



Sport and Horizon EX Cable Descriptions/Pinout
Revision A2 - 9/27/2016

Supplied Harnesses are not finalized and are subject to change.

Connector A Pinout Diagram

Connector A is a 25-Pin D-Sub female connector that attaches to the male EFIS 25-pin D-sub. Pins for primary power IN and ground are pre-installed in the connector. Commonly used optional wires are supplied as loose wires. Wire colors and devices assigned to serial ports are suggestions only. See Sport/Horizon EX Interconnect Diagram for suggested system connections. NC denotes No Connection inside display unit.

Pin		Function	Rec. Wire Color
A1	S	Serial 6 OUT (Note 2)	WHT/BLK
A2	S	Serial 1 OUT	WHT/GRN
A3	S	Serial 5 OUT (Note 2)	ORG
A4	S	Serial 2 OUT	BRN
A5	S	Serial 4 OUT (Note 2)	YEL/WHT
A6		NC	
A7		NC	
A8		Trig TT22 A	
A9		Trig TT22 B	
A10		Outside Air Temperature Input	GRY
A11		Magnetometer Power Output	BLUE
A12		Magnetometer Ground Output	WHT/BLU
A13		Magnetometer Serial Input	ORG/BLK
A14	I	Primary Power IN	RED
A15	S	Secondary Power IN	RED/BLUE
A16		NC	
A17	I	Ground	BLK
A18	S	GPS Memory (Note 1)	RED/WHT
A19	S	Serial 2 IN	YEL
A20	S	Serial 1 IN	WHT
A21	S	Serial 4 IN (Note 2)	GRN/BLK
A22	S	Serial 5 IN (Note 2)	YEL/BLU
A23	S	Serial 3 IN	GRY/RED
A24	S	Serial 6 IN (Note 2)	YEL/GRY
A25	S	Serial 3 OUT	GRY/BLK

I = Installed in connector housing

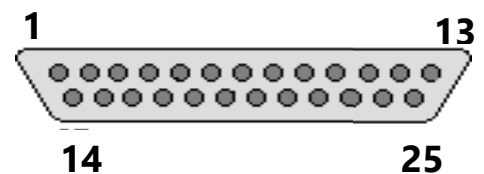
S = Supplied as loose pinned wires

Note 1: See EX Installation Manual for important information about aircraft battery depletion.

Note 2: Optional Serial Ports 4-6 are enabled with the VFR/IFR Package or added with the serial option.

Note 3: Connector A harness is 4 feet long. Longer harnesses are available by special order.

**Wiring Housing
Connector A as viewed
from REAR (wired side)**



Connector B Pinout Diagram

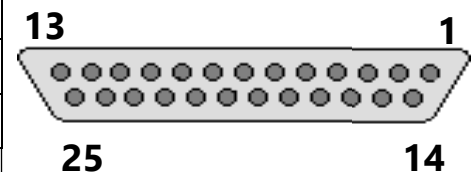
Connector B is a 25-Pin D-Sub male connector that attaches to the female EFIS 25-pin D-sub. Pins that are most likely to be used are pre-installed at GRT. Commonly used optional wires are supplied as loose wires. Wire colors assigned to serial ports are suggestions only. Pins labeled NC have no internal connection. Connector B wires are 4 feet long. Longer wires are available by special order.

Pin	Function	Wire Color
B25	Audio Output Ground (Note 1)	
B24	Audio Output (Note 1)	
B23	NC	
B22	NC	
B21	Analog 1 IN (Note 1)	
B20	Analog 2 IN (Note 1)	
B19	Analog 3 IN (Note 1)	
B18	Analog 4 IN (Note 1)	
B17	NC	
B16	NC	
B15	NC	
B14	NC	
B13	Oil Temperature Input (Note 2)	
B12	Oil Pressure Input (Note 2)	
B11	Tachometer Input (Note 2)	
B10	NC	
B9	NC	
B8	NC	
B7	NC	
B6	NC	
B5	NC	
B4	NC	
B3	Discrete Output 2	
B2	Discrete Output 1	
B1	Warning Lamp (Pulled to Ground)	

Note 1: Optional Analog Inputs and Audio Alerts are both added with the Analog Input Option.

Note 2: Engine Sensor Inputs are a factory added option set that must be specified when ordering.

**Wiring Harness
Connector B as viewed
from REAR (wired side)**



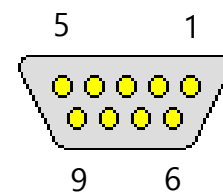
Magnetometer Connector Pinout Diagram

The Sport EX connector may have these wires pre-installed, but the magnetometer cable is provided without the connector attached for easier routing through the airframe. Use the following diagram to attach the connector to the cable after running the wires. Be sure to inspect the pins before inserting them into the D-sub, as damage can occur from pulling them through holes in the airframe.

The digital magnetometer may be wired to an unlimited number of Sport EX, Adaptive AHRS and/or Mini-X/Mini- AP EFIS systems. This is accomplished by connecting the serial output from the magnetometer to as many devices as desired. If a battery-backup is included in a Mini that is using a magnetometer, we recommend wiring to it for the magnetometer power and ground, so that it remains powered in the event the airplane is flown on this backup. Similarly, if no Mini-EFIS systems are in the airplane, but one Sport EX is provided with a battery backup, this EX should be used for the magnetometer power and ground.

The digital magnetometer has a 9-pin male d-sub connector. The mating cable should use hardware that is not ferrous metal to the greatest extent possible. Mounting should be per the Sport/Horizon EX installation manual.

Pin	Function	Wire Color	EX Pin Connection
1	Ground	Black	A12
2	NC		
3	NC		
4	NC		
5	MAG PWR	WHT/RED	A11
6	NC		
7	NC		
8	Mag Serial In (NC)		NC
9	Mag Serial Out	WHT/BRN	A13



Wiring Harness Connector as viewed from REAR (wired side)