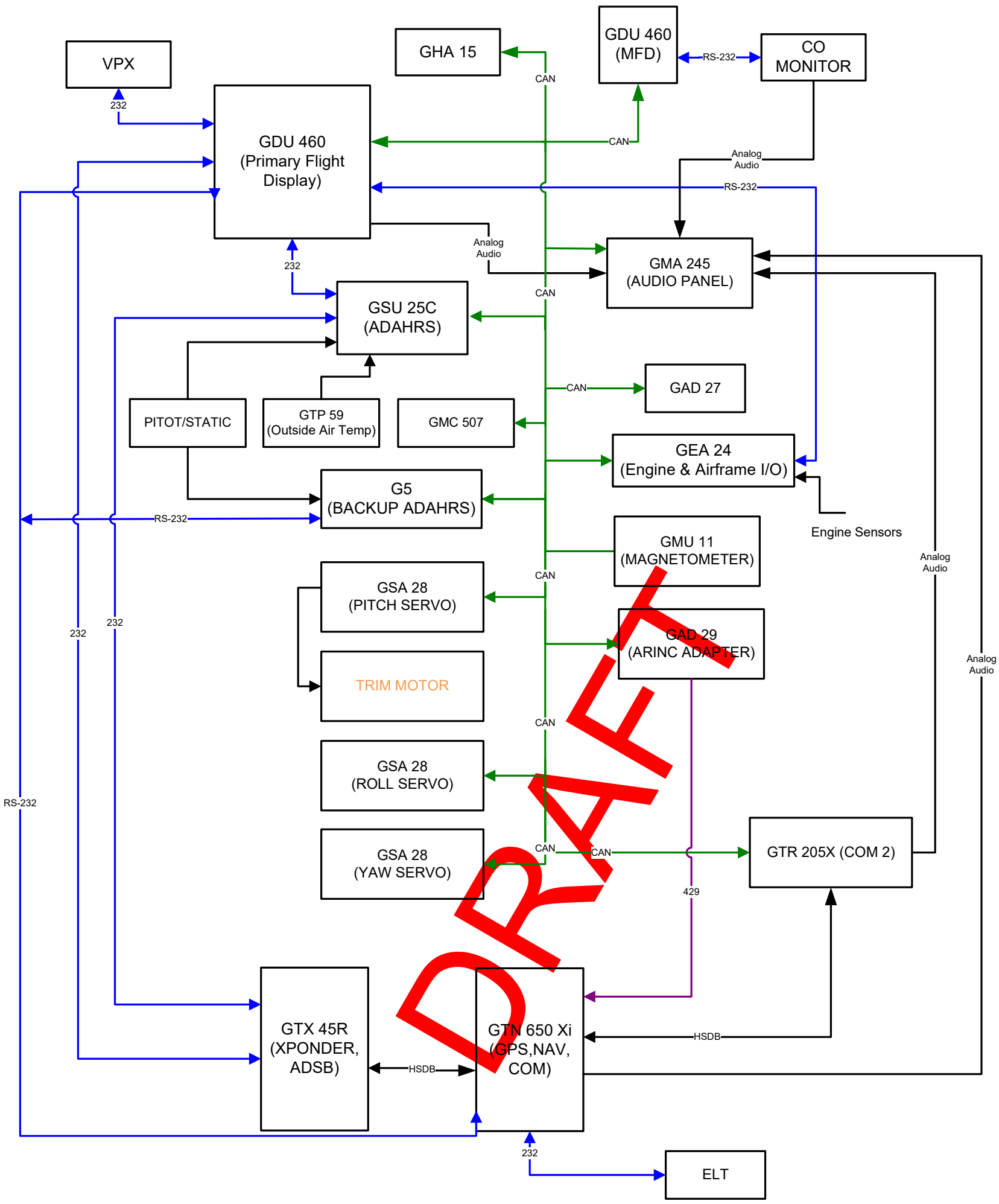


DATA BUS ARCHITECTURE

NOTE: HARNESS LAYOUT AND INSTALLED UNITS ARE AIRCRAFT SPECIFIC. THE INFORMATION BELOW IS INTENDED TO HELP WHEN MAPPING THE HARNESS. IT IS NOT DIRECT INSTRUCTIONS.

BUTTONS AND SWITCHES EXAMPLES

- PILOT STICK (TRIM SWITCH, PUSH TO TALK, AP DISCONNECT)
- COPILOT STICK (TRIM SWITCH, PUSH TO TALK)
- SMART GLIDE BUTTON
- ESP-X BUTTON
- TOGA BUTTON
- WIG/WAG SWITCH
- IBBS MASTER SWITCH
- FLAPS SWITCH
- LANDING/TAXI LIGHTS SWITCH

ENGINE SENSORS EXAMPLES

- FUEL FLOW SENSOR
- OIL TEMP
- FUEL PRESSURE
- MANIFOLD PRESSURE
- OIL PRESSURE
- LEFT SIDE EGT/ CHT SENSORS
- RIGHT SIDE EGT/ CHT SENSORS
- AMMETER
- RPM SENSOR

LRU EXAMPLES

- PFD
- GTN 650
- GAD 27
- ELT
- GTX 45R
- GMA
- G5
- GTR 20
- GMC
- GEA
- GSU
- MFD
- IBBS
- PITCH TRIM MOTOR
- ROLL TRIM MOTOR
- FLAP POSITION SENSOR
- PITCH SERVO
- ROLL SERVO
- FLAPS MOTOR
- GAD 29
- GMU

VARIOUS ELECTRICAL EXAMPLES

- GROUND BLOCK
- CIRCUIT BREAKER MAIN BUS
- CIRCUIT BREAKER AVIONICS BUS
- AVIONICS DIMMER
- PANEL DIMMER
- LEFT NAV/STROBE LIGHT
- LANDING LIGHT
- COPILOT HP JACKS
- PILOT HP JACKS
- PITOT PROBE
- OAT PROBE
- LEFT FUEL TANK QTY SENSOR
- RIGHT NAV/STROBE LIGHT
- TAXI LIGHT
- RIGHT FUEL TANK QTY SENSOR
- LED LIGHTS

CAN BUS LAYOUT

- GMU 11 (Term)
- GSA 28 YAW
- GSA 28 PITCH
- GHA 15
- GDU 460 PFD
- GSU 25
- GAD 29
- GMC 507
- G5
- GMA 245
- GTR 205XR
- GEA 24
- GAD 27
- GDU 460 MFD
- GSA 28 ROLL (TERM)

NOTE: GTN 650 NOT ON CAN BUS.

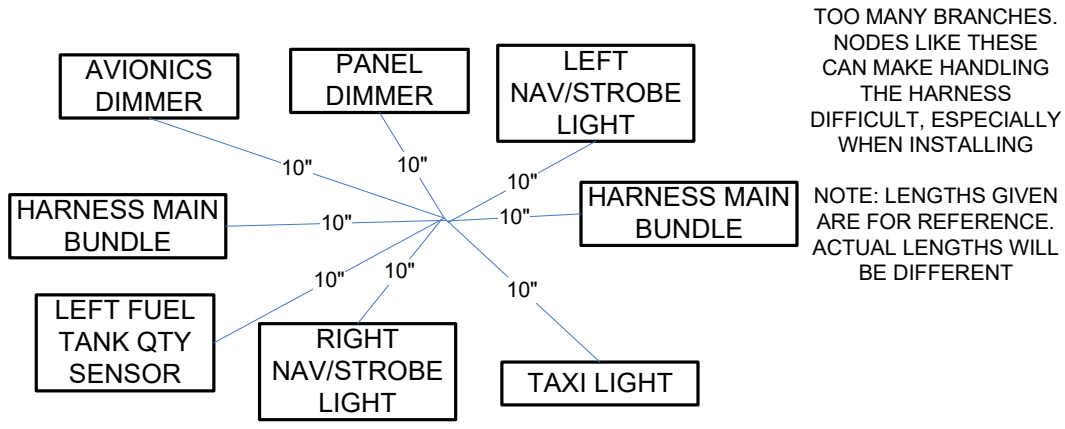
NOTES:
CIRCUIT BREAKERS MAY ALL GO TO ONE LOCATION DEPENDING ON THE PLANE.

ONE GROUND BLOCK OR SEVERAL GROUNDING LOCATIONS MAY BE USED. IT IS UP TO THE PREFERENCE/ CONVENIENCE OF THE HARNESS MAKER.

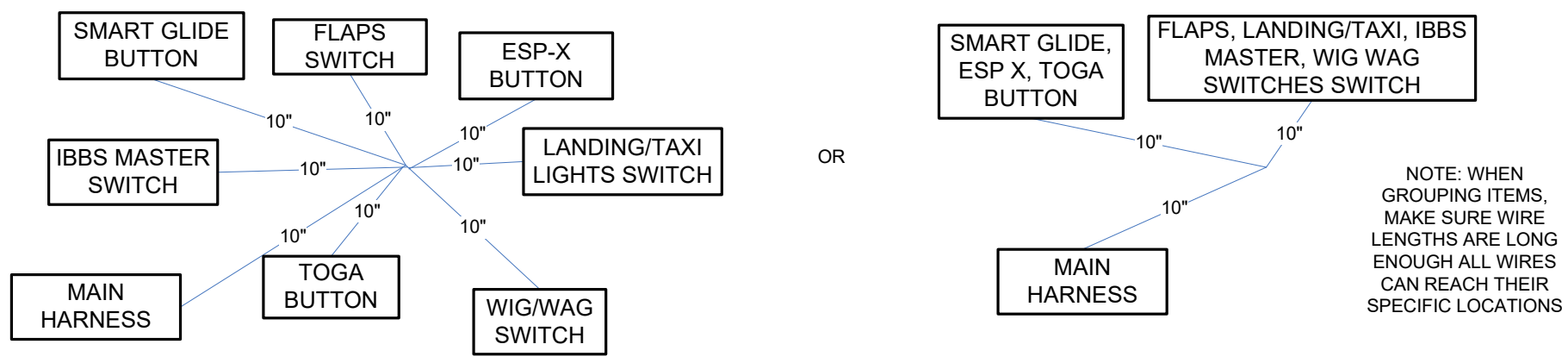
WHEN MAKING THE HARNESS LAYOUT, IT IS RECOMMENDED TO LIMIT ALL NODES FROM MORE THAN SIX BRANCHING WIRES BUNDLES. SEE EXAMPLE 1 BELOW

IT IS RECOMMENDED TO GROUP ITEMS THAT ARE CLOSE TOGETHER INTO THE SAME DESTINATION OF THE HARNESS FOR SIMPLICITY WHEN BUILDING THE HARNESS. SEE EXAMPLE 2 BELOW

EXAMPLE 1



EXAMPLE 2



NOTES:

1. UNLESS OTHERWISE NOTED, ALL STRANDED WIRE MUST CONFORM TO MIL-W-22759/16, MIL-W-22759/18, OR EQUIVALENT.

2. UNLESS OTHERWISE NOTED, ALL SHIELDED WIRE MUST CONFORM TO MIL-C-27500 OR EQUIVALENT.

3. UNLESS OTHERWISE NOTED, ALL WIRES ARE 22 GAUGE MINIMUM.

4. UNLESS OTHERWISE NOTED, ALL GROUND WIRES TERMINATE AT A SINGLE POINT GROUND BLOCK

5. WIRING LABEL CONVENTION: “UNIT”-“CONNECTOR”-“PIN”. FOR MULTIPLE CONDUCTOR WIRES, THE TOP WIRE IN THE DRAWING IS USED FOR THE PIN NUMBER. EXAMPLE: THE GEA 24 CONNECTOR 241 PIN 9 LABEL WOULD BE “GEA-241-9”.

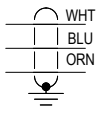
6. GREEN TEXT NOTES CONFIGURATION SETTINGS.


SHIELDED SINGLE CONDUCTOR
SHIELD TERMINATED TO GROUND


SHIELDED SINGLE CONDUCTOR
SHIELD FLOATS

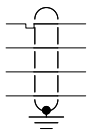
TWISTED SHIELDED PAIR
SHIELD TERMINATED TO GROUND

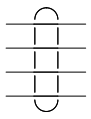
TWISTED SHIELDED PAIR
SHIELD FLOATS



TWISTED SHIELDED 3 CONDUCTOR
SHIELD TERMINATED TO GROUND

TWISTED SHIELDED 3 CONDUCTOR
SHIELD FLOATS


TWISTED SHIELDED 4 CONDUCTOR
SHIELD TERMINATED TO GROUND


TWISTED SHIELDED 4 CONDUCTOR
SHIELD FLOATS


AIRCRAFT GROUND

BACKSHELL (SHIELD BLOCK) GROUND

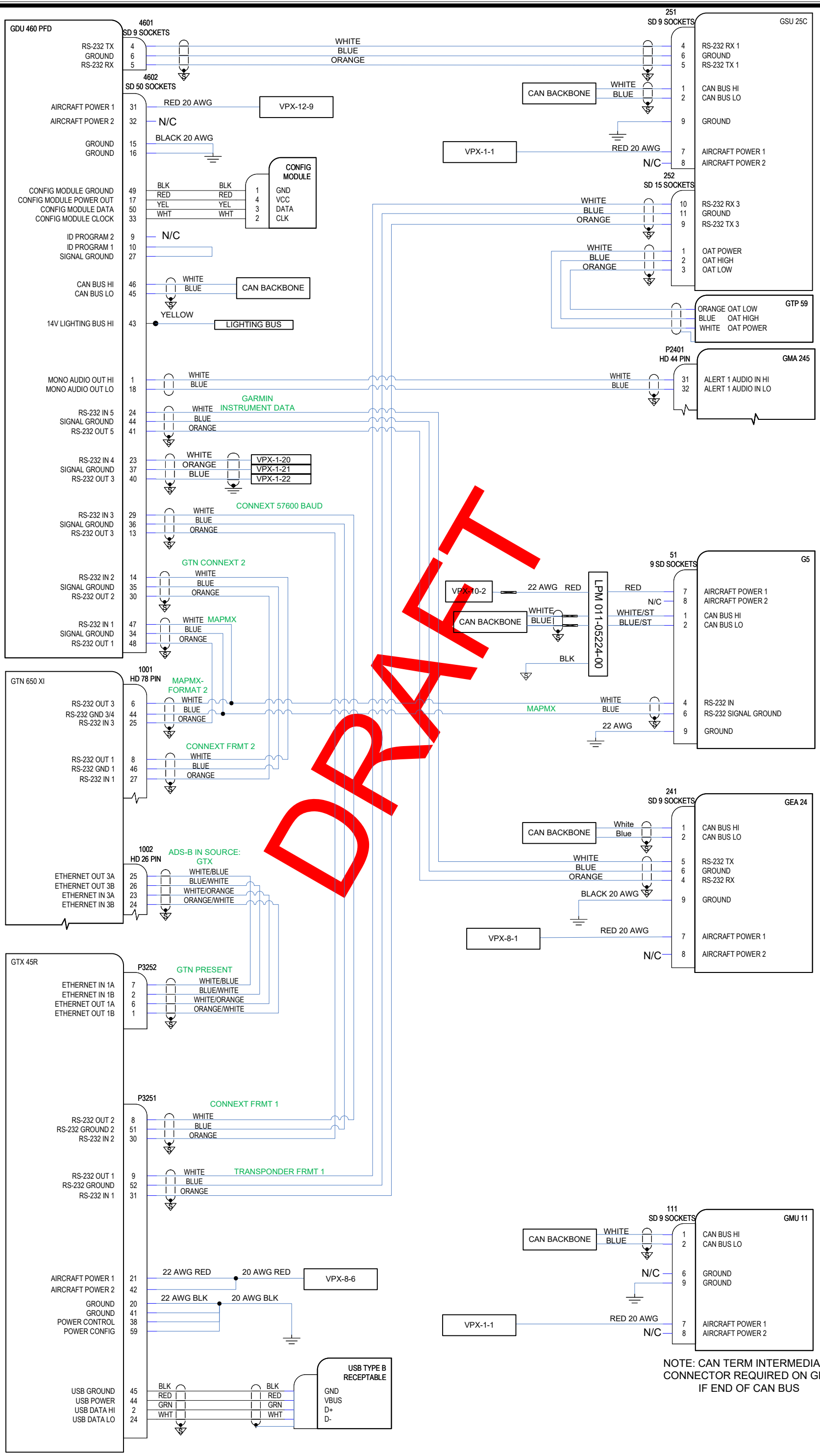

WIRE SPLICE CONNECTION

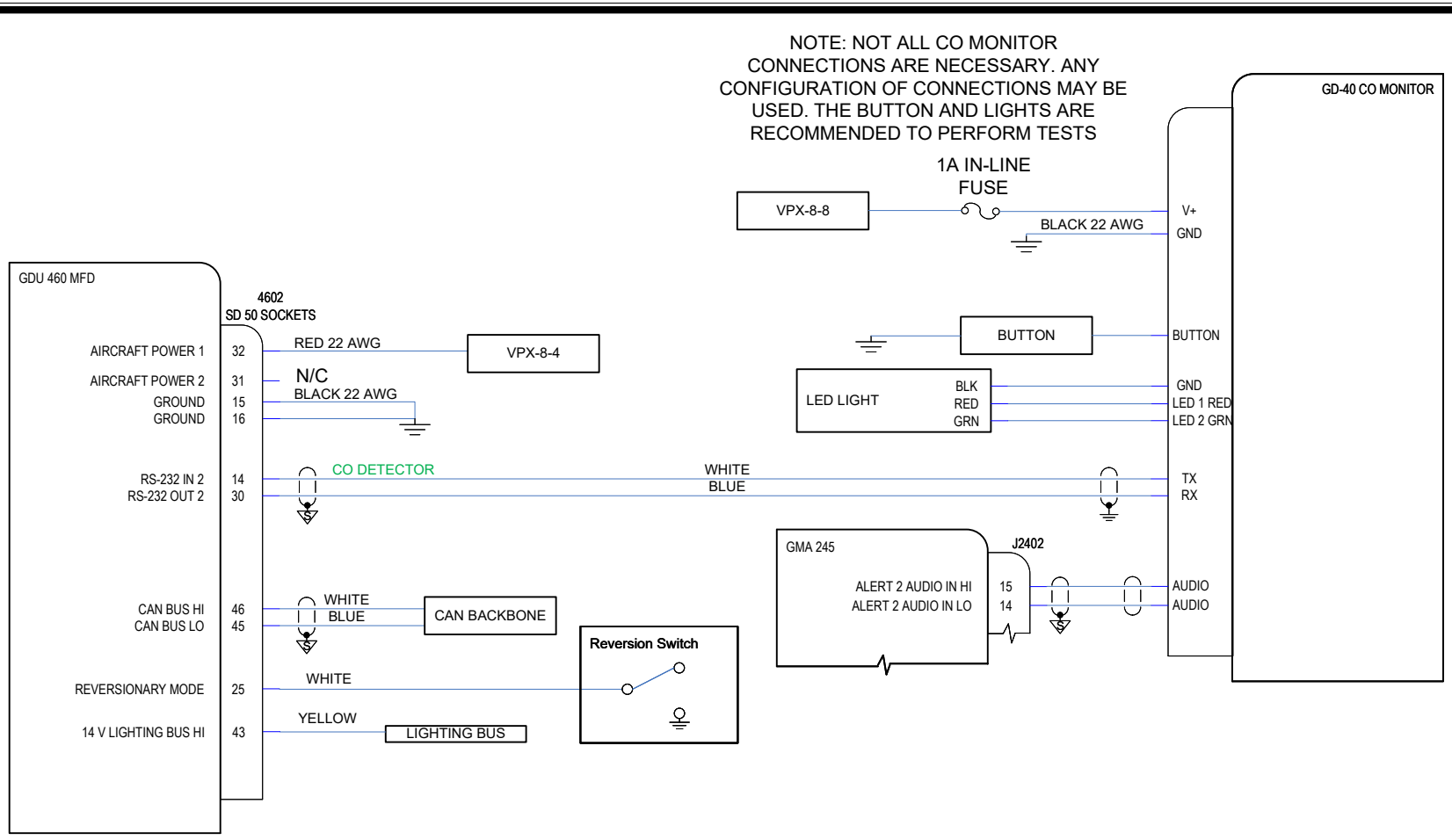
INLINE SPLICE

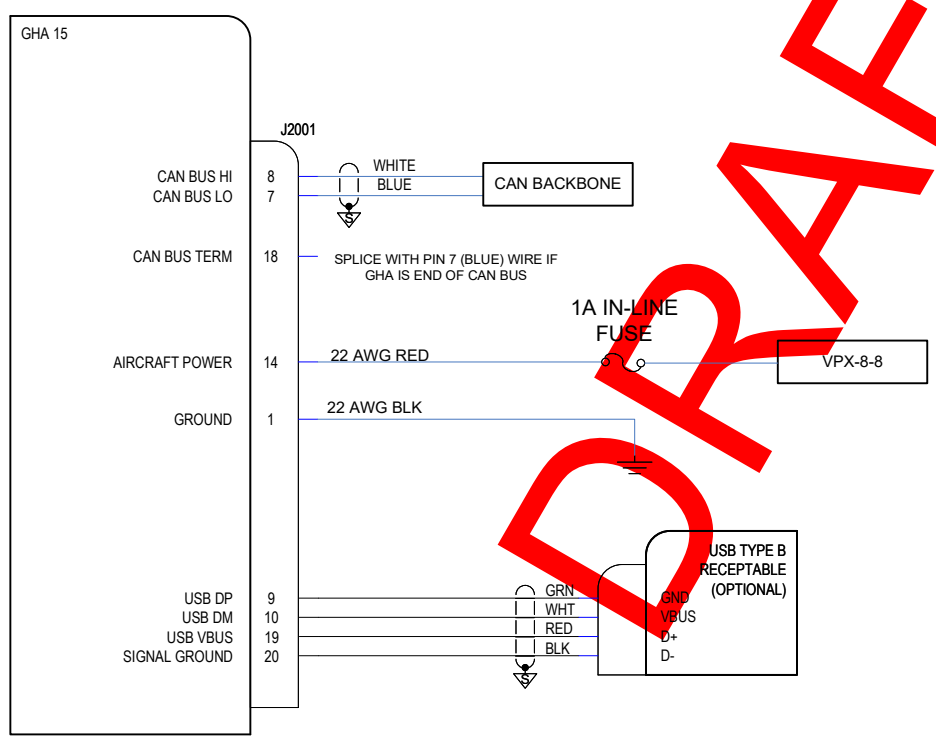

RING TERMINAL

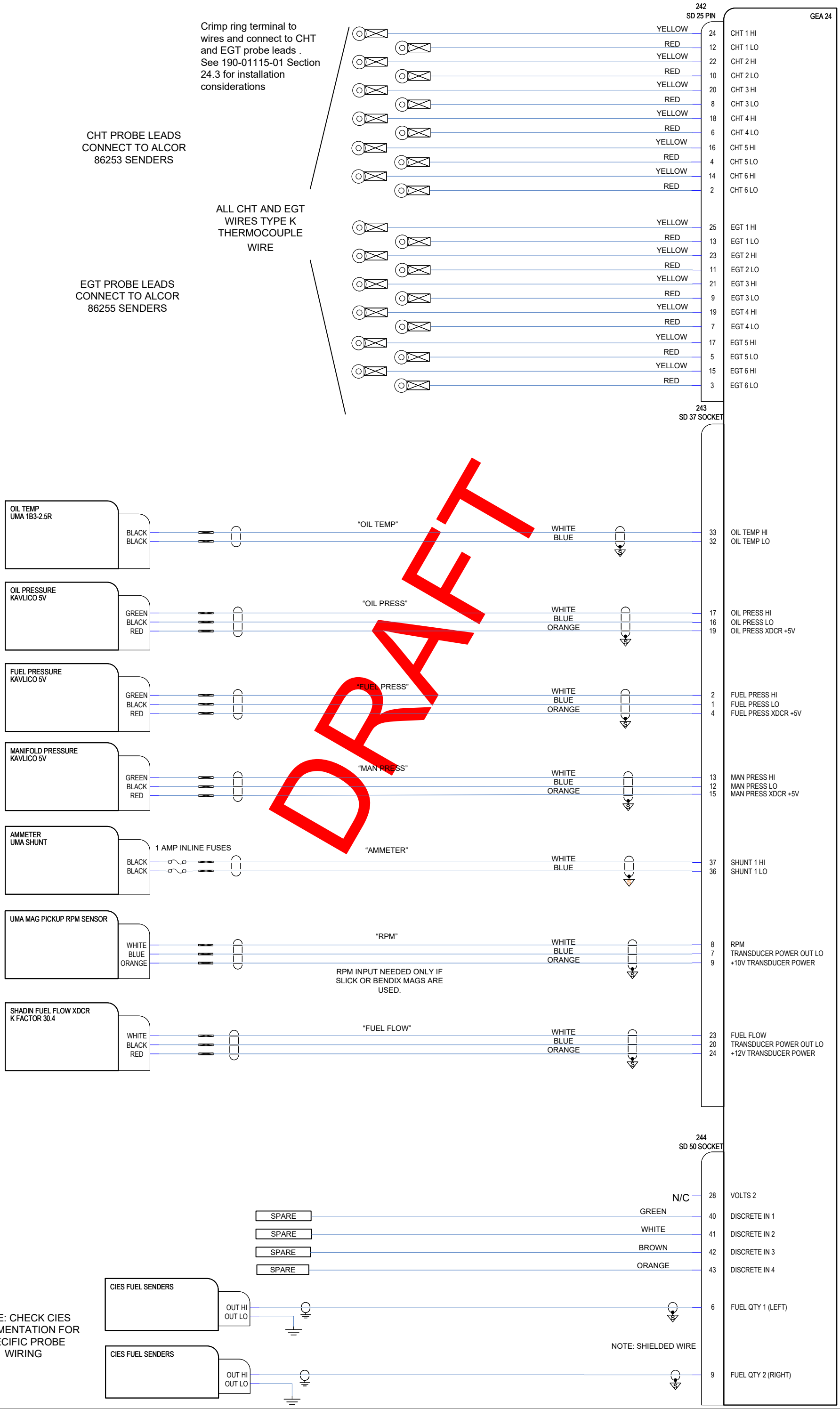

COAXIAL CABLE

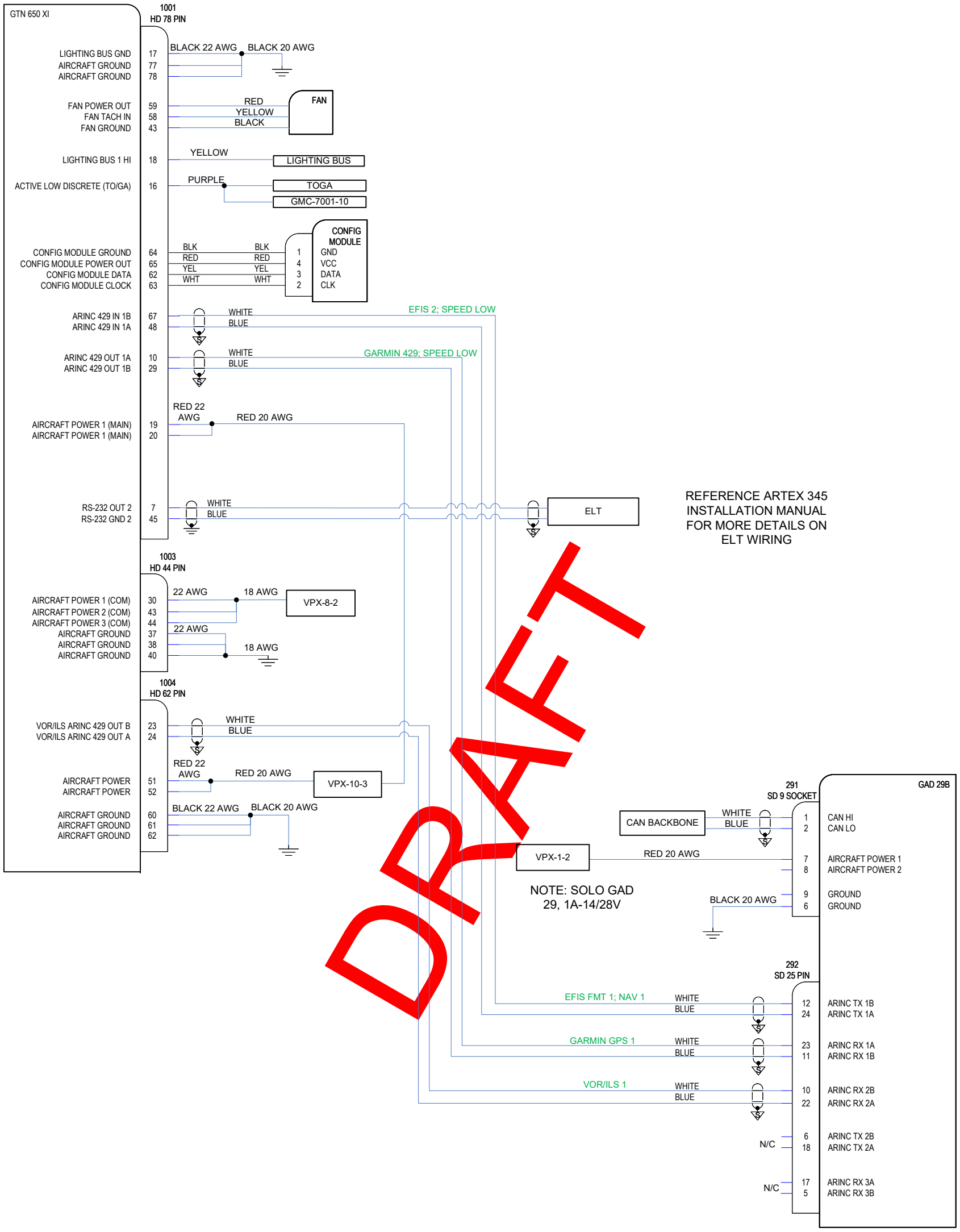
N/C – NO CONNECTION


GDU 460 PFD
4601
SD 9 SOCKETS
RS-232 TX 4
GROUND 6
RS-232 RX 5
WHITE
BLUE
ORANGE
4602
SD 50 SOCKETS
AIRCRAFT POWER 1 31
RED 20 AWG
VPX-12-9
AIRCRAFT POWER 2 32
N/C
GROUND 15
GROUND 16
BLACK 20 AWG
CONFIG MODULE
CONFIG MODULE GROUND 49
CONFIG MODULE POWER OUT 17
CONFIG MODULE DATA 50
CONFIG MODULE CLOCK 33
BLK BLK
RED RED
YEL YEL
WHT WHT
1 GND
4 VCC
3 DATA
2 CLK
ID PROGRAM 2 9
N/C
ID PROGRAM 1 10
SIGNAL GROUND 27
CAN BUS HI 46
CAN BUS LO 45
WHITE
BLUE
CAN BACKBONE
14V LIGHTING BUS HI 43
YELLOW
LIGHTING BUS
MONO AUDIO OUT HI 1
MONO AUDIO OUT LO 18
WHITE
BLUE
GARMIN
INSTRUMENT DATA
RS-232 IN 5 24
SIGNAL GROUND 44
RS-232 OUT 5 41
WHITE
BLUE
ORANGE
RS-232 IN 4 23
SIGNAL GROUND 37
RS-232 OUT 3 40
WHITE
ORANGE
BLUE
VPX-1-20
VPX-1-21
VPX-1-22
CONNEXT 57600 BAUD
RS-232 IN 3 29
SIGNAL GROUND 36
RS-232 OUT 3 13
WHITE
BLUE
ORANGE
GTN CONNEXT 2
RS-232 IN 2 14
SIGNAL GROUND 35
RS-232 OUT 2 30
WHITE
BLUE
ORANGE
RS-232 IN 1 47
SIGNAL GROUND 34
RS-232 OUT 1 48
WHITE MAPMX
BLUE
ORANGE
GTN 650 XI
1001
HD 78 PIN
MAPMX-
FORMAT 2
RS-232 OUT 3 6
RS-232 GND 3/4 44
RS-232 IN 3 25
WHITE
BLUE
ORANGE
CONNEXT FRMT 2
RS-232 OUT 1 8
RS-232 GND 1 46
RS-232 IN 1 27
WHITE
BLUE
ORANGE
1002
HD 26 PIN
ADS-B IN SOURCE:
GTX
ETHERNET OUT 3A 25
ETHERNET OUT 3B 26
ETHERNET IN 3A 23
ETHERNET IN 3B 24
WHITE/BLUE
BLUE/WHITE
WHITE/ORANGE
ORANGE/WHITE
GTX 45R
P3252
GTN PRESENT
ETHERNET IN 1A 7
ETHERNET IN 1B 2
ETHERNET OUT 1A 6
ETHERNET OUT 1B 1
WHITE/BLUE
BLUE/WHITE
WHITE/ORANGE
ORANGE/WHITE
P3251
CONNEXT FRMT 1
RS-232 OUT 2 8
RS-232 GROUND 2 51
RS-232 IN 2 30
WHITE
BLUE
ORANGE
RS-232 OUT 1 9
RS-232 GROUND 52
RS-232 IN 1 31
WHITE
BLUE
ORANGE
TRANSPONDER FRMT 1
AIRCRAFT POWER 1 21
AIRCRAFT POWER 2 42
22 AWG RED
20 AWG RED
VPX-8-6
GROUND 20
GROUND 41
POWER CONTROL 38
POWER CONFIG 59
22 AWG BLK
20 AWG BLK
USB TYPE B
RECEPTABLE
USB GROUND 45
USB POWER 44
USB DATA HI 2
USB DATA LO 24
BLK RED GRN WHT
GND
VBUS
D+
D-
251
SD 9 SOCKETS
GSU 25C
RS-232 RX 1 4
GROUND 6
RS-232 TX 1 5
CAN BACKBONE
WHITE
BLUE
CAN BUS HI 1
CAN BUS LO 2
GROUND 9
VPX-1-1
RED 20 AWG
AIRCRAFT POWER 1 7
N/C
AIRCRAFT POWER 2 8
252
SD 15 SOCKETS
WHITE
BLUE
ORANGE
RS-232 RX 3 10
GROUND 11
RS-232 TX 3 9
WHITE
BLUE
ORANGE
OAT POWER 1
OAT HIGH 2
OAT LOW 3
GTP 59
ORANGE OAT LOW
BLUE OAT HIGH
WHITE OAT POWER
P2401
HD 44 PIN
GMA 245
WHITE
BLUE
ALERT 1 AUDIO IN HI 31
ALERT 1 AUDIO IN LO 32
51
9 SD SOCKETS
G5
VPX-10-2
22 AWG RED
LPM 011-05224-00
RED
N/C
WHITE/ST
BLUE/ST
CAN BACKBONE
WHITE
BLUE
BLK
AIRCRAFT POWER 1 7
AIRCRAFT POWER 2 8
CAN BUS HI 1
CAN BUS LO 2
MAPMX
WHITE
BLUE
22 AWG
RS-232 IN 4
RS-232 SIGNAL GROUND 6
GROUND 9
241
SD 9 SOCKETS
GEA 24
CAN BACKBONE
White
Blue
CAN BUS HI 1
CAN BUS LO 2
WHITE
BLUE
ORANGE
RS-232 TX 5
GROUND 6
RS-232 RX 4
BLACK 20 AWG
GROUND 9
VPX-8-1
RED 20 AWG
AIRCRAFT POWER 1 7
N/C
AIRCRAFT POWER 2 8
111
SD 9 SOCKETS
GMU 11
CAN BACKBONE
WHITE
BLUE
CAN BUS HI 1
CAN BUS LO 2
N/C
GROUND 6
GROUND 9
VPX-1-1
RED 20 AWG
N/C
AIRCRAFT POWER 1 7
AIRCRAFT POWER 2 8
NOTE: CAN TERM INTERMEDIARY
CONNECTOR REQUIRED ON GMU
IF END OF CAN BUS
DRAFT


NOTE: NOT ALL CO MONITOR CONNECTIONS ARE NECESSARY. ANY CONFIGURATION OF CONNECTIONS MAY BE USED. THE BUTTON AND LIGHTS ARE RECOMMENDED TO PERFORM TESTS
GD-40 CO MONITOR
1A IN-LINE FUSE
VPX-8-8
BLACK 22 AWG
V+
GND
GDU 460 MFD
4602 SD 50 SOCKETS
AIRCRAFT POWER 1 32
RED 22 AWG
VPX-8-4
AIRCRAFT POWER 2 31
N/C
GROUND 15
GROUND 16
BLACK 22 AWG
BUTTON
BUTTON
LED LIGHT
BLK
RED
GRN
GND
LED 1 RED
LED 2 GRN
RS-232 IN 2 14
RS-232 OUT 2 30
CO DETECTOR
WHITE
BLUE
TX
RX
GMA 245
J2402
ALERT 2 AUDIO IN HI 15
ALERT 2 AUDIO IN LO 14
AUDIO
AUDIO
CAN BUS HI 46
CAN BUS LO 45
WHITE
BLUE
CAN BACKBONE
Reversion Switch
REVERSIONARY MODE 25
WHITE
14 V LIGHTING BUS HI 43
YELLOW
LIGHTING BUS


GHA 15
J2001
CAN BUS HI 8
CAN BUS LO 7
WHITE
BLUE
CAN BACKBONE
CAN BUS TERM 18
SPLICE WITH PIN 7 (BLUE) WIRE IF GHA IS END OF CAN BUS
1A IN-LINE FUSE
AIRCRAFT POWER 14
22 AWG RED
VPX-8-8
GROUND 1
22 AWG BLK
USB TYPE B RECEPTABLE (OPTIONAL)
USB DP 9
USB DM 10
USB VBUS 19
SIGNAL GROUND 20
GRN
WHT
RED
BLK
GND
VBUS
D+
D-


242
SD 25 PIN
GEA 24
Crimp ring terminal to wires and connect to CHT and EGT probe leads . See 190-01115-01 Section 24.3 for installation considerations
CHT PROBE LEADS CONNECT TO ALCOR 86253 SENDERS
ALL CHT AND EGT WIRES TYPE K THERMOCOUPLE WIRE
EGT PROBE LEADS CONNECT TO ALCOR 86255 SENDERS
YELLOW 24 CHT 1 HI
RED 12 CHT 1 LO
YELLOW 22 CHT 2 HI
RED 10 CHT 2 LO
YELLOW 20 CHT 3 HI
RED 8 CHT 3 LO
YELLOW 18 CHT 4 HI
RED 6 CHT 4 LO
YELLOW 16 CHT 5 HI
RED 4 CHT 5 LO
YELLOW 14 CHT 6 HI
RED 2 CHT 6 LO
YELLOW 25 EGT 1 HI
RED 13 EGT 1 LO
YELLOW 23 EGT 2 HI
RED 11 EGT 2 LO
YELLOW 21 EGT 3 HI
RED 9 EGT 3 LO
YELLOW 19 EGT 4 HI
RED 7 EGT 4 LO
YELLOW 17 EGT 5 HI
RED 5 EGT 5 LO
YELLOW 15 EGT 6 HI
RED 3 EGT 6 LO
243
SD 37 SOCKET
OIL TEMP
UMA 1B3-2.5R
BLACK
BLACK
"OIL TEMP"
WHITE
BLUE
33 OIL TEMP HI
32 OIL TEMP LO
OIL PRESSURE
KAVLICO 5V
GREEN
BLACK
RED
"OIL PRESS"
WHITE
BLUE
ORANGE
17 OIL PRESS HI
16 OIL PRESS LO
19 OIL PRESS XDCR +5V
FUEL PRESSURE
KAVLICO 5V
GREEN
BLACK
RED
"FUEL PRESS"
WHITE
BLUE
ORANGE
2 FUEL PRESS HI
1 FUEL PRESS LO
4 FUEL PRESS XDCR +5V
MANIFOLD PRESSURE
KAVLICO 5V
GREEN
BLACK
RED
"MAN PRESS"
WHITE
BLUE
ORANGE
13 MAN PRESS HI
12 MAN PRESS LO
15 MAN PRESS XDCR +5V
AMMETER
UMA SHUNT
1 AMP INLINE FUSES
BLACK
BLACK
"AMMETER"
WHITE
BLUE
37 SHUNT 1 HI
36 SHUNT 1 LO
UMA MAG PICKUP RPM SENSOR
WHITE
BLUE
ORANGE
"RPM"
WHITE
BLUE
ORANGE
8 RPM
7 TRANSDUCER POWER OUT LO
9 +10V TRANSDUCER POWER
RPM INPUT NEEDED ONLY IF SLICK OR BENDIX MAGS ARE USED.
SHADIN FUEL FLOW XDCR
K FACTOR 30.4
WHITE
BLACK
RED
"FUEL FLOW"
WHITE
BLUE
ORANGE
23 FUEL FLOW
20 TRANSDUCER POWER OUT LO
24 +12V TRANSDUCER POWER
244
SD 50 SOCKET
N/C 28 VOLTS 2
SPARE GREEN 40 DISCRETE IN 1
SPARE WHITE 41 DISCRETE IN 2
SPARE BROWN 42 DISCRETE IN 3
SPARE ORANGE 43 DISCRETE IN 4
CIES FUEL SENDERS
OUT HI
OUT LO
6 FUEL QTY 1 (LEFT)
NOTE: SHIELDED WIRE
CIES FUEL SENDERS
OUT HI
OUT LO
9 FUEL QTY 2 (RIGHT)
NOTE: CHECK CIES DOCUMENTATION FOR SPECIFIC PROBE WIRING


GTN 650 XI
1001
HD 78 PIN
LIGHTING BUS GND 17
AIRCRAFT GROUND 77
AIRCRAFT GROUND 78
BLACK 22 AWG
BLACK 20 AWG
FAN POWER OUT 59
FAN TACH IN 58
FAN GROUND 43
RED
YELLOW
BLACK
FAN
LIGHTING BUS 1 HI 18
YELLOW
LIGHTING BUS
ACTIVE LOW DISCRETE (TO/GA) 16
PURPLE
TOGA
GMC-7001-10
CONFIG MODULE GROUND 64
CONFIG MODULE POWER OUT 65
CONFIG MODULE DATA 62
CONFIG MODULE CLOCK 63
BLK
RED
YEL
WHT
CONFIG MODULE
1 GND
4 VCC
3 DATA
2 CLK
ARINC 429 IN 1B 67
ARINC 429 IN 1A 48
WHITE
BLUE
EFIS 2; SPEED LOW
ARINC 429 OUT 1A 10
ARINC 429 OUT 1B 29
GARMIN 429; SPEED LOW
AIRCRAFT POWER 1 (MAIN) 19
AIRCRAFT POWER 1 (MAIN) 20
RED 22 AWG
RED 20 AWG
RS-232 OUT 2 7
RS-232 GND 2 45
ELT
1003
HD 44 PIN
AIRCRAFT POWER 1 (COM) 30
AIRCRAFT POWER 2 (COM) 43
AIRCRAFT POWER 3 (COM) 44
AIRCRAFT GROUND 37
AIRCRAFT GROUND 38
AIRCRAFT GROUND 40
22 AWG
18 AWG
VPX-8-2
1004
HD 62 PIN
VOR/ILS ARINC 429 OUT B 23
VOR/ILS ARINC 429 OUT A 24
AIRCRAFT POWER 51
AIRCRAFT POWER 52
VPX-10-3
AIRCRAFT GROUND 60
AIRCRAFT GROUND 61
AIRCRAFT GROUND 62
REFERENCE ARTEX 345
INSTALLATION MANUAL
FOR MORE DETAILS ON
ELT WIRING
DRAFT
291
SD 9 SOCKET
GAD 29B
CAN BACKBONE
1 CAN HI
2 CAN LO
VPX-1-2
7 AIRCRAFT POWER 1
8 AIRCRAFT POWER 2
NOTE: SOLO GAD
29, 1A-14/28V
9 GROUND
6 GROUND
292
SD 25 PIN
EFIS FMT 1; NAV 1
12 ARINC TX 1B
24 ARINC TX 1A
GARMIN GPS 1
23 ARINC RX 1A
11 ARINC RX 1B
VOR/ILS 1
10 ARINC RX 2B
22 ARINC RX 2A
N/C
6 ARINC TX 2B
18 ARINC TX 2A
N/C
17 ARINC RX 3A
5 ARINC RX 3B

GAD 27

271
SD 50 SOCKET

CAN BUS HI 1
CAN BUS LO 2
WHITE
BLUE
CAN BACKBONE

AIRCRAFT POWER 1 7
RED 22 AWG
VPX-8-5

GROUND 8
BLACK 22 AWG

PILOT FLAPS UP INPUT 18
PILOT FLAPS DOWN INPUT 19
FLAPS SWITCH

NOTE: ONLY ONE FLAPS SWITCH WAS ADDED DUE TO PANEL INSTALLATION. A COPILOT FLAPS SWITCH CAN BE ADDED IF DESIRED

COPILOT FLAPS UP INPUT 20
COPILOT FLAPS DOWN INPUT 21

NOTE: TRIM UP AND DOWN MAY BE ON SAME SWITCH, SHOWN SEPARATELY HERE FOR CLARITY

PILOT PITCH TRIM UP INPUT 24
PILOT PITCH TRIM DOWN INPUT 25
BLUE
GREEN
TRIM UP
TRIM DOWN

COPILOT PITCH TRIM UP INPUT 26
COPILOT PITCH TRIM DOWN INPUT 27
BLUE
GREEN
TRIM UP
TRIM DOWN

LIGHT 1 SWITCH 34
LANDING LIGHT

LIGHT 2 SWITCH 35
TAXI LIGHT

WIG-WAG FLASHER SWITCH 36
WIG WAG

NOTE: LANDING AND TAXI LIGHT ON SAME SWITCH.

DOWN POSITION – OFF
MIDDLE POSITION – TAXI ONLY UP
POSITION – TAXI AND LANDING

NEED TO USE OFF-ON-ON SWITCH. SWITCH TERMINAL WIRING WILL BE DEPENDENT ON SWITCH

LIGHT DIMMER +12V OUTPUT 37
LIGHT DIMMER GROUND 38

LIGHT DIMMER IN 1 39
LIGHT DIMMER IN 2 40

10K POTENTIOMETER "AVIONICS DIMMER"
10K POTENTIOMETER "PANEL DIMMER"

LED LIGHTS MAX 500MA PER CIRCUIT

DC LIGHTING BUS 1 42
DC LIGHTING BUS 2 43
DC LIGHTING BUS 3 44
YELLOW
YELLOW
YELLOW
MFD-4602-43
GTR-2001-3
GMC-7001-11
GDU-PFD-4602-43
GTN-1001-18
GMA-2402-6
GMA-2402-7

VPX-10-10

PWM LIGHTING 1 45
PWM LIGHTING 2 46
PWM LIGHTING 3 47

272
SD 15 SOCKET

ROLL TRIM POWER IN 3
ROLL TRIM GROUND 4
RED 22 AWG
BLACK 22 AWG

TRIM
5A

PITCH TRIM POWER IN 1
PITCH TRIM GROUND 2
RED 22 AWG
BLACK 22 AWG

PITCH TRIM OUT 1 11
PITCH TRIM OUT 2 12
GSAP-281-11
GSAP-281-12

ROLL TRIM OUT 1 9
ROLL TRIM OUT 2 10
GSAR-281-11
GSAR-281-12

TB273
RING TERMINALS

KEEP ALIVE POWER IN 1
KEEP ALIVE POWER OUT 2
N/C WHEN IBBS INSTALLED

LIGHT 1 POWER IN 3
LIGHT 2 POWER IN 4
20AWG
20AWG

LANDING LIGHT
5A

TAXI LIGHT
3A

FLAP MOTOR
15A

FLAP POWER IN 5
FLAP GROUND 6
16 AWG
16 AWG

FLAP POWER OUT 1 7
FLAP POWER OUT 2 8
16 AWG
16 AWG
FLAPS MOTOR

TAXI LIGHT

LIGHT 1 POWER OUT 9
20AWG

LANDING LIGHT

LIGHT 2 POWER OUT 10
20AWG

NAV LIGHT
5A

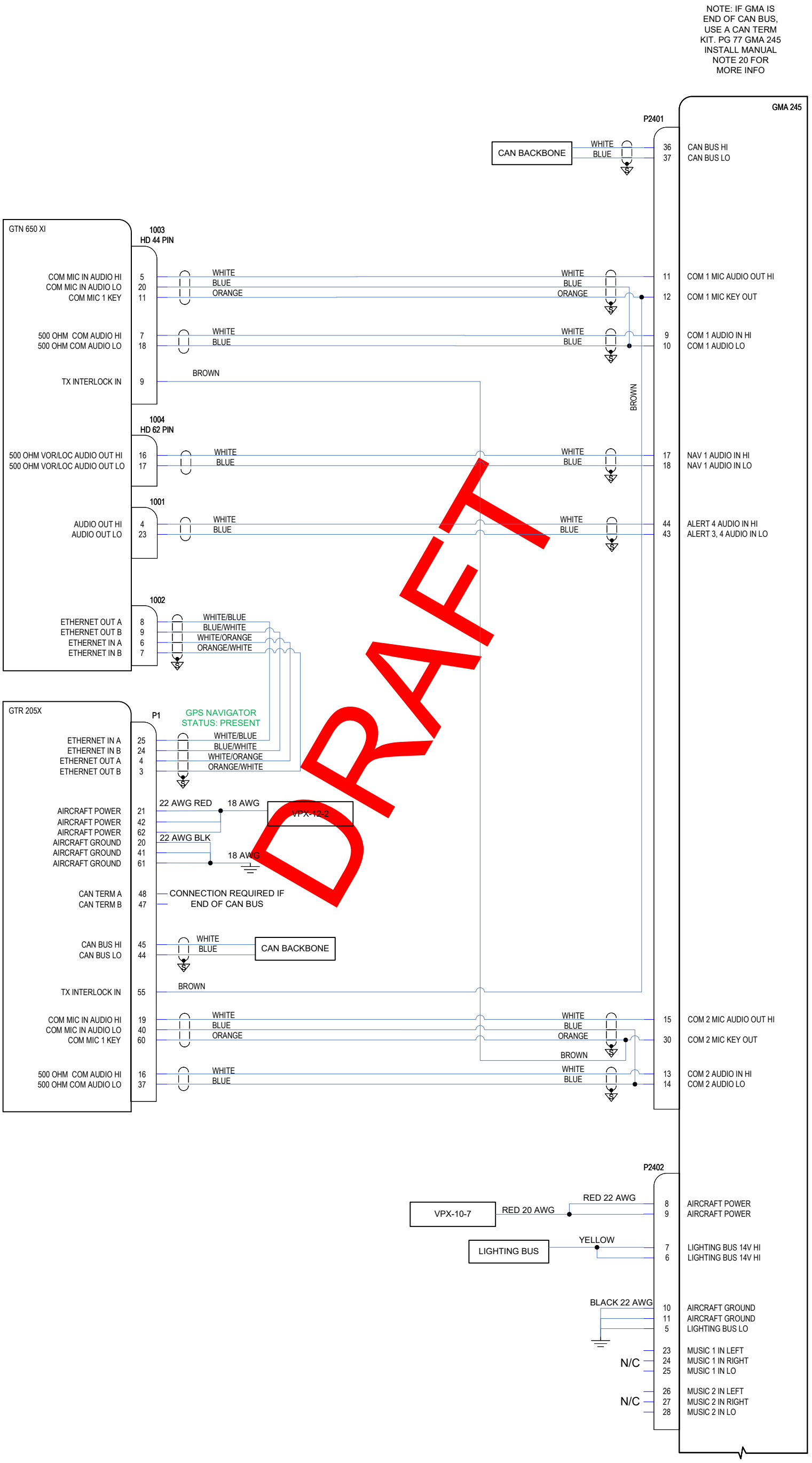
NAV LIGHT

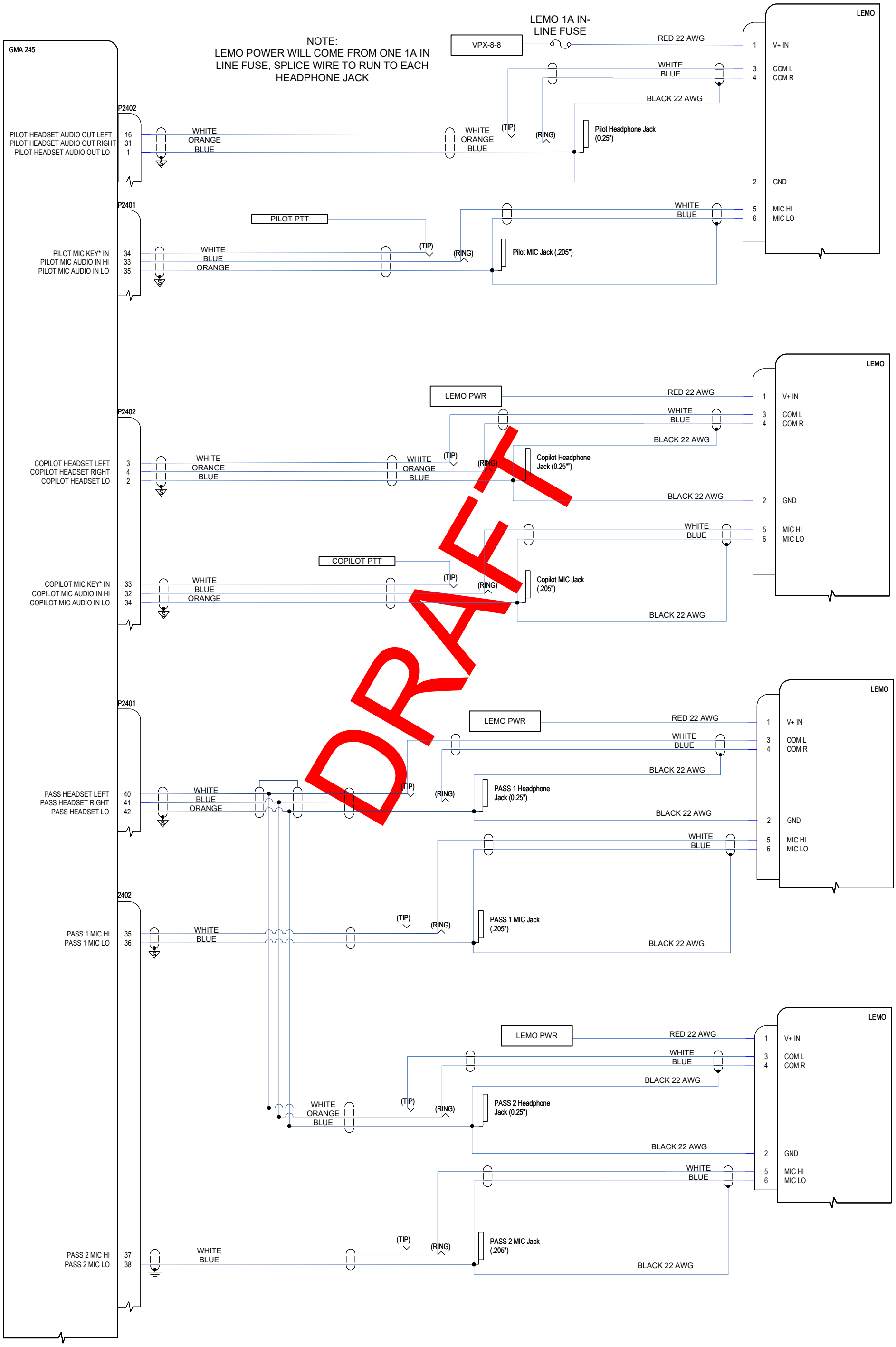
20AWG

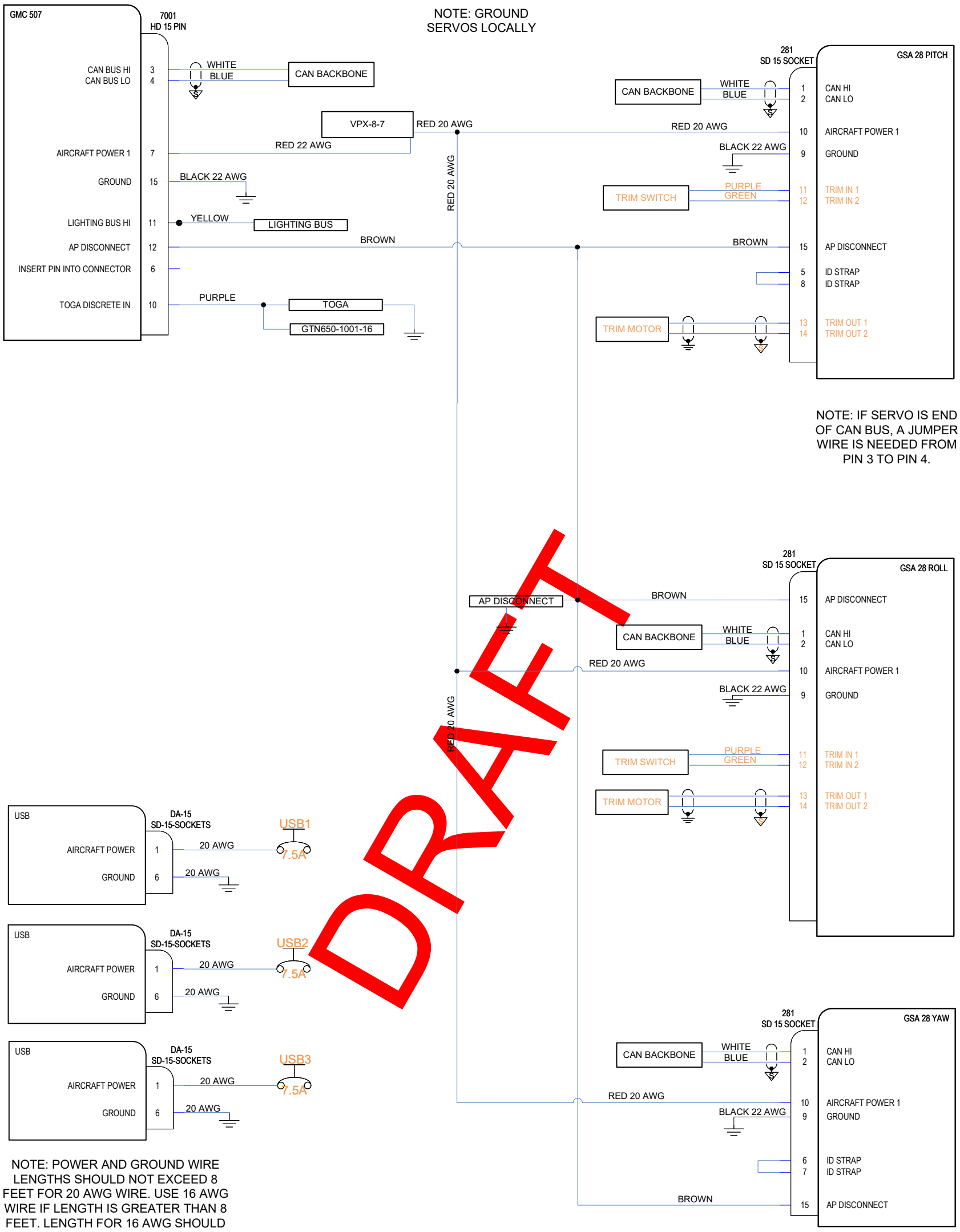
STROBE LIGHT

VPX-10-5
20AWG

NOTE: LIGHTS ARE NOT REQUIRED TO BE GROUNDED AT SAME LOCATION, THEY ARE SHOWN AS SUCH FOR CLARITY


NOTE: IF GMA IS END OF CAN BUS, USE A CAN TERM KIT. PG 77 GMA 245 INSTALL MANUAL NOTE 20 FOR MORE INFO
GMA 245
P2401
CAN BACKBONE
WHITE
BLUE
36 CAN BUS HI
37 CAN BUS LO
GTN 650 XI
1003
HD 44 PIN
COM MIC IN AUDIO HI 5
COM MIC IN AUDIO LO 20
COM MIC 1 KEY 11
WHITE
BLUE
ORANGE
11 COM 1 MIC AUDIO OUT HI
12 COM 1 MIC KEY OUT
500 OHM COM AUDIO HI 7
500 OHM COM AUDIO LO 18
9 COM 1 AUDIO IN HI
10 COM 1 AUDIO LO
TX INTERLOCK IN 9
BROWN
1004
HD 62 PIN
500 OHM VOR/LOC AUDIO OUT HI 16
500 OHM VOR/LOC AUDIO OUT LO 17
17 NAV 1 AUDIO IN HI
18 NAV 1 AUDIO IN LO
1001
AUDIO OUT HI 4
AUDIO OUT LO 23
44 ALERT 4 AUDIO IN HI
43 ALERT 3, 4 AUDIO IN LO
1002
ETHERNET OUT A 8
ETHERNET OUT B 9
ETHERNET IN A 6
ETHERNET IN B 7
WHITE/BLUE
BLUE/WHITE
WHITE/ORANGE
ORANGE/WHITE
GTR 205X
P1
GPS NAVIGATOR STATUS: PRESENT
ETHERNET IN A 25
ETHERNET IN B 24
ETHERNET OUT A 4
ETHERNET OUT B 3
AIRCRAFT POWER 21
AIRCRAFT POWER 42
AIRCRAFT POWER 62
AIRCRAFT GROUND 20
AIRCRAFT GROUND 41
AIRCRAFT GROUND 61
22 AWG RED
18 AWG
VPX-12-2
22 AWG BLK
18 AWG
CAN TERM A 48
CAN TERM B 47
CONNECTION REQUIRED IF END OF CAN BUS
CAN BUS HI 45
CAN BUS LO 44
CAN BACKBONE
TX INTERLOCK IN 55
COM MIC IN AUDIO HI 19
COM MIC IN AUDIO LO 40
COM MIC 1 KEY 60
15 COM 2 MIC AUDIO OUT HI
30 COM 2 MIC KEY OUT
500 OHM COM AUDIO HI 16
500 OHM COM AUDIO LO 37
13 COM 2 AUDIO IN HI
14 COM 2 AUDIO LO
P2402
VPX-10-7
RED 20 AWG
RED 22 AWG
8 AIRCRAFT POWER
9 AIRCRAFT POWER
LIGHTING BUS
YELLOW
7 LIGHTING BUS 14V HI
6 LIGHTING BUS 14V HI
BLACK 22 AWG
10 AIRCRAFT GROUND
11 AIRCRAFT GROUND
5 LIGHTING BUS LO
23 MUSIC 1 IN LEFT
N/C
24 MUSIC 1 IN RIGHT
25 MUSIC 1 IN LO
26 MUSIC 2 IN LEFT
N/C
27 MUSIC 2 IN RIGHT
28 MUSIC 2 IN LO
DRAFT


GMA 245
NOTE:
LEMO POWER WILL COME FROM ONE 1A IN LINE FUSE, SPLICE WIRE TO RUN TO EACH HEADPHONE JACK
LEMO 1A IN-LINE FUSE
VPX-8-8
RED 22 AWG
LEMO
1 V+ IN
3 COM L
4 COM R
2 GND
5 MIC HI
6 MIC LO
WHITE
BLUE
BLACK 22 AWG
P2402
PILOT HEADSET AUDIO OUT LEFT 16
PILOT HEADSET AUDIO OUT RIGHT 31
PILOT HEADSET AUDIO OUT LO 1
WHITE
ORANGE
BLUE
(TIP)
(RING)
Pilot Headphone Jack (0.25")
P2401
PILOT PTT
PILOT MIC KEY* IN 34
PILOT MIC AUDIO IN HI 33
PILOT MIC AUDIO IN LO 35
Pilot MIC Jack (.205")
LEMO PWR
COPILOT HEADSET LEFT 3
COPILOT HEADSET RIGHT 4
COPILOT HEADSET LO 2
Copilot Headphone Jack (0.25"")
COPILOT PTT
COPILOT MIC KEY* IN 33
COPILOT MIC AUDIO IN HI 32
COPILOT MIC AUDIO IN LO 34
Copilot MIC Jack (.205")
PASS HEADSET LEFT 40
PASS HEADSET RIGHT 41
PASS HEADSET LO 42
PASS 1 Headphone Jack (0.25")
2402
PASS 1 MIC HI 35
PASS 1 MIC LO 36
PASS 1 MIC Jack (.205")
PASS 2 Headphone Jack (0.25")
PASS 2 MIC HI 37
PASS 2 MIC LO 38
PASS 2 MIC Jack (.205")
DRAFT



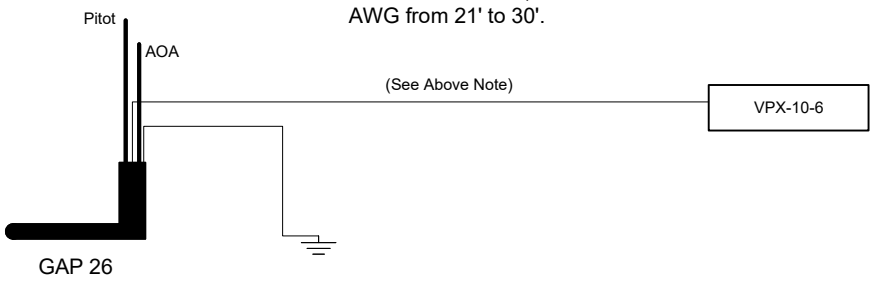
NOTE: GROUND SERVOS LOCALLY

NOTE: IF SERVO IS END OF CAN BUS, A JUMPER WIRE IS NEEDED FROM PIN 3 TO PIN 4.

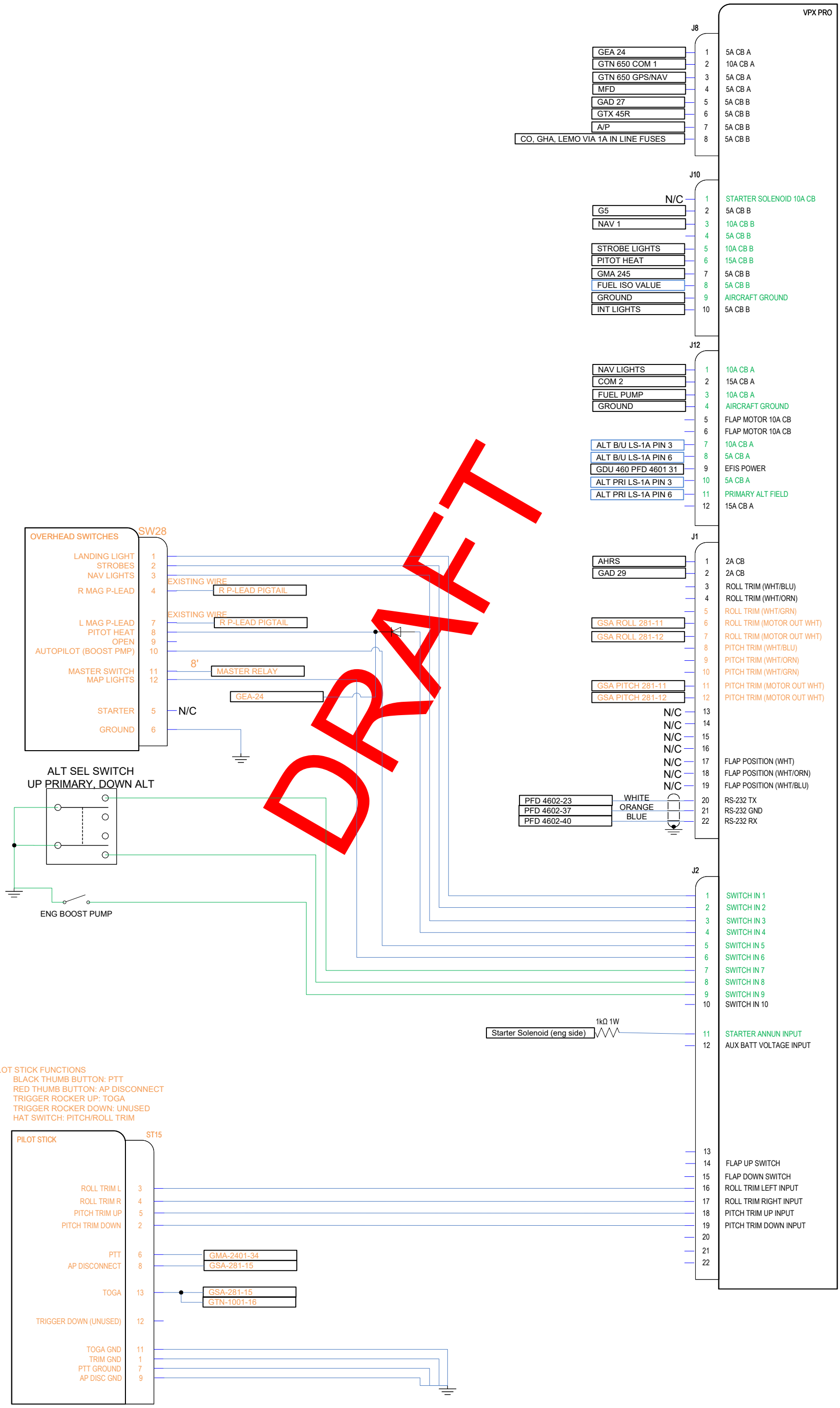
Gad 27-272-
pit
9 and 1

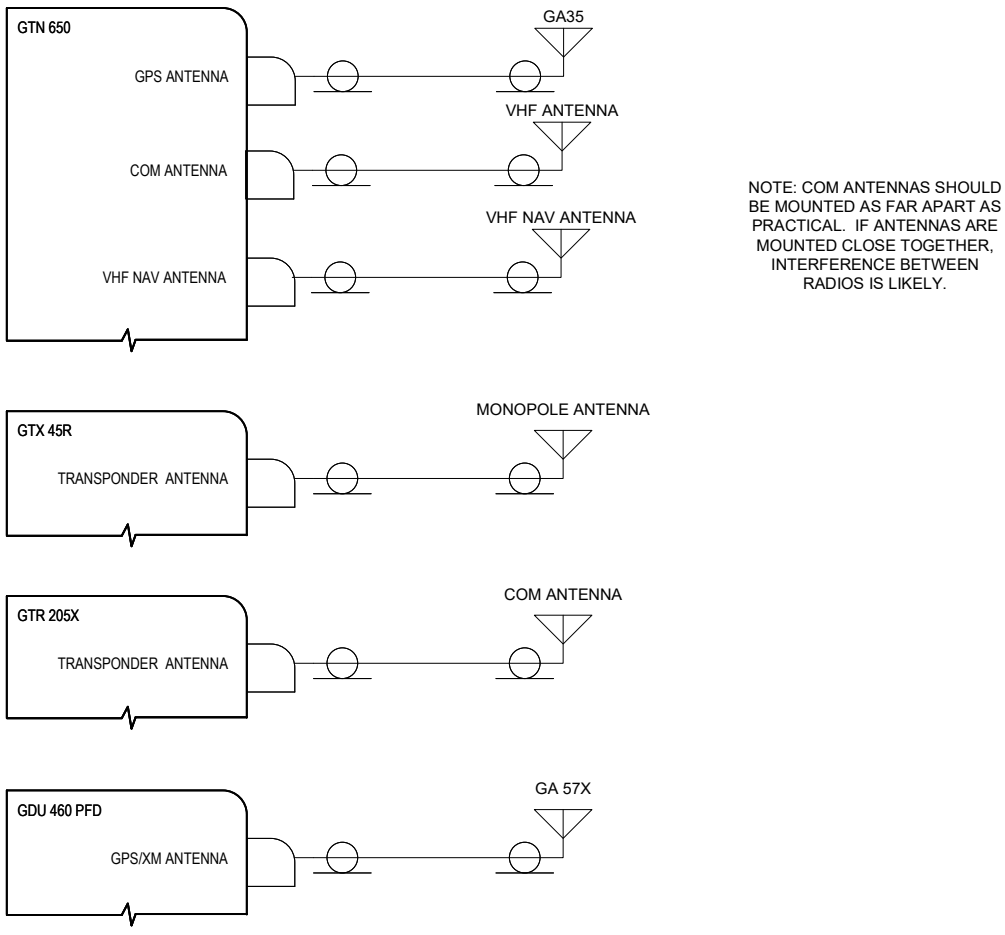
NOTE: POWER AND GROUND WIRE LENGTHS SHOULD NOT EXCEED 8 FEET FOR 20 AWG WIRE. USE 16 AWG WIRE IF LENGTH IS GREATER THAN 8 FEET. LENGTH FOR 16 AWG SHOULD NOT EXCEED 13 FEET.

NOTE: Power to probe wiring should be minimum 14 AWG up to 12', 12 AWG from 13' to 20', 10 AWG from 21' to 30'.



GAP 26
020-01074-10


VPX PRO
J8
GEA 24 1 5A CB A
GTN 650 COM 1 2 10A CB A
GTN 650 GPS/NAV 3 5A CB A
MFD 4 5A CB A
GAD 27 5 5A CB B
GTX 45R 6 5A CB B
A/P 7 5A CB B
CO, GHA, LEMO VIA 1A IN LINE FUSES 8 5A CB B
J10
N/C 1 STARTER SOLENOID 10A CB
G5 2 5A CB B
NAV 1 3 10A CB B
4 5A CB B
STROBE LIGHTS 5 10A CB B
PITOT HEAT 6 15A CB B
GMA 245 7 5A CB B
FUEL ISO VALUE 8 5A CB B
GROUND 9 AIRCRAFT GROUND
INT LIGHTS 10 5A CB B
J12
NAV LIGHTS 1 10A CB A
COM 2 2 15A CB A
FUEL PUMP 3 10A CB A
GROUND 4 AIRCRAFT GROUND
5 FLAP MOTOR 10A CB
6 FLAP MOTOR 10A CB
ALT B/U LS-1A PIN 3 7 10A CB A
ALT B/U LS-1A PIN 6 8 5A CB A
GDU 460 PFD 4601 31 9 EFIS POWER
ALT PRI LS-1A PIN 3 10 5A CB A
ALT PRI LS-1A PIN 6 11 PRIMARY ALT FIELD
12 15A CB A
J1
AHRS 1 2A CB
GAD 29 2 2A CB
3 ROLL TRIM (WHT/BLU)
4 ROLL TRIM (WHT/ORN)
5 ROLL TRIM (WHT/GRN)
GSA ROLL 281-11 6 ROLL TRIM (MOTOR OUT WHT)
GSA ROLL 281-12 7 ROLL TRIM (MOTOR OUT WHT)
8 PITCH TRIM (WHT/BLU)
9 PITCH TRIM (WHT/ORN)
10 PITCH TRIM (WHT/GRN)
GSA PITCH 281-11 11 PITCH TRIM (MOTOR OUT WHT)
GSA PITCH 281-12 12 PITCH TRIM (MOTOR OUT WHT)
N/C 13
N/C 14
N/C 15
N/C 16
N/C 17 FLAP POSITION (WHT)
N/C 18 FLAP POSITION (WHT/ORN)
N/C 19 FLAP POSITION (WHT/BLU)
PFD 4602-23 WHITE 20 RS-232 TX
PFD 4602-37 ORANGE 21 RS-232 GND
PFD 4602-40 BLUE 22 RS-232 RX
J2
1 SWITCH IN 1
2 SWITCH IN 2
3 SWITCH IN 3
4 SWITCH IN 4
5 SWITCH IN 5
6 SWITCH IN 6
7 SWITCH IN 7
8 SWITCH IN 8
9 SWITCH IN 9
10 SWITCH IN 10
Starter Solenoid (eng side) 1kΩ 1W 11 STARTER ANNUN INPUT
12 AUX BATT VOLTAGE INPUT
13
14 FLAP UP SWITCH
15 FLAP DOWN SWITCH
16 ROLL TRIM LEFT INPUT
17 ROLL TRIM RIGHT INPUT
18 PITCH TRIM UP INPUT
19 PITCH TRIM DOWN INPUT
20
21
22
OVERHEAD SWITCHES
SW28
LANDING LIGHT 1
STROBES 2
NAV LIGHTS 3
R MAG P-LEAD 4
EXISTING WIRE
R P-LEAD PIGTAIL
L MAG P-LEAD 7
PITOT HEAT 8
OPEN 9
AUTOPILOT (BOOST PMP) 10
EXISTING WIRE
R P-LEAD PIGTAIL
8'
MASTER SWITCH 11
MAP LIGHTS 12
MASTER RELAY
GEA-24
STARTER 5
N/C
GROUND 6
ALT SEL SWITCH
UP PRIMARY, DOWN ALT
ENG BOOST PUMP
PILOT STICK FUNCTIONS
BLACK THUMB BUTTON: PTT
RED THUMB BUTTON: AP DISCONNECT
TRIGGER ROCKER UP: TOGA
TRIGGER ROCKER DOWN: UNUSED
HAT SWITCH: PITCH/ROLL TRIM
PILOT STICK
ST15
ROLL TRIM L 3
ROLL TRIM R 4
PITCH TRIM UP 5
PITCH TRIM DOWN 2
PTT 6
AP DISCONNECT 8
GMA-2401-34
GSA-281-15
TOGA 13
GSA-281-15
GTN-1001-16
TRIGGER DOWN (UNUSED) 12
TOGA GND 11
TRIM GND 1
PTT GROUND 7
AP DISC GND 9
DRAFT



NOTE: COM ANTENNAS SHOULD BE MOUNTED AS FAR APART AS PRACTICAL. IF ANTENNAS ARE MOUNTED CLOSE TOGETHER, INTERFERENCE BETWEEN RADIOS IS LIKELY.