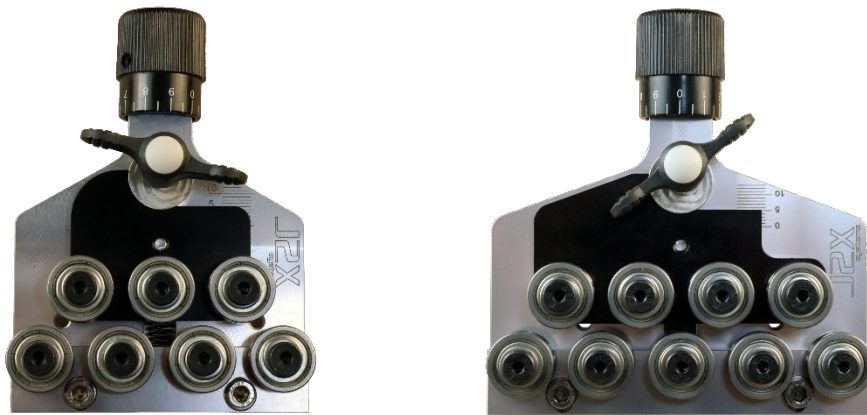




# Quick Change Wire Straighteners

## User Manual



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Thank you for your purchase of this quality wire straightener from J2X Systems! Should you require service or support, please visit [j2xsystems.com](http://j2xsystems.com) or send a message to [info@j2xsystems.com](mailto:info@j2xsystems.com).

## 1. SPECIFICATIONS & CAPABILITY

This tool is suitable for round, mid-size wire; actual capability may vary depending on your cable construction, flexibility, and desired straightness. The minimum outer cable diameter is approximately 1mm (0.039"). Maximum outer diameter will vary whether referring to insulated or bare wire. Bare wire max is approximately 3mm (0.118"). Insulated wire max outer diameter is approximately 4.5mm (0.177") with a max conductor size of 3mm (0.118").

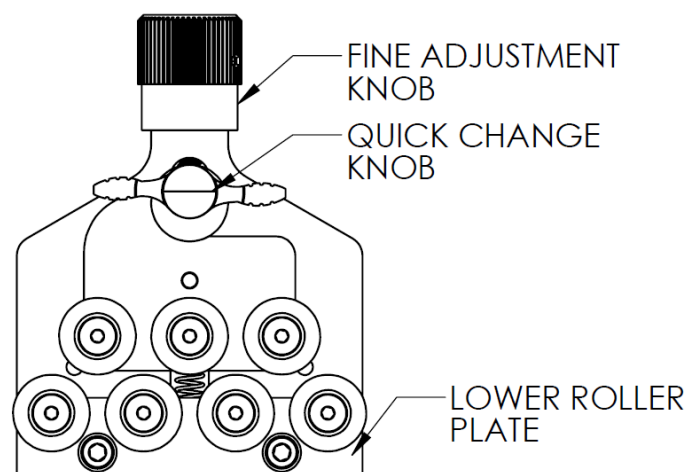
## 2. FEATURES

This is a quick-change style straightener meaning the rollers can be easily disengaged without losing a finely adjusted position. Both 7 roll and 9 roll versions are available in single plane or two plane configurations. The method of adjustment and operation is identical.

The straightening rollers are made of hardened steel riding on sealed ball bearings. The entry (and exit plates on some models) have been fitted with rugged ceramic inserts which protects cable from damage and limits wear to the straightener body as the cable is pulled through the rollers.

## 3. FUNCTION & PARTS IDENTIFICATION

- The straightener features a quick-change knob (see diagram below) which allows a user to disengage the upper row of rollers temporarily. This gives a user the ability to quickly unload or reload cable with little or no readjustment.



- Above the quick-change knob is the fine adjustment knob which is used to adjust the position of the upper rollers. One full turn of this knob will result in a 1.0mm change in the position of the upper roller plate. Note the quick-change knob must be engaged prior to making changes to the position of the fine adjustment knob.

- At the bottom of the straightener is the lower roller plate. Although the lower roller plate is not meant to be adjusted as often as the upper row of rollers, the lower roller plate has two slots which are occupied by M5 socket head cap screws. The plate can be adjusted by loosening the M5 screws and moving the plate up, down, or at an angle.

#### 4. SET-UP

Single plane models of this straightener have two M5 mounting holes accessible from the rear of the unit.

Two plane models of the straightener have two mounting holes in the center of the mount which allow for mounting to a flat surface.

It is important that the straightener be mounted before use to prevent damage to the straightener, the material being straightened, and the machine for which it is intended.

Some models are shipped with mounts designed specifically for an application or machine. These mounts allow for direct mounting on a wire cutting machine, pre-feeder, or exterior housing as the machine's manufacturer intends.

#### 5. OPERATION & BEST PRACTICES

Close the rollers with the quick-change knob and then turn the fine adjustment knob to position the rollers slightly larger than necessary to accommodate the material. Do this for both planes.

Open the rollers using the quick-change knobs and feed your material through the ceramic inserts (if your model is equipped with these) and over the center of the rollers in each plane.

Use the quick-change knobs on each plane to close the rollers on your cable.

Close the rollers further using the fine adjustment knob on each plane increasing the pressure on the wire. The wire should now be positioned in the 'V' area of the rollers in each plane. The optimal amount of pressure (which can be measured by the deflection of your wire between the upper and lower rows of rollers) can most easily be determined by feel and evaluation of the result. This step may require trial and error.

Pull the wire through the straightener. If it is too easy or too difficult, or if the wire is not suitably straightened, increase or reduce the applied pressure by turning the fine adjustment knob. Do not force the wire through the straighteners; this can damage the straightener or, in the case of insulated wire, degrade wire insulation and extrude the core.

For best results, apply tension to the wire on the supply side of the straightener while pulling from the output side.

Note: This unit is not designed to straighten kinked or damaged material.

**6. MAINTENANCE**

Minimal maintenance is required. Clean the rollers and straightener body of any debris or residue after use. Evaluate the condition of the V grooves on the straightening rollers periodically for wear. If the rollers have worn to resemble a U shape, performance may decline and replacement of rollers should be considered.

**7. TROUBLESHOOTING**

Problem	Possible Cause	Solution
Wire not tracking through rollers.	Quick change knob not fully seated.	Rotate quick change knob clockwise.
	Rollers not adjusted properly for wire size.	Turn adjustable indexing knob clockwise until deflection of wire is noted.
Wire did not straighten.	Inadequate deflection.	Adjust indexing knob to modify level of deflection.
	Inadequate back tension.	Ensure there is tension on both the entry and exit ends of the wire as it passes through the straightener.
Wire curled after passing through planes.	Excessive deflection.	Rotate adjusting knob counter-clockwise to decrease deflection. If the issue persists, consider angling lower roller plate slightly open on the exit side of one or both planes.
Material is difficult to feed.	Presence of kinks or tangles.	Examine wire for kinks, tangles, or other damage. The straightener will not repair damaged wire.

**8. ADDITIONAL QUESTIONS, COMMENTS, OR FEEDBACK**

Please direct any feedback or inquiries to [info@j2xsystems.com](mailto:info@j2xsystems.com)