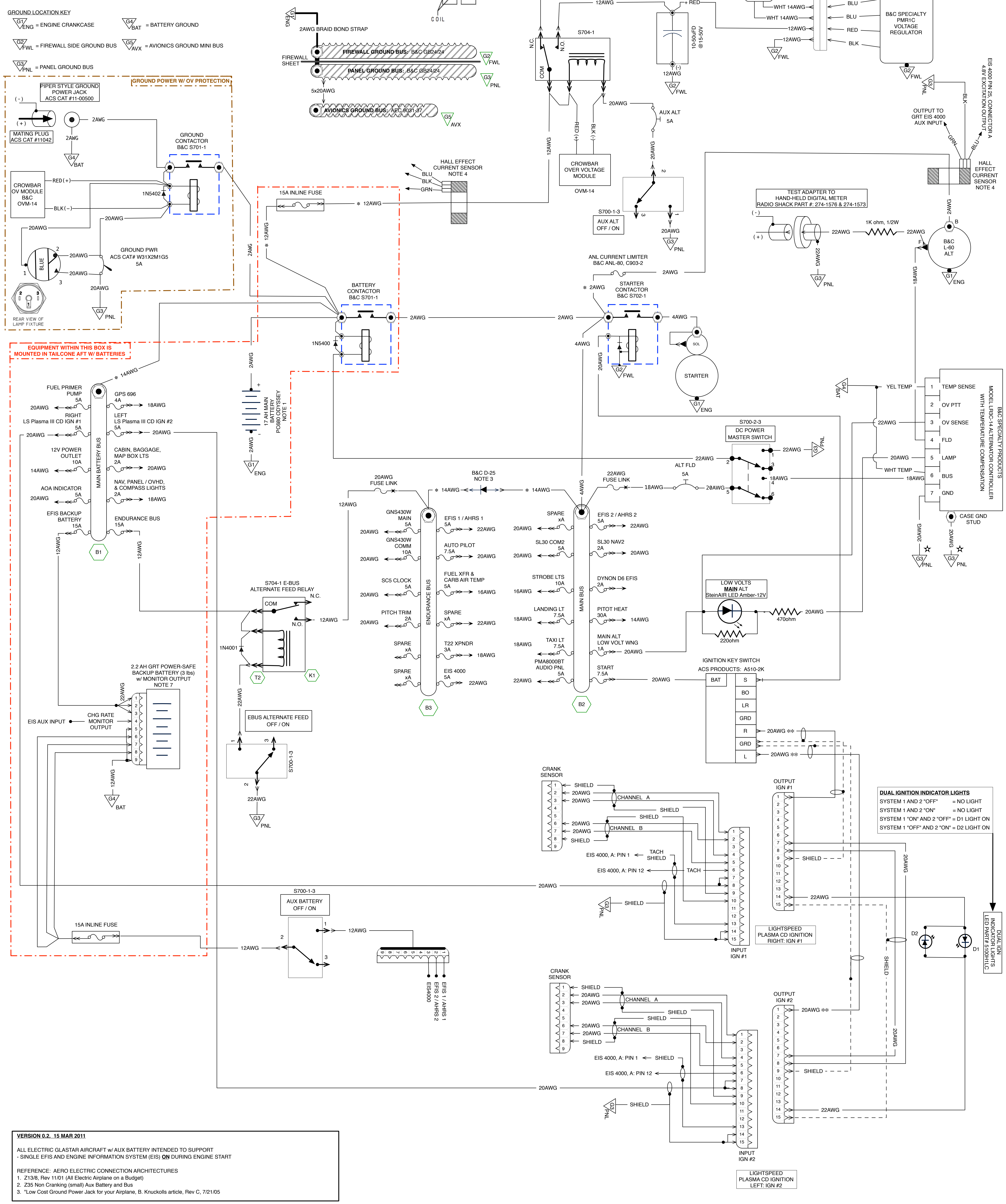
NOTES:

1) USING PC680 ODYSSEY 17AH BATTERY. DUE TO W&B NEEDS THE BATTERIES ARE LOCATED IN TAIL CONE **12 FT AFT OF FIREWALL**.
2) WIRES MARKED (✻) TO BE AS SHORT AS PRACTICAL. 6-INCHES LONG IS IDEAL, 12-INCHES LONG MAX.
3) WIRES MARKED (✻✻) USE 20AWG STRANDED SINGLE CONDUCTOR SHIELDED.
4) B&C SPECIALTY ENDURANCE BUS DIODE PART # D-25, MOUNTED ONTO ALUMINUM ELECTRICAL ACCESSORY PANEL / COPILOT SIDE.
5) USING GRT HALL EFFECT CURRENT SENSORS. WIRE IN WHICH CURRENT IS SENSED IS FED THRU OPPOSITE SIDE OF HES WIRE CONNECTOR.
6) STARTER IS A PMG TYPE SKYTEC FLYWEIGHT PART # 149-12LS, WITH HIGH TORQUE BUT ALSO HIGH CURRENT DRAW DURING START.
7) GRAND RAPIDS TECHNOLOGIES BACKUP BATTERY (2.2 Ah). POWER OUT IS 7A CONTINUOUS FOR ALL 3 OUTPUTS. CHARGE RATE IS MONITORED VIA PIN 4 AND EIS 4000 AUXILIARY INPUT.


GROUND LOCATION KEY
G1 ENG = ENGINE CRANKCASE
G4 BAT = BATTERY GROUND
G2 FWL = FIREWALL SIDE GROUND BUS
G5 AVX = AVIONICS GROUND MINI BUS
G3 PNL = PANEL GROUND BUS
2AWG BRAID BOND STRAP
FIREWALL SHEET
FIREWALL GROUND BUS: B&C GB24/24
PANEL GROUND BUS: B&C GB24/24
AVIONICS GROUND BUS: AEC 8031-37
GROUND POWER W/ OV PROTECTION
PIPER STYLE GROUND POWER JACK ACS CAT #11-00500
MATING PLUG ACS CAT #11042
GROUND CONTACTOR B&C S701-1
CROWBAR OV MODULE B&C OVM-14
GROUND PWR ACS CAT# W31X2M1G5 5A
REAR VIEW OF LAMP FIXTURE
LOW VOLTS AUX ALT Steinair LED AMBER-12V
470ohm
220ohm
B&C SD-8 PM Alternator DYNAMO
B&C SPECIALTY PMR1C VOLTAGE REGULATOR
S704-1
10-50uFD @15-50V
CROWBAR OVER VOLTAGE MODULE OVM-14
AUX ALT OFF / ON S700-1-3
HALL EFFECT CURRENT SENSOR NOTE 4
15A INLINE FUSE
OUTPUT TO GRT EIS 4000 AUX INPUT
EIS 4000 PIN 25, CONNECTOR A 4.8V EXCITATION OUTPUT
TEST ADAPTER TO HAND-HELD DIGITAL METER RADIO SHACK PART #: 274-1576 & 274-1573
1K ohm, 1/2W
B&C L-60 ALT
ANL CURRENT LIMITER B&C ANL-80, C903-2
BATTERY CONTACTOR B&C S701-1
STARTER CONTACTOR B&C S702-1
STARTER
EQUIPMENT WITHIN THIS BOX IS MOUNTED IN TAILCONE AFT W/ BATTERIES
17 AH MAIN BATTERY PC680 ODYSSEY NOTE 1
DC POWER MASTER SWITCH S700-2-3
ALT FLD 5A
B&C SPECIALTY PRODUCTS MODEL LR3C-14 ALTERNATOR CONTROLLER WITH TEMPERATURE COMPENSATION
TEMP SENSE
OV PTT
OV SENSE
FLD
LAMP
BUS
GND
CASE GND STUD
MAIN BATTERY BUS
FUEL PRIMER PUMP 5A
GPS 696 4A
RIGHT LS Plasma III CD IGN #1 5A
LEFT LS Plasma III CD IGN #2 5A
12V POWER OUTLET 10A
CABIN, BAGGAGE, MAP BOX LTS 2A
AOA INDICATOR 5A
NAV, PANEL / OVHD, & COMPASS LIGHTS 2A
EFIS BACKUP BATTERY 15A
ENDURANCE BUS 15A
20AWG FUSE LINK
B&C D-25 NOTE 3
22AWG FUSE LINK
ENDURANCE BUS
GNS430W MAIN 5A
EFIS 1 / AHRS 1 5A
GNS430W COMM 10A
AUTO PILOT 7.5A
SC5 CLOCK 5A
FUEL XFR & CARB AIR TEMP 5A
PITCH TRIM 2A
SPARE xA
T22 XPNDR 3A
EIS 4000 5A
MAIN BUS
EFIS 2 / AHRS 2 5A
SL30 COM2 5A
SL30 NAV2 2A
STROBE LTS 10A
DYNON D6 EFIS 2A
LANDING LT 7.5A
PITOT HEAT 30A
TAXI LT 7.5A
MAIN ALT LOW VOLT WNG 1A
PMA8000BT AUDIO PNL 5A
START 7.5A
LOW VOLTS MAIN ALT SteinAIR LED Amber-12V
S704-1 E-BUS ALTERNATE FEED RELAY
EBUS ALTERNATE FEED OFF / ON
2.2 AH GRT POWER-SAFE BACKUP BATTERY (3 lbs) w/ MONITOR OUTPUT NOTE 7
EIS AUX INPUT
CHG RATE MONITOR OUTPUT
IGNITION KEY SWITCH ACS PRODUCTS: A510-2K
CRANK SENSOR
CHANNEL A
CHANNEL B
SHIELD
TACH
EIS 4000, A: PIN 1
EIS 4000, A: PIN 12
OUTPUT IGN #1
INPUT IGN #1
LIGHTSPEED PLASMA CD IGNITION RIGHT: IGN #1
DUAL IGNITION INDICATOR LIGHTS
SYSTEM 1 AND 2 "OFF" = NO LIGHT
SYSTEM 1 AND 2 "ON" = NO LIGHT
SYSTEM 1 "ON" AND 2 "OFF" = D1 LIGHT ON
SYSTEM 1 "OFF" AND 2 "ON" = D2 LIGHT ON
DUAL IGN INDICATOR LIGHTS LED PART# 1090HLC
S700-1-3 AUX BATTERY OFF / ON
EFIS 1 / AHRS 1
EFIS 2 / AHRS 2
EIS4000
OUTPUT IGN #2
INPUT IGN #2
LIGHTSPEED PLASMA CD IGNITION LEFT: IGN #2

VERSION 0.2, 15 MAR 2011

ALL ELECTRIC GLASTAR AIRCRAFT w/ AUX BATTERY INTENDED TO SUPPORT
- SINGLE EFIS AND ENGINE INFORMATION SYSTEM (EIS) **ON** DURING ENGINE START

REFERENCE: AERO ELECTRIC CONNECTION ARCHITECTURES
1. Z13/8, Rev 11/01 (All Electric Airplane on a Budget)
2. Z35 Non Cranking (small) Aux Battery and Bus
3. "Low Cost Ground Power Jack for your Airplane, B. Knuckolls article, Rev C, 7/21/05