

Thank you for purchasing the PA-2199S/T. Please read this manual thoroughly before installing and transmitting. Note that the **PA-2199S** comes with a machined PL-259 connector built into the base and the **PA2199T** comes with a standard 3/8-24 threaded mount. Confirm that you have the correct model for your installation.

The PA-2199S/T is the quick and easy way to go mobile, installing in minutes and covering 80 to 2 meters without swapping resonators or dealing with sensitive controllers. Simply choose your band using the unique tapped loading coil system, then fine-tune whip length for minimum SWR. Your PA-2199S/T is built tough, but light enough to install on a wide range of lip, trunk, pipe, and mag-mounts. You can also use it as a portable antenna for EMCOM, POTA, marine, and vacation travel setups as well.

SPECIFICATIONS

Covered Bands: 80, 40, 30, 20, 17, 15, 12, 10, 6, 2 Meters

Tuning Method: Tapped base coil, adjustable whip length

Maximum Power: 200 Watts

Maximum Length: 49.5 in (125 cm)

PA-2199S Connector: Male PL-258

PA-2199T Connector: 3/8-24 standard mount

Weight: 1 lb-4.7 oz

Important Warning: Always set the PA-2199S/T up for the band you intend to use before attempting to transmit. Some radios may lack adequate foldback protection to tolerate high-SWR loads.

MOUNTING

By design, the PA-2199S/T is a base-loaded quarter-wave antenna and will require a counterpoise to tune properly and radiate efficiently. For mobile operation, the conductive surfaces of your vehicle serve this function. For optimum results, mount the antenna in the center of the roof. A heavy duty “mag” mount allows quick installation without need for drilling holes to secure a permanent mount. If center mounting isn’t practical, a lip mount, trunk mount, hitch mount, or bumper mount should also work. To protect the loading coil from damage, grip the metal base when installing. Also, make sure the coax shield is electrically bonded to the vehicle body at the radio and (if possible) at the antenna base. Do not rely on 12-volt power leads for RF grounding.

For a portable counterpoise, use a wire that is longer than $\frac{1}{4}$ -wavelength at your operating frequency and spread it out on the ground. Alternatively, attach the coax shield to any large metallic structure such as a steel fence, metal railing, or walkway.

BAND SET-UP CHART

The loading coil jumper wire (**JMP**) selects the inductance of the antenna loading coil. **Tap-1** is closest to the antenna base and **Tap-9** is closest to the top. Whip length is measured from the junction of the whip and loading coil to the tip. Adjust length using the supplied 2-mm Allen Wrench. For example, to set up for 40-meters, connect the jumper (**JMP**) between taps 1 and 2, and extend the whip to 19.25 inches (see chart). Note that the jumper is not used for 75/80 meters. On this band, adjust the whip extension as needed for minimum SWR.

Band	JMP	Whip Ext	
80-M	N/C	14"-24"	(35-61 cm)
40-M	1-2	19.25"	(49 cm)
30-M	1-3	18.75"	(48 cm)
20-M	1-4	17.25"	(44 cm)
17-M	1-5	20.25"	(51.5 cm)
15-M	1-6	21.75"	(55 cm)
12-M	1-7	17.5"	(44.5cm)
10-M	1-8	24"	(61 cm)
6-M	1-9	22"	(56 cm)
2-M	1-9	24"	(61 cm)

The above setups are "typical" for operation at the low-frequency end of each band. Set up using the chart, then readjust whip length as needed to obtain minimum SWR at your actual operating frequency. Variations in the counterpoise and the antenna's proximity to other objects may alter antenna settings.

Important Warning: Do not make physical contact with the whip when transmitting.

Even QRP power levels can inflict serious RF burns! When operating portable, never position the antenna where bystanders could make accidental contact.



TWO YEAR LIMITED WARRANTY

This Limited Product Warranty is provided by the Dealer where your Intellitron product was purchased. The Product Warranty extends only to the original purchaser of the product and is valid for a period of two years from the date of purchase. Please keep your dated sales receipt as evidence of the date of purchase. You will need it to receive warranty service. Your Dealer warrants the product will be free from defects in workmanship and materials under normal use. If the product fails to conform to the warrant and is within the warranty period of two years, contact your original dealer for a return authorization. Your dealer may choose to either repair or replace the non-conforming product.