

RV-10 Wire Harness Installation Guide

Get wired and get flying.



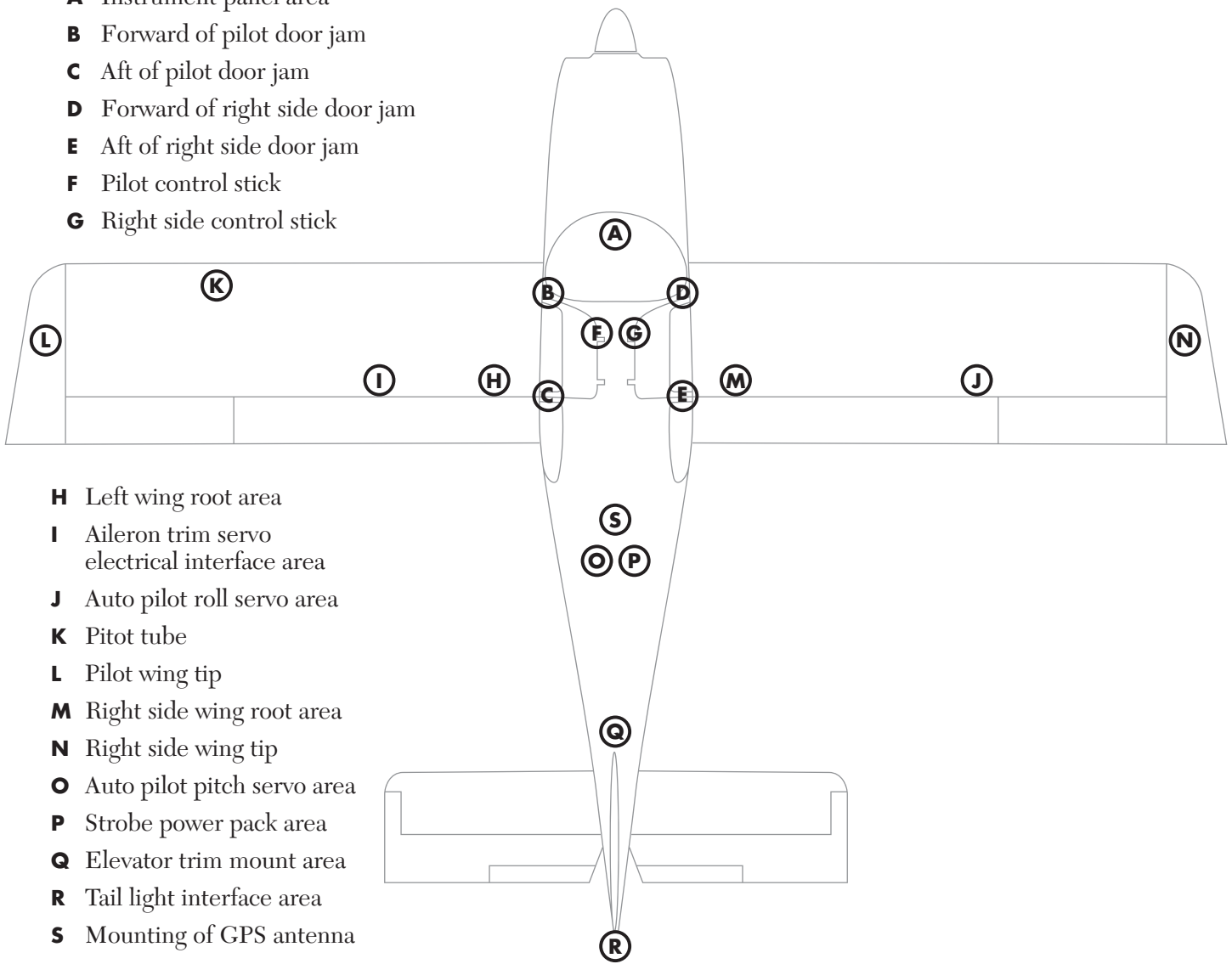
Direct**To**Avionics

Wiring stations

“This document makes reference to some equipment, such as a GarminAT SL30, Trutrak Autopilots, approved engine monitoring unit, etc. which are not included with the purchase of your Chelton EFIS system.”

Each station will require you to run the harness through the airframe and simply plug in the harness connector or terminate the wires by crimping on the pins and finalizing the connector. This is a straight forward process after some basic assumptions for equipment location are identified.

- A** Instrument panel area
- B** Forward of pilot door jam
- C** Aft of pilot door jam
- D** Forward of right side door jam
- E** Aft of right side door jam
- F** Pilot control stick
- G** Right side control stick



- H** Left wing root area
- I** Aileron trim servo electrical interface area
- J** Auto pilot roll servo area
- K** Pitot tube
- L** Pilot wing tip
- M** Right side wing root area
- N** Right side wing tip
- O** Auto pilot pitch servo area
- P** Strobe power pack area
- Q** Elevator trim mount area
- R** Tail light interface area
- S** Mounting of GPS antenna

Wiring assumptions

These custom electrical harnesses are specifically designed with the following basic assumptions. It is assumed that the builder will be mounting the various pieces of equipment in the specified locations.

Station A assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station A:

- All associated and specified Aircraft Circuit breakers
- All associated and specified electrical Master switches
- Appropriate Ground Bus
- Pinpoint GADAHRS/ADAHRS
- GADAHRS/ADAHRS Alignment Ground/Quick Slave Switch
- FreeFlight GPS WAAS Receiver (optional)
- PFD Keyboard
- MFD Keyboard
- Aileron Trim Relay Deck
- Elevator Trim Relay Deck
- Elevator Trim Position sensor

Station B assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station B:

- Microswitch for Pilot Door Ajar Annunciator

Station C assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station C:

- Microswitch for Pilot Door Ajar Annunciator

Station D assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station D:

- Microswitch for Right side Door Ajar Annunciator

Station E assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station E:

- Microswitch for Right side Door Ajar Annunciator

Station F assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station F:

- EFIS Mute Switch
- Auto Pilot CWS Switch

Station G assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station G:

- EFIS Mute Switch
- Auto Pilot CWS Switch

Station H assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station H:

- Left Wing Disconnect Plug

Station I assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station I:

- Aileron Trim Servo Motor

Continued...

Wiring assumptions *Continued*

These custom electrical harnesses are specifically designed with the following basic assumptions. It is assumed that the builder will be mounting the various pieces of equipment in the specified locations.

Station J assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station J:

- Auto Pilot Roll Servo

Station K assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station K:

- Pitot Heat Tube (We do have provisions to bring the Pitot Tube wiring inboard if you the builder decide to mount the Pitot Tube there as opposed to outboard)

Station L assumptions:

It is assumed the following Aircraft components will be mounted in the vicinity of station L:

- Left Wing Strobe Light
- Left Wing Navigation Light
- MSU & OAT
- Left Wing Landing Light (if high intensity discharge lights are used the ballast must be mounted in this vicinity)

Station M assumptions:

It is assumed the following Aircraft components will be mounted in the vicinity of station M:

- Right Wing Disconnect Plug

Station N assumptions:

It is assumed the following Aircraft components will be mounted in the vicinity of station N:

- Right Wing Strobe Light
- Right Wing Navigation Light
- Right Wing Landing Light (if high intensity discharge lights are used the ballast must be mounted in this vicinity)

Station O assumption

It is assumed the following Aircraft components will be mounted in the vicinity of station O:

- Auto Pilot Pitch Servo

Station P assumptions:

It is assumed the following Aircraft components will be mounted in the vicinity of station P:

- Strobe Power Pack

Station Q assumptions:

It is assumed the following Aircraft components will be mounted in the vicinity of station Q:

- Elevator Trim Servo Motor

Station R assumptions:

It is assumed the following Aircraft components will be mounted in the vicinity of station R:

- Tail Navigation Light
- Tail Strobe light

Basic wire connections

These illustrations show how easy it is to strip, crimp and assemble a Deutsch and AMP connector.

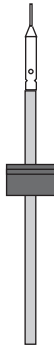
• Deutsch connector



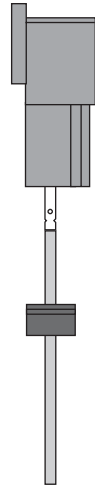
Strip off approximately 3/16" of insulation (pins for female connectors and barrels for male)



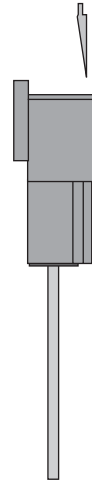
Place pin over wire, insert into your crimping tool and give it a crimp



Slide wire(s) through the backside rubber seal



Insert wire into the plastic fitting until you hear a click

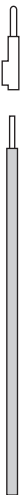


Slide rubber seal into the back and insert the orange wedge lock under the pins



Here's a view of a typical 2-pin Female from the front (use barrel fittings for the male side of connector)

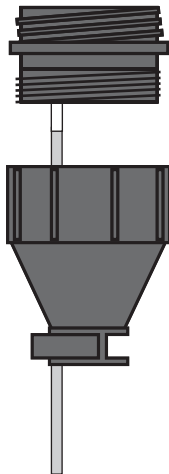
• AMP connector



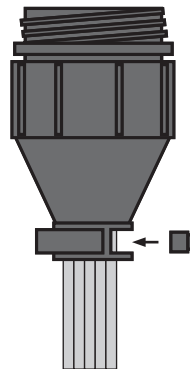
Strip off approximately 3/16" of insulation



Place pin over wire, insert into your crimping tool and give it a crimp



Slide wire(s) through the backshell and seat into the connector



Finish wire connections, screw backshell onto connector and screw clamp onto the end of the backshell



Here's a view of a typical 9-pin Male from the front with seven wires installed

Wiring Station **A**

Instrument panel part 1 (Autopilot connections)

The instrument panel section is broken out in several parts with different tasks to complete. Read below for a step-by-step guide on beginning and completing this station.

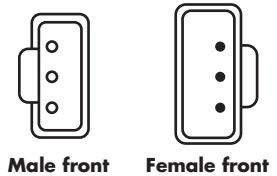
- **Autopilot DigiFlight control head connection (25-pin d-sub)**

Insert the 25 pin d-sub autopilot connector into the control head and secure the screws. Be careful to properly align the connector with the unit as to eliminate potential damaging of the pins caused by misaligned forced connector insertion.



- **Autopilot ARINC to EFIS ARINC (3-pin deutsch)**

The two-wire Autopilot ARINC interface connection is made between the autopilot harness and the EFIS PFD J3 harness we have the Autopilot ARINC interface connection. Simply locate the two 3 pin deutsch connectors and finalize this connection. You will effectively hear a “snap” upon securing both connectors to each other. This completes the ARINC interface between the Chelton EFIS and the TruTrak Autopilot.

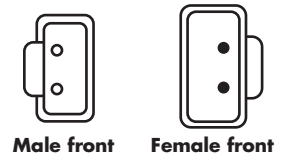


Male front

Female front

- **Autopilot GPS RS232 to EFIS GPS RS232 (2-pin deutsch)**

The three-wire Autopilot GPS RS232 interface connection is made between the autopilot harness and the EFIS PFD J1 harness we have the Autopilot GPS RS232 interface connection. Simply locate the two 2 pin deutsch connectors and finalize this connection. You will effectively hear a “snap” upon securing both connectors to each other. This completes the GPS RS232 interface between the Chelton EFIS and the TruTrak Autopilot.

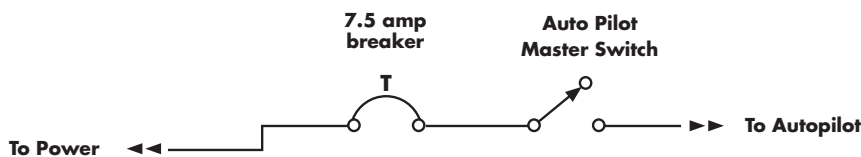


Male front

Female front

- **Autopilot power ring terminal-hook up to a 7.5 amp circuit breaker**

The autopilot harness has a ring-terminal for power connection. This needs to be connected to a 7.5 Amp circuit breaker but first it is recommended that you take this wire to an appropriately rated Aviation grade electrical switch and then to the Autopilot circuit breaker.



- **Autopilot ground ring terminal-hook up to airframe ground bus**

Secure this ground wire to your nearest airframe ground bus.



That completes the Autopilot connections for Station A

Wiring Station **(A)**

Instrument panel part 2 (EFIS J1 connections)

This section will address all terminations coming from the J1 harness.

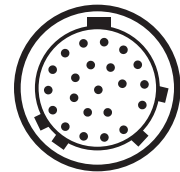
- **J1 connector termination to PFD J1 (62-pin HD D-sub)**

Insert the 62 pin HD d-sub J1 connector into the PFD display and secure the screws. This is the bottom connector on the PFD. Pay particular attention to the proper alignment of the connector with the unit and eliminate potential damage of the pins caused by misaligned forced connector insertion. (This connection is the bottom connector on the unit).



- **GADAHRS/ADAHRS connector termination to Pinpoint GADAHRS (22 pin circular metal connector)**

Insert the 22 pin circular metal GADAHRS connector to the Pinpoint GADAHRS unit. Holding the connector in hand, familiarize yourself with the pin and key orientation of the GADAHRS connector. Now look at the Pinpoint GADAHRS unit and familiarize yourself with the GADAHRS unit keys on the electrical connector receptacle. Align the GADAHRS connector with the GADAHRS unit as to properly mate the keys within the connector, then turn the GADAHRS connector clockwise as to ratchet the connector securely to the Pinpoint GADAHRS unit. You will notice a red band around the Pinpoint GADAHRS electrical connector receptacle. Once you have properly ratcheted the GADAHRS connector securely to the unit this red band will not be viewable, and indicative of a complete secure connection to the Pinpoint GADAHRS.



- **GADAHRS/ADAHRS & MSU power A ring terminal-hook up to a 5 amp circuit breaker**

Secure this wire to your panel circuit breaker designated for this function.



- **GADAHRS/ADAHRS & MSU power B ring terminal-hook up to a 5 amp circuit breaker**

Secure this wire to your panel circuit breaker designated for this function.



- **GADAHRS/ADAHRS & MSU ground ring terminals-hook up to ground bus**

This will consist of two ground wires. Secure each ground wire to your ground bus.



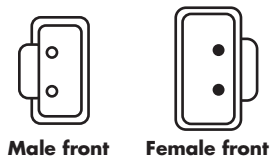
- **MSU ground ring terminal-hook up to ground bus**

Secure this ground wire to your ground bus.



- **EFIS GPS RS232 to autopilot GPS RS232 (2 pin deutsch connector)**

The 3 wire Autopilot GPS RS232 interface connection is made between the autopilot harness and the EFIS PFD J1 harness we have the auto pilot GPS RS232 interface connection. Simply locate the two 2 pin deutsch connectors and finalize this connection. You will effectively hear a “snap” upon securing both connectors to each other. This completes the GPS RS232 interface between the Chelton EFIS and the TruTrak Autopilot. This action is previously completed during the Autopilot Station A terminations.



Wiring Station **A**

Instrument panel part 2 (EFIS J1 connections)

This section will address all terminations coming from the J1 harness.

- **EFIS to SL30 interface** (*Wires with d-sub sockets terminated to the ends that are intended to plug directly into the Navigation 37-pin d-sub connector located on the back of a SL 30 Navigation/Comm radio tray*)
Coming off of the EFIS J1 connector we have a 3 conductor shielded cable with each of the conductors having a d-sub socket crimped on the ends respectively. The pinout for this cable is as follows:

White wire connects to pin 5 of a SL30 37 pin d-sub connector

White/Blue wire connects to pin 4 of the SL30 37 pin d-sub connector

White/Orange wire connects to pin 3 of the SL30 37 pin d-sub



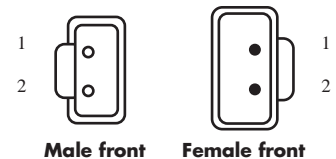
- **ENG/EAU RS232 plug** (*2 pin deutsch connector*)

Coming off of the EFIS J1 connector we have a 2 pin deutsch connector labeled The EFIS J1 connector has a 2 pin deutch connector labeled ENG/EAU. This connector will interface your MVP-50 engine monitoring system to the Chelton EFIS. Pinouts for the connector are as follows:

1 White wire (ENG/EAU RS232 Data)

2 White/Blue wire (ENG/EAU RS232 Signal Ground)

You will want to bring the RS232 serial data out of your engine monitoring to this connector to properly interface the engine monitoring to the EFIS system. You, the builder, will be required to complete the mating end of this 2 pin deutsch connector, of which the 2 pin deutch connector mate, wedgelock, and associated pins are bagged and provided with the EFIS J1 harness.



- **EFIS audio**

This connection has been left unterminated as various audio panels use various terminals. Consult your audio panel installation manual or ask the audio panel manufacturer to address this connection with you. For additional support feel free to contact Direct To Avionics' technical support department. Color codes for the wiring are as follows, and information is also provided on a shrink label at the end of this wiring breakout.

White wire (EFIS Audio Signal)

White/Blue wire (EFIS Audio Ground)

Shield (EFIS Audio Shield)

Wiring Station **A**

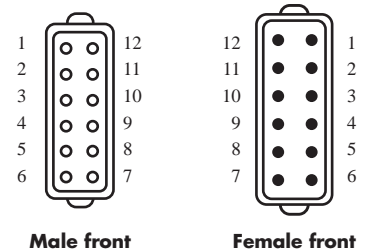
Instrument panel part 2 (EFIS J1 connections)

This section will address all terminations coming from the J1 harness.

• EFIS accessory connections (12-pin deutsch)

The EFIS J1 harness has a 12-pin deutsch connector labeled “EFIS accessory plug”. This is a plug with pre wired EFIS comm ports that will interface to Traffic, Lightening, and Datalink Weather interfaces. Pinouts are as follows:

- 1 White wire (WSI RS232 Tx)
- 2 White/Blue wire (WSI RS232 Rx)
- 3 White/Orange wire (WSI RS232 Signal Ground)
- 4 White wire (WX500 RS232 Tx)
- 5 White/Blue wire (WX500 RS232 Rx)
- 6 White/Orange wire (WX500 RS232)
- 7 White wire (TCAD/TIS RS232 Tx)
- 8 White/Blue wire (TCAD/TIS RS232 Rx)
- 9 White/Orange wire (TCAD/TIS RS232)
- 10 No connection
- 11 No connection
- 12 No connection



If you have elected to purchase and install any of these components you would then bring their RS232 wiring to this plug, to properly interface that component to the Chelton EFIS system. You, the builder, will be required to complete the mating end of this 12 pin deutsch connector, of which the 12 pin deutsch connector mate, wedgelock, and associated pins are bagged and provided with the EFIS J1 harness.

• Install GADAHRS quick-slave ground switch

Mount the spring-loaded momentary switch on your instrument panel, or within pilot reach. It is not recommended this switch be mounted on a control stick or in a location which might inadvertently activated during normal system power up.



That completes the J1 connections for Station A

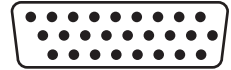
Wiring Station **A**

Instrument panel part 3 (PFD J3 connections)

This section will address all terminations associated with the Primary Function Display (PFD) J3 harness

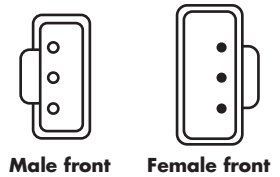
- **PFD J3 connector termination to PFD J3 (26-pin HD D-sub)**

Insert the 26 pin HD d-sub PFD J3 connector into the PFD display and secure the screws. This the top connector on the PFD. Be careful as to properly align the connector with the unit as to eliminate potential damaging of the pins caused by misaligned forced connector insertion.



- **EFIS ARINC to auto pilot ARINC (3-pin deutsch)**

Coming off of both the Autopilot harness and the EFIS PFD J3 harness we have the Autopilot ARINC interface connection. Simply locate the two 3 pin deutsch connectors and finalize this connection. You will effectively hear a “snap” upon securing both connectors to each other. This completes the ARINC interface between the Chelton EFIS and the TruTrak Autopilot. This action is previously completed during the Autopilot Station A terminations.



- **Install PFD keyboard plug**

Secure behind the panel, but locate in an easily accessible location in the event a PFD keyboard interface is required.



- **PFD power ring terminal-hook to a 5 amp circuit breaker**

Secure this wire to your panel breaker designated for this function



- **PFD ground ring terminal-hook up to ground bus**

Secure this ground wire to your ground bus.



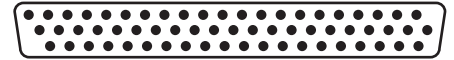
That completes the J3 connections for Station A

Wiring Station **A**

Instrument panel part 3 (PFD J2 to MFD J2 connections)

This section will address all terminations associated with the Primary Function Display (PFD) J3 harness

- **PFD J2 to MFD J2 connector terminations (62-pin HD D-sub)**
Insert the PFD J2 62 pin HD d-sub connector into the PFD display and secure the screws. This is the middle connector on the PFD. Be careful as to properly align the connector with the unit as to eliminate potential damaging of the pins caused by misaligned forced connector insertion. Now insert the MFD J2 62 pin HD d-sub connector into the MFD display and secure the screws.



That completes the PFD J2 to MFD J2 connections for Station A

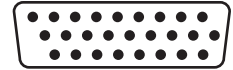
Wiring Station **A**

Instrument panel part 5 (MFD J3 connections)

This section will address all terminations coming from the J2 harness to the Multi-function Display (MFD).

- **MFD J3 connector termination to MFD J3 (26-pin HD D-sub)**

Insert the 26 pin HD d-sub MFD J3 connector into the MFD display and secure the screws. This is the top connector on the MFD. Be careful as to properly align the connector with the unit as to eliminate potential damaging of the pins caused by misaligned forced connector insertion.



- **Install MFD keyboard plug**

Secure behind the panel, but locate in an easily accessible location in the event a MFD keyboard interface is required.



- **MFD power ring terminal-hook to a 5 amp circuit breaker**

Secure this wire to your panel breaker designated for this function



- **MFD ground ring terminal-hook up to ground bus**

Secure this ground wire to your ground bus.



That completes the MFD J3 terminations for station A

Wiring Station

Final routing and connections part 6

The remainder of these Station A terminations will need to be finished by the builder. This includes the fuselage to pilot wing harness piece and the fuselage to right side wing harness piece. We have supplied ample length of wire for these tasks. Be sure to purchase appropriate connectors and make the proper connections as directed by your panel to airframe interface and personal aircraft function preference in regards to electrical terminations.

Right side fuselage to wing harness

- ***Right side door ajar annunciator (22 AWG)***
Wire has been left unterminated with no connector or terminal supplied. This wire is required to go to the Pilot Door Ajar warning light if you have made provisions for this annunciator on your panel.
- ***Right door ajar annunciator ground (22 AWG)***
Wire has been left unterminated with no connector or terminal supplied. This wire is required to go to ground if you have made provisions for this annunciator on your panel.
- ***Right side landing light power (two 16 AWG power wires supplied)***
Wire has been left unterminated with no connector or terminal supplied. This wire is required to go to the landing light switch if you have made provisions for this function on your panel.
- ***Pitot heat power (14 AWG)***
Wire has been left unterminated with no connector or terminal supplied. This wire is required to go to the Pitot Heat switch on your panel.
- ***Right side navigation light power (20 AWG)***
Wire has been left unterminated with no connector or terminal supplied. This wire is required to go to the navigation light switch on your panel.
- ***Aileron trim motor (two 22 AWG motor wires supplied)***
Wires have been left unterminated with no connector or terminal supplied. This wire is required to go to the Aileron Trim relay deck and is intended to interface to the trim system, none of which is provided by Direct To Avionics. Completion of the overall trim system is up to you the builder.
- ***Strobe pack power (18 AWG)***
Wire has been left unterminated with no connector or terminal supplied. This wire is required to go to the strobe power switch on your panel.
- ***Strobe pack ground (18 AWG)***
Wire has been left unterminated with no connector or terminal supplied. This wire is required to go to the nearest ground bus.
- ***Elevator trim 5 conductor (22 AWG)***
Wires have been left unterminated with no connector or terminals supplied. This wire is required to go to the Aileron Trim relay deck and is intended to interface to the trim system, none of which is provided by Direct To Avionics. Completion of the overall trim system is up to you the builder.
- ***Tail navigation light power (20 AWG)***
Wire has been left unterminated with no connector or terminal supplied. This wire is required to go to the navigation light switch on your panel.

Wiring Station **A**

Final routing and connections (continued)

The remainder of these Station A terminations will need to be finished by the builder. This includes the fuselage to pilot wing harness piece and the fuselage to right side wing harness piece. We have supplied ample length of wire for these tasks. Be sure to purchase appropriate connectors and make the proper connections as directed by your panel to airframe interface and personal aircraft function preference in regards to electrical terminations.

Right side fuselage to wing harness

- *Right side door ajar annunciator (22 AWG)*

Wires have been left unterminated with no connector or terminals supplied. This wire is required to go to the right side Door Ajar warning light if you have made provisions for this annunciator on your panel.

- *Right side door ajar annunciator ground (22 AWG)*

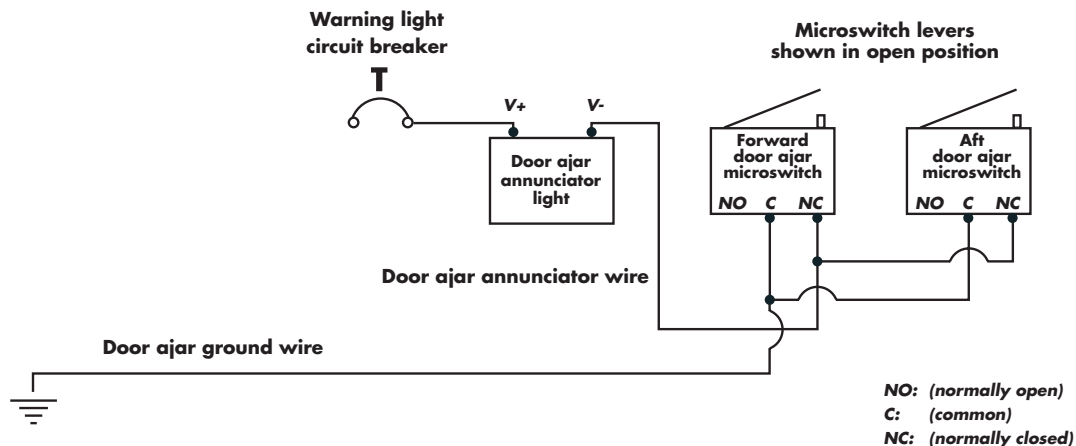
Wires have been left unterminated with no connector or terminals supplied. This wire is required to go to ground if you have made provisions for this annunciator on your panel.

- *Right side landing light power (two 16 AWG)*

Wires have been left unterminated with no connector or terminal supplied. This wire is required to go to the landing light switch if you have made provisions for this function on your panel.

- *Right side navigation light power (20 AWG)*

Wire has been left unterminated with no connector or terminal supplied. This wire is required to go to the navigation light switch on your panel.



Drawn w/ the door open and the light on/lit

Note-Schematic does not show a Warning Light Press To Test PTT SW.



That completes wire connections for station A

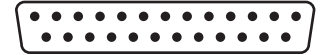
Wiring Station

FreeFlight GPS receiver (optional)

The instrument panel section is broken out in several parts with different tasks to complete. Read below for a step-by-step guide on beginning and completing this station.

•FreeFlight GPS connection (25-pin d-sub)

We have supplied a FreeFlight GPS harness breakout coming from the EFIS J1 connector that contains power, ground, and GPS RS232 wires. We have pre terminated the d-sub sockets that the FreeFlight 25 pin d-sub connector requires. The actual connector and backshell are supplied with the FreeFlight receiver so you the builder will be required to complete this connector. Begin by sliding the appropriately sized grommet over the complete bundle of wires. This gromet is supplied with the FreeFlight receiver. After you have applied the grommet you can then begin terminating the sockets to the connector. The pinout for the FreeFlight 25 pin d-sub is as follows:



- 6** (Red wire-Power, in goes to pin 6)
- 7** White wire-GPS RS232Tx, goes to pin 7
- 10** White/Orange wires-GPS RS232 signal Ground
- 23** White/Orange wires-GPS RS232 signal Ground
- 18** Black or White/Black wire-Shield, goes to pin 18
- 19** Black wire-Ground, goes to pin 19
- 20** White/Blue wire-GPS RS232Rx, goes to pin 20

After you have successfully terminated the sockets to the d-sub connector you can then proceed with installing the side latch assembly and backshell. Follow the FreeFlight install manual to complete this connector.

After you have completed assembling the backshell you can then secure the connector to the FreeFlight GPS receiver. Be careful as to properly align the connector with the unit as to eliminate potential damaging of the pins caused by misaligned forced connectot insertion.

You, the builder will also be required to acquire and run a coaxial cable from the GPS receiver to the GPS antenna mount. Coaxial cable and coaxial connectors are not supplied by Direct To Avionics and the builder will be required to acquire and complete these items and tasks accordingly. RG 400 is recommended and the TNC male coaxial connector should be supplied with the FreeFlight receiver.



That completes the FreeFlight GPS connections for Station A

Wiring Station **B**

Pilot side forward of door jam

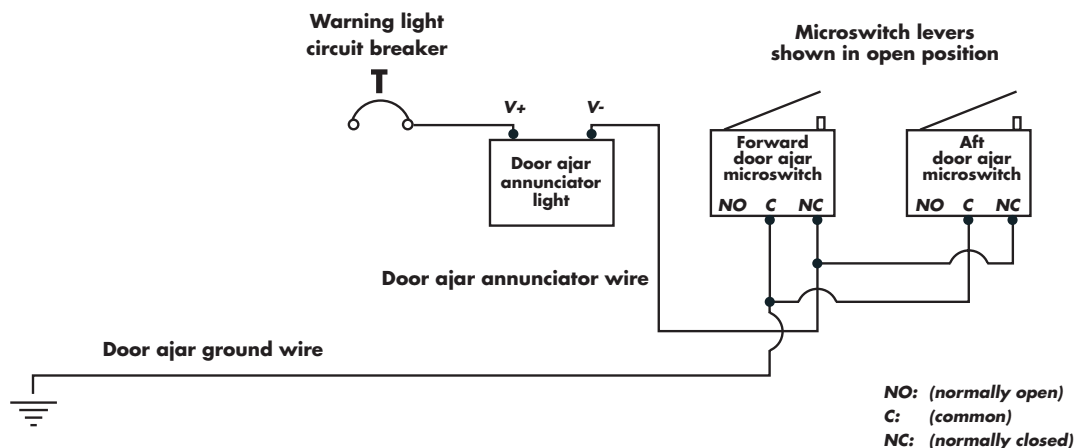
You will position the door ajar microswitch here. You will want to position the switch so that the lever is contacted by the forward door latch and pushed in when the door is closed and latched.

- **Install door ajar microswitch**

We recommend using a lever microswitch

Take the white door ajar power loop and connect both wires to the normally closed contact (NC) of the microswitch. You will be required to cut the loop and attach the two wires by either soldering, or acquiring the appropriately sized spade terminal and crimping as neccessary. Crimping is preferred over soldering, but both methods are suffeciant.

Take the black door ajar ground loop and connect both wires to the common contact (C) of the microswitch. You will be required to cut the loop and attach the two wires by either soldering, or acquiring the appropriately sized spade terminal and crimping as neccessary. Crimping is preferred over soldering, but both methods are suffeciant.



Drawn w/ the door open and the light on/lit

Note-Schematic does not show a Warning Light Press To Test PTT SW.



That completes wire connections for station B

Wiring Station

Left side aft of door jam

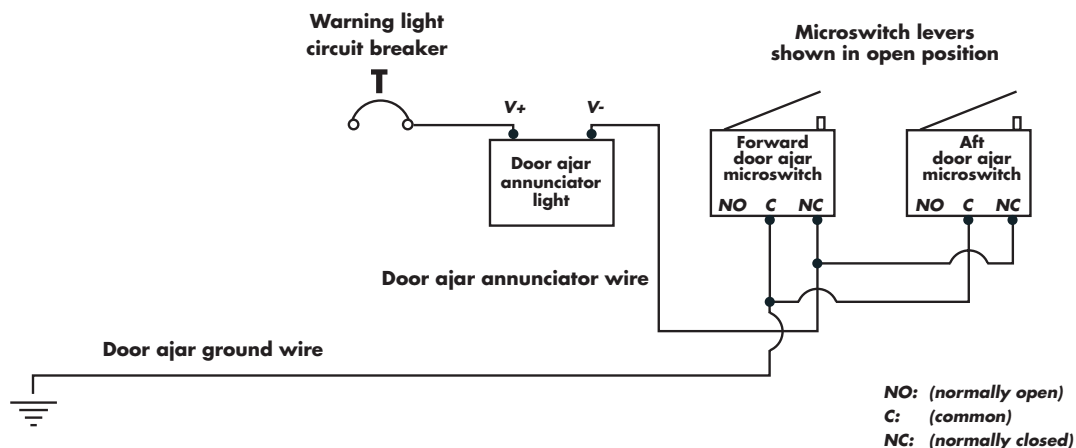
You will position the door ajar microswitch here. You will want to position the switch so that the lever is contacted by the forward door latch and pushed in when the door is closed and latched.

- **Install door ajar microswitch**

We recommend using a lever microswitch

Take the white door ajar power loop and connect both wires to the normally closed contact (NC) of the microswitch. You will be required to cut the loop and attach the two wires by either soldering, or acquiring the appropriately sized spade terminal and crimping as neccessary. Crimping is preferred over soldering, but both methods are suffeciant.

Take the black door ajar ground loop and connect both wires to the common contact (C) of the microswitch. You will be required to cut the loop and attach the two wires by either soldering, or acquiring the appropriately sized spade terminal and crimping as neccessary. Crimping is preferred over soldering, but both methods are suffeciant.



Drawn w/ the door open and the light on/lit

Note-Schematic does not show a Warning Light Press To Test PTT SW.



That completes wire connections for station C

Wiring Station **D**

Right side side aft of door jam

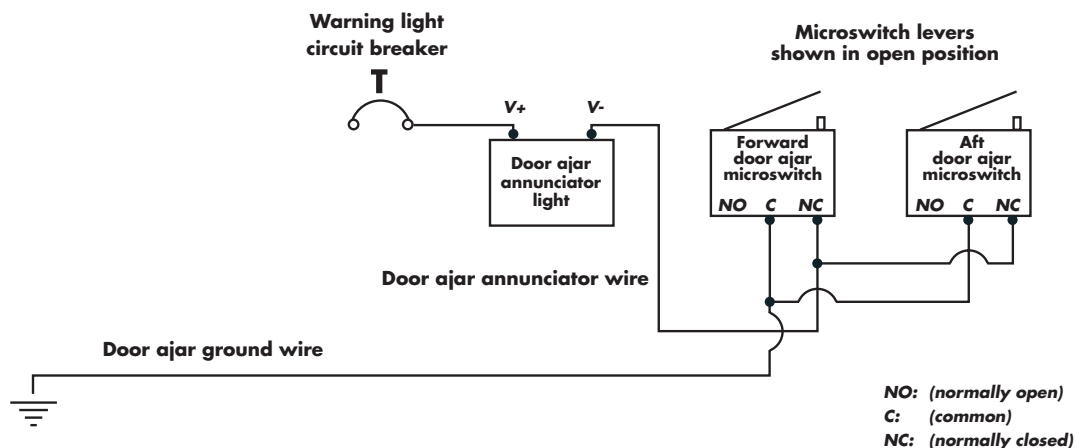
You will position the door ajar microswitch here. You will want to position the switch so that the lever is contacted by the forward door latch and pushed in when the door is closed and latched.

- **Install door ajar microswitch**

We recommend using a lever microswitch

Take the white door ajar power loop and connect both wires to the normally closed contact (NC) of the microswitch. You will be required to cut the loop and attach the two wires by either soldering, or acquiring the appropriately sized spade terminal and crimping as neccessary. Crimping is preferred over soldering, but both methods are suffeciant.

Take the black door ajar ground loop and connect both wires to the common contact (C) of the microswitch. You will be required to cut the loop and attach the two wires by either soldering, or acquiring the appropriately sized spade terminal and crimping as neccessary. Crimping is preferred over soldering, but both methods are suffeciant.



Drawn w/ the door open and the light on/lit

Note-Schematic does not show a Warning Light Press To Test PTT SW.



That completes wire connections for station D

Wiring Station **E**

Left side aft of door jam

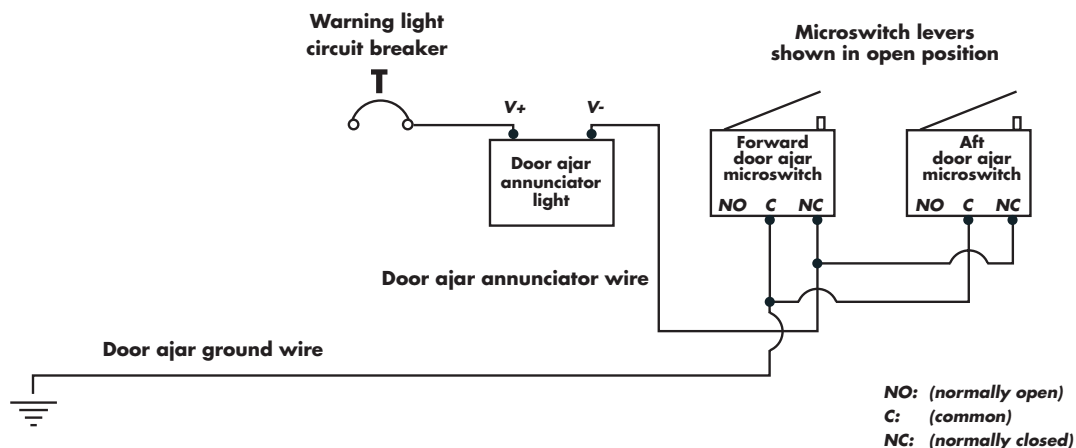
You will position the door ajar microswitch here. You will want to position the switch so that the lever is contacted by the forward door latch and pushed in when the door is closed and latched.

- **Install door ajar microswitch**

We recommend using a lever microswitch

Take the white door ajar power loop and connect both wires to the normally Closed contact (NC) of the microswitch. You will be required to cut the loop and attach the two wires by either soldering, or acquiring the appropriately sized spade terminal and crimping as neccessary. Crimping is preferred over soldering, but both methods are suffeciant.

Take the black door ajar ground loop and connect both wires to the common contact (C) of the microswitch. You will be required to cut the loop and attach the two wires to the common contact (C) of the microswitch. You will be required to cut the loop and attach the two wires by either soldering, or acquiring the appropriately sized spade terminal and crimping as neccessary. Crimping is preferred over soldering, but both methods are suffeciant.



Drawn w/ the door open and the light on/lit

Note-Schematic does not show a Warning Light Press To Test PTT SW.



That completes wire connections for station E

Wiring Station **F**

Pilot side cockpit wiring

Station F terminations will need to be finished by the builder. We have supplied ample length of wire for these tasks, and have crimped our recommended sockets on the ends of the wires designated for station F. Be sure to purchase appropriate connectors and make the proper connections as directed by the manufacturer of the control stick as necessary for proper connections to airframe interfaces you've chosen to install (such as EFIS MUTE, Push to Talk, etc) to airframe interface and personal aircraft function preference in regards to electrical terminations. We recommend using an AMP Circular Plastic Connector (CPC) here, and depending on which stick you opt for this connector may either be a 9-pin or 16-pin connector. Part numbers for the recommended stick disconnect plug parts and pins and sockets are as follows.

9-pin Male connector- 206705-2

9-pin Female connector- 206708-1

9-pin Backshell- 206966-1

16-pin Male connector- 206036-3

16-pin Female connector- 206037-1

16-pin Backshell- 206070-1

Sockets for female connectors- 66105-1

Pins for male connectors- 66103-1

• Pilot side auto pilot CWS

Wire has been terminated with an AMP socket (66105-1) at the end and is designed to go through the recommended disconnect plug for the pilot stick. The CWS function will require a momentary, normally open (NO) switch be used and designated on the pilot stick. You will also be required to run a ground wire from the nearest ground bus location to the common side of the switch. Ultimately the CWS wire will go to the normally open (NO) side of the CWS switch located on the pilot stick. You the builder will be required to complete the stick wiring, as well as the disconnect plug interfacing the pilot stick to the airframe.



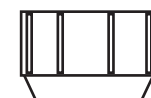
9-pin connector
Female front

• Pilot side EFIS mute In

Wire has been terminated with an AMP socket (66105-1) at the end and is designed to go through the recommended disconnect plug for the pilot stick. The EFIS mute function will require a momentary, normally open (NO) switch be used and designated on the pilot stick. Ultimately the EFIS mute in wire will go to the normally open (NO) side of the EFIS mute switch located on the pilot stick. You the builder will be required to complete the stick wiring, as well as the disconnect plug interfacing the Stick to the airframe.



Connector



Backshell



Clamp



Wires

• Pilot side EFIS mute out

Wire has been terminated with an AMP socket (66105-1) at the end and is designed to go through the recommended disconnect plug for the pilot stick. The EFIS mute function will require a momentary, normally open (NO) switch be used and designated on the pilot stick. Ultimately the EFIS mute out wire will go to the common (C) side of the EFIS mute switch located on the pilot stick. You the builder will be required to complete the stick wiring, as well as the disconnect plug interfacing the Stick to the airframe.



That completes wire connections for station F

Wiring Station

Co-pilot side cockpit wiring

Station G terminations will need to be finished by the builder. We have supplied ample length of wire for these tasks, and have crimped our recommended sockets on the ends of the wires designated for station G. Be sure to purchase appropriate connectors and make the proper connections as directed by the manufacturer of the control stick as necessary for proper connections to airframe interfaces you've chosen to install (such as EFIS MUTE, Push to Talk, etc) to airframe interface and personal aircraft function preference in regards to electrical terminations. We recommend using an AMP Circular Plastic Connector (CPC) here, and depending on which stick you opt for this connector may either be a 9-pin or 16-pin connector. Part numbers for the recommended stick disconnect plug parts and pin & sockets are as follows.

9-pin Male connector- 206705-2

9-pin Female connector- 206708-1

9-pin Backshell- 206966-1

16-pin Male connector- 206036-3

16-pin Female connector- 206037-1

16-pin Backshell- 206070-1

Sockets for female connectors- 66105-1

Pins for male connectors- 66103-1

• Co-pilot side auto pilot CWS

Wire has been terminated with an AMP socket (66105-1) at the end and is designed to go through the recommended disconnect plug for the pilot stick. The CWS function will require a momentary, normally open (NO) switch be used and designated on the pilot stick. You will also be required to run a ground wire from the nearest ground bus location to the common side of the switch. Ultimately the CWS wire will go to the normally open (NO) side of the CWS switch located on the pilot stick. You the builder will be required to complete the stick wiring, as well as the disconnect plug interfacing the co-pilot stick to the airframe.



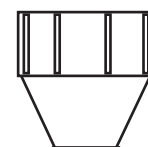
9-pin connector
Female front

• Co-pilot side EFIS mute In

Wire has been terminated with an AMP socket (66105-1) at the end and is designed to go through the recommended disconnect plug for the pilot stick. The EFIS mute function will require a momentary, normally open (NO) switch be used and designated on the pilot stick. Ultimately the EFIS mute in wire will go to the normally open (NO) side of the EFIS mute switch located on the pilot stick. You the builder will be required to complete the stick wiring, as well as the disconnect plug interfacing the Stick to the airframe.



Connector



Backshell



Clamp



Wires

• Co-pilot side EFIS mute out

Wire has been terminated with an AMP socket (66105-1) at the end and is designed to go through the recommended disconnect plug for the pilot stick. The EFIS mute function will require a momentary, normally open (NO) switch be used and designated on the pilot stick. Ultimately the EFIS mute out wire will go to the common (C) side of the EFIS mute switch located on the pilot stick. You the builder will be required to complete the stick wiring, as well as the disconnect plug interfacing the Stick to the airframe.



That completes wire connections for station G

Wiring Station **H**

Left wing disconnect plug located in left wing root

Station H terminations will need to be completed by the builder. We have supplied ample length of wire for these tasks, and have crimped our recommended sockets on the ends of the wires designated for station H. The connector designed for use as the left wing disconnect plug is an AMP 24 Pin Circular Plastic Connector (CPC), and we have provided you with the female connector and backshell. You should have two bundles of wires at the left wing root. One bundle is coming from the EFIS J1 harness and contains the MSU and GADAHRS/ADAHRS OAT probe wiring, and the other bundle is coming from the fuselage to left wing harness and contains aileron trim, landing light and navigation light functions. You will complete this connector assembly as follows:

- **Slide the supplied backshell over both bundles of wires.**

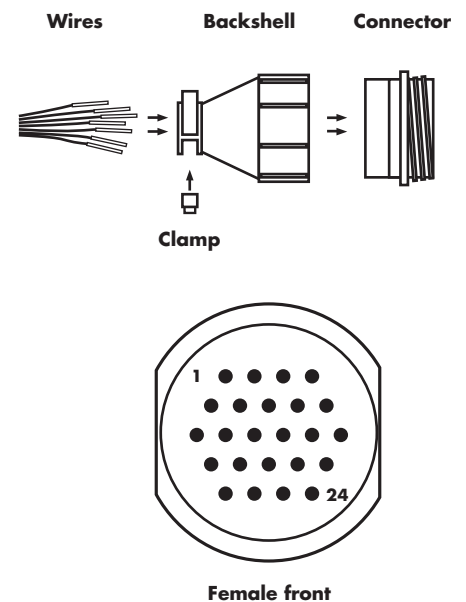
This action must be completed before you begin to pin the connector out.

- **Terminate wires**

Begin terminating the wires with the pre-crimped sockets to the connector by using the supplied pinout. We have additionally provided you with shrink labels at the ends of these wires that actually have the pin callouts for this disconnect plug labeled and shrunk on each wire accordingly.

Pinout is as follows:

1 No connect (reserve for future expansion)	13 Landing Light Power
2 No connect (reserve for future expansion)	14 Navigation Light Power
3 No connect (reserve for future expansion)	15 Red wire (MSU PWR A)
4 No connect (reserve for future expansion)	16 Red wire (MSU PWR B)
5 No connect (reserve for future expansion)	17 Black wire (MSU Ground)
6 No connect (reserve for future expansion)	18 White wire (MSU 422 A)
7 No connect (reserve for future expansion)	19 White/Blue wire (MSU 422 B)
8 No connect (reserve for future expansion)	20 White/Orange wire (MSU 422 Signal Ground)
9 Aileron Trim	21 White/Black wire (MSU 422 Shield)
10 Aileron Trim	22 White wire (GADAHRS/ADAHRS OAT)
11 Pitot Heat Power	23 White/Blue wire (GADAHRS/ADAHRS OAT)
12 Landing Light Power	24 White/Black wire (GADAHRS/ADAHRS OAT)



- **Making connection**

After terminating the left wing disconnect wires you will then want to screw the backshell onto the connector and apply the appropriately sized clamp to the backshell. This completes female connector for the pilot wing disconnect plug. Once you have completed the female connector for the pilot wing disconnect plug you can then connect it to its male counterpart which is already fully assembled and then mechanically secure the connection so it is not subject to vibration, etc. Be careful as to properly align the male connector with the female connector as to eliminate potential damaging of the pins caused by misaligned forced connector insertion.



That completes wire connections for station H

Wiring Station

Aileron trim servo location

Station I terminations will need to be finished by the builder. We have supplied ample length of wire for these tasks. Be sure to purchase the appropriate connector and make the proper connection as directed by your servo to airframe interface and personal aircraft function preference in regards to electrical terminations.

- **Trim Motor**

Wires have been left unterminated with no connector or terminal supplied. You will be required to connect the two harness wires to the two servo wires. In the event your aileron trim runs backwards, simply swap these two wires to reverse the servo direction. You the builder are responsible for the overall completion of the trim system.



That completes wire connections for station I

Wiring Station

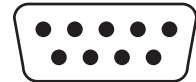
Roll servo location

Station J terminations will need to be finished by the builder. We have supplied ample length of wire and have pre terminated D-sub sockets to the ends of the servo wires. The connector designed for use at the roll servo is a 9pin female D-sub, and we have provided you with the female connector and backshell. You will complete this connector assembly as follows:

• Roll servo connector 9-pin D-sub

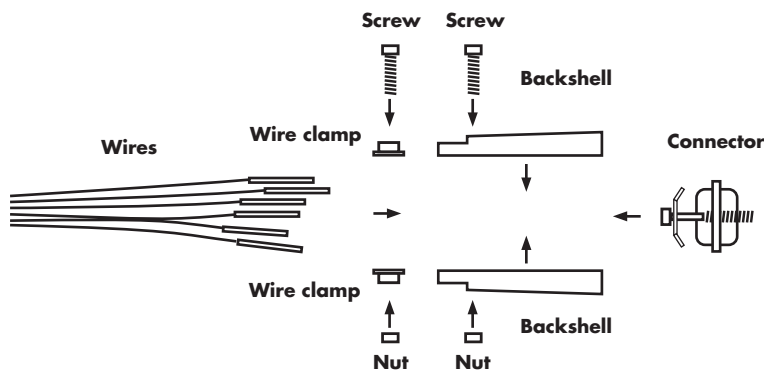
- Begin by familiarizing yourself with the backshell assembly, 9-pin connector, and roll servo wiring breakout.
- Terminate each wire accordingly to the 9-pin D-sub connector, the roll servo pinout is as follows:

- | | |
|---|--|
| 1 Red wire (Roll Servo Power) | 6 White wire (from 2 conductor cable) |
| 2 White/Blue wire (from 3 conductor cable) | 7 No Connect |
| 3 White/Orange wire (from 3 conductor cable) | 8 No Connect |
| 4 White/Blue wire (from 2 conductor cable) | 9 Black wire (Roll Servo Ground) |
| 5 White wire (from 3 conductor cable) | |



• Finalizing the connector

After you have successfully terminated the sockets to the connector your next step is to attach the backshell to the connector. You will notice an assortment of strain relief clamps that came with the backshell. You will need to select the appropriately sized strain relief piece as to provide adequate strain relief as the wires exit the backshell. Insert the strain relief piece over the wires and apply the two halves of the backshell as to sandwich all pieces together. Now take the two fully threaded screws and the two small nuts and secure the two halves onto the connector. Once this is completed, you can then take the remaining 2 screws and specially designed connector shoulder washers and screw these into the connector screw slots. This completes the assembly of the backshell and connector. Now you can connect the connector to the servo. Be careful as to properly align the connector with the unit as to eliminate potential damaging of the pins caused by misaligned forced connector insertion.



That completes wire connections for station J

Wiring Station

Pitot tube location

Depending on your pitot tube mount, it may be further outboard than inboard on the wing, or vice versa. In order to accommodate both mounts Direct To Avionics has provided you the builder with an ample length of wire for this task. You will want to purchase the appropriate connector and make the proper connection as directed by your pitot tube to airframe interface and personal aircraft function preference in regards to electrical terminations. If your pitot tube is inboard as opposed to outboard you will want to cut off any access wire and then apply the terminal or connector as necessary. You, the builder will be required to run a ground wire to the nearest ground bus for the pitot tube as well.



That completes wire connections for station K

Wiring Station

Left wing tip

Station L terminations will need to be finished by the builder. We have supplied ample length of wire for the task. Be sure to purchase suitable connectors and make the proper connections as directed by your airframe to various light assembly interfaces and personal aircraft function.

- **GADAHRS OAT**

Wires have been left unterminated with no connector or terminal supplied. The OAT connector and terminals will be supplied with the Pinpoint GADAHRS. Please refer to the Direct To Avionics OAT assembly manual for complete instructions on completing this connection.

- **Left navigation light power**

Wire has been left unterminated with no connector or terminal supplied. You will be required to connect this to the navigation light power wire. You, the builder will be required to run a ground wire to the nearest ground bus for the navigation light as well.

- **Left landing light power (two wires supplied here)**

Wires have been left unterminated with no connector or terminal supplied. You will be required to connect these wires to the landing light power wire. You, the builder will be required to run a ground wire to the nearest ground bus for the landing light as well. If you have high intensity discharge (HID's) landing lights you will want to run the powers to the ballast first. You would still be required to run the ground from the nearest ground bus to the ballast as well. From there, the manufacturer of the landing light should provide you with a harness that will connect the ballast to the actual landing light.

- **Strobe light**

Wires have been pre terminated with the strobe light sockets that will properly mate with the strobe light receptacle. The connector for the light assembly should be included with your strobe light kit. If not, you the builder will need to obtain the proper connector. Our recommended color coding for the strobe lights are as follows:

- 1 Red wire on light-Anode function- White/Orange wire on 3 conductor shielded cable
 - 2 Black wire on light-Cathode function-White/Blue wire on 3 conductor shielded cable
 - 3 White wire on light-Trigger function-White wire on 3 conductor shielded cable
- Shield will be left open (I.E no connect) at the wing tip.

Wiring Station

Left wing tip (continued)

Station L terminations will need to be finished by the builder. We have supplied ample length of wire for the task. Be sure to purchase suitable connectors and make the proper connections as directed by your airframe to various light assembly interfaces and personal aircraft function.

• **MSU (13-pin metal circular connector)**

We have supplied ample length of wire and have pre terminated the required sockets to the ends of the MSU wires. The connector designed for use at the MSU is a 13 pin metal circular connector, and we have provided you with this connector and backshell. You will complete this connector assembly as follows:

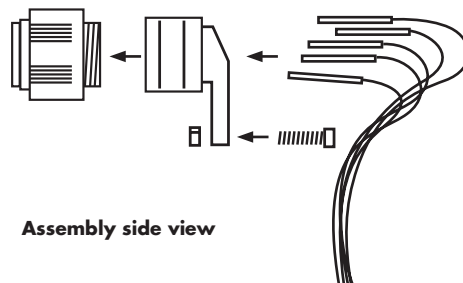


Female front

- Slide the supplied backshell over the MSU wires. This action must be completed before you begin to pin the connector out.
- Begin terminating the wires with the pre-crimped sockets to the connector by using the supplied pinout. We have additionally provided you with the functions of each wire being stamped on the wire itself. Look carefully and you will see its function call out stamped on the wire. Pinout is as follows:

1 White/Blue wire (RS 422 B function)	8 Red wire (Power A-look for PWR A stamped on wire)
2 White wire (RS 422 A function)	9 Black wire (MSU Ground)
3 White/Orange wire (RS422 Signal Ground function)	10 No Connect
4 Red wire (Power B-look for PWR B stamp on wire)	11 No Connect
5 Black wire (MSU Ground)	12 No Connect
6 Black wire (MSU Ground)	13 No Connect
7 Black wire (MSU Ground)	

- The shield with the ring terminal eyelet crimped on it will be secured to 1 of the 2 backshell clamp screws.
- Once you have completed pinning out the MSU connector you can then screw the backshell to the connector and secure the backshell clamp to the backshell, as well as the shield ring terminal eyelet. Since this is a metal connector it is highly recommended that you insulate the wires at the clamp junction with either heat shrink, fusion tape, or any insulating, non conductive tape, etc.



Assembly side view



That completes wire connections for station L

Wiring Station **M**

Right wing disconnect plug located in right wing root

Station M terminations will need to be completed by the builder. We have supplied ample length of wire for these tasks, and have crimped our recommended sockets on the ends of the wires designated for station M. The connector designed for use as the right wing disconnect plug is an AMP 24 Pin Circular Plastic Connector (CPC), and we have provided you with the female connector and backshell. You should have two bundles of wires at the left wing root. One bundle is coming from the auto pilot harness and contains the roll servo wires, and the other bundle is coming from the fuselage to the right wing harness and contains landing light, and navigation light functions. You will complete this connector assembly as follows:

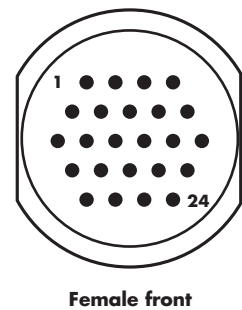
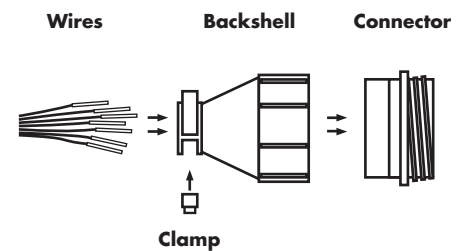
- **Slide the supplied backshell over both bundles of wires.**

This action must be completed before you begin to pin the connector out.

- **Terminate wires**

Begin terminating the wires with the pre-crimped sockets to the connector by using the supplied pinout. We have additionally provided you with shrink labels at the ends of these wires as well, and the servo wires will have the roll servo pin callouts labeled on them, and the fuselage to right wing wires will actually have the pin callouts for this disconnect connector, the right wing disconnect plug, labeled and shrunk on them accordingly. Pinout is as follows:

1 Red wire (Roll Servo Power)	13 Navigation Light Power
2 Black wire (Roll Servo Ground)	14 No connect (reserve for future expansion)
3 White wire (Roll Servo pin 5)	15 No connect (reserve for future expansion)
4 White/Blue wire (Roll Servo pin 2)	16 No connect (reserve for future expansion)
5 White/Orange wire (Roll Servo pin 3)	17 No connect (reserve for future expansion)
6 White/wire (Roll Servo pin 6)	18 No connect (reserve for future expansion)
7 White/Blue (Roll Servo pin 4)	19 No connect (reserve for future expansion)
8 White/Black (Roll Servo Shields)	20 No connect (reserve for future expansion)
9 No connect (reserve for future expansion)	21 No connect (reserve for future expansion)
10 No connect (reserve for future expansion)	22 No connect (reserve for future expansion))
11 Landing Light Power	23 No connect (reserve for future expansion)
12 Landing Light Power	24 No connect (reserve for future expansion)



- **Making connection**

After terminating the right wing disconnect wires you will then want to screw the backshell onto the connector and apply the appropriately sized clamp to the backshell. This completes female connector for the right side wing disconnect plug. Once you have completed the female connector for the right side wing disconnect plug you can then connect it to its male counterpart which is already fully assembled and then mechanically secure the connection so it is not subject to vibration, etc. Be careful as to properly align the male connector with the female connector as to eliminate potential damaging of the pins caused by misaligned forced connector insertion.



That completes wire connections for station M

Wiring Station

Right wing tip

Station N terminations will need to be finished by the builder. We have supplied ample length of wire for the task. Be sure to purchase suitable connectors and make the proper connections as directed by your airframe to various light assembly interfaces and personal aircraft function.

- **Right side navigation light power**

Wire has been left unterminated with no connector or terminal supplied. You will be required to connect this to the navigation light power wire. You, the builder will be required to run a ground wire to the nearest ground bus for the navigation light as well.

- **Right side landing light power (two wires supplied here)**

Wires have been left unterminated with no connector or terminal supplied. You will be required to connect these wires to the landing light power wire. You, the builder will be required to run a ground wire to the nearest ground bus for the landing light as well. If you have high intensity discharge (hid's) landing lights you will want to run the powers to the ballast first. You would still be required to run the ground from the nearest ground bus to the ballast as well. From there, the manufacturer of the landing light should provide you with a harness that will connect the ballast to the actual landing light.

- **Strobe light**

Wires have been pre terminated with the strobe light sockets that will properly mate with the strobe light receptacle. The connector for the light assembly should be included with your strobe light kit. If not, you the builder will need to obtain the proper connector. Our recommended color coding for the strobe lights are as follows:

- 1 Red wire on light-Anode function- White/Orange wire on 3 conductor shielded cable
 - 2 Black wire on light-Cathode function-White/Blue wire on 3 conductor shielded cable
 - 3 White wire on light-Trigger function-White wire on 3 conductor shielded cable
- Shield will be left open (I.E no connect) at the wing tip.



That completes wire connections for station N

Wiring Station

Roll servo location

Station O terminations will need to be finished by the builder. We have supplied ample length of wire and have pre terminated D-sub sockets to the ends of the servo wires. The connector designed for use at the Pitch servo is a 9-pin female D-sub, and we have provided you with the female connector and backshell. You will complete this connector assembly as follows:

• Pitch servo connector 9-pin D-sub

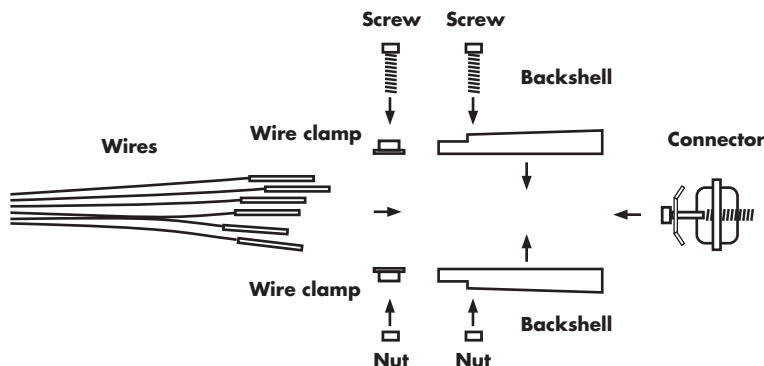
- Begin by familiarizing yourself with the backshell assembly, 9-pin connector, and Pitch servo wiring breakout.
- Terminate each wire accordingly to the 9-pin D-sub connector, the roll servo pinout is as follows:

- | | |
|---|---|
| 1 Red wire (Pitch Servo Power) | 6 White wire (from W-6 B-7 O-4 cable) |
| 2 White/Blue wire (from W-5 B-2 O-3 cable) | 7 White/Blue wire (from W-6 B-7 O-4 cable) |
| 3 White/Orange wire (from W-5 B-2 O-3 cable) | 8 No Connect |
| 4 White/Orange wire (from W-6 B-7 O-4 cable) | 9 Black wire (Pitch Servo Ground) |
| 5 White wire (from W-5 B-2 O-3 cable) | |



• Finalizing the connector

After you have successfully terminated the sockets to the connector your next step is to attach the backshell to the connector. You will notice an assortment of strain relief clamps that came with the backshell. You will need to select the appropriately sized strain relief piece as to provide adequate strain relief as the wires exit the backshell. Insert the strain relief piece over the wires and apply the two halves of the backshell as to sandwich all pieces together. Now take the two fully threaded screws and the two small nuts and secure the two halves onto the connector. Once this is completed, you can then take the remaining 2 screws and specially designed connector shoulder washers and screw these into the connector screw slots. This completes the assembly of the backshell and connector. Now you can connect the connector to the servo. Be careful as to properly align the connector with the unit as to eliminate potential damaging of the pins caused by misaligned forced connector insertion.



That completes wire connections for station O

Wiring Station

Strobe power pack location

Below are directions for the installation recommendations of the strobe power pack.

- **Strobe power pack**

Wire has been pre-terminated with the required pin contact, however no connector is supplied as that should be provided with the strobe power pack. You, the builder will be required to make this final termination by simply pushing the pin into the appropriate pin designation. Pay careful attention as to which pin is power and which pin is ground as the strobe light power supply is polarity sensitive and reversing the input polarity will cause severe damage to the power supply. You, the builder must verify the correct positive voltage with a volt meter before plugging the connector into the strobe pack itself. Direct To Avionics is not responsible for damaged strobe power supplies due to reversing the polarity of the voltage input at the strobe power/ground connector.

- **Strobe power pack ground**

Wire have been left unterminated with no connector or terminal supplied.

- **Left side strobe light**

Wires have been left unterminated with no connector or terminal supplied. You the builder will be required to complete the connection between the wires and the actual strobe light power pack.

- **Right side strobe light**

Wires have been left unterminated with no connector or terminal supplied. You the builder will be required to complete the connection between the wires and the actual strobe light power pack.

- **Tail strobe light**

Wires have been left unterminated with no connector or terminal supplied. You the builder will be required to complete the connection between the wires and the actual strobe light power pack.

Pinout is as follows

- 1** Strobe Power (14/28Volts)
- 2** Strobe Ground
- 3** No Connect



That completes wire connections for station P

Wiring Station

Elevator trim servo location

Station Q terminations will need to be finished by the builder. We have supplied ample length of wire for these tasks. Be sure to purchase the appropriate connector and make the proper connection as directed by your servo to airframe interface and personal aircraft function preference in regards to electrical terminations.

•Elevator trim motor

Wires have been left unterminated with no connector or terminal supplied. You will be required to connect the five harness wires to the five servo wires. In the event your elevator trim runs backwards, simply swap the two motor wires to reverse the servo direction. You the builder are responsible for the overall completion of the trim system. Recommended color coding is as follows:

- 1 White wire-Hook to White wire on Trim Servo (Motor lead)
- 2 Red wire-Hook to other White wire on Trim Servo (Motor lead)
- 3 Green wire-Hook to Green wire on Trim Servo (Wiper)
- 4 Blue wire-Hook to Blue Wire on Trim Servo (Position Sensor)
- 5 Orange wire-Hook to Orange wire on Trim servo (Position Sensor)



That completes wire connections for station Q

Wiring Station

Tail lighting

Station R terminations will need to be finished by the builder. We have supplied ample length of wire for the task. Be sure to purchase suitable connectors and make the proper connections as directed by your airframe to lighting fixture interface and personal aircraft function.

- **Tail navigation light power**

Wire has been left unterminated with no connector or terminal supplied. You will be required to connect this to the navigation light power wire. You, the builder will be required to run a ground wire to the nearest ground bus for the navigation light as well.

- **Tail strobe light**

Wires have been pre terminated with the strobe light sockets that will properly mate with the strobe light receptacle. The connector for the light assembly should be included with your strobe light kit. If not, you the builder will need to obtain the proper connector. Our recommended color coding for the strobe lights are as follows:

- Red wire on light-Anode function- White/Orange wire on 3 conductor shielded cable
 - Black wire on light-Cathode function-White/Blue wire on 3 conductor shielded cable
 - White wire on light-Trigger function-White wire on 3 conductor shielded cable
- Shield will be left open (I.E no connect) at the wing tip.

- 1** (Red)
- 2** (Black)
- 3** (White)



That completes wire connections for station R

Wiring Station

GPS antenna mounting and coaxial termination and hook up.

You, the builder will be required to mount your applicable GPS antenna here. The GPS antenna should be mounted on the top highest point of the airframe parallel to the horizon with a full clear view of the sky. You will be required to run an antenna coaxial (RG400 recommended) from the GPS receiver (GADAHRS or FreeFlight units) to the antenna mount location. The coaxial connector required at the GPS antenna is a standard TNC male antenna connector. Coaxial cable and coaxial connectors are not supplied by Direct To Avionics and the builder will be required to acquire and complete these items and tasks accordingly.



That completes wire connections for station S