

ASTRA 505PL

PRIOR TO MY INVOLVEMENT:

- SWAP GCU'S
- INSTALL O'HAUL GCU (LEFT?)
- O'HAUL GCU DEFECTIVE
- REPAIR SAME LEFT GCU
- A/C DEVELOPS SPLITS AT ALTITUDE.
- SWAP GENERATORS
-

~~SWAP AS~~

SQUAWK AS REPORTED TO ME:

GENERATORS WILL NOT PARALLEL, 20-25 AMPS.

OTHER ITEMS RELATION.

APU LOAD SHARE HAS BEEN BAD A
LONG TIME.

ASTRA 6100 N 505 PL.

GCU

$\frac{E}{R_{SIDE}} = 0 \text{ VDC} \cdot 001$ SHOULD BE ZERO
WHEN GEN ONLINE.

GCU K TO GCU K

SHOULD BE ZERO
WHEN BOTH ONLINE

CS 110 AND 114

RESET BREAKERS @ BACK

F, *F ARE "E"

VERY CLOSE TO GROUND.

R 1002 ABOVE GND

B = ATTEN = 5.97 - OFFLINE ~~7.0~~ 7.0 ONLINE.

C TO AIRFRAME = .226

G " " = .013, .157 WHEN LOADED
.354 WHEN PUMP.

LEFT SIDE HIGH } JOSH.
R SIDE LOW }

R START ~~26.7~~, ~~26.7~~ + 3 MIN, 28.35 + 3 MIN 28.51

L START LEFT 28.49 R 28.46

R GEN OFFL ~~28.41~~ ADJUST TO 28.5.

L " " 28.49

{ L AMP METER = 20 } LIGHT LOAD
R " " = 10 }

L AMP METER = 90 } HEAVY
R AMP METER = 60 }

MORE VOLTS ON
ATTEN = MORE
OUT.

BEFORE SHUTDOWN

PAGE 2

40 LEFT COCKPIT
15 R COCKPIT

~~4~~ 41 LEFT CLAMP
13 RIGHT CLAMP.

CLEARING GND @ BAG
SWAPPING APU

2ND RUN

34	60	6
33	58	
TIE		
CONTACTORS		

1. WHEN 1 GEN OFF, WATCH THE OTHER
PICK UP THE LOAD

2. ADD POWER TO WITH VOLTAGE OVER
RPM RANGE.

3.

R SIDE. INDICATE 29+ COCKPIT
28.5 GCU

OFFLINE

~~26.9~~ 26.9 GCU

ADJUST UP

START L ENGINE

LOAD 30 R
15 L

ADJUST TO 28.0 @ GCU -
UNPLUG APU 37 PTN

LOANER ~~LEFT~~ R. GCU STARTED @
28.65

ADJUST 1 TURN ~~LEFT~~ CCW

TO 28.0

L 45

R 40

* LOANER WAS INSTALLED RH POSITION.
PROVES THE ORIGINAL LEFT GCU
FAILED).

↑
S/N 96053 FAILED

DETAILED RING OUT OF GCU WIRES: NEXT PAGE

WED AM MAR 16 20/6

RETURNED 2147 TO ASD INSTALLED RH POSITION

INSTALLED ANOTHER GCU LEFT HAND

6 AMP SPLIT @ HEAVY LOAD.

LEFT ENGINE

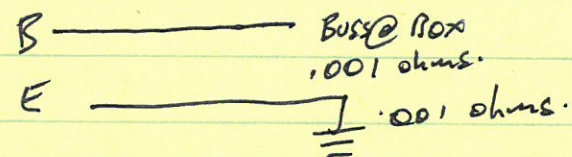
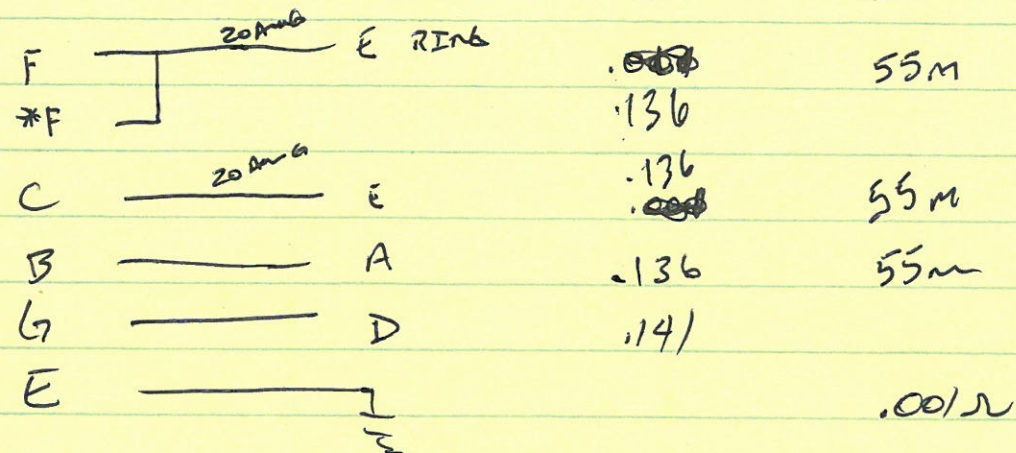
GCU

GEN

END
TO
END

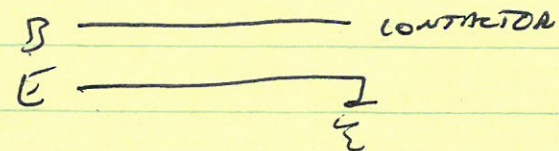
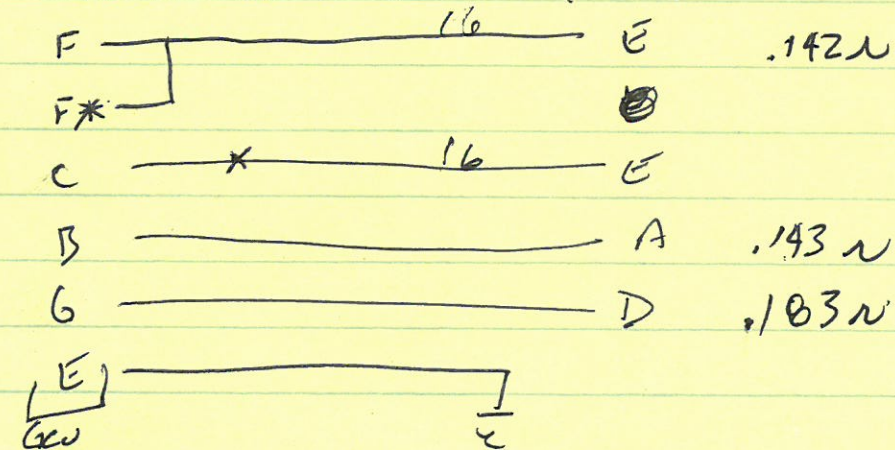
END
TO
GND

($\sim 55M = AIR$
 $50VDC MEGGER$)



RIGHT ENGINE

SG



GULFSTREAM G100 / SPX
MAINTENANCE MANUAL

GENERATOR CONTROL UNIT — ADJUSTMENT / TEST

1. Generator Control Unit — Operational Test

A. Preparation

SPECIAL TOOLS AND TEST EQUIPMENT

Multimeter GSE2400116 or equivalent

(1) References

- [Mandatory Precautions - Maintenance Practices, 20-00-05, Maintenance Practices](#)
- Aircraft Flight Manual

(2) Aircraft Preparation

- (a) Prepare aircraft for safe ground maintenance. See [Mandatory Precautions - Maintenance Practices, 20-00-05, Maintenance Practices](#).
- (b) Disconnect plug 78YP (located on the right main landing gear) to open Time Delay Relay (TDR) circuit.

B. Procedure

CAUTION: DO NOT EXCEED STARTER DUTY CYCLE DURING THIS TEST. REFER TO AIRCRAFT FLIGHT MANUAL FOR STARTER DUTY CYCLE. FAILURE TO COMPLY MAY CAUSE DAMAGE TO STARTERS.

NOTE: The following procedure is used in conjunction with Figure 501

(1) Engine Start by Batteries and Voltage Regulation Test

- (a) Start left engine and operate engine at idle. See Aircraft Flight Manual.
- (b) Select L and R GENERATOR switches to OFF.
- (c) While TDR circuit is open, measure generator voltage on GCU test jacks.
- (d) Compare generator voltage reading with aircraft voltmeter reading. Voltage shall be 28.5 Vdc. **UNLOADED**
- (e) **Adjust generator** voltage on left GCU if necessary.
- (f) Select L GENERATOR switch to ON.
 - 1 L GEN OFF light goes off.
- (g) Measure generator voltage.
 - 1 Generator voltage is 28.5 (+0.4 / -0.7) Vdc. **LOADED**
- (h) Charge batteries until current is stabilized.
- (i) With minimum load of 120 Amps, measure generator voltage for over all range of available engine speeds.
 - 1 Over ambient temperature / altitude range and over the load and speed range the generator voltage should be 28.5 (+0.4 / -0.7) Vdc.
- (j) Shut down left engine. See Aircraft Flight Manual.
- (k) Connect plug 78YP on right main landing gear.
- (l) Start left engine and operate engine at idle. See Aircraft Flight Manual.
- (m) Select L and R GENERATOR switches to OFF.

24-30-02

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① ~~Order Locking Pins for emergency exits~~

	Tire	Wheel
1	51972583	OCT 00-419
2	51942575	AUG 00-414

Volt Amp meters

LH	RH
293	175
Now	Now
RH	LH

25W832 8001-003

~~MONDAY~~ PM
NOTES

GEUS

LH 96853 V25832002-01 → ^{Now} RH

RH 2417 V25832002-01 → ^{Now} LH

ASTRA
N505PL

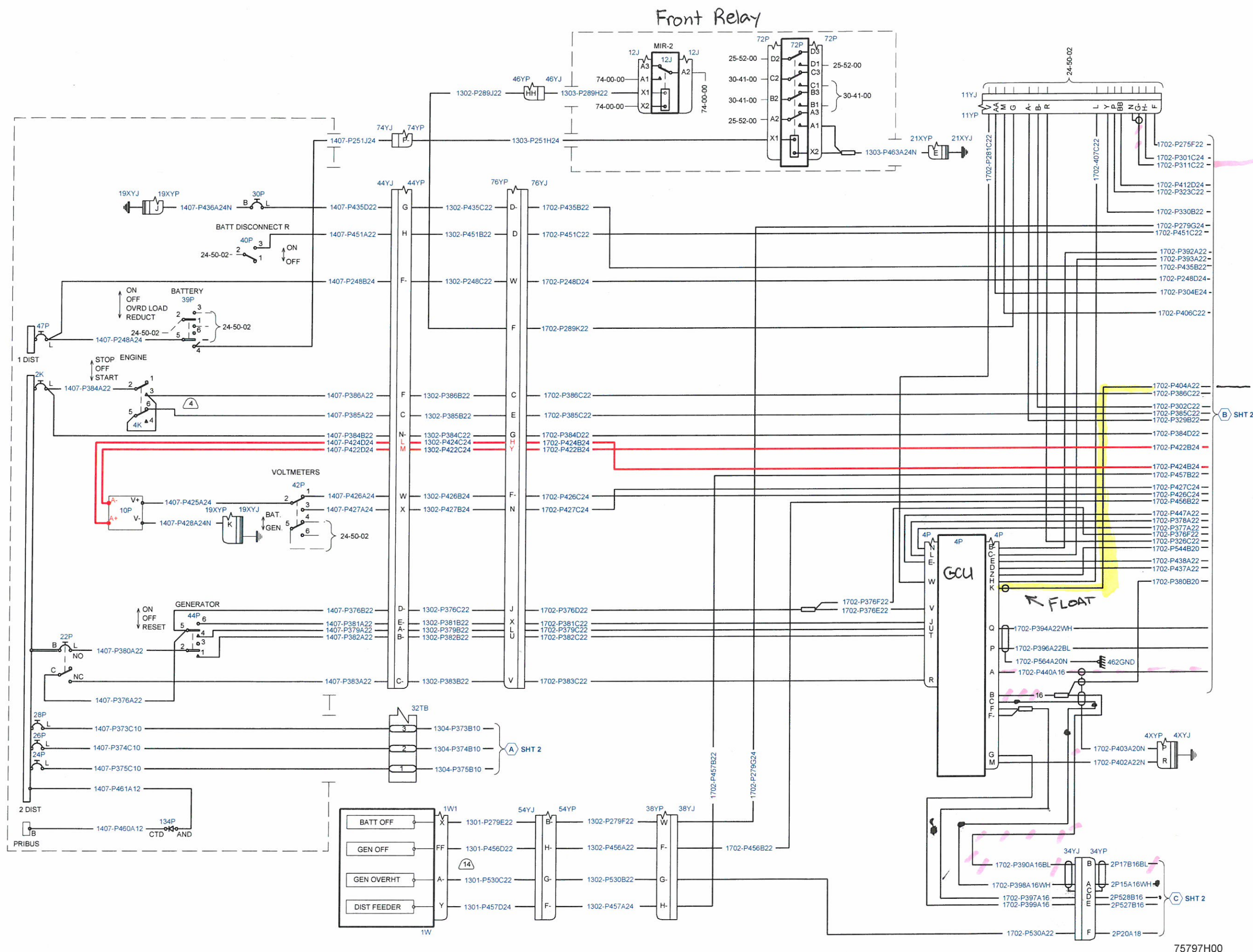


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"E" TO "C"
BAD
BLUE LUG.



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TO #1
GCU

GCU E
GCU D

OUT TO
DUNCAN
EQUALIZER

Generator

RIGHT DC POWER BOX

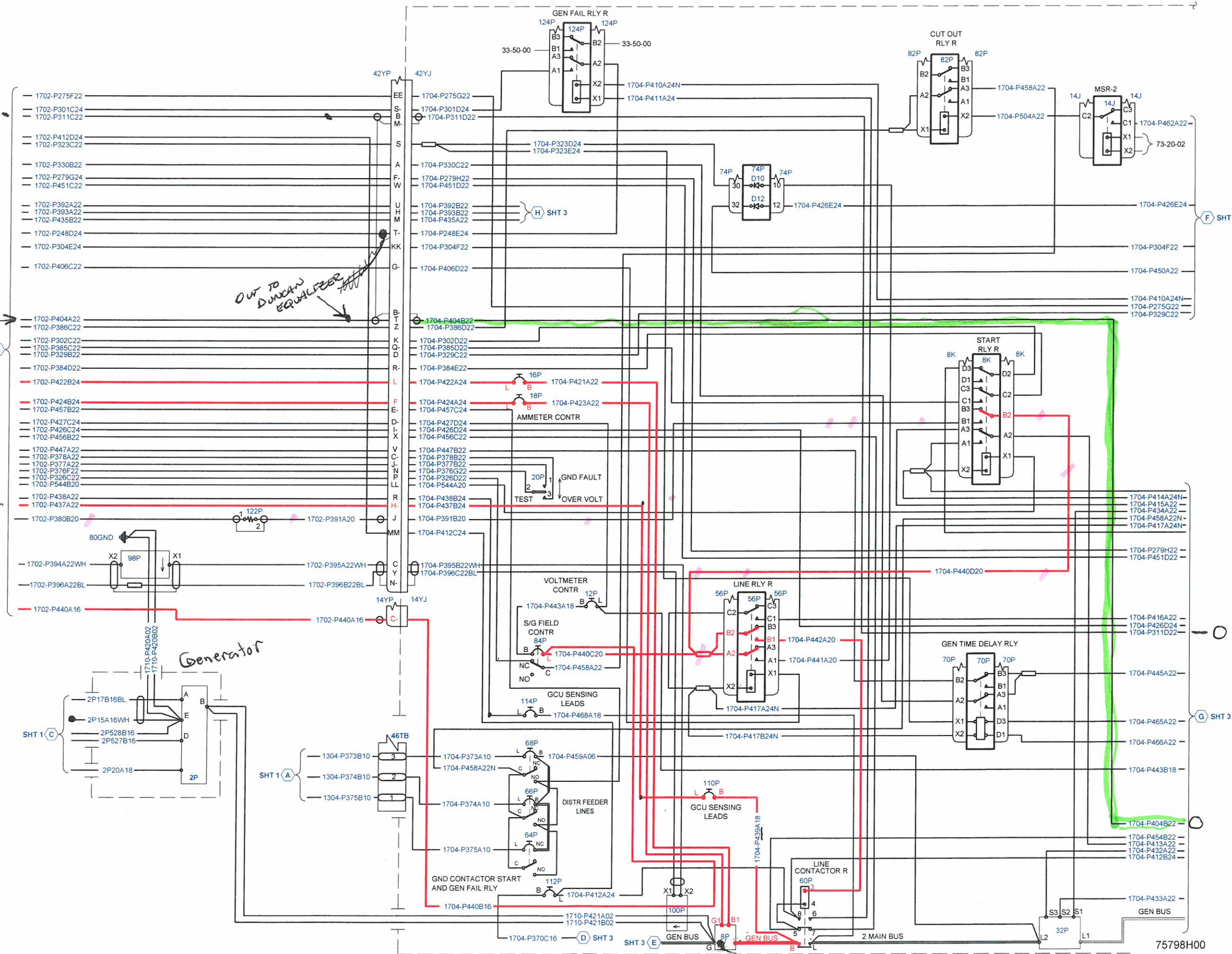
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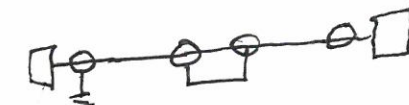
Wiring Diagram

24-50-03

Figure 1, Sheet 2 of 3
June 30/11

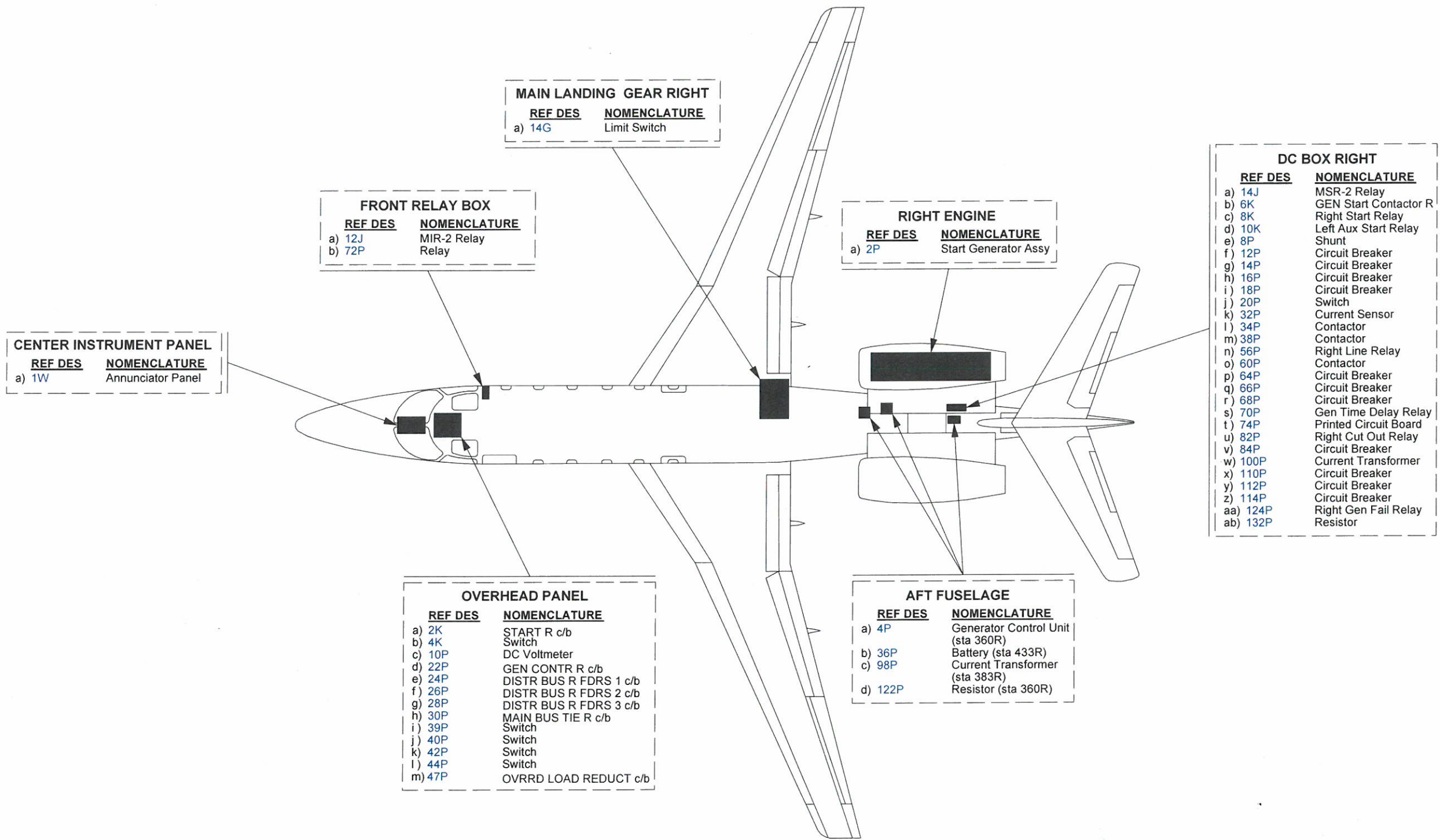
75798H00





Aircraft: 0073, 0079-0143

75799H00



RIGHT DC POWER BOX

Aircraft: 0073, 0079-9999

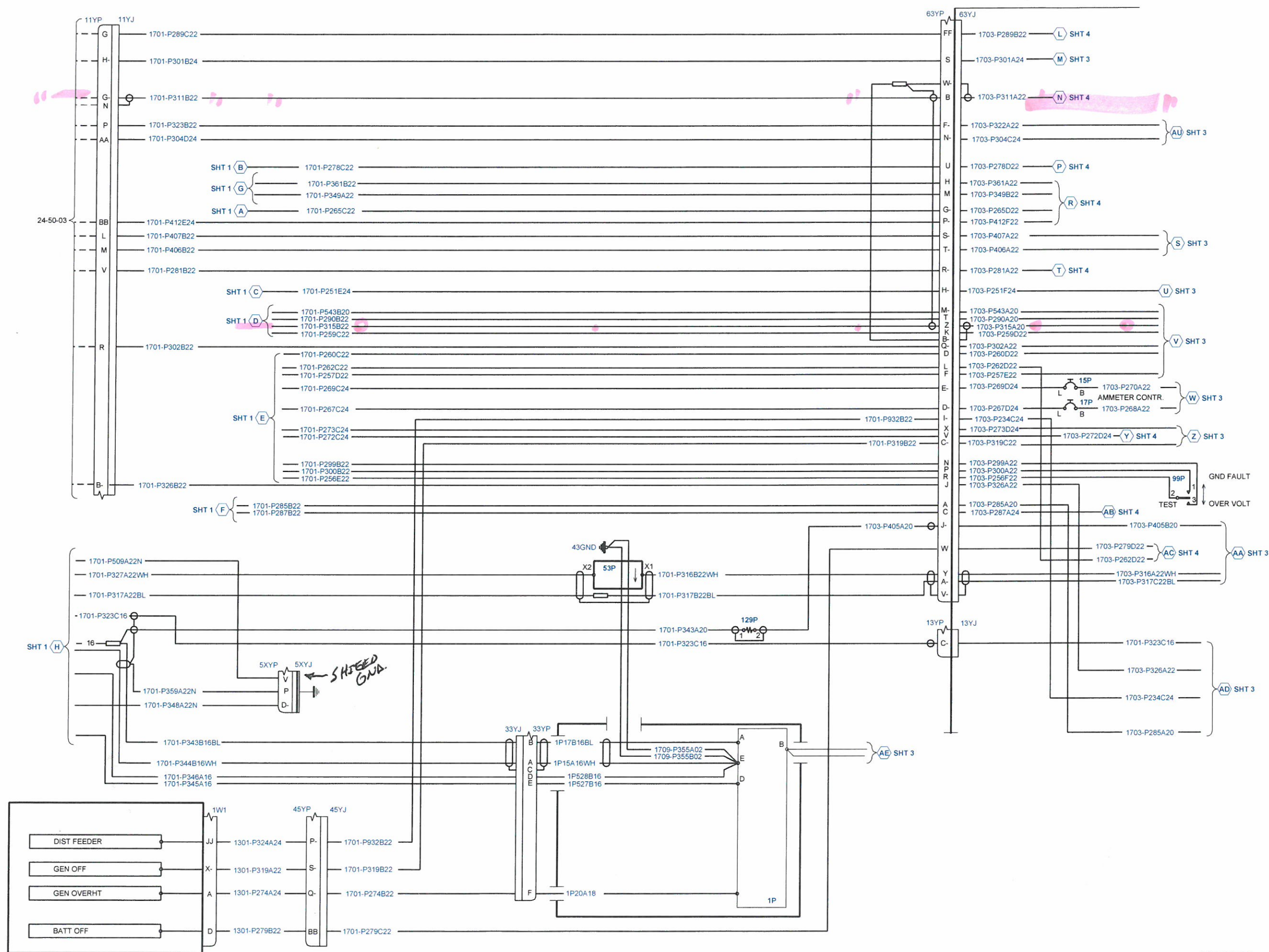
Equipment Locator

24-50-03

Figure 1, Sheet 1 of 1
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GULFSTREAM G100 / SPX WIRING DIAGRAM

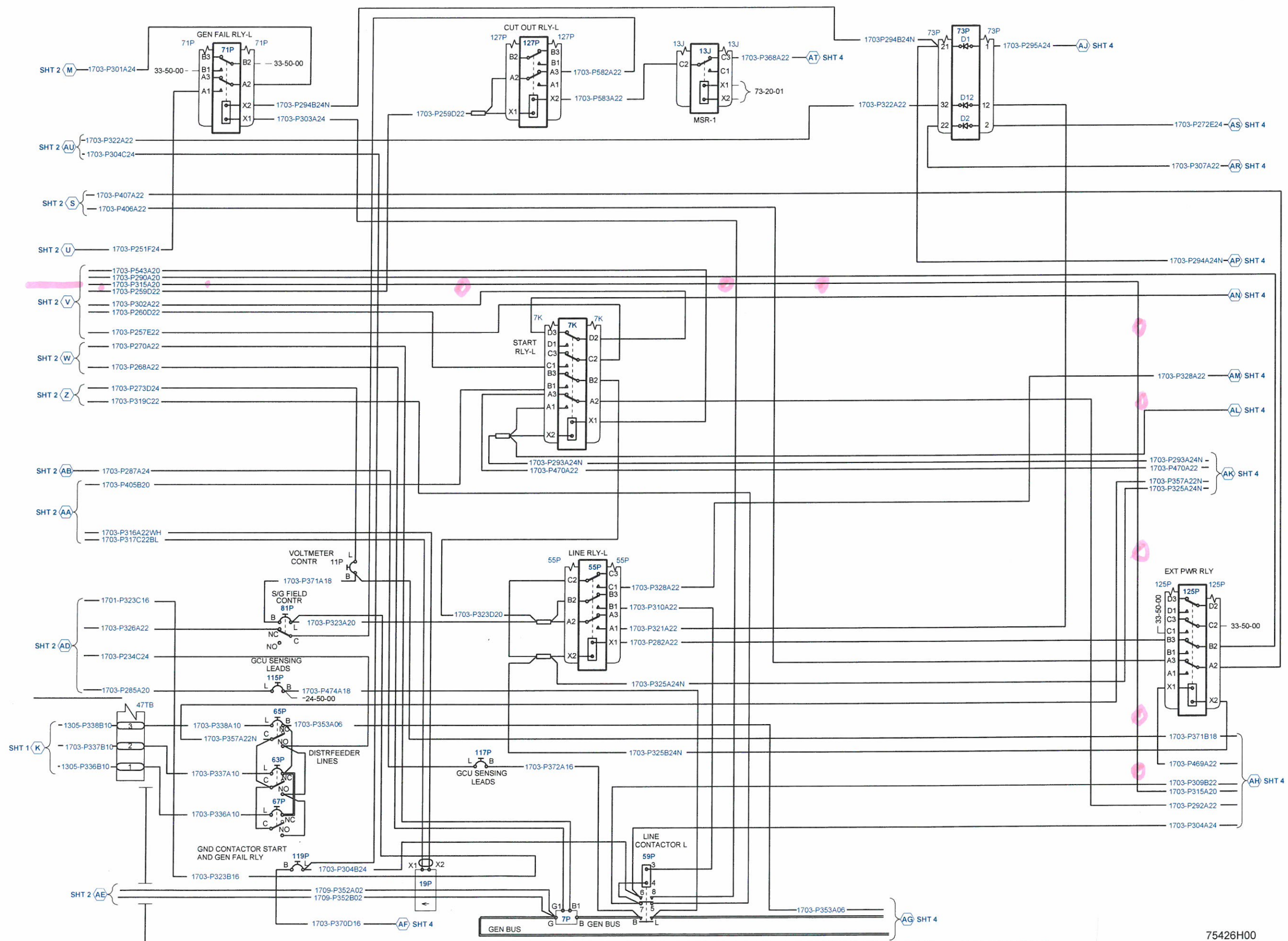


LEFT DC POWER BOX

Aircraft: 0088-0143

Wiring Diagram
24-50-02
Figure 1, Sheet 2 of 4
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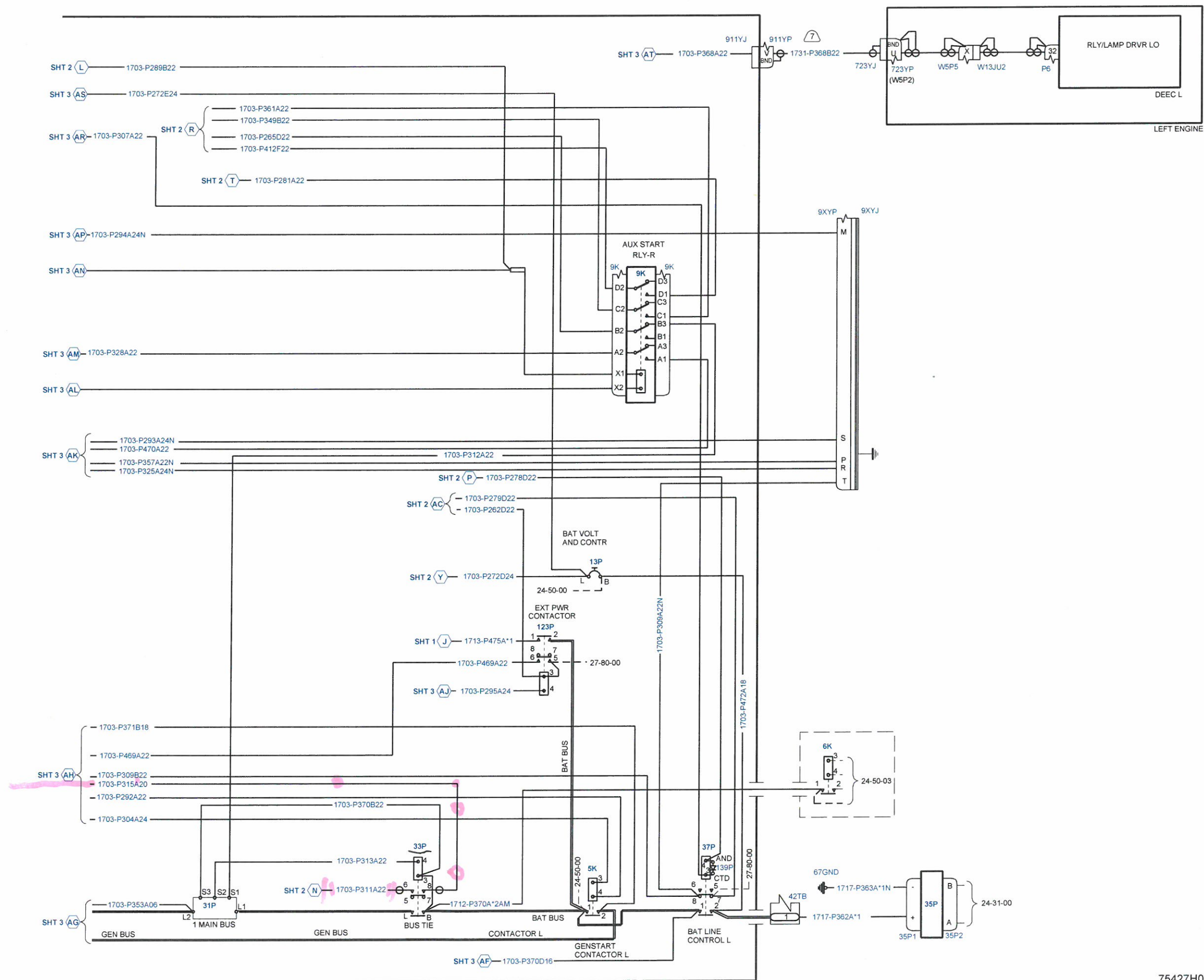
75425H00



Aircraft: 0088-0143

Wiring Diagram 24-50-02

Figure 1, Sheet 4 of 4
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75427H00

