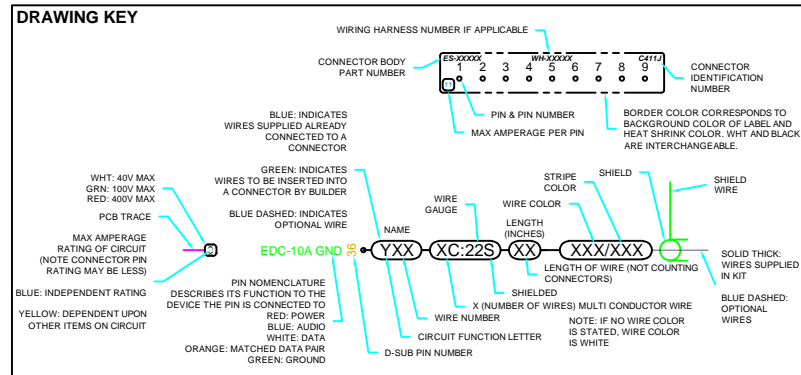


CIRCUIT LETTER FUNCTION	
LETTER	CIRCUITS
C	CONTROL SURFACE
D	INSTRUMENT
E	ENGINE INSTRUMENT
F	FLIGHT INSTRUMENTS
H	HEATING VENTILATING
J	IGNITION
K	ENGINE CONTROL
L	LIGHTING
P	POWER CONTROL
Q	FUEL
R	RADIO
RZ	HEADPHONE
L	SPECIAL ELECTRONIC
TC	RADIO CONTROL
TD	AIRBORNE ANNOUNCING
TP	BEACON
TQ	TRANSMITTER RECEIVER
W	WARNING EMERGENCY



**WIRE HARNESS NOTES**

- USE M22759/16 OR M27500 TEFZEL AIRCRAFT WIRE. CONTACT VAN'S ABOUT USING OTHER EQUIV.
- USE MIL-I-23053 HEATSHRINK. CONTACT VAN'S ABOUT USING OTHER EQUIV.
- LABEL THE FLYING LEAD OF EACH WIRE WITH THE TRUNCATED NOMENCLATURE AND WIRE NUMBER.
- CONNECT ALL 20-24 AWG WIRES TO D-SUBS USING ES-SA-1017 SOCKETS OR ES-SA-1018 PINS. PERMISSIBLE TO STRIP 18 AWG WIRE TO FIT ES-SA-1017 SOCKETS OR ES-SA-1018 PINS. ALL CRIMPS TO BE MADE PER MIL-C-22520F (1.2.2) USING A TYPE 1 TOOL.
- USE ONLY NOR-COMP BACKSHELLS ON D-SUB CONNECTORS (WITH THE EXCEPTION OF 50-PIN CONNECTORS)
- HARNESS MUST BE TESTED WITH ALL AVIONICS IN ACCORDANCE WITH THE "ELECTRICAL SYSTEM BENCH TEST PROCEDURE". RESULTS ARE TO BE SUPPLIED TO VAN'S FOR EACH HARNESS.
- CRIMPED MOLEX, TYCO, AND AMP TERMINALS ARE TO BE CRIMPED WITH THE MANUFACTURER'S RECOMMENDED CRIMPING TOOL.
- CRIMPED TERMINALS ARE TO BE INDIVIDUALLY PULL TESTED.
- DO NOT COVER WIRES WITH WIRE NET.
- HARNESSES ARE TO BE BUNDLED WITH LACING CHORD, WITH THE EXCEPTION OF BLUE TIE-WRAPS USED AT BULKHEAD STATIONS.
- ALL 3 CONDUCTOR JACKETED NON-SHIELDED WIRE MAY BE REPLACED WITH TWISTED WIRES OF THE SAME AWG SIZE AND THE SAME WIRE COLOR.
- ADJUST SOLDER SPLICE / RING TERMINAL SIZE AS REQUIRED TO ACCOMMODATE DESIRED WIRE GAUGE(S). MAINTAIN RING TERMINAL STUD/TAB SIZE.

**ELECTRICAL SYSTEM BENCH TEST PROCEDURE**

**Avionics Group**

1. \_\_\_ Check PFD & MFD Power On
2. \_\_\_ SkyView Check PFD and MFD recognize a USB stick
3. \_\_\_ Install latest software and settings per the readme files (applicable portions) on the Van's Web Site
  - a. \_\_\_ Setup X Pndr Hex Code
  - b. \_\_\_ Setup AP servos if installed
4. \_\_\_ Check PFD & MFD recognize all LRU's
5. \_\_\_ Check X pndr will transmit.
6. \_\_\_ Check COM turns on.
7. \_\_\_ Check PFD recognizes COM, and can push frequencies to COM radio
8. \_\_\_ Check Backup Battery Function PFD
9. \_\_\_ If installed check AP Control Head function (knobs function for SkyView as well)

**Audio Group**

1. \_\_\_ Configure COM radio in accordance with "GTR 200B Internal Presets" or "Trig TY96 Internal Presets"
2. \_\_\_ Check Pilot Headset Jack
3. \_\_\_ Check Pilot Mic Jack for Xmit
4. \_\_\_ Check Co-Pilot Headset Jack
5. \_\_\_ Check Co-Pilot Mic Jack for Xmit
6. \_\_\_ If installed check XM music output to headset.

**Cockpit Group**

NOTE: If customer has selected the pre-wired stick option then use their control sticks

1. \_\_\_ Check Pilot TX Button
2. \_\_\_ Check Pilot Trim Buttons (Both Directions)
  - a. \_\_\_ Verify proper trim direction movement on screen indicator and servo with input
3. \_\_\_ Check Co-Pilot TX Button
4. \_\_\_ Check Co-Pilot Trim Buttons (Both Directions)
  - a. \_\_\_ Verify proper trim direction movement on screen indicator and servo with input
5. \_\_\_ Check function of AP disconnect switch near throttle.
6. \_\_\_ Check Pilot AP Disconnect Switch
7. \_\_\_ Check Co-Pilot AP Disconnect Switch
8. \_\_\_ Check Pilot COM Freq Swap
9. \_\_\_ Check Co-Pilot Freq Swap
10. \_\_\_ Check Dimmer (Note PCB portion will be checked during AV-60000 Check)
  - a. \_\_\_ Turn on all switches. Check that all lighted switches lights turn on and dim. (Ignore wires going to cabin light.)
11. \_\_\_ Check canopy latch switch
12. \_\_\_ Check flap motor function both directions
13. \_\_\_ Check for power output at USB connectors / Power Outlet

**Wing Group**

1. \_\_\_ Check Stall Warning
2. \_\_\_ Check NAV/Strobe Lights
3. \_\_\_ Check Landing Lights (Both if applicable)
4. \_\_\_ Check Wig Wag Function

**iS Engine Group**

1. \_\_\_ Check Master Relay Switch grounds out wire going to master relay
2. \_\_\_ Check Key switch connects HIC connector start pins
3. \_\_\_ Check spar pin light comes on when spar pin switches are not grounded.
4. \_\_\_ Check emergency switch provides power to Power X3 connector Pin 3
5. \_\_\_ Check Emergency Li Bat Warn Wire turns on warning in EFIS when grounded. (NOTE Check this error)
6. \_\_\_ Check fuel pump A and B switches for function

REVISIONS			
REV	DESCRIPTION	DATE	APPROVEI
R0	INITIAL RELEASE	10/24/18	TDM
R1	ADDED TEST PROC AND NEW WING WIRES	11/7/18	TDM
R2	ADDED TRIG TY96	12/01/18	TDM
R3	CHANGED GTR 200 TO 200B, ADDED PTT, GEN B TERM. CHANGED TO ES 35110	01/29/19	TDM
R4	E6023 WIRES CROSSED AT HIC TO NEGATE AV-60009 PCB ERROR: WHT NOW LO & WHT/BLU NOW HI, ADDED OPTIONAL CO DETECTOR, TY96 CONNECTOR NOW ES-00060, ADDED NOTE FOR TY96 UNUSED PINS, ON F6262 & Q6300 ES 31880 WAS ES 36152, Q6300 27 WAS 40, ADDED CABIN LIGHT DIMMER, DELETE L6029, NUMEROUS CORRECTIONS	11/08/19	BPM
R5	CHANGED CO DETECTOR WIRING, ADDED WH-00144	01/06/20	BPM
R6	CORRECTED CABIN LIGHT TO OPTIONAL, CO DETECTOR WIRE COLORS TO M27500 STD	02/14/20	BPM
R7	REPLACED FUEL PRESSURE SENSOR P4055-75G with ES-103757-000	05/07/20	RMS
R8	RENUMBERED WHITE/ORANGE WIRE FROM MASTER RELAY, ES 24115, TO IGNITION MODULE FROM K6284 TO K6350, CORRECTED "ES-205203-3" TO "ES-00321" ON PILOT/COPILOT STICK GRIPS; C6351 WAS C6286, CHANGED WHT/BLK TO BLK ON PIN 6 OF WH-P30-1 CONNECTOR INTO AV-60000 POWER MODULE	06/30/20	RMS

**GTR 200B INTERNAL PRESETS**

- "MENU" BUTTON OPTIONS
- MUSIC VOL 75%
  - ICS VOL 80%
  - ICS SQLCH AUTO
  - COM MUTE ON
  - COM MUTE ICS OFF
  - ICS MUTE MUSIC OFF
  - MUTE LEVEL FULL
  - COM 3D ON
  - ICS 3D ON
  - COCKPIT NOISE NORMAL
  - MUSIC BASE BOOST OFF
  - MUSIC EQ OFF
  - KEY BEEP VOL 50%
  - CONTRAST +0

**INTERNAL MENU SETTINGS**

- SIDETONE 05
- MIC GAIN 05
- RF SQLCH 00
- MON SWAP ON
- INTERCOM ENABLE YES
- RECIEVE OUT GAIN 100%
- AUX 1 SQLCH 30%
- AUX 1 VOL 50%
- AUX 1 MUTE NO
- AUX 2 SQLCH 30%
- AUX 2 VOL 50%
- AUX 2 MUTE NO
- PILOT RT NO

**SOFTKEY SETUP**

- 1 USER LISTS
- 2 TUNE EMERGENCY

**DISCRETE SETUP**

- 1 FREQ SWAP
- 2 DISABLED

**LIGHTING SOURCE 14V**

**GTR 200B PRESET NOTES:**

- ALL SETTINGS NOT DEFINED BY THIS DRAWING ARE ACCEPTABLE AS CONFIGURED FROM MANUFACTURER.
- THE ABOVE SETTINGS CORRESPOND TO SOFTWARE SYS 2.60.

**TRIG TY96 INTERNAL PRESETS**

- INTERCOM VOLUME:
- AUX IN VOLUME:
- MUSIC IN VOLUME:
- SIDETONE VOLUME:
- INTERCOM SQLCH:
- MIC 1 GAIN:
- MIC 2 GAIN:
- RADIO SQLCH:

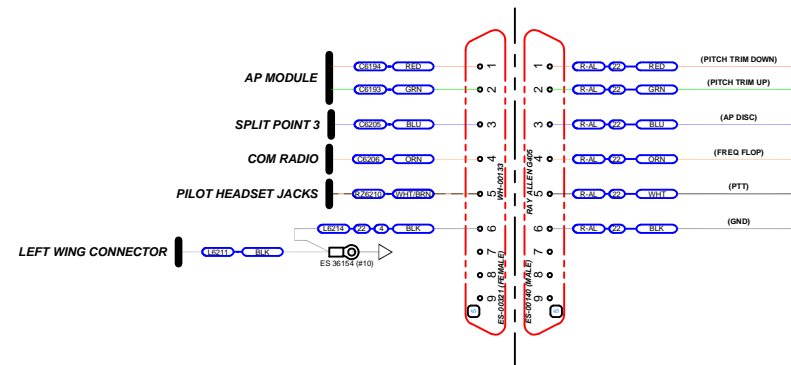
**TY96 PRESET NOTES:**

- SET FREQUENCY STEP SIZE APPROPRIATE FOR REGION.
- ALL SETTINGS NOT DEFINED BY THIS DRAWING ARE ACCEPTABLE AS CONFIGURED FROM MANUFACTURER.

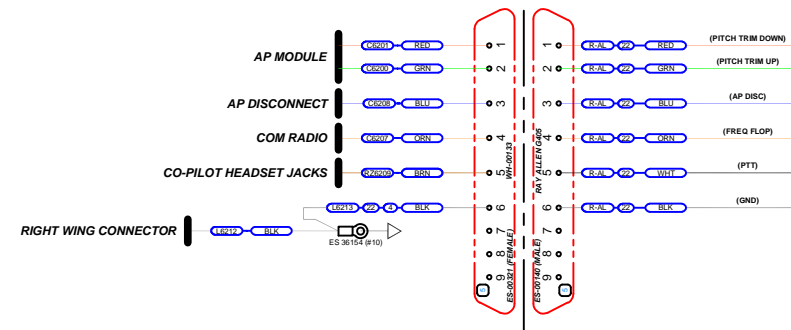
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	<b>ROTAX 912iS SKYVIEW ELECTRICAL SYSTEM</b>		
DATE DRAWN: 06/11/18	UNITS: <b>INCHES</b>	<b>WH-00133</b>	
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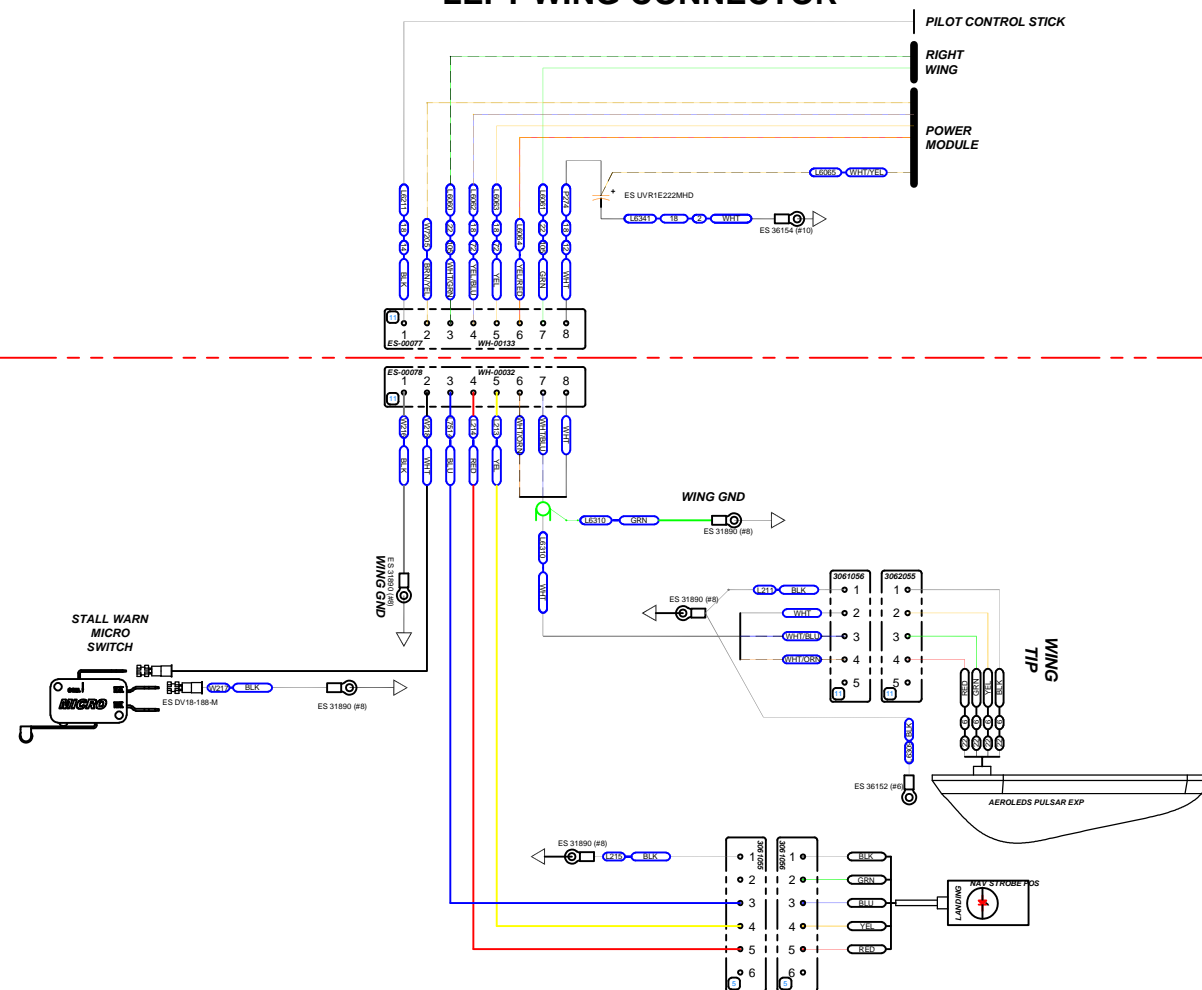
### PILOT STICK GRIP



### CO-PILOT STICK GRIP

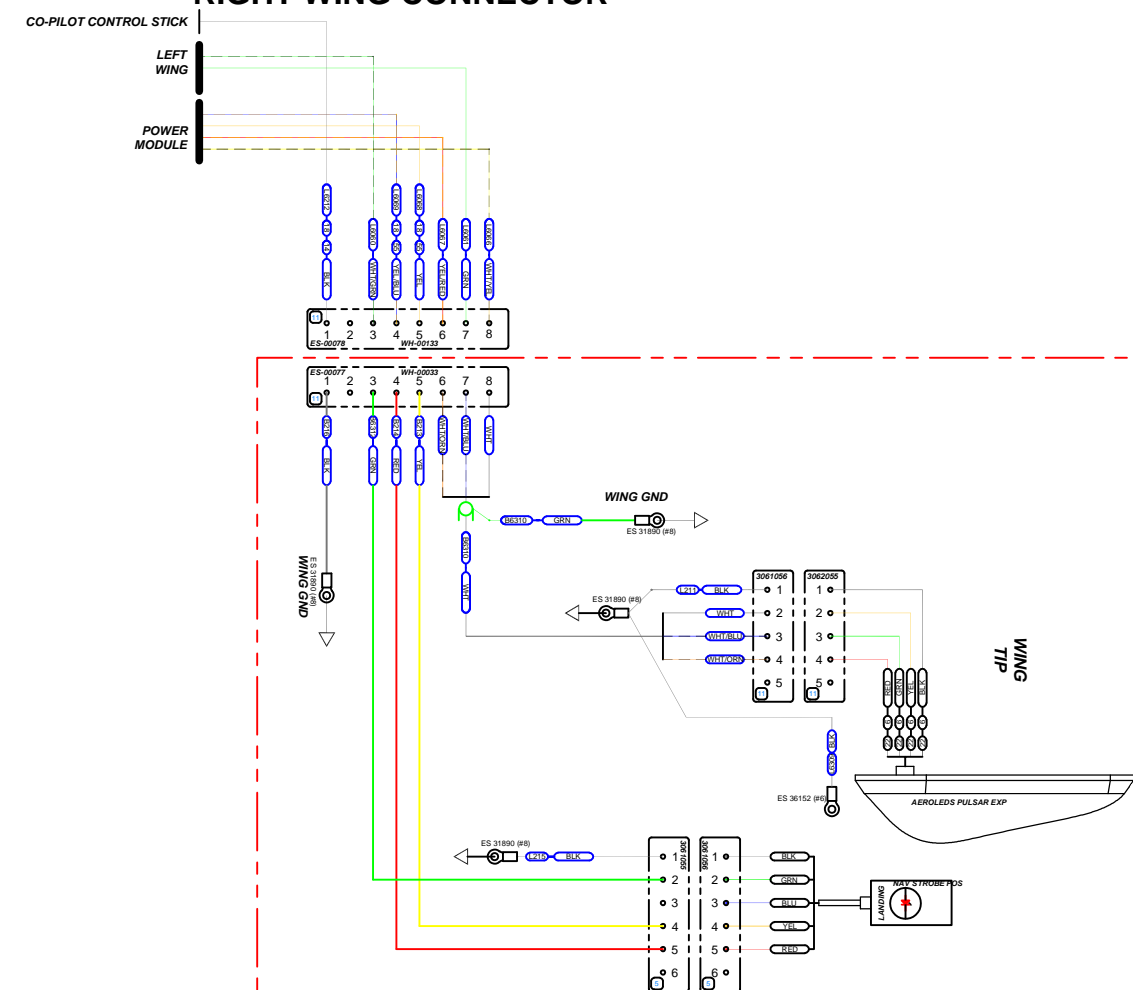


### LEFT WING CONNECTOR



THESE COMPONENTS NOT INCLUDED IN AVIONICS KIT, NOR PART OF THE WH-00133.  
SEE WH-00032 AND WH-00033 RV-12iS WING HARNESS DRAWINGS.

### RIGHT WING CONNECTOR



THESE COMPONENTS NOT INCLUDED IN AVIONICS KIT, NOR PART OF THE WH-00133.  
SEE WH-00032 AND WH-00033 RV-12iS WING HARNESS DRAWINGS.



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### ROTAX 912iS SKYVIEW ELECTRICAL SYSTEM

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DRAWN BY: RIAN JOHNSON

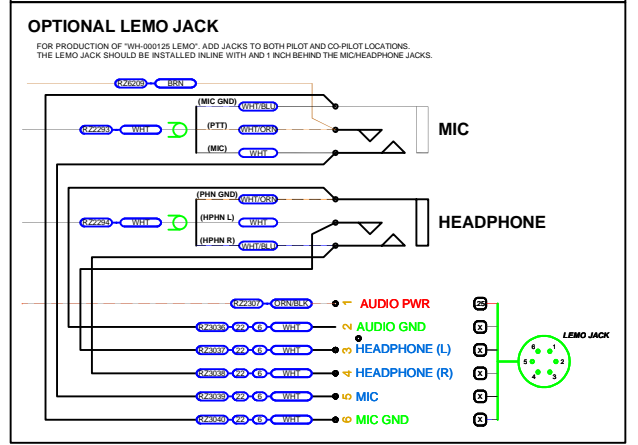
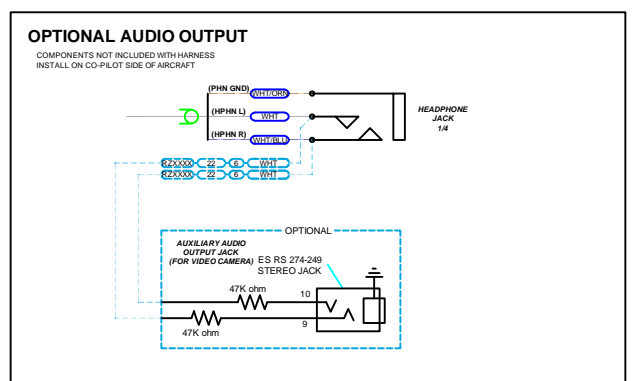
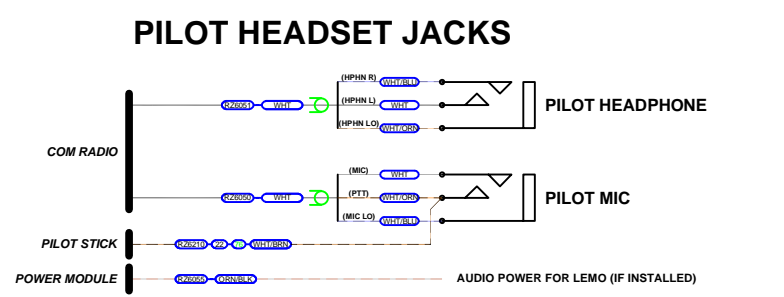
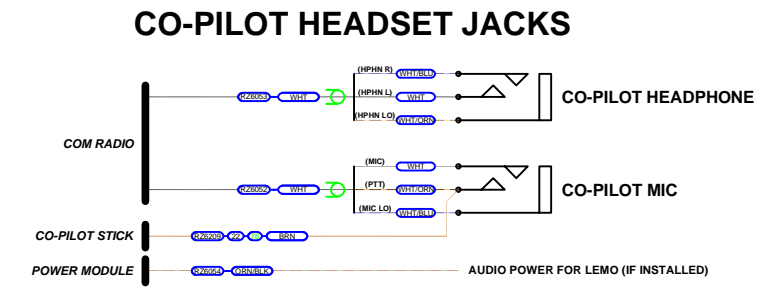
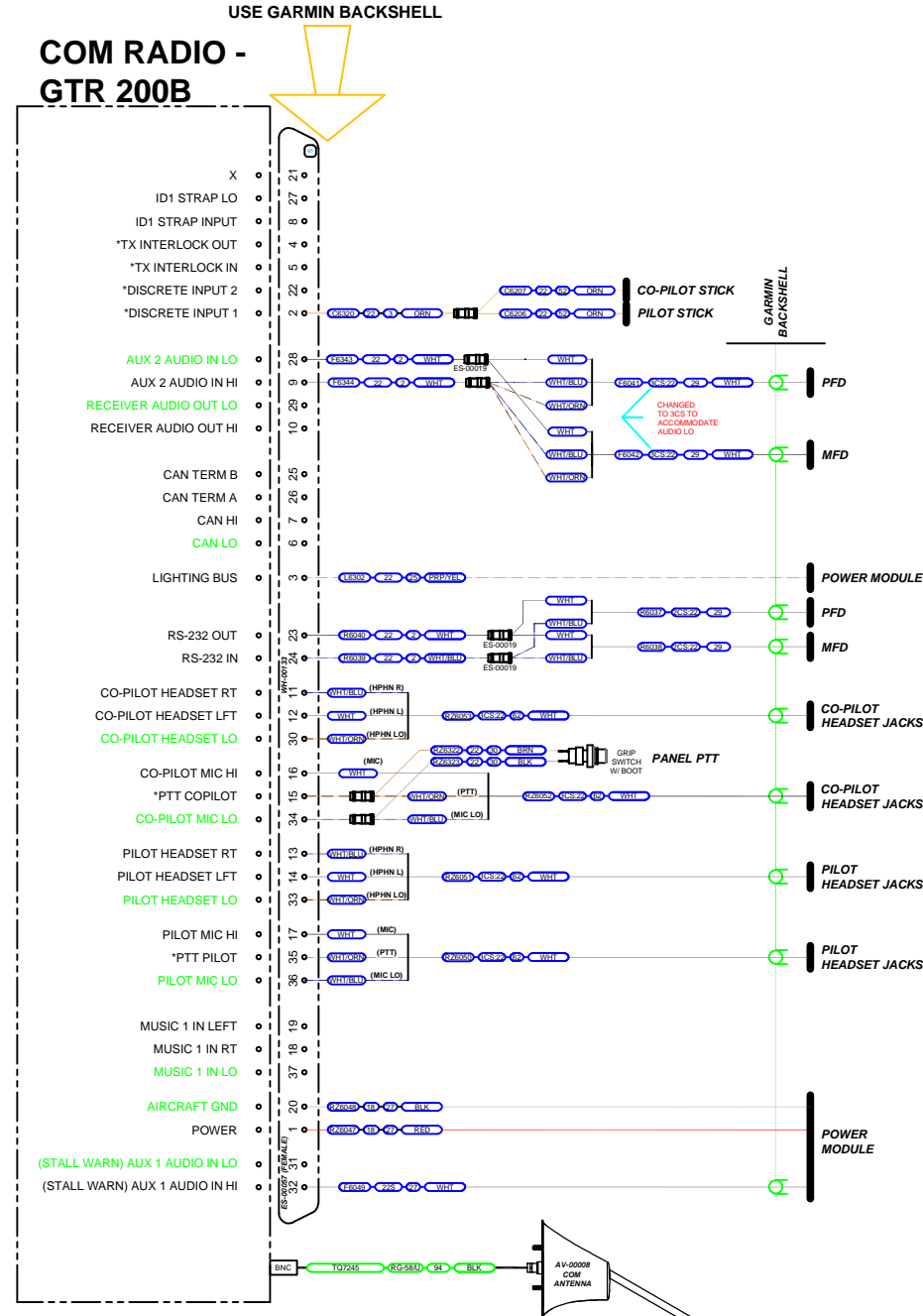
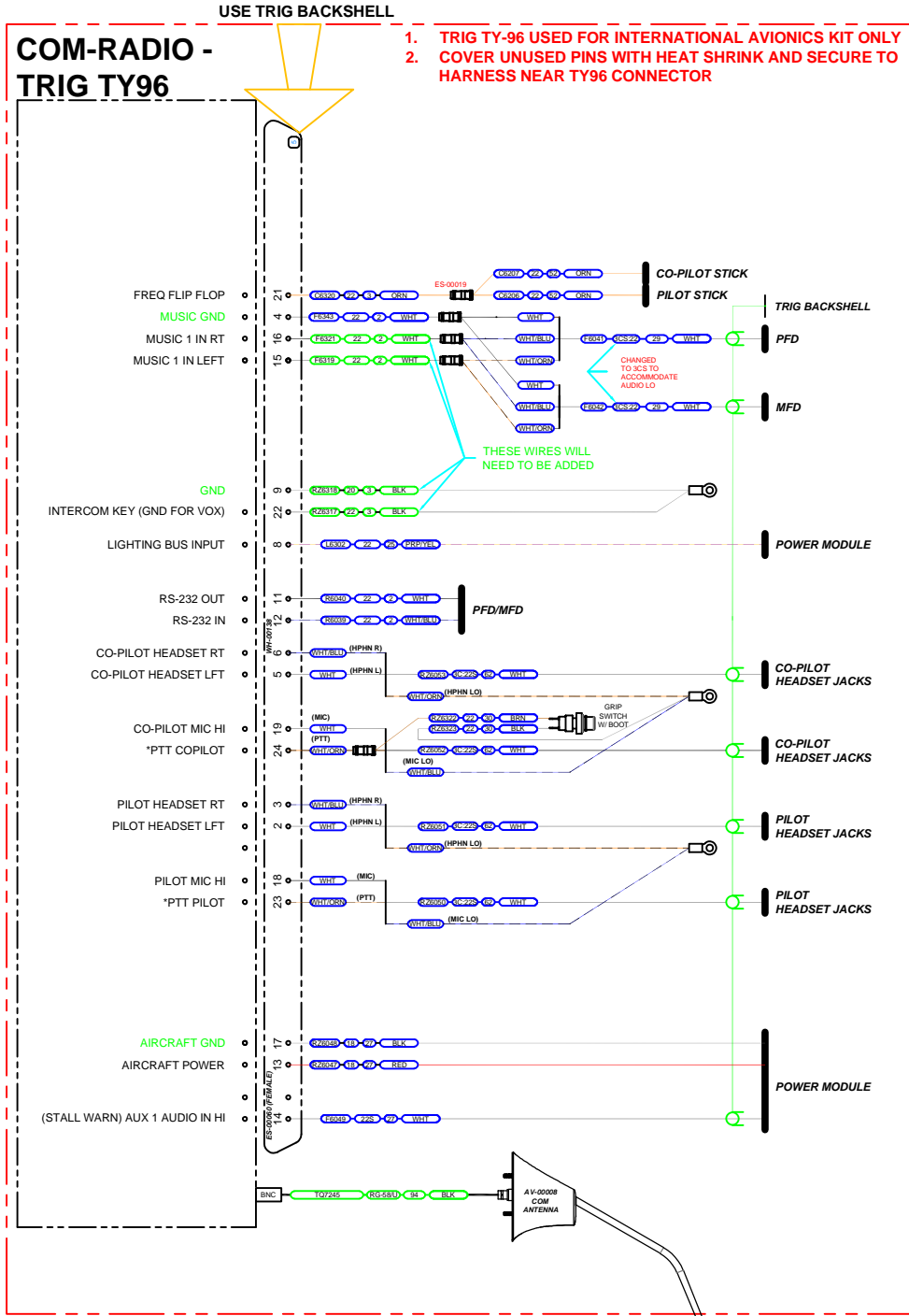
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UNITS:  
INCHES

WH-00133

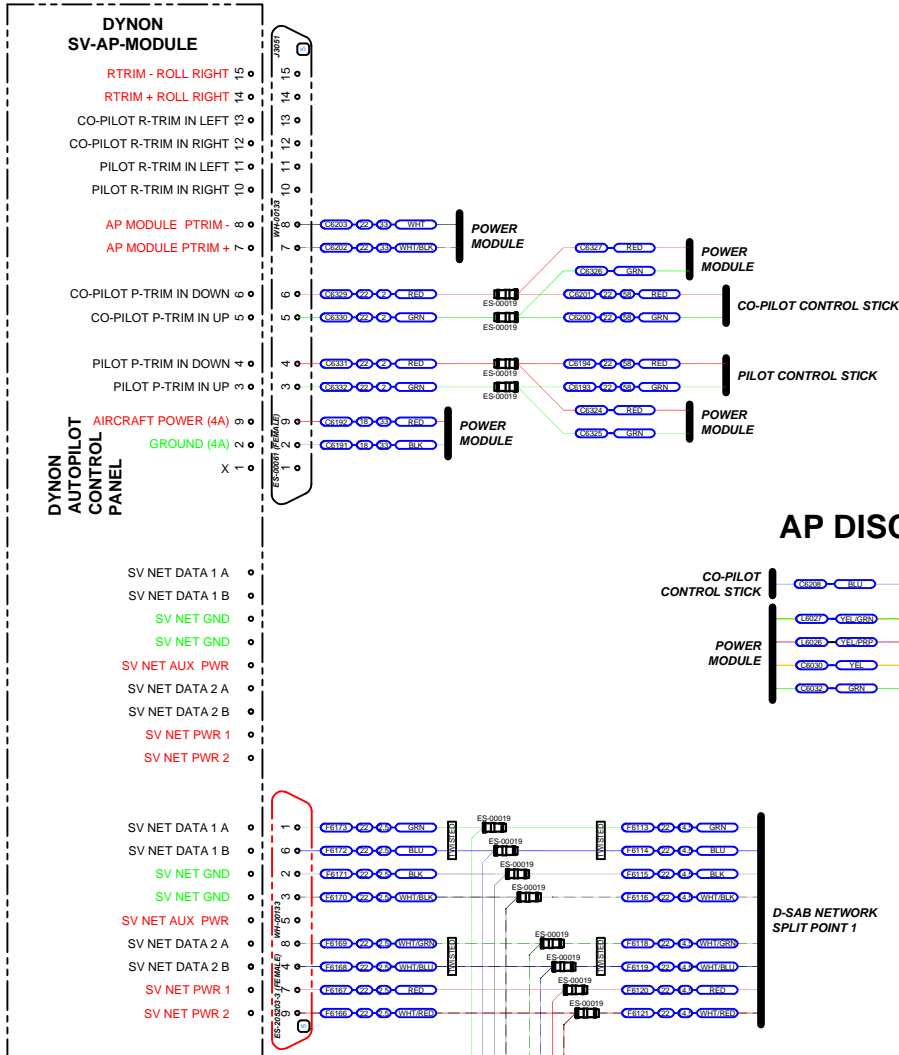
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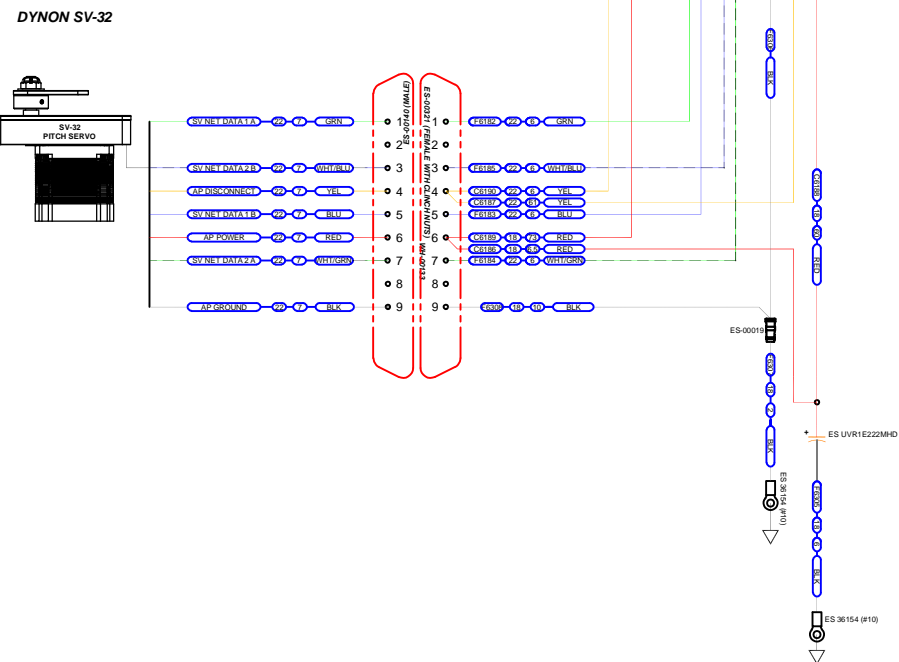


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DATE DRAWN: 06/11/18 DRAWN BY: RIAN JOHNSON TOLERANCES: NONE (UNLESS OTHERWISE SPECIFIED)	UNITS: INCHES SCALE: NONE	<b>WH-00133</b> PAGE: 4 OF 11
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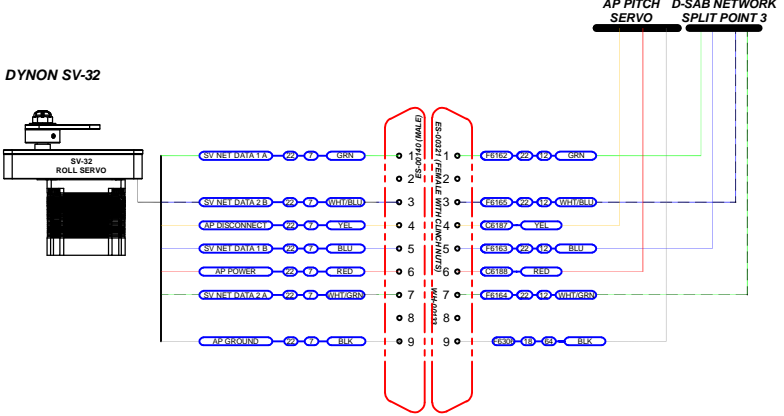
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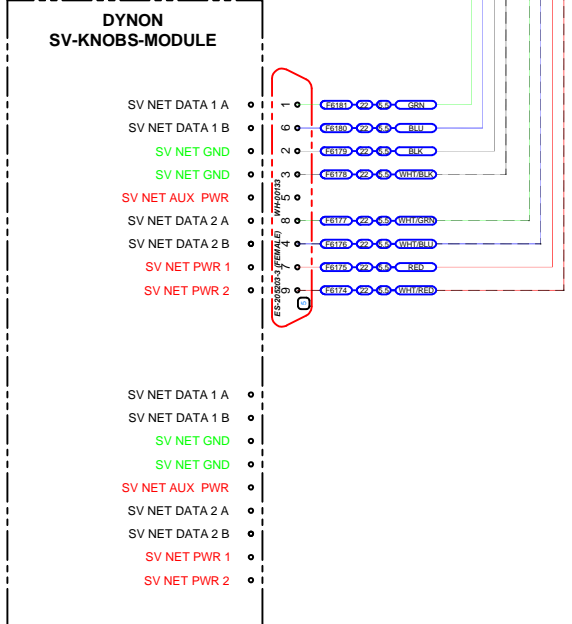
### AUTOPILOT PITCH SERVO




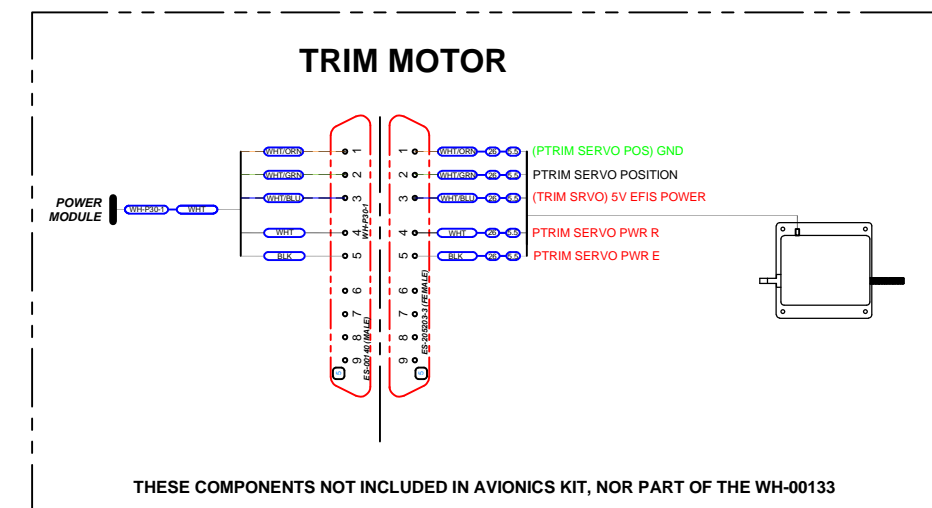
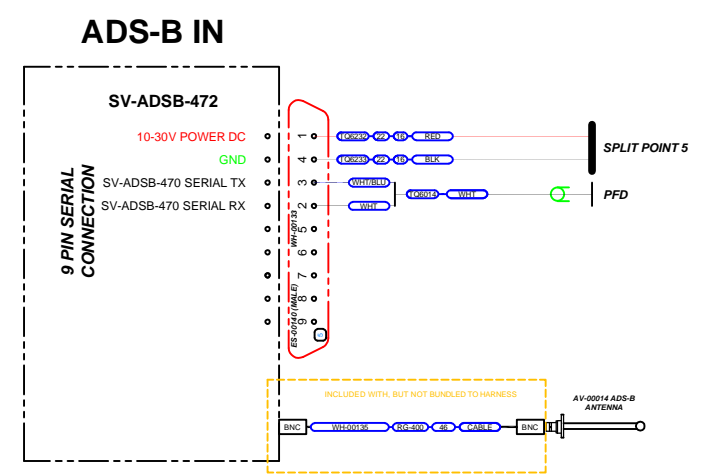
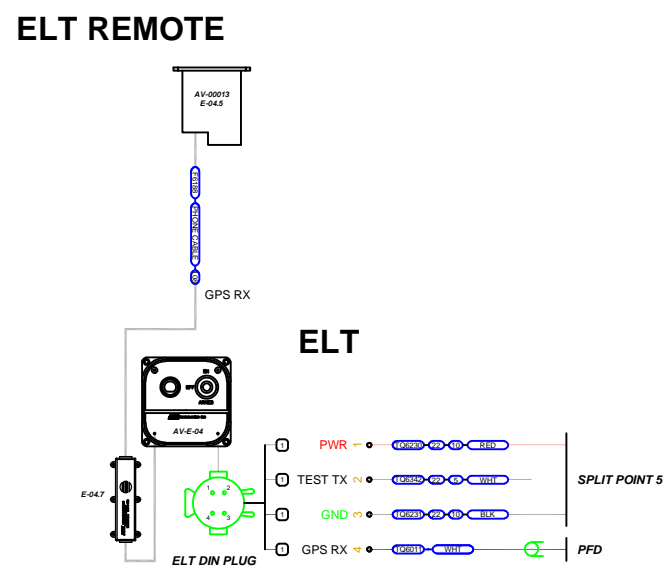
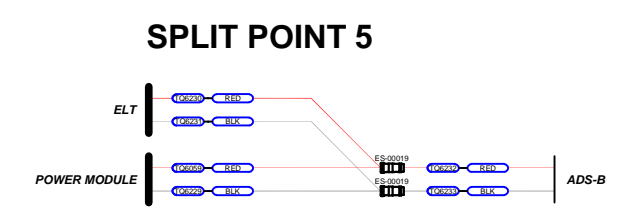
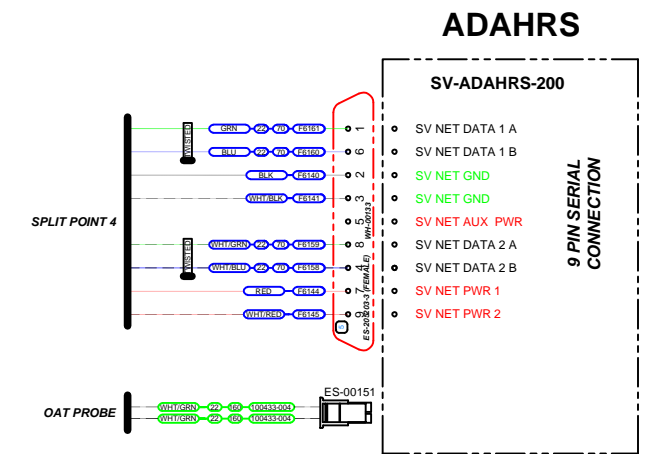
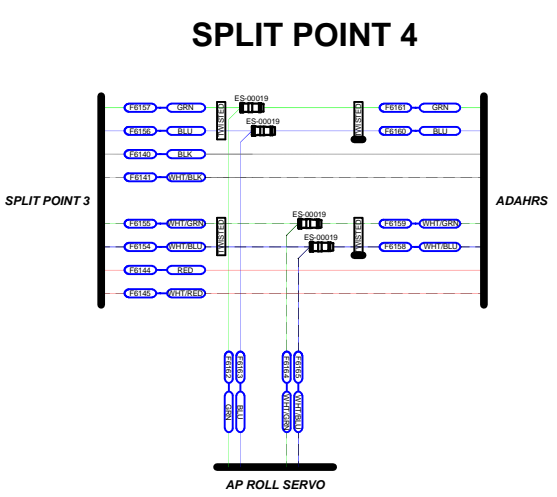
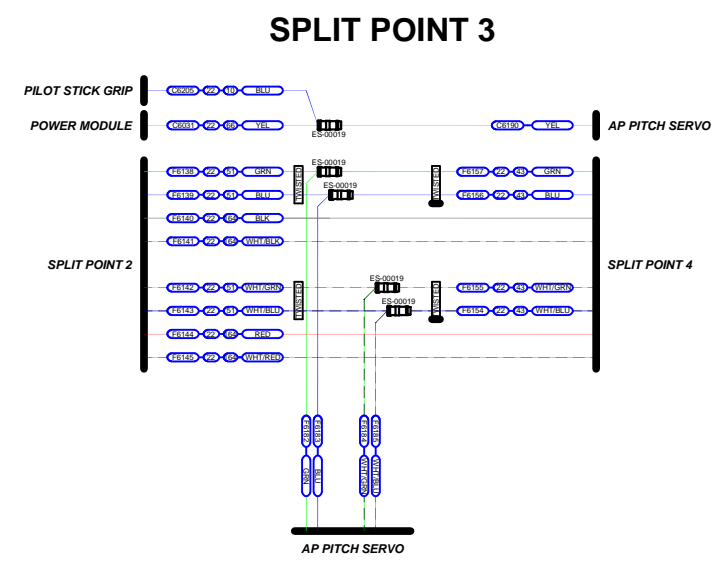
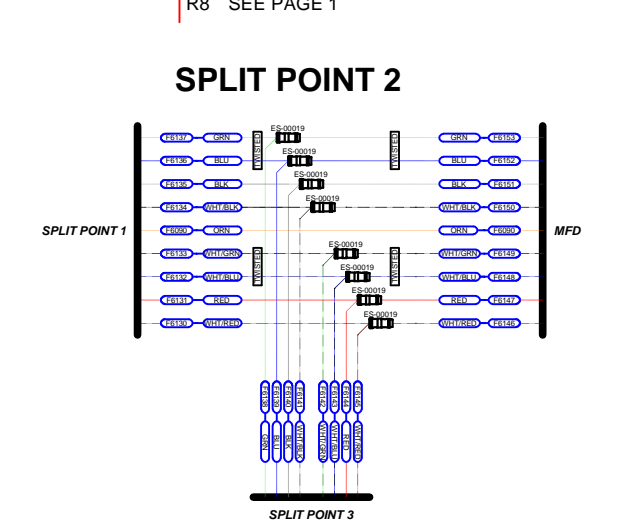
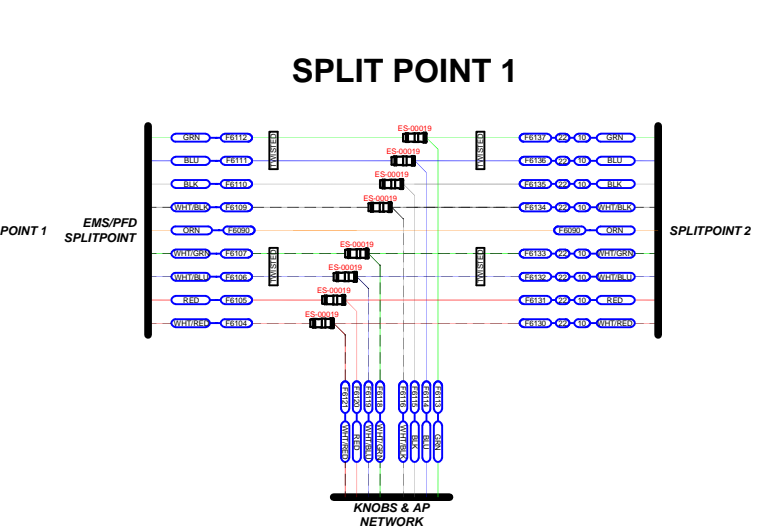
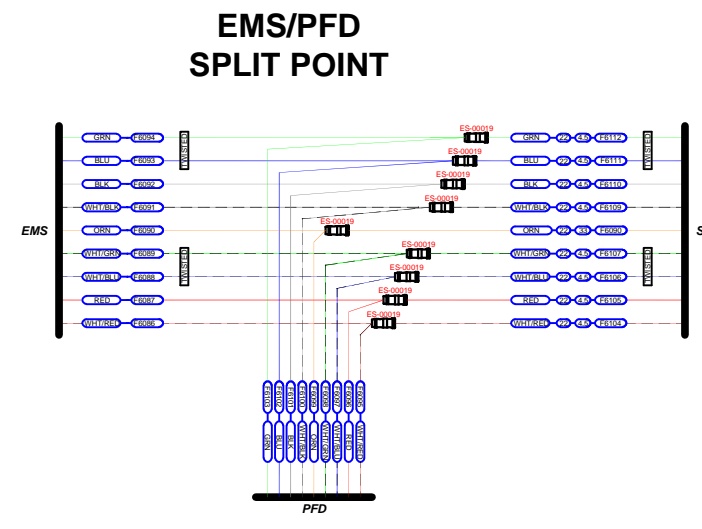
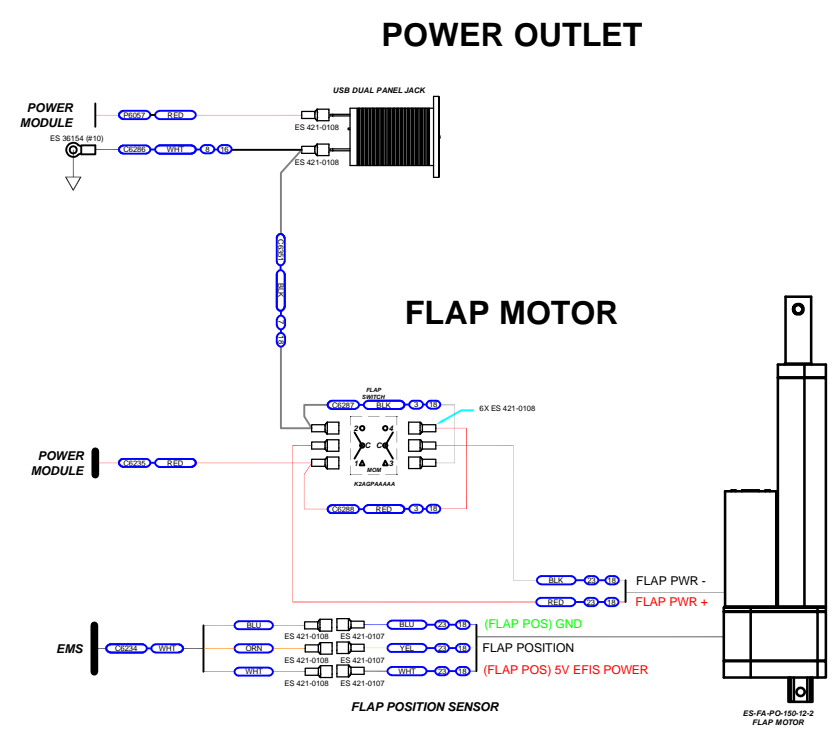
### AUTOPILOT ROLL SERVO




### KNOBS MODULE

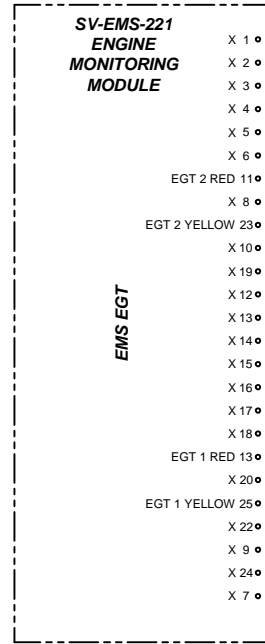


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DATE DRAWN: 06/11/18	UNITS: <b>INCHES</b>	<b>WH-00133</b>	
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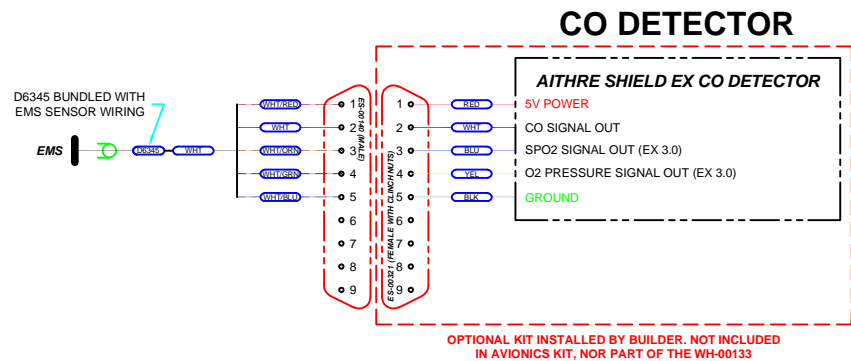
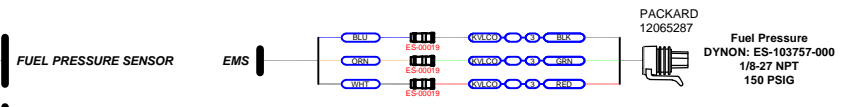
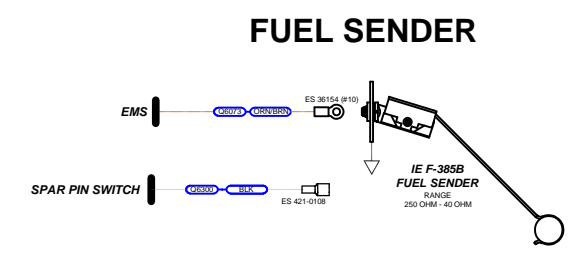
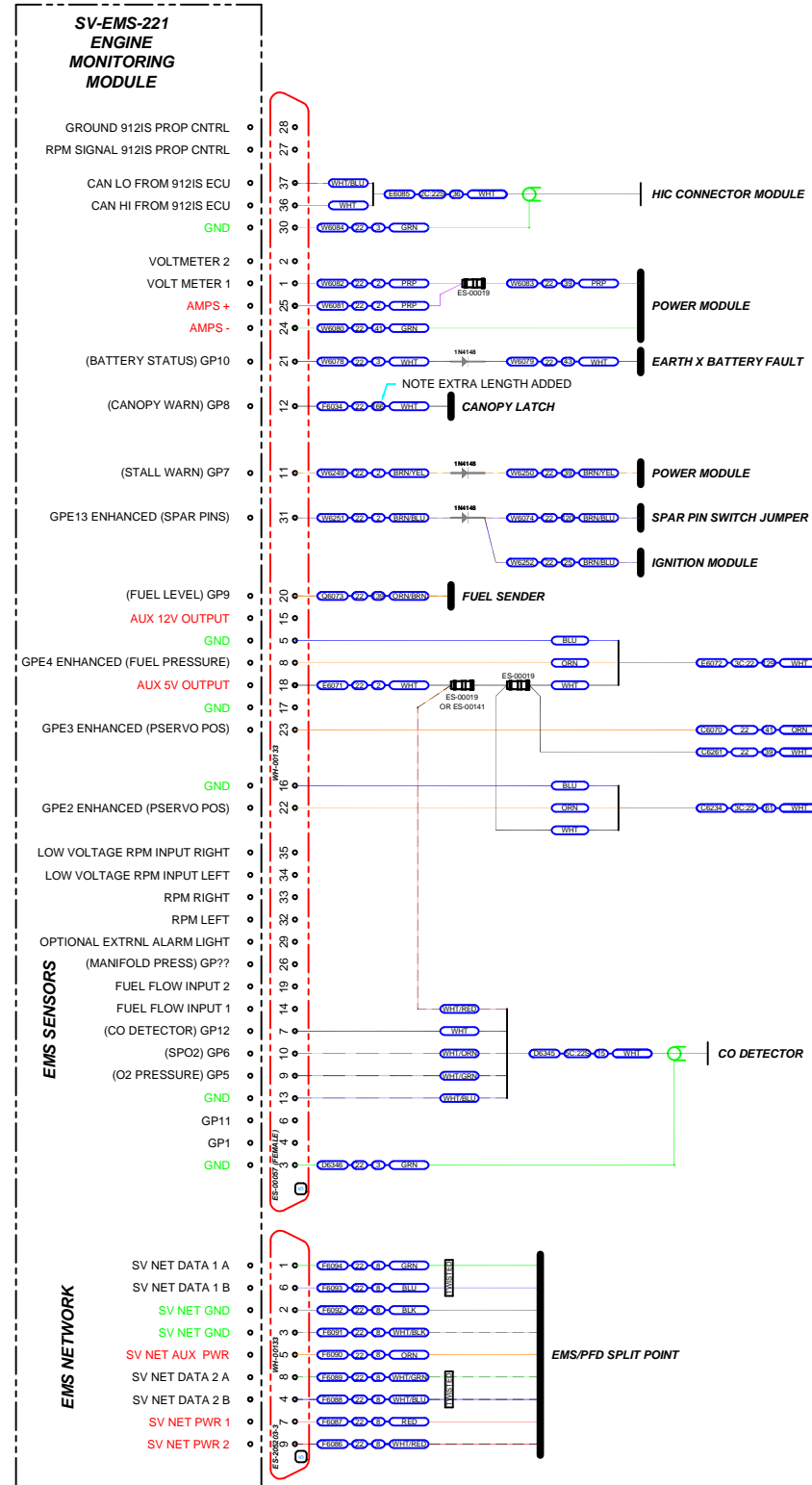


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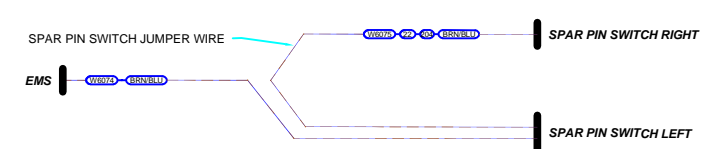
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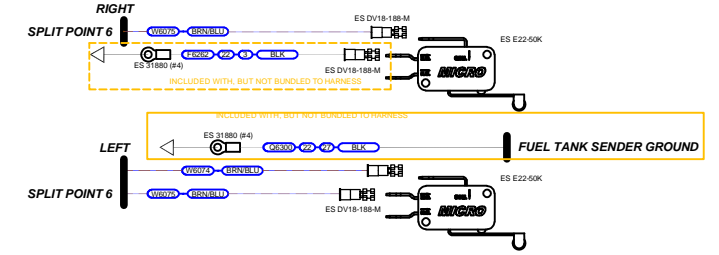
### EMS



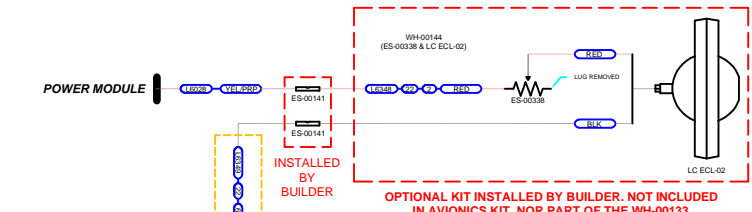
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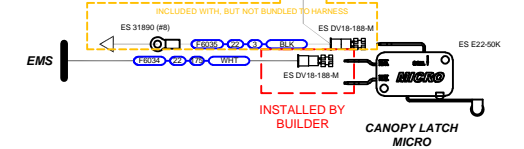
### SPAR PIN SWITCHES



### CABIN LIGHT & DIMMER



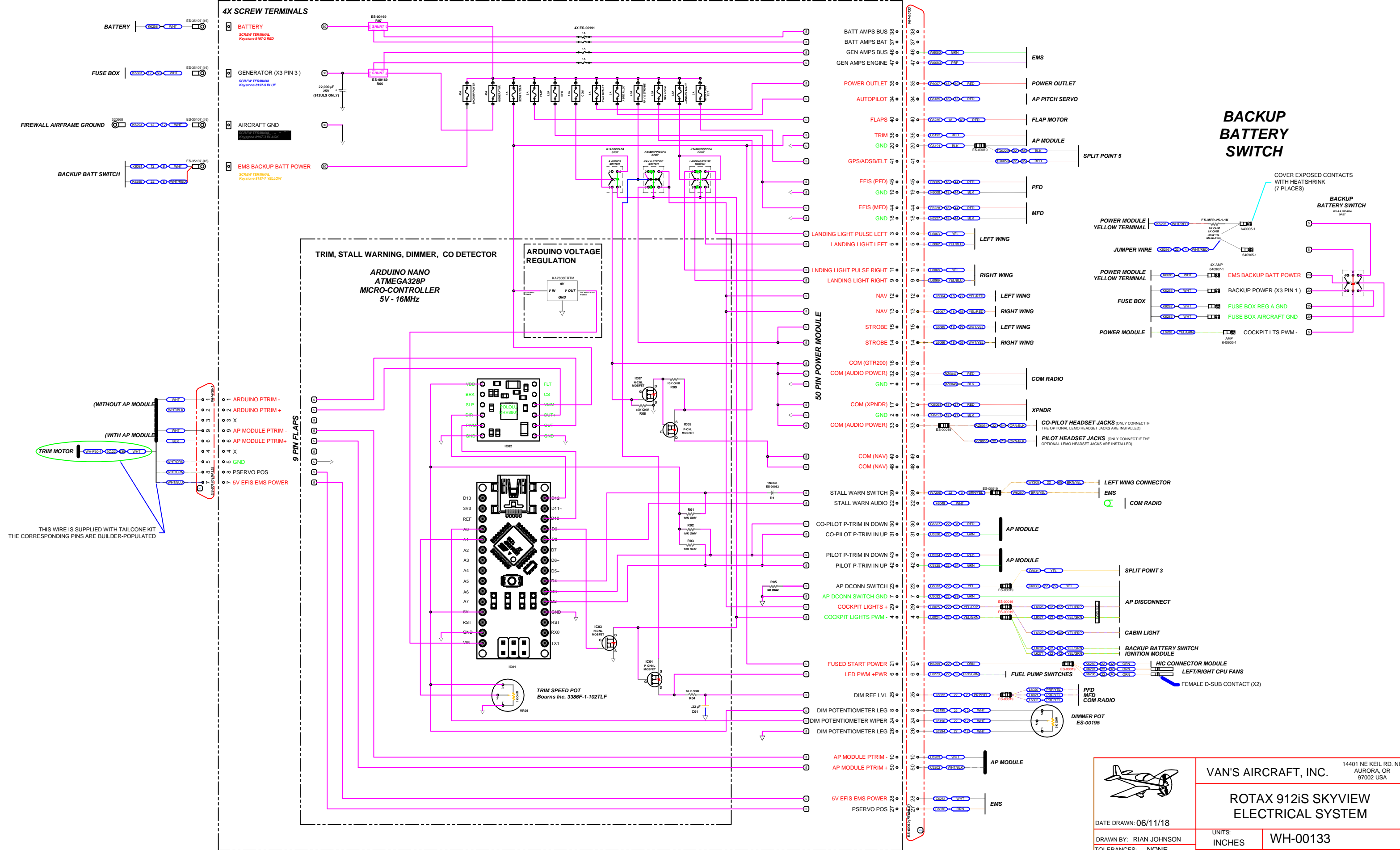
### CANOPY SWITCH




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DATE DRAWN: 06/11/18	UNITS: INCHES	WH-00133
DRAWN BY: RIAN JOHNSON	SCALE: NONE	PAGE: 7 OF 11
TOLERANCES: NONE (UNLESS OTHERWISE SPECIFIED)	C.-S17F ORIGINAL	

# POWER MODULE iS-ULS PCB V3.4

REV	DESCRIPTION	DATE	APPROVAL
R8	SEE PAGE 1		

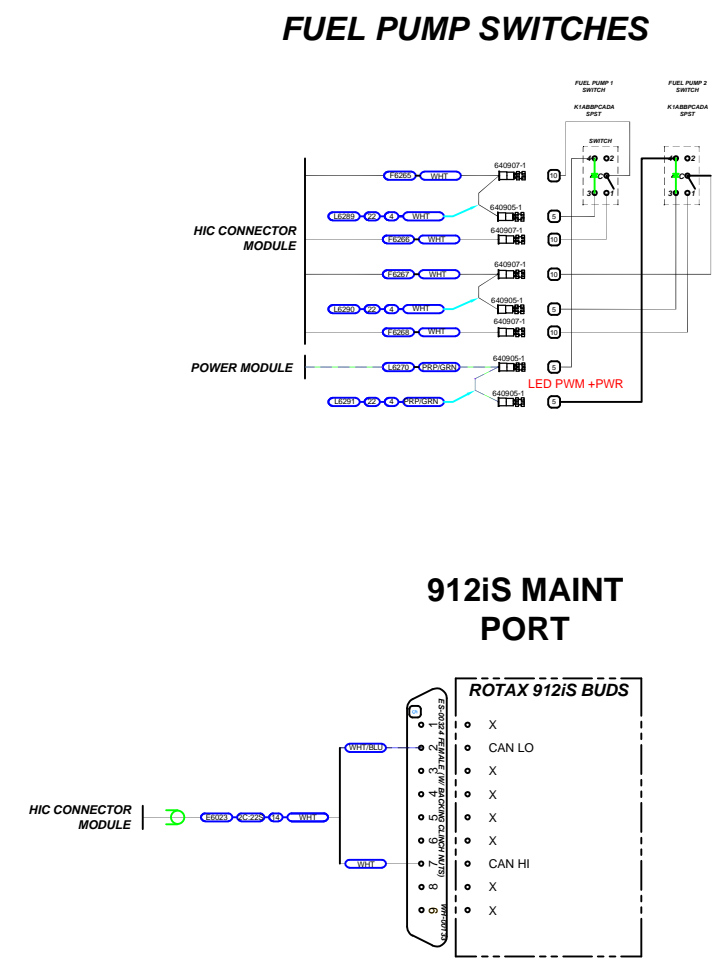
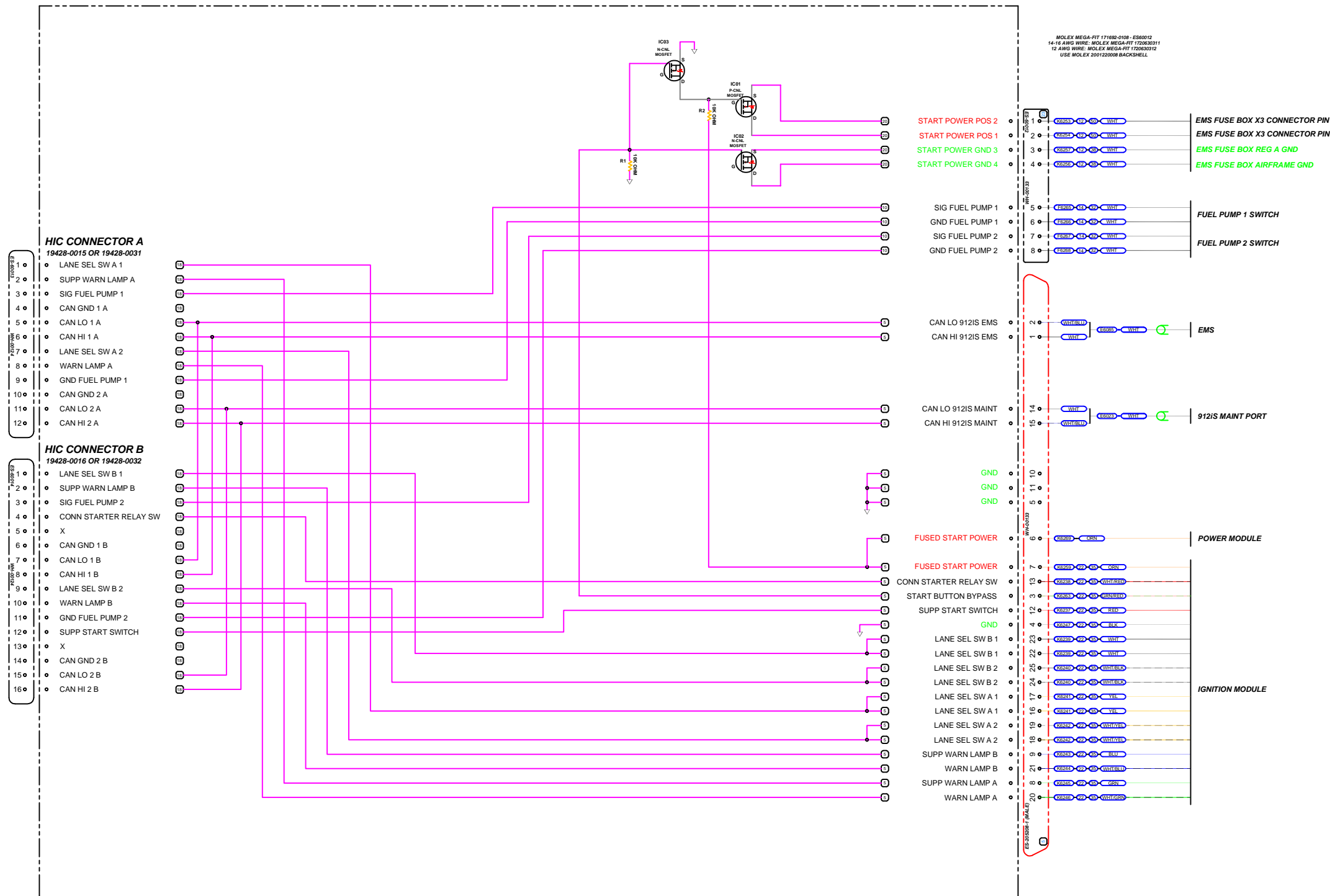


	<b>VAN'S AIRCRAFT, INC.</b> 14401 NE KEIL RD. NI AURORA, OR 97002 USA	
	<b>ROTAX 912iS SKYVIEW                  ELECTRICAL SYSTEM</b>	
DATE DRAWN: 06/11/18 DRAWN BY: RIAN JOHNSON TOLERANCES: NONE (UNLESS OTHERWISE SPECIFIED)	UNITS: INCHES SCALE: NONE	WH-00133 PAGE: 8 OF 11
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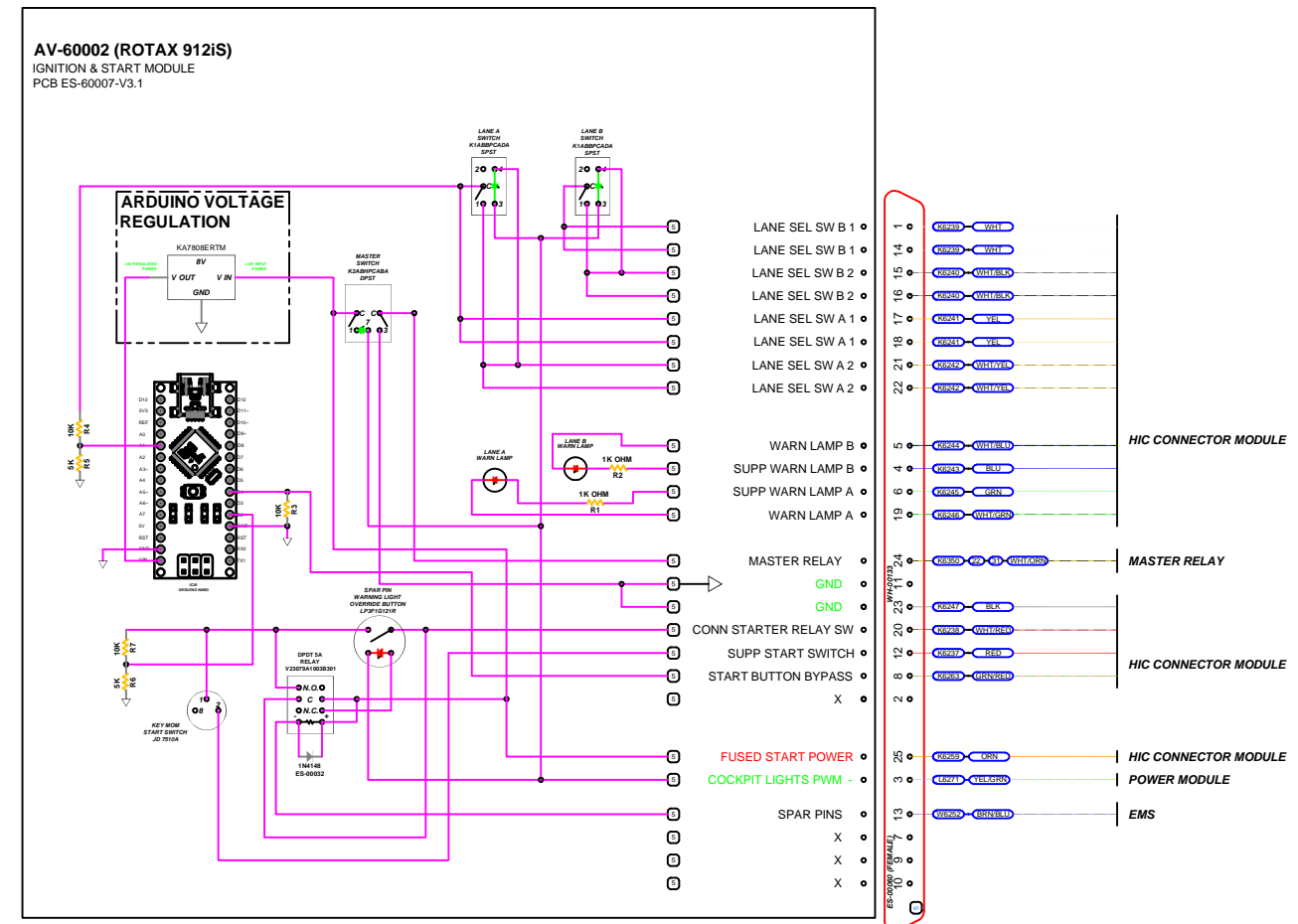
# HIC CONNECTOR MODULE iS PCB ES-60009 V3.1

REVISIONS			
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R8	SEE PAGE 1		

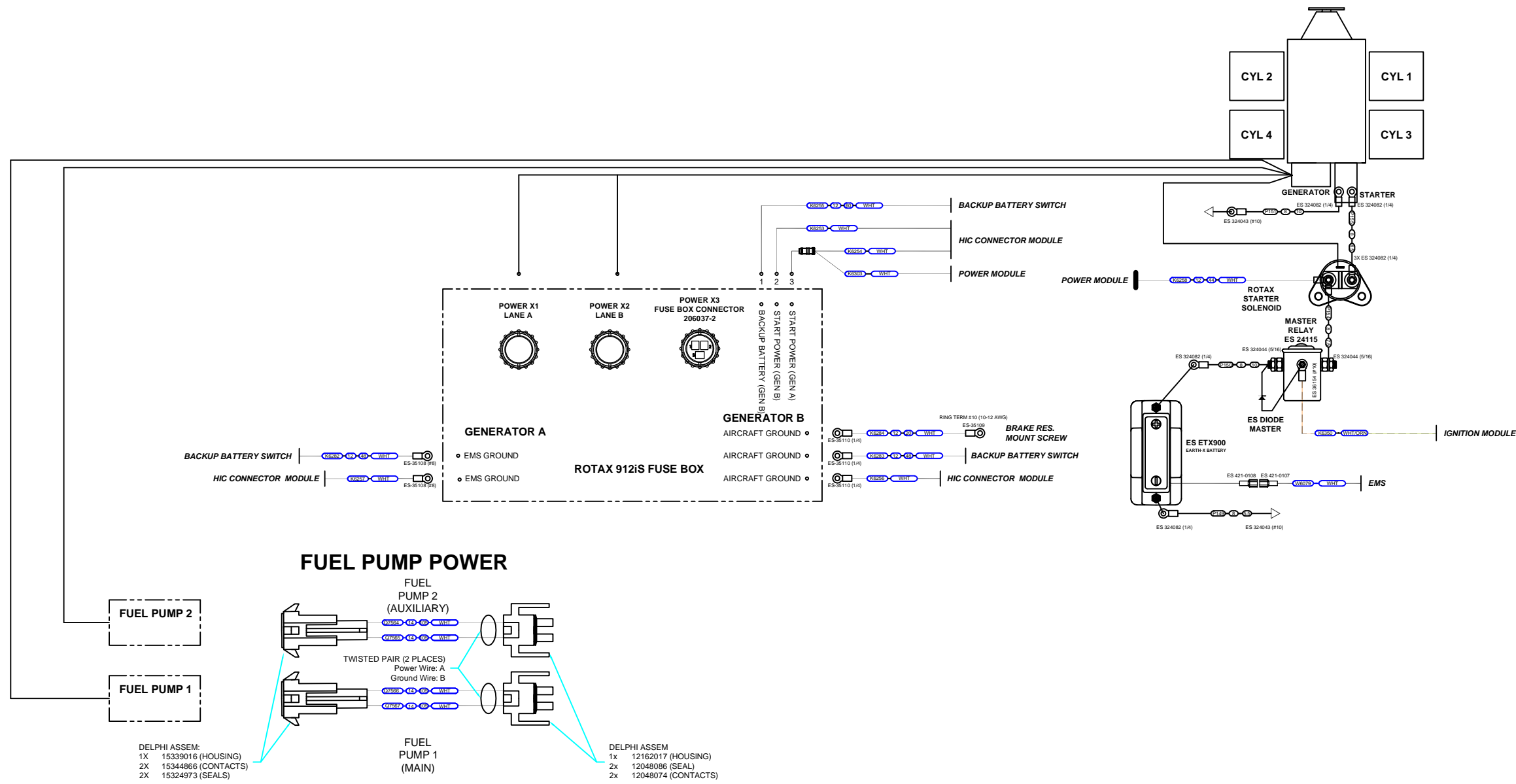



**NOTE: THE HIC CONNECTOR MODULE MUST BE ATTACHED TO F-1202B WITH STAR WASHERS UNDER THE SCREWS**

	<b>VAN'S AIRCRAFT, INC.</b> 14401 NE KEIL RD. NI AURORA, OR 97002 USA	
	<b>ROTAX 912iS SKYVIEW ELECTRICAL SYSTEM</b>	
DATE DRAWN: 06/11/18 DRAWN BY: TONY KIRK TOLERANCES: NONE (UNLESS OTHERWISE SPECIFIED)	UNITS: INCHES SCALE: NONE	WH-00133 PAGE: 9 OF 11
DATE FILED: ENAMEL: C:\REV_17\Systems\912iS\Electrical System\912iS SkyView\912iS DWS		C:\S17F ORIGINAL



	<b>VAN'S AIRCRAFT, INC.</b> 14401 NE KEIL RD. NI AURORA, OR 97002 USA	
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DATE DRAWN: 06/11/18	UNITS: INCHES	WH-00133
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	<b>VAN'S AIRCRAFT, INC.</b> 14401 NE KEIL RD. NI AURORA, OR 97002 USA	
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