



## Completion of the Custom Wiring Harness Worksheet

The second page of this document is the wire harness worksheet that must be completed and returned to PS Engineering, Inc via fax or email. Upon the receipt of the worksheet, PS Engineering, Inc. will debit the credit card for the entire amount of the harness plus any other additional hardware or shipping charges that are indicated on the wire harness worksheet.

Wire Harnesses are not **cancelable** or **returnable**.

Allow five-business days from our receipt of your harness worksheet to the time the harness is shipped.

The best technique to measure the needed cable lengths is to take a piece of string, and run it from the desired unit location to the desired jack location, next to, or through the aircraft structure along the planned cable route. Then measure that string to determine the wire run. Repeat for each individual run (pilot jacks, passenger jacks, music jacks etc.).

Enter the length in the “Length (feet)” column. If any of the column boxes are empty, then PS Engineering will assume that wire connection is not required or needed.

The base price is the cost of building the basic harness with minimum required connections, while the per-foot cost is the cost of the wire to the termination. If your installation does *not* have certain radios or connections, you will not be charged a foot price. Total the far right column to determine the harness price. Please indicate on the worksheet if the remote COM radio (TY91) will be COM 1 or COM 2.

Specify the receivers to be included, such as Nav 1, Nav 1 (A1 and A2) plus any unswitched sources (DME, ADF or Auxiliary), up to 4. Specify which inputs to use (see installation manual §2.6.3) for a description of the differences.

The “Swap” (S) mode allows the pilot to switch from COM 1 to COM 2 and back using a remote momentary switch (switch not included). Music 1 All headsets (M1A) input will connect Music 1 source into passenger headsets when grounded; otherwise Music 2 is connected to passengers only (§2.7.1.1). Passenger Music Mute Inhibit line will place Music 2 into a Karaoke mode (not muted) when grounded (§2.7.2.1).

Ordering a harness with excessive wire lengths will increase the likelihood of Radio Frequency Interference (RFI). The only alternative to a too long a wire run is to cut it to length. However, this eliminates the work that had already been done in prepping the wires and will require special tools to re-prepare the wires for termination to the mic and headphone jacks.

Passenger *headphone* jacks are “daisy-chained.” That means that a single cable will connect the unit to the of passenger jacks (L1). All microphone connections are separate cables from the unit to the mic jacks (M2, 3 etc.).

We typically do not install intercom headphone jacks on the harness unless specifically requested. It is usually easier to feed the wires through the airplane without the jacks attached to the harness. However, if you elect to have us install jacks to your harness we will be glad to do so. The cost is \$10.75 for each set of headphone and microphone jacks. Radio Push-To-Talk (PTT) lines connect to pilot and copilot mic jacks. Yoke mounted PTT buttons can be connected to the jacks to take advantage of the shielding.

Power and ground wires will be the length you specify. The lengths should include the distance from the circuit breaker on the avionics bus (power) and the ground location (ground) to the PAR200. **Specify the voltage of the aircraft dimmer (14 or 28V).**

We provide a specified length of wires for interface to the aircraft radio. These wires are stripped and timed, and ready to have the corresponding radio connector pins installed. Consult the radio manufacturer’s installation manual for connection information, and contact your PS Engineering dealer for help if needed.

A hardcopy order sheet is required, no phone orders accepted. Scanned sheets can be emailed to [harnesses@ps-engineering.com](mailto:harnesses@ps-engineering.com).

