

# Alpha Systems AOA Dual Non-Pressurized System Diagram

Display Extension Cables- Qty 2

Switch Panel  
Primary Display: Merlin  
Secondary Display: Merlin

Dual Display I/F Module

I/F Module

25 ft

AoA Sense Probe

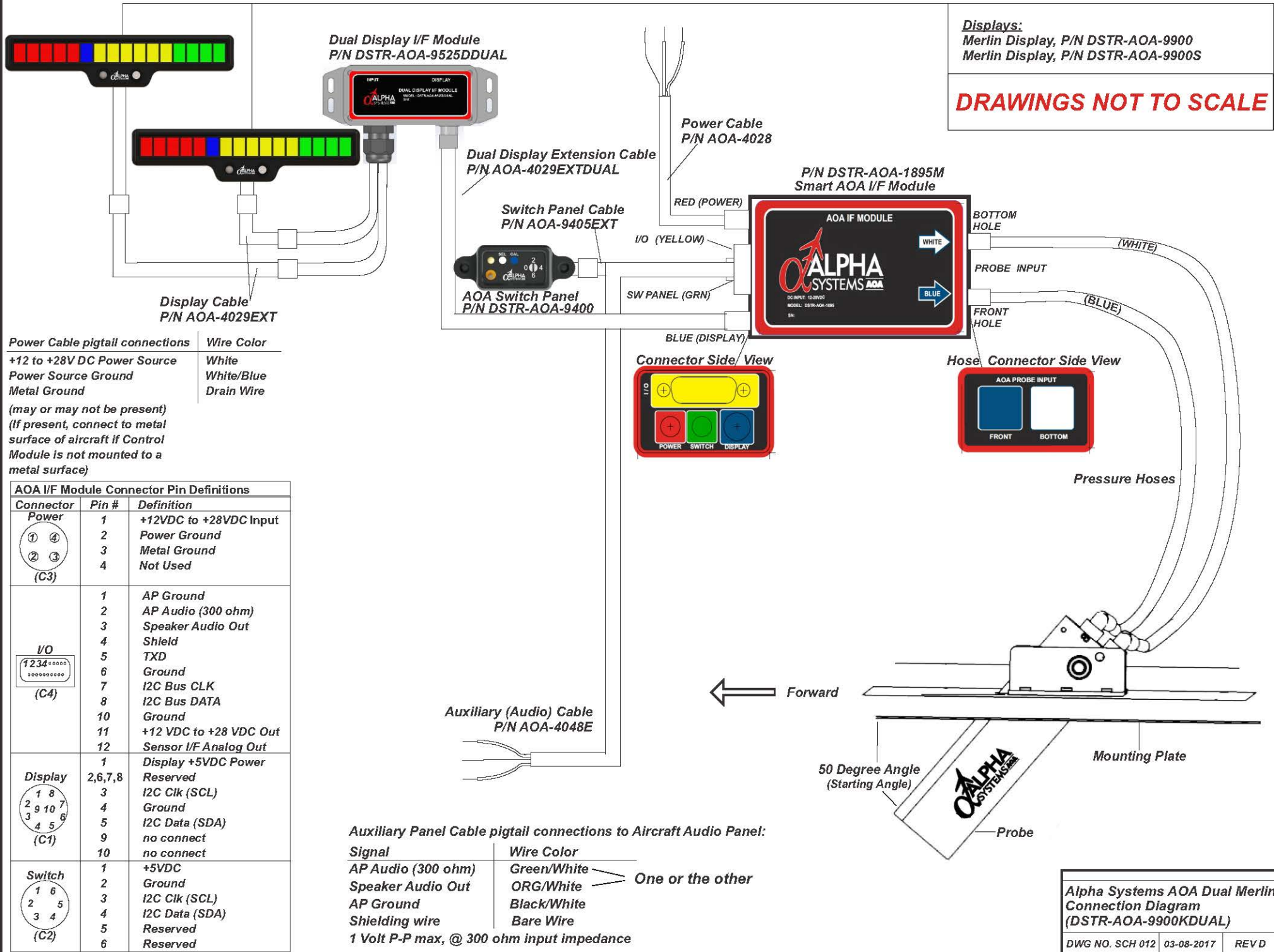
25 ft

AOA Probe Mounting Plate



(Cut to Fit Existing Inspection Cover)

- Red - I/F Module Power Cable
- Green - Switch Panel Extension Cable
- Yellow - Enhanced AUX Cable
- Blue - Dual Display I/F Module Extension Cable



Displays:  
 Merlin Display, P/N DSTR-AOA-9900  
 Merlin Display, P/N DSTR-AOA-9900S

**DRAWINGS NOT TO SCALE**

Power Cable pigtail connections	Wire Color
+12 to +28V DC Power Source	White
Power Source Ground	White/Blue
Metal Ground	Drain Wire

(may or may not be present)  
 (If present, connect to metal surface of aircraft if Control Module is not mounted to a metal surface)

AOA I/F Module Connector Pin Definitions			
<b>Power</b>	<b>Pin #</b>	<b>Definition</b>	
 (C3)	1	+12VDC to +28VDC Input	
	2	Power Ground	
	3	Metal Ground	
	4	Not Used	
<b>I/O</b>			
 (C4)	1	AP Ground	
	2	AP Audio (300 ohm)	
	3	Speaker Audio Out	
	4	Shield	
	5	TXD	
	6	Ground	
	7	I2C Bus CLK	
	8	I2C Bus DATA	
	10	Ground	
	11	+12 VDC to +28 VDC Out	
	12	Sensor I/F Analog Out	
	<b>Display</b>		
 (C1)	1	Display +5VDC Power	
	2,6,7,8	Reserved	
	3	I2C Clk (SCL)	
	4	Ground	
	5	I2C Data (SDA)	
	9	no connect	
	10	no connect	
	<b>Switch</b>		
	 (C2)	1	+5VDC
		2	Ground
3		I2C Clk (SCL)	
4		I2C Data (SDA)	
5		Reserved	
6		Reserved	

**Auxiliary Panel Cable pigtail connections to Aircraft Audio Panel:**

Signal	Wire Color
AP Audio (300 ohm)	Green/White
Speaker Audio Out	ORG/White
AP Ground	Black/White
Shielding wire	Bare Wire

One or the other

1 Volt P-P max, @ 300 ohm input impedance