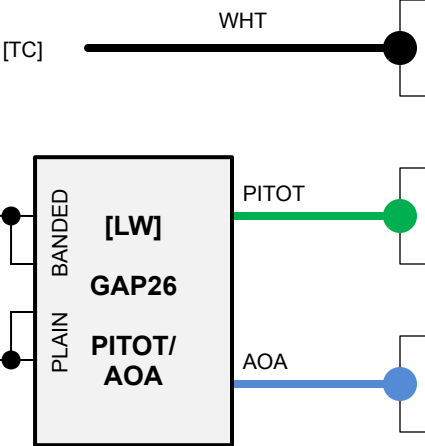


DATE: 31 JUL 21



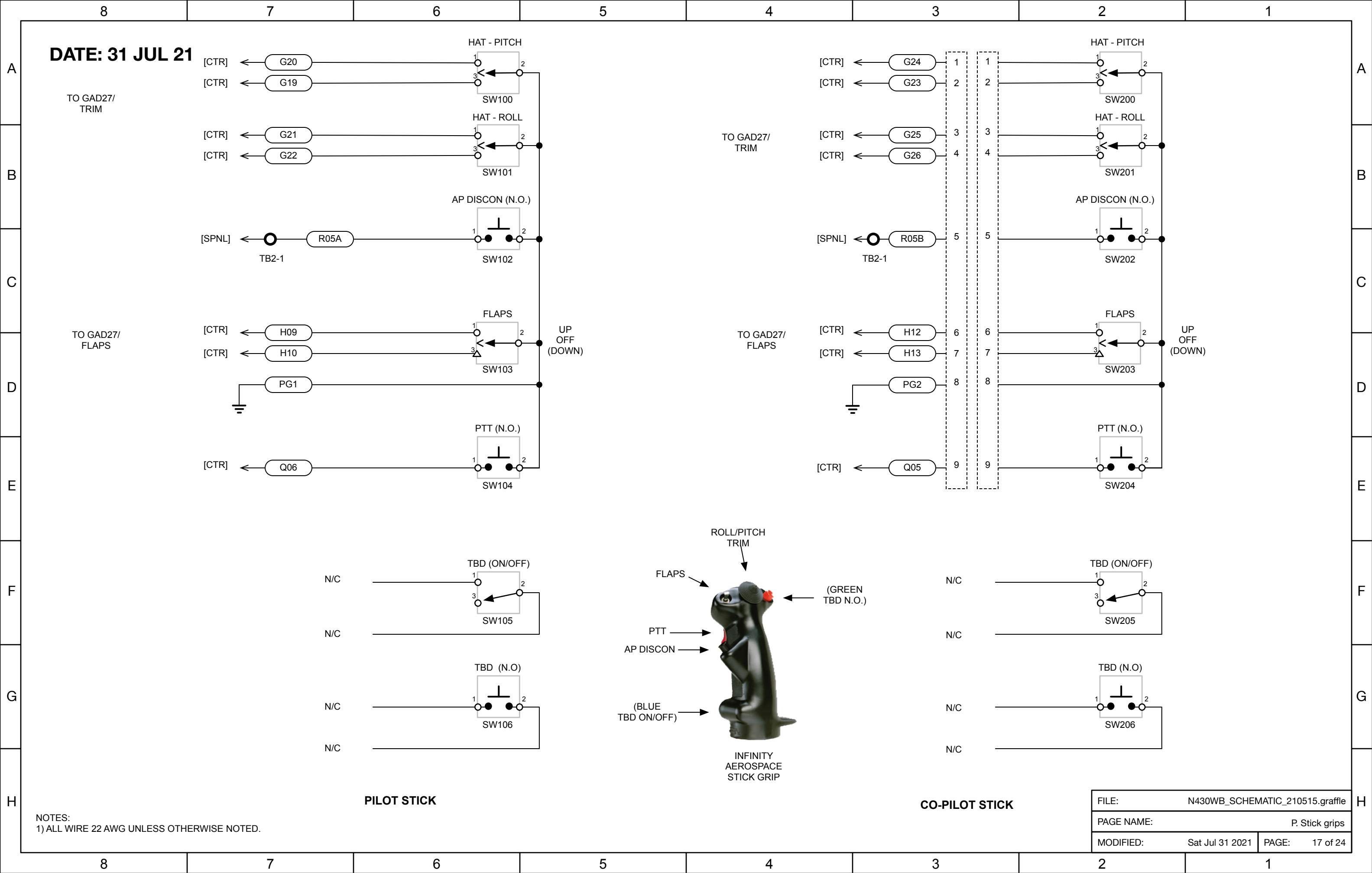
MAIN BUS

[PNL]
AHADRS
GSU 25

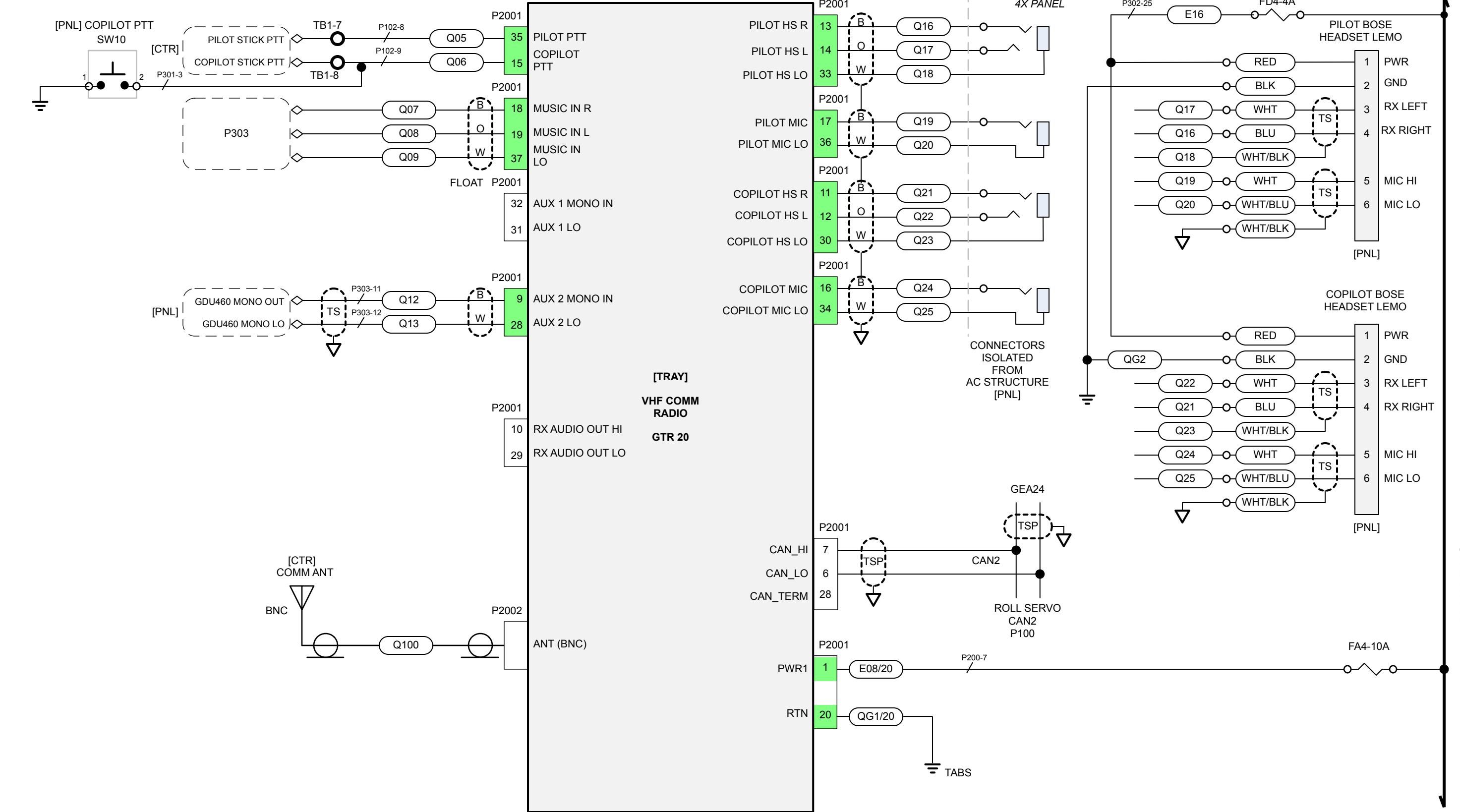


NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

FILE:	N430WB_SCHEMATIC_210515.graffle		
PAGE NAME:	N. GSU25/AHADRS		
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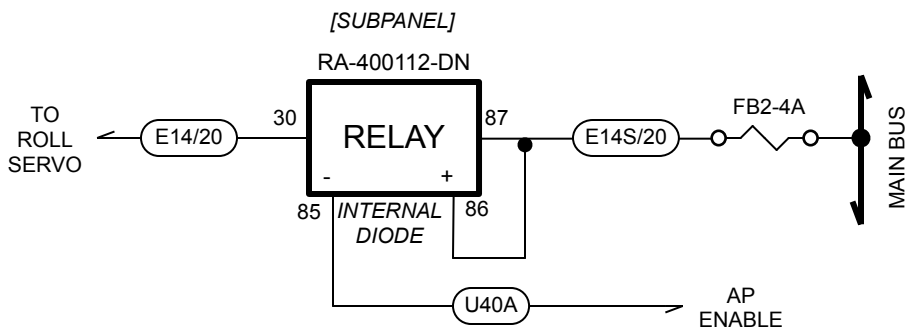
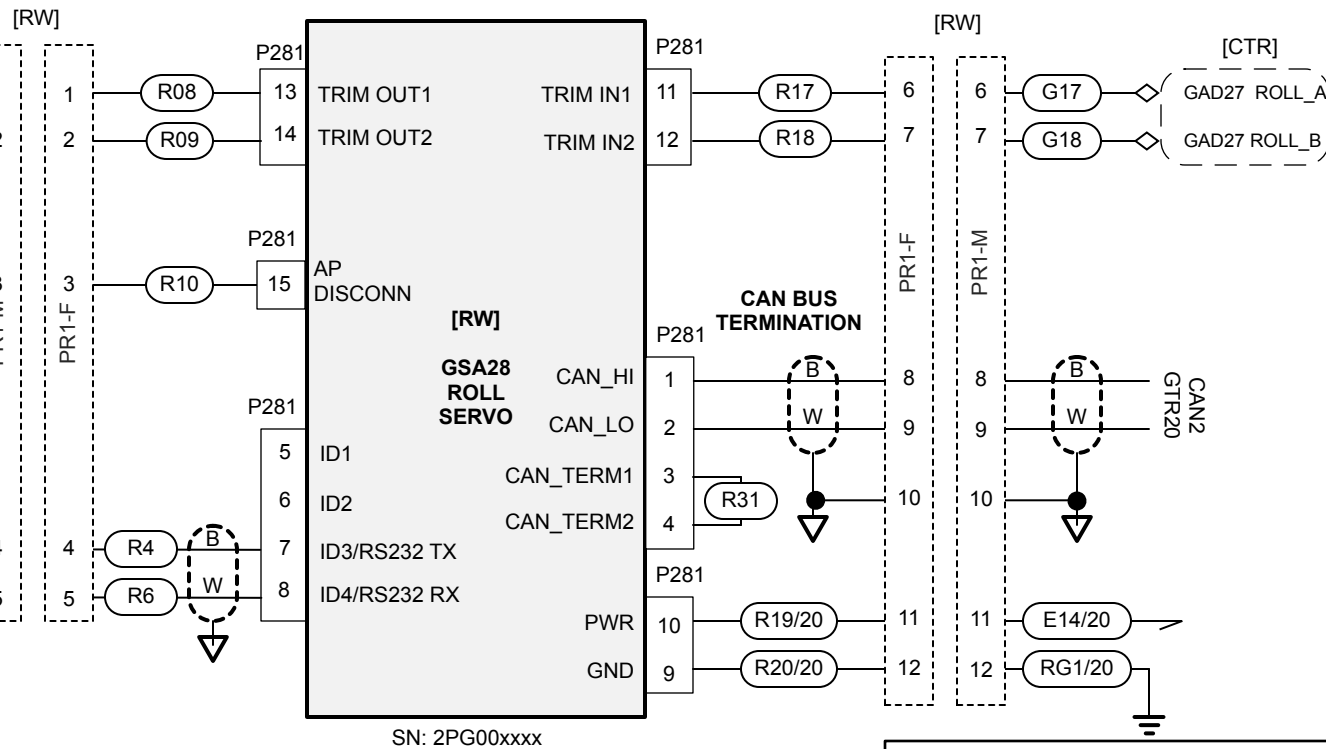
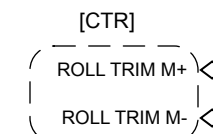
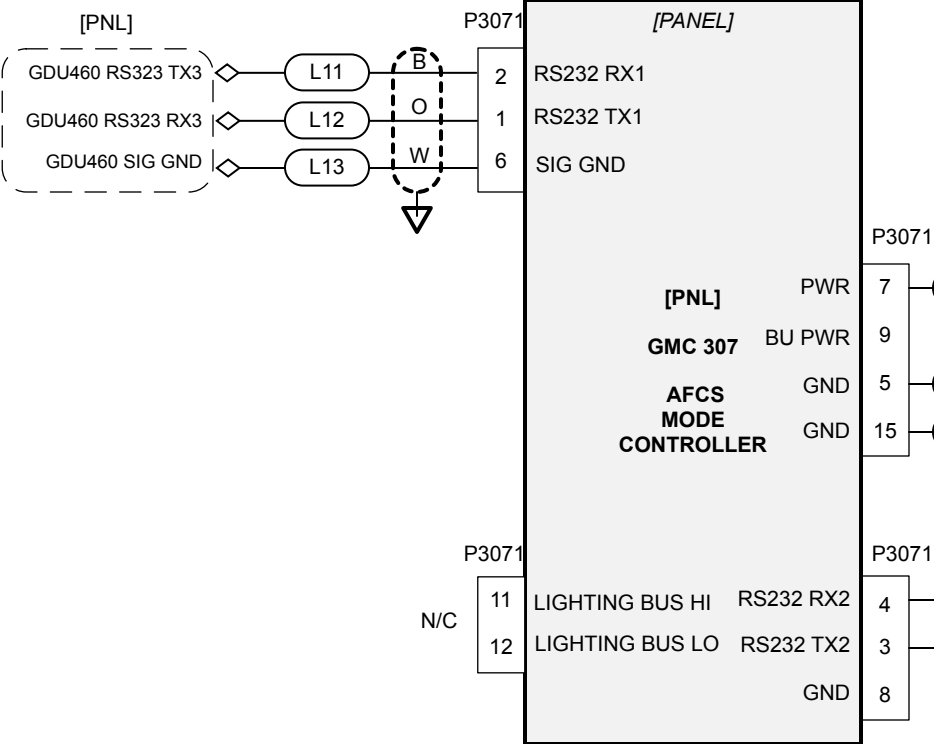
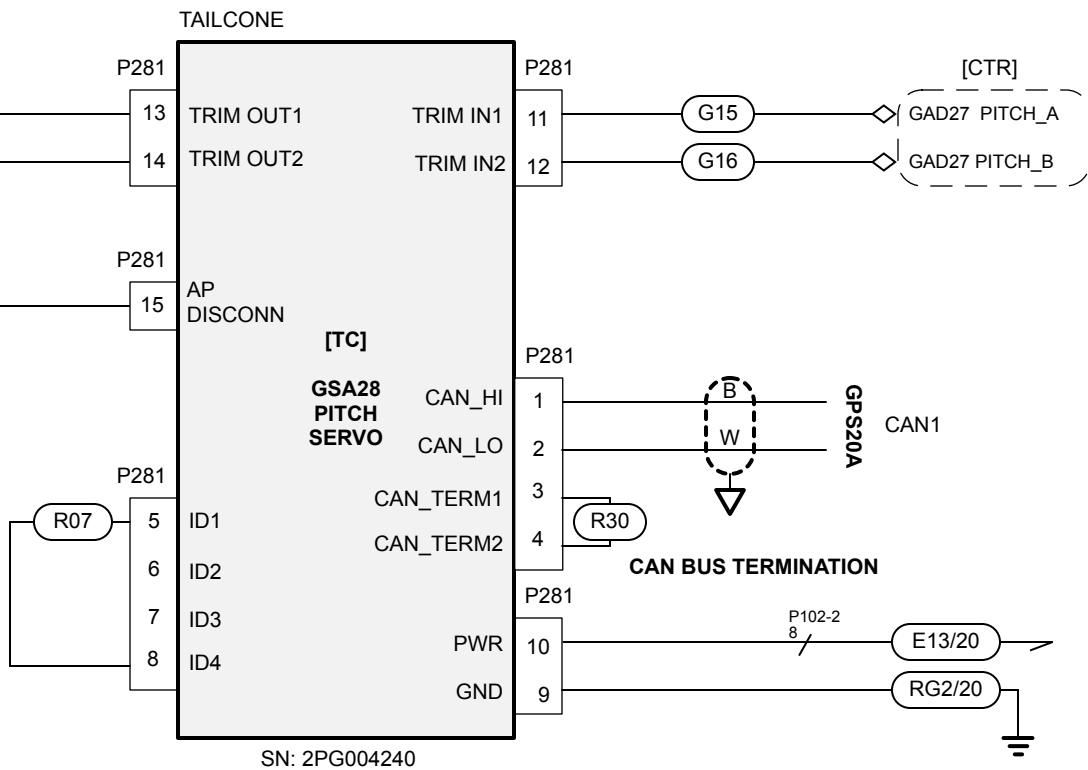
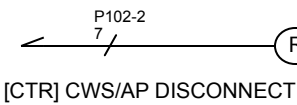
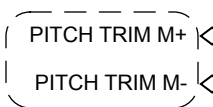
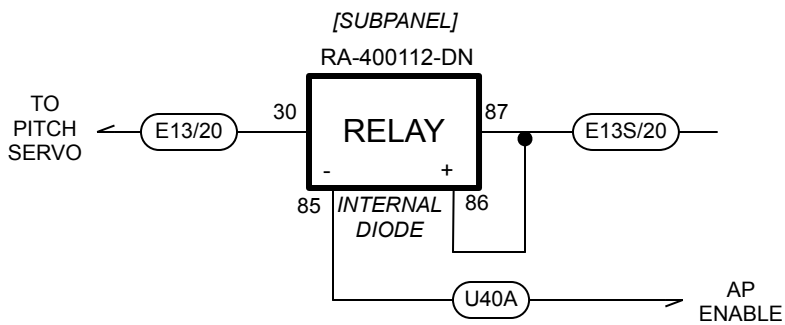
DATE: 31 JUL 21



NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

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PAGE NAME:	Q. GTR20/Comm		
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NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

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PAGE NAME: R. GMC307/GSA28/Auto pilot

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MAIN BUS

MAIN BUS

NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

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PAGE NAME:	S. GTX45R/Transponder		
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8 7 6 5 4 3 2 1

A

B

C

D

E

F

G

H

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[CTR]
AIRTEX
A3-06-2892-1

ANTENNA

[TC]
AIRTEX
ELT 345

GPS RX
GND

2W RMT SW
EXT ON
G-SW LP
G-SW LP
BUZZER

DB15

9
7
3
14
5
12
8

B
W
B
W
T07
T08

L14
T05
T06
T07
T08

P101-17
P101-1
P301-25
P301-24

GDU-460 PFD1 TX4
GND

[PNL]

ELT 345
REMOTE
SWITCH

[PNL]

SHIEL
D

TEST

TEST

IND

PWR
GND

2
4
1
5

T10
K80
E18
TG1

UG3
TABS

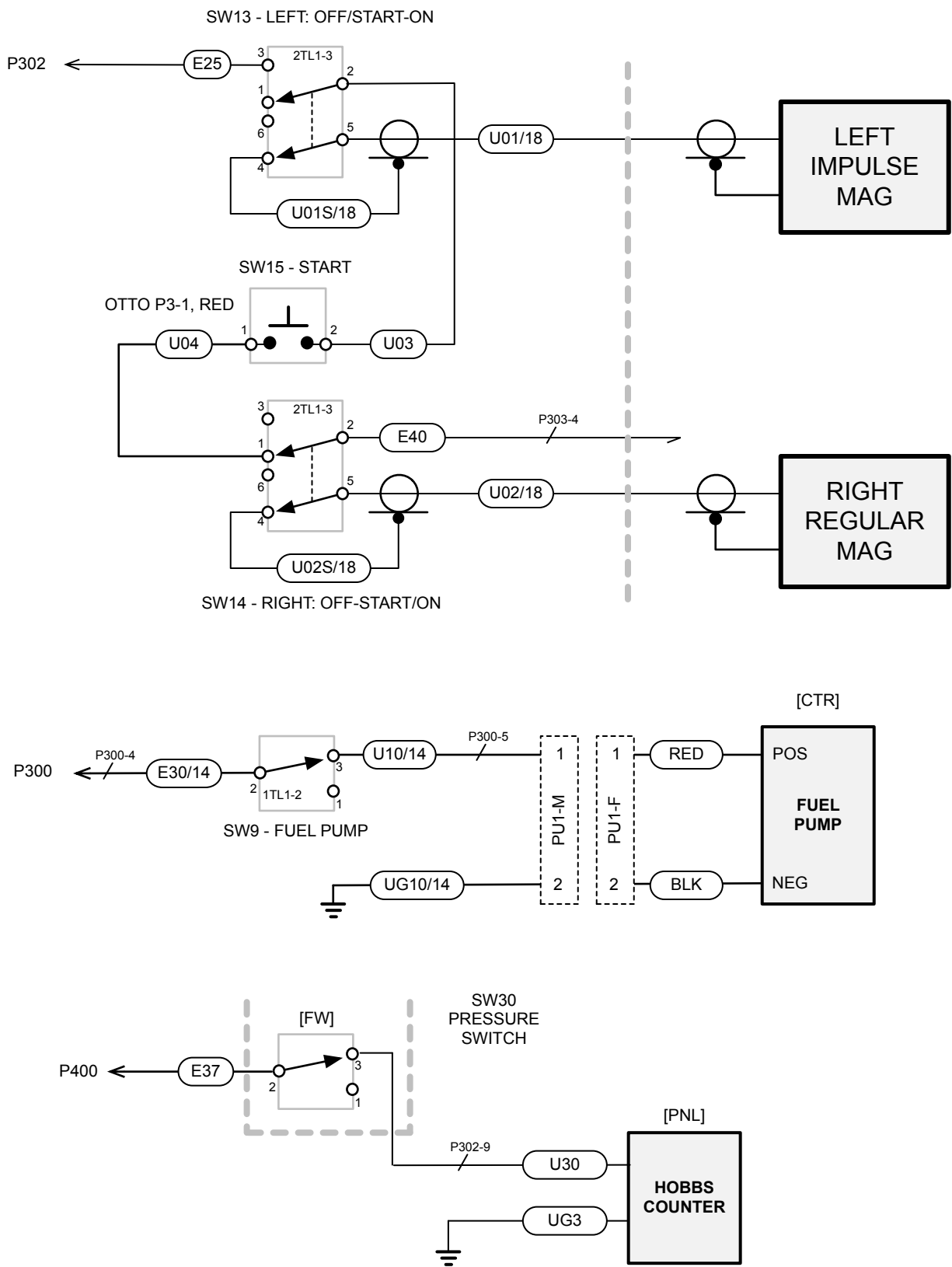
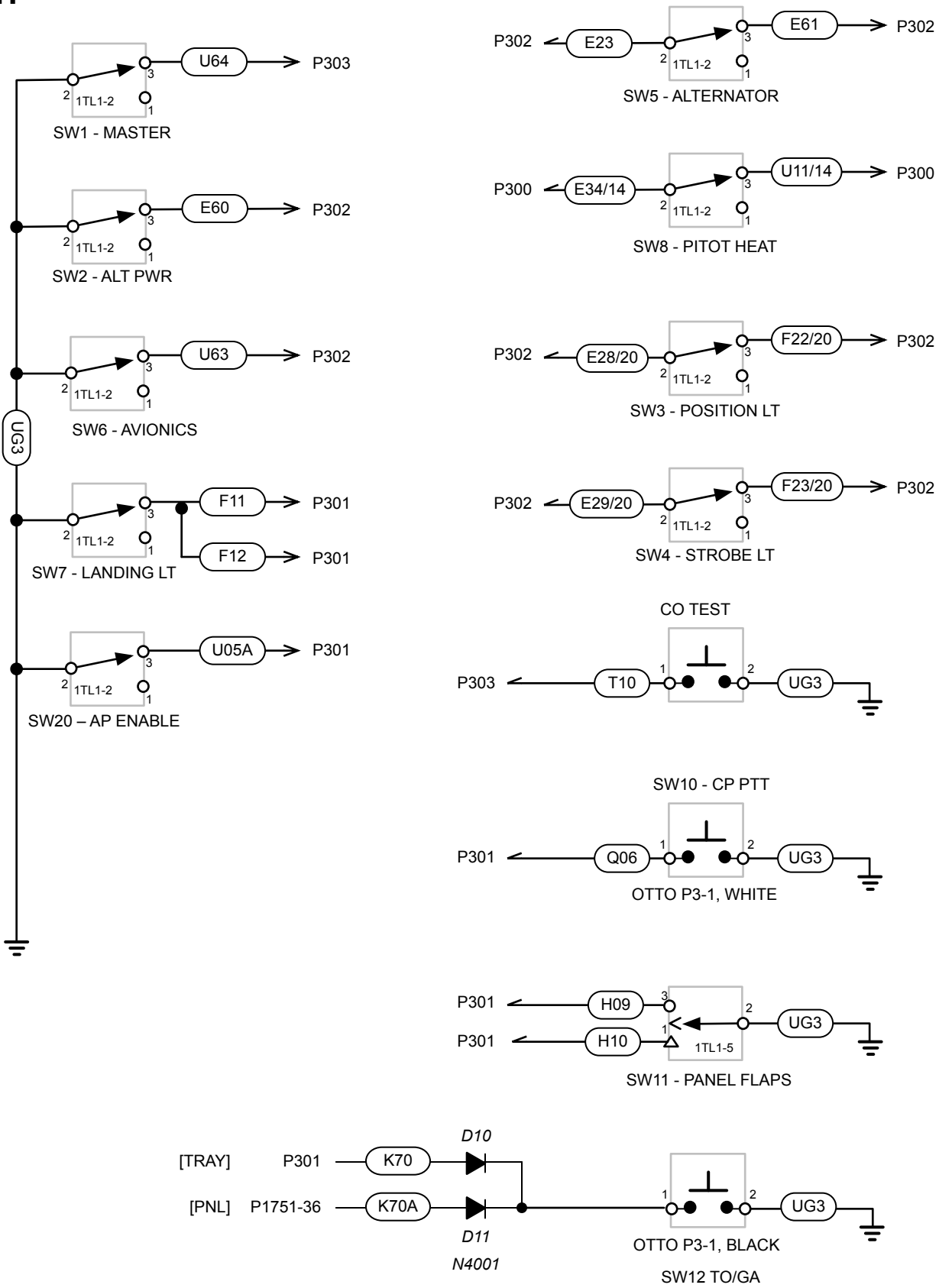
FB6-3A

MAIN BUS

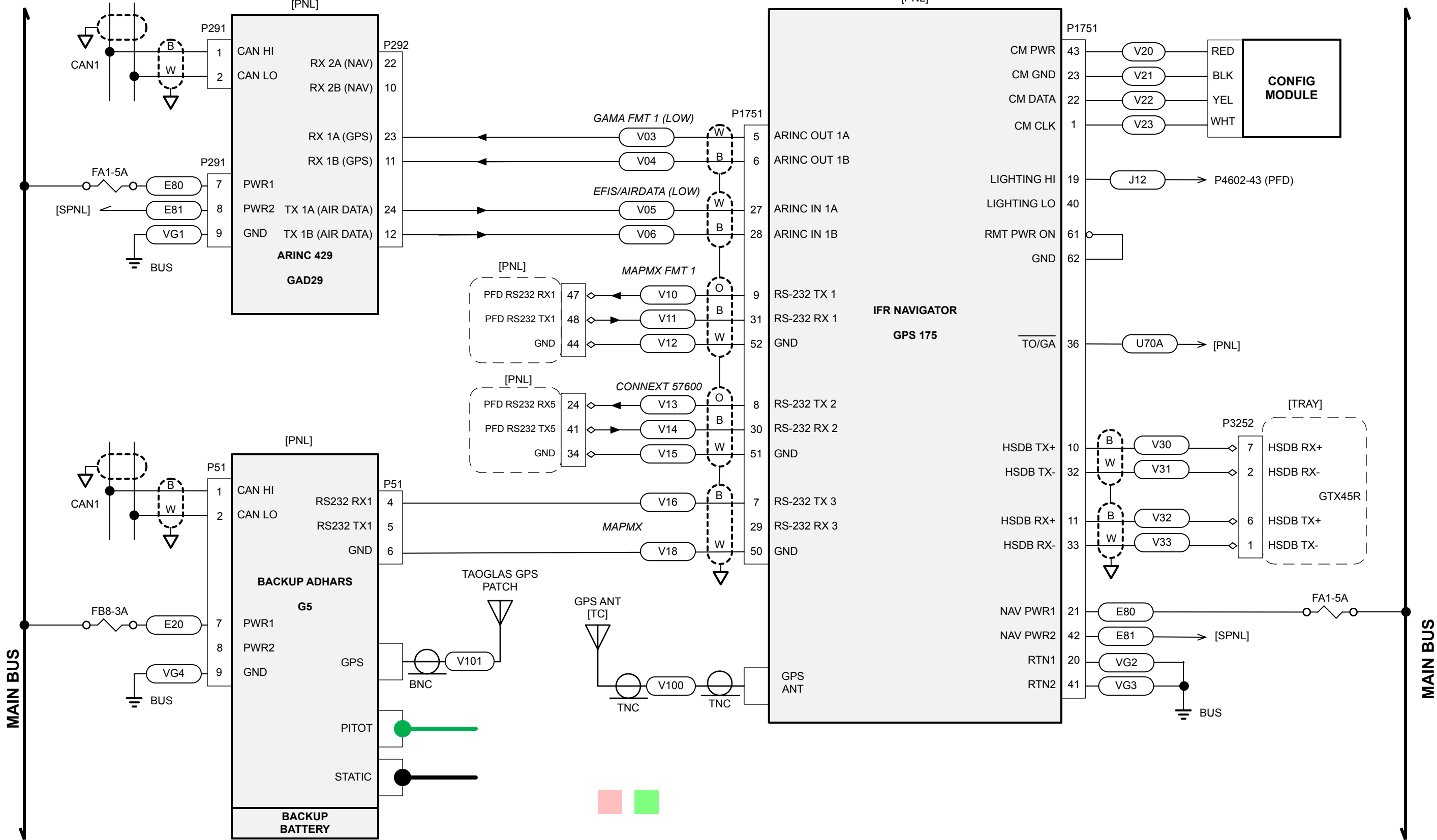
NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

FILE: N430WB_SCHEMATIC_210515.graffle
PAGE NAME: T. ELT 375, CO DET
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NOTES:
1) ALL WIRE 22 AWG UNLESS OTHERWISE NOTED.

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