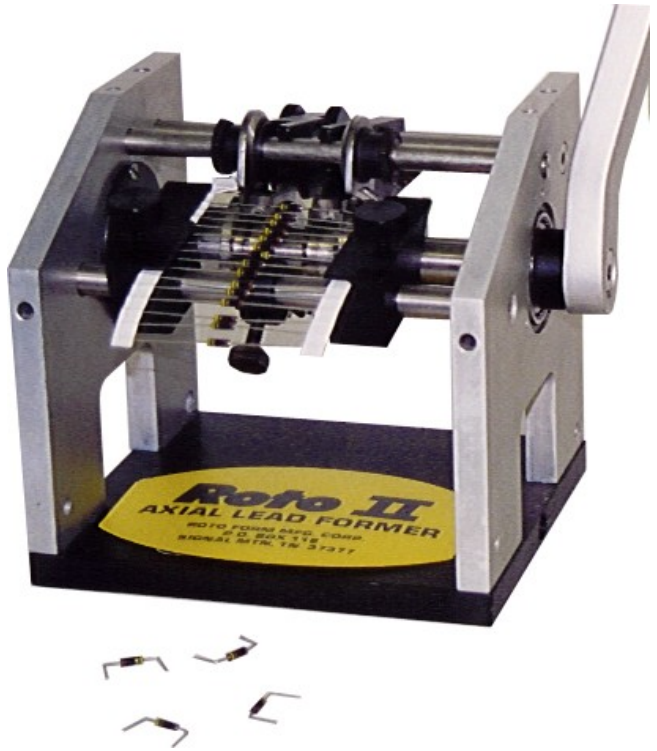
Owner's Manual
The Roto Crank©



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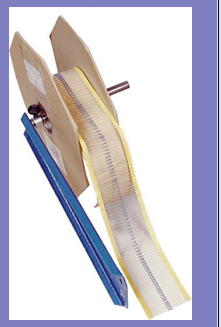
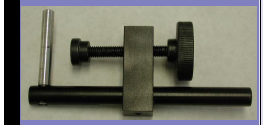
VII. WARRANTY

The ROTO CRANK is warranted to be free of defects in material and workmanship for a period of 12 months after delivery to the first purchaser for use, providing that the unit has not been misapplied. Since Roto Form has no control over its use, and sometimes misuse, we cannot guarantee against failure. Roto Form's obligations hereunder, at Roto Form's option, are limited to replacement or repair of parts, which upon examination prove to be defective within the warranty period specified. This warranty does not apply to damage resulting from transportation, alteration, misuse, or abuse.

Customer pays freight costs.

PARTS LIST

PICTURE	DESCRIPTION	PART NUMBER
	Tape & Reel Arm Assembly	151-700
	Table Clamp	860-100
	Handle	860-140
	Wheel Assembly	860-350
	Cutters	860-430

I. INTRODUCTION

Thank you for purchasing The ROTO CRANK © , Model 860, one of the family members of the Roto II® line of component formers. The ROTO CRANK is our manually operated machine for cutting and forming taped axial leaded components.

It can handle the small 1/8 watt diodes up to the larger 1 watt components. It is a user-friendly machine permitting adjustments to be made quickly and easily.

For complete specifications, please refer to the Specifications section.

II. UNPACKING AND INSTALLATION

The machine is shipped with the following:

- The Roto Crank Machine
- Components Bin
- Open End Wrench (1)
- Crank Handle
- Crank Handle Bushing
- Pitch Gauge
- Allen Wrenches (4)
- Table Clamp
- Owner's Manual

SPECIFICATIONS

Physical:

Weight:	**8 pounds**
Dimensions:	**6"W x 6"H x 5"D**

Component:

Wire Diameter	**0.040" max**
Pitch	**0.240" - 1.500"**
Leg Length cut	**0.160" -0.800"**
Body Diameter	**0.400" max**

Performance:

Speed:	**24 components/ Rev**
Throughput	**12,000 components/ hour (typical)**

ADJUSTMENTS

Adjusting the Pitch (distance between bent legs):

The easiest way to adjust the pitch is to use the Pitch Gauge provided with your new machine.

Open the Pitch Gauge such that the two pointed pins are inserted into the **PCB** holes where the component is to be mounted. Lock the Pitch Gauge to this setting.

Next, loosen the Allen screws on the bending wheels and adjust the spacing between the two wheels using the opposite end of the Pitch Gauge. Tighten the screws.

Adjusting the Leg Length:

Adjust the Pitch Gauge spacing to the length of cut lead you desire. Transfer this setting to the Roto Crank by adjusting each cutting wheel and tightening its Allen screw.

Adjusting the Bending Angle:

For a 90° bend, set the clearance between the bending wheel and bending pin equal to the component lead diameter. Increase the clearance to obtain angles larger than 90°.

Too tight of a clearance will deform the wire.

Installing:

1. Place the machine on a flat surface and clamp it to the edge using the table clamp provided (PN 860-100).
2. Attach the hand crank (PN 860-140) and bushing to the main shaft of the machine and tighten set screw with Allen wrench provided .
3. Place the component bin on the base plate below the wheel assembly.

This completes the installation using factory settings.

III. OPERATION

Wheel Assembly:

The Roto Crank contains one wheel assembly consisting of four identical wheels. The outermost wheels on the left and right sides are the cutting wheels. The two center wheels are the bending or forming wheels.

These four wheels are mounted on a main shaft with set screws and the shaft is supported by the left and right side plates. The wheel assembly is adjusted as required for various lead lengths, pitches, and bending radii.

Cutting Blade Assembly:

Two cutting blade assemblies, one right and one left, are mounted on an independent shaft in such a manner that they engage the cutting wheels.

Each blade assembly consists of five parts; a replaceable cutter, a cutter guide, threaded bushing, spacer, and nut.

The blade assemblies are mounted such that they are adjusted automatically when the cutting wheels are adjusted.

Bending Block Assembly:

The bending block assembly consists of left and right bending blocks mounted on the third shaft. Adjust the spacing between each block and its corresponding bending wheel to obtain different bending angles or radii. These adjustments are made by a combination of check nuts and thumbscrew on the back of the machine.

The bending operation takes place immediately after the component leads have been cut.

Tape Guide Assembly:

The Tape Guide Assembly centers the component between the forming wheels and helps feed the taped components onto the wheel assembly. It consists of separately adjustable left and right guides which are mounted on the shaft nearest the front of the machine.

Mounted between the guides is an ejector assembly which removes the cut and formed component from the wheel assembly.

Operating the Machine:

Feed the taped components via the tape guides so that the first component engages the four teeth on the wheel assembly. The tape guides must neither be excessively loose or tight.

Also, make certain that the component body falls between the two forming wheels and is equidistant from both wheels. Adjust the tapes guides to achieve this.

Rotate the crank handle slowly in the clockwise direction.