The Square Racer comes complete with wire and 1/4" 3-conductor plug. Solid state radios normally use positive keying and tube type negative. Check your rig's operating manual for the type of keying used.

If constant keying occurs try these three steps for correction:

<u>Step 1.</u>	Check to make sure the black wire and shield are separated,
	and the white wire should not be touching the base.
Step 2.	Check to see that the plug wires are not touching.
Step 3.	If consistency is still occurring try reversing the white and black wires

For left hand operation, dash on the left paddle, dot on the right paddle, the black wire and white wire should be reversed with the white wire on the left terminal screw (operating position.)

The Square Racer is factory aligned and should perform well with no further adjustments. You may optimize the "feel" of the key to your personal tastes by the following adjustments, using the proper tools. (*Numbers refer to parts on exploded drawing on back of parts list.)

PADDLE - SPACING: Before making this adjustment the contact post screws (8) must be backed out. Each paddle can be adjusted with the black lever arm adjustment screw (13) located on the vertical block (12). Turn each adjustment screw until the desired spacing is obtained. By making small adjustments, one at a time, between these two variables, optimum paddle spacing for your keying technique can be obtained.

<u>CONTACT - SPACING:</u> Spacing between the lever arm contacts (7) and the contact post screws(8) is realized by adjusting the contact post screw to increase or decrease the distance. NOTE: There is a nylon set screw (11) inside the contact post (10) that puts pressure on the contact post screw (8). To access this screw, it is necessary to remove the contact post from the base and use a small flat head screwdriver to adjust. Do NOT remove the contact screw from the post during adjustment. Once the screw is adjusted for satisfactory tension, remount the contact post to the base.

PADDLE TENSION: Each paddle may be separately adjusted for optimum tension. Moving the magnets closer to the paddle arm increases tension. Moving the magnets away from the paddle arm

decreases the tension. To adjust the tension, grasp the brass magnet holder (17) on the back side of the vertical block (13) and using a twisting motion, slide the magnet to the desired distance from the paddle arm, then release. **NOTE: Removing the magnet holder completely could result in loss of the very small magnet tension spring (15) and tension ball (16).** If the magnets are placed too far away, the key will lose its positive feel. Usually the CW operator will not find it necessary to change the initial adjustment.

<u>RUBBER FEET:</u> To renew non-skid properties, clean feet regularly with mild soap and water.

The Square Racer is designed for the serious CW operator, those who put their best fist forward. You can increase your sending speed by using the fingertips sending method. There is a lot less mass in motion if you use just your fingers, as opposed to your wrist and arm. Keep arm and body movement at a minimum. Concentrate on moving the thumb and first finger only.

You, the original owner, have an unlimited lifetime warranty on this Vibroplex product. Vibroplex will repair, free, any manufacturing defect. For further information on warranty repairs, please read the VIBROPLEX WARRANTY.

NOTE On SQUARE RACERS, lever arms with paddles are shipped removed from key to prevent damage in shipping!

The Vibroplex Company, LLC 2906 Tazewell Pike Knoxville, TN 37918