



#45-950  
#45-954  
#45-950-1

*Stripmaster® Model 950™ & Model 954  
Wire Stripper*



# Stripmaster® Model 950 & 954 Wire Stripper

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## Introduction

The *IDEAL Stripmaster® Models 950™, 950-1 and 954 Wire Strippers* are electrically operated, pneumatic precision production tools designed to strip a variety of insulation types in the 10 to 30 AWG range.

Each unit is equipped to accommodate up to six different wire guide/blade and strip length configurations, allowing operators to strip multiple wire diameters and insulations without switching tools or re-installing blade sets.

Consult the factory for standard guide and blade set availability. Special guides and blades are available upon request.

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## Warranty and Service Policy

Each unit is warranted to be free from defects in materials and workmanship under normal use and service for a period of 12 months after the date of purchase. The obligations of IDEAL under this warranty shall be limited to repairing at the Sycamore, Illinois manufacturing facility any unit which shall, within the 12 month period, be returned to use with the transportation charges prepaid, and with our examination shall be disclosed to our satisfaction to have been defective. This warranty shall not apply to any model which has been altered or repaired outside the factory in any way so as to affect its operation nor which has been subject to misuse, negligence, accident or installed or operated in any other way than in accordance with our instructions, nor shall this warranty extend to repairs or replacement made necessary by the use of accessories not recommended by IDEAL.

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## Technical Data

Strip Lengths	Minimum:	.125 inches (3mm)
	Maximum:	.63 inches (16mm)
Strip Capacity	Minimum:	#30 AWG (.05mm <sup>2</sup> )
	Maximum:	#10 AWG (6.0mm <sup>2</sup> )
Accuracy:		Meets Military specifications in most applications
Voltage:		12 volts required for operation
		120V/60Hz transformer supplied as standard
		For 220V/50Hz application, order 45-951 transformer
Air Pressure:		65 PSI max.
Air Filter:		Recommended, but not required
In-line Oiler:		Not required
Blade Type:		Heat treated steel knife or die-type blades are available
Guide Bushings:		Precision molded and machined Delrin
Strip Cycle:		Electronically adjustable strip and return speed
Dimensions:	Width:	4-7/8 inches (124mm)
	Depth:	10-1/2 inches (267mm)
	Height:	5-1/4 inches (133mm)
Warranty:		1-year limited warranty

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## Unpacking

Your *IDEAL Stripmaster® Model 950™ and Stripmaster® Model 954 Wire Strippers* have been factory preset and tested with the blades and wire guides specified. Installation and hook-up of the unit to a CLEAN, DRY, REGULATED AIR SUPPLY IS REQUIRED FOR PROPER PERFORMANCE.

Models 950, 954 and 950-1 come equipped with a 12-volt adapter, air hose, IDEAL Mini T® Cutter (45-260), regulator mounting bracket, air regulator kit and a set of hex key wrenches.

Description	Cat. No.
Stripmaster® Model 950™	45-950
Stripmaster® Model 954™	45-954 (45-950 w/permanent face plate)
Special Stripmaster Model 45-950-1	45-950-1
Permanent Gripper Assembly (faceplate only)	45-950-4
Replacement Blades	Consult Factory
Replacement Bushings	Consult Factory
Air Regulator Kit	45-906
120V/60Hz Adapter	K-7156
220V/50Hz Adapter	45-951
T®-Cutter Lite	45-260
Hex Key Set	691.02
Air Hose	45-807
Regulator Mounting Bracket	LB-1135

# Operation

## Hook-up Electrical

Connect 12-volt supply to power jack located at the rear of the unit. Plug wall mount transformer in standard 115V outlet (use 45-951 and proper cord set for 220V service).



## Hook-up Air

Connect 1/4" coiled air hose to the air inlet fitting located at the rear of the unit. This is a reusable compression type fitting. Connect the air hose by inserting hose firmly into the compression fitting.



◀ Connect the air line to a clean, dry, regulated air supply.

Air pressure must be regulated to a maximum 65 PSI.

To disconnect, simply depress the red ring and pull on the air hose.

**CAUTION: Do not attempt to connect or disconnect the air hose with compressed air in the line.** ▶

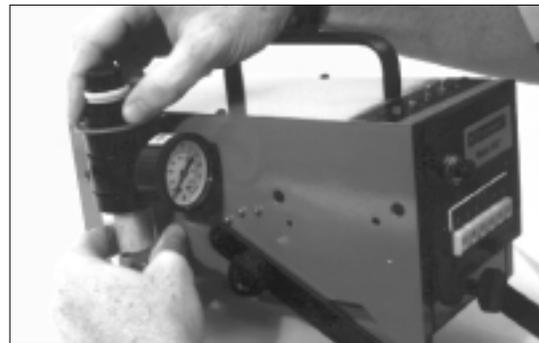


## Hook-up Air Regulator

1. Attach regulator mounting bracket to either side of the unit, using two button-head socket screws provided. (#45-906)



2. Remove the retaining nut from the regulator body, locate the regulator in the mounting bracket and replace the retaining nut securely.

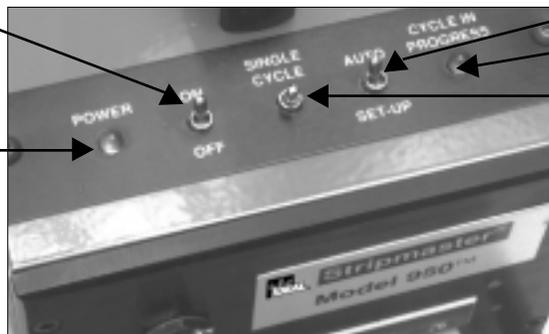


## Display

With proper air and electrical connections, the unit is now ready for operation.

1. Turn the power switch to the ON position.

Green power indicator light will illuminate.



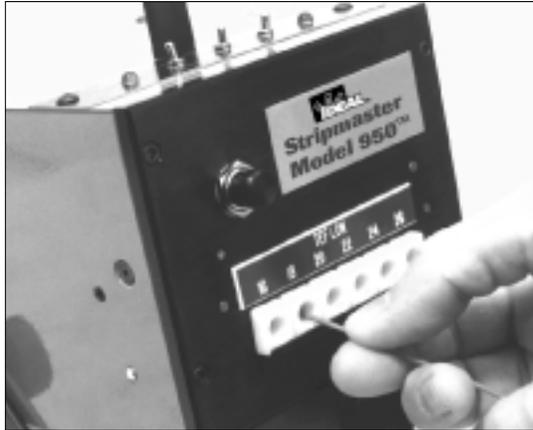
2. Place the AUTO/SET-UP switch to the AUTO position. Red indicator light will illuminate.

3. Actuate single-cycle switch to cycle the unit. This will show unit is ready for operation.

**Note: CYCLE IN PROGRESS light will illuminate during stripping cycle.**

## Operation (continued)

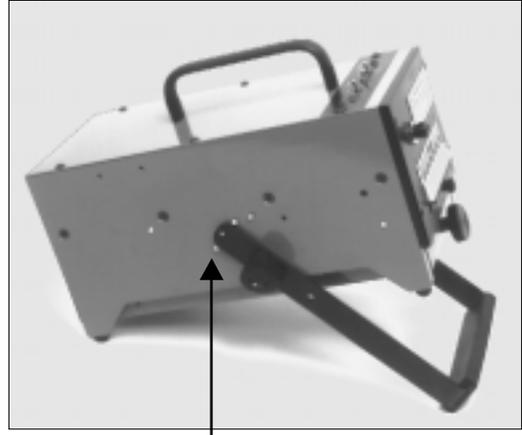
4. Insert the wire to be stripped into the wire guide hole until it engages the trigger. Machine should cycle completely. ▼



**Note:** Excessive force should not be required to insert the wire into the proper wire guide.

**CAUTION:** The unit is designed to strip one wire per cycle. **DO NOT** load multiple wires simultaneously.

The unit is designed to accommodate as many as six blade and wire guide configurations to speed production stripping jobs where more than one wire type and size are to be stripped.

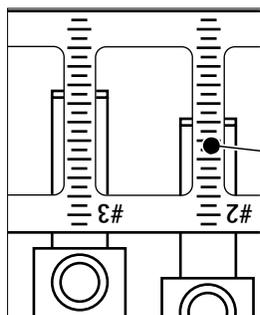


For increased operator comfort and efficiency the unit may also be adjusted to operate at different angles from 00 (flat) to 450. Loosen knobs and spread the handle. Locate the handle on the proper pins to achieve the desired operating angle. Tighten Knobs.

### Strip Length

Unit is equipped with six individual triggers. This allows each wire port to be set-up to its own unique strip length.

1. Turn power switch to the OFF position. Leave air supply connected.
2. Remove slug tray (Item 21)\*.
3. Note position of wire port numbers 1 thru 6 from left to right with matching numbers which correspond to the indicating scales on the contact plate (Item 19)\*.



CONTACT PLATE (ITEM 19)\*

TRIGGER ASSEMBLY (ITEM 16)\*

8-32 CAP SCREW (ITEM 16)\*

4. Observe the position of the trigger relative to the indicating scale and loosen the #8-32 socket head cap screw (use 5/32 hex wrench). Slide trigger to desired location and retighten cap screw. Repeat this procedure until all six triggers have been set in their desired position.

5. To check strip length, turn machine to its upright position and turn power switch on. Strip several sample wires and verify proper strip lengths. Repeat strip length adjustments as required.

**CAUTION:** Strip length range is 1/8" to 5/8". Setting strip length less than 1/8" may cause uncontrolled cycling. Reset as required.

# Service (Qualified personnel only)

## Replacement/Adjustment

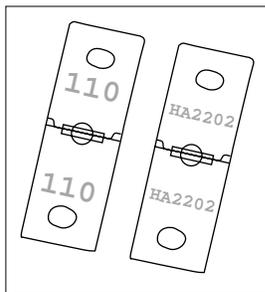
### Blade Installation

1. Disconnect the unit from air supply and turn power switch off.
2. Remove the four socket head screws (use 7/64 hex wrench) located at the corners of the front cover plate. ▼



3. Remove the front cover plate. For better access, disconnect the air line leading to the face plate by pushing in red ring on connector. ◀

4. Install the matched die type blades behind the appropriate wire guides. Note that blade pairs have been carefully matched and should remain as a set. DO NOT MIX BLADES. Blades should be mounted with the etched "HA" part numbers facing outwards on both halves. The 3-digit serial numbers face inward. Knife-type blades are not serialized and can be located with beveled surface facing either direction. Insure that both male and female blade halves are of the same part numbers. ▼

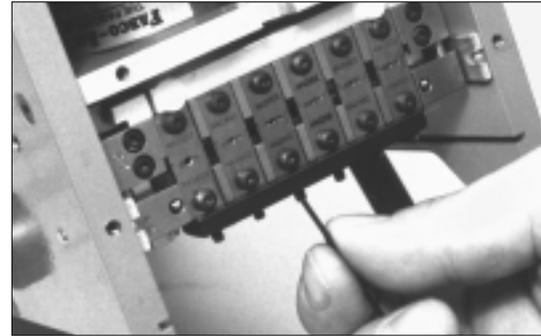


the etched "HA" part numbers facing outwards on both halves. The 3-digit serial numbers face inward. Knife-type blades are not serialized and can be located with beveled surface facing either direction. Insure that both male and female blade halves are of the same part numbers.

5. Install the blade halves. Insert the #4-40 button head cap screw (use 1/16 hex wrench) and lock washers but do not tighten completely. ▼

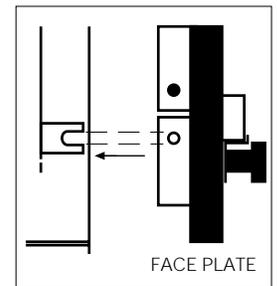


6. Back out all (6) set screws (use .050 hex wrench) located at the bottom of the blade holder. ▼



**WARNING: Keep fingers away from the blade area.**

7. Connect air supply and turn power switch on. Switch the AUTO SET-UP switch to the SET-UP position. This will close all blades firmly.
8. Check all blade sets for gaps. Adjust blade set screws accordingly to ensure proper seating of blade sets. Care must be taken not to over extend any one blade. This will result in gaps in remaining blade sets.
9. With blades properly adjusted, tighten all blade holding screws.
10. Reconnect air line to the face plate by inserting hose into the compression fitting firmly.
11. Reinstall front cover plate, making sure clamp dowel pins are properly aligned with the clamp yoke (Item 22)\*. ▶
12. Securely tighten the front cover plate screws.
13. Turn AUTO/SET-UP switch to the AUTO position.



**NOTE: Anytime blade adjustments are made, it is helpful to back out the blade set screws.**

# Service (Qualified personnel only; continued)

## Replacement Guide

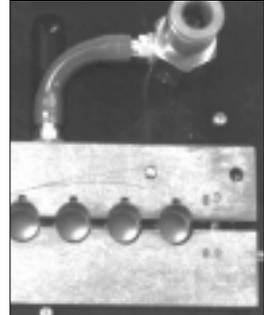
1. Remove the guide retaining plate (Item 13)\* by removing the thumb screw (Item 14)\*.



Cross slot at bottom position

2. Remove old wire guide and insert new wire guide, making sure that the cross slot of each bushing faces downward.

If the wire guides have all been removed it may be necessary to spread the wire guide clamp "slightly" to install the first bushing. It is not recommended to spread or separate the wire guide clamp any more than necessary during installation.



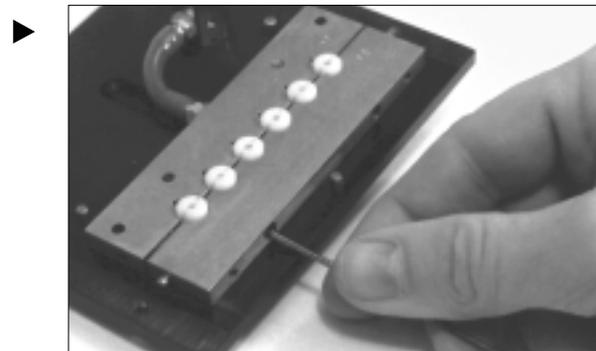
3. Relocate retaining plate (Item 13)\* and thumb screw (Item 14)\*.

## Adjustments Clamp Stop

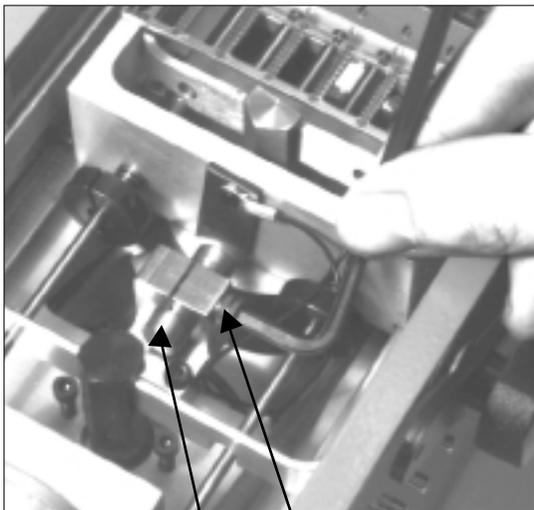
It may become necessary to adjust the gripping action to increase or decrease the gripping force. This unit is factory preset to increase or decrease the grip with full force. Softer insulations may require less force to minimize deformation.

1. Disconnect unit from air and power supply.
2. Remove face plate (use 7/64 hex wrench).
3. Raise or lower set screws evenly (use 1/16 hex wrench). This will allow for an increase or decrease in the gripping force of the bushings.
4. Replace face plate.

NOTE: One clamp stop setting may not permit satisfactory gripping on different wires, due to the variety of wire types and gripping requirements.



## Adjustments Partial Strip



B A

It may be desired to allow the stripped slug to remain on the wire to protect the conductor during handling. The unit is factory preset to remove the slug completely. In this initial position, the unit automatically actuates an air blasting device to aid in slug removal. When a partial strip is set, the air blast is disarmed.

1. Disconnect air and power supply.
2. Remove slug tray and invert unit.
3. Loosen Socket head cap screw (A) (use 5/32 hex wrench) and reposition basket stop pin (B) to obtain the desired strip length.
4. Tighten Socket head cap screw to ensure basket stop pin is secure. Strip wire to verify partial strip. Dissimilar wires will behave differently when stripped. Therefore, it may be necessary to change the partial strip adjustment.
5. Turn the unit upright and insert the slug tray.

# Service (Qualified personnel only; continued)

## Circuit Board Adjustment

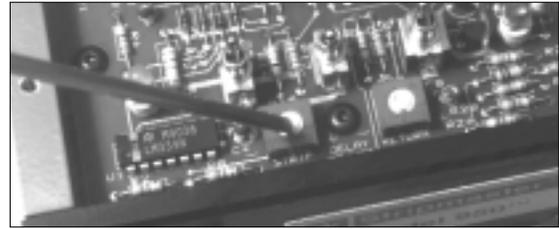
### Strip Delay

It may be desirable to increase the time delay after cutting/gripping and before pulling the slug off a wire. This will insure a more secure grip and a better cut.

1. Remove the six #6-32 button head cap screws (use 5/64 hex wrench) and the top plate. Locate the circuit board near the front of the unit. ▶



2. Locate and adjust the "strip" delay by turning the potentiometer screw with a small electronic screwdriver. Clockwise (+) to increase delay and counterclockwise (-) to reduce delay.



3. Cycle the machine and continue to readjust as required.
4. Replace top plate.

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### Return Delay

It may be desired to increase the time delay after stripping a wire to allow the operator more time to remove the wire before the unit resets itself.

1. Remove the six #6-32 button head cap screws (use 5/64 hex wrench) and the top plate. Locate the circuit board near the front of the unit.



2. Locate and adjust the "return" delay by turning the potentiometer screw with a small electronic screwdriver. Clockwise (+) to increase delay and counterclockwise (-) to reduce delay.
3. Cycle the machine and continue to readjust as required.
4. Replace top plate.

# Service (Qualified personnel only; continued)

## Circuit Board Adjustment

### Replacement Circuit Board

It may become necessary to replace the circuit board, in the unlikely event of an electrical failure.

▼ WIRE HARNESS CONNECTION



1. Remove the six #6-32 button head cap screws (use 5/64 hex wrench) and the top plate. Locate the circuit board near the front of the unit.
2. Remove the wire harness connector at the rear of the circuit board.
3. Remove the four #6-32 button head cap screws (use 5/64 hex wrench) on the circuit board.
4. Install the new circuit board and reverse removal procedures.

## Stripmaster® Model 950™ & 950-1™ Wire Strippers

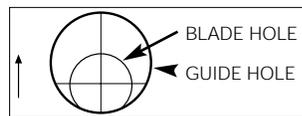
### Alignment Adjustments

#### Alignment

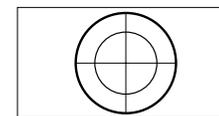
Your IDEAL Stripmaster® Model 950™ Wire Stripper has been aligned by IDEAL. After time, it may become necessary to realign. The following section describes three different adjustments that are necessary to insure proper blade and guide alignment.

#### Adjustment Vertical

1. Remove top plate and slug tray.
2. Close blades using set up switch at top of machine. It is helpful to use a light source beneath the machine to illuminate the hole through the blade and bushing. Visually check bushing and blade cutting holes for proper alignment.
3. Adjust set screws (use 1/16" hex wrench) located near both side plates approximately 3 1/2" from the face plate, to raise or lower all six blades to their proper vertical position if needed. Adjust both sides evenly.
4. Install slug tray and top plate.



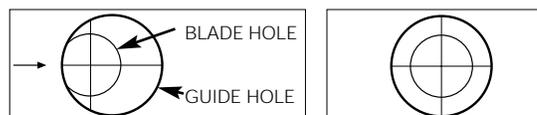
INCORRECT



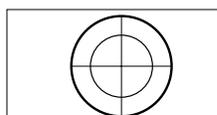
CORRECT



#### Adjustment Horizontal



INCORRECT



CORRECT

1. Remove slug tray.
2. Close blades using set up switch at top of machine. It is helpful to use a light source beneath the machine to illuminate the hole through the blade and bushing. Visually check bushing and blade cutting holes for proper alignment.
3. By turning both front left and front right set screws (use 3/32 hex wrench), reposition the carriage left or right to obtain the proper alignment.
4. Install slug tray.



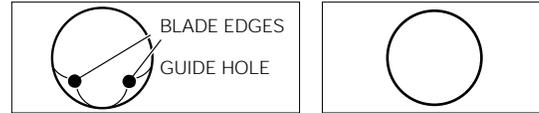
**Important: Minimal side play is required for proper alignment. But over tightening set screws will prohibit carriage movement.**

## Service (Qualified personnel only; continued)

### Alignment Adjustments (continued)

#### Adjustments Clamp Yoke Stop

1. With air connected to machine, turn power off and remove slug tray. It is again helpful to use a light source positioned at or between blade and trigger area to illuminate the hole through the blade and bushing.
2. With blades in open position, look through all wire guides to see if blades are obstructing the wire entry path. No part of the blade should be visible.
3. If an adjustment is needed, disconnect the air supply and raise or lower clamp yoke stop screws evenly (use 7/64 hex wrench). This will raise or lower blades, thus ensuring a clear path for wire entry in all six bushings.
4. Insert slug tray.



INCORRECT

CORRECT



## Stripmaster® Model 954™ Permanent Gripper Wire Stripper

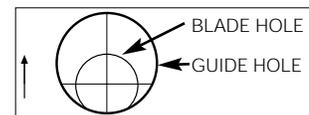
Your IDEAL Stripmaster® Model 954™ Permanent Gripper Wire Stripper has been aligned by IDEAL. After time, it may become necessary to realign. The following section describes three different adjustments that are necessary to insure proper blade and clamp bar alignment.

#### Permanent Gripper Faceplate

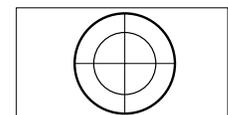


##### Adjustments Permanent Faceplate Vertical

1. Remove top plate and slug tray.
2. Close blades using set up switch at top of machine. It is helpful to use a light source beneath the machine to illuminate the hole through the blade and bushing. Visually check bushing and blade cutting holes for proper alignment.
3. Adjust set screws (use 1/16" hex wrench) located near both side plates approximately 3 1/2" from the face plate, to raise or lower all six blades to their proper vertical position if needed. Adjust both sides evenly.
4. Install slug tray and top plate.



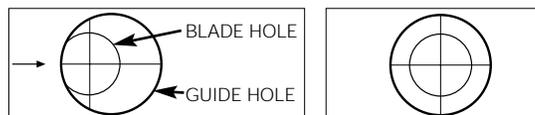
INCORRECT



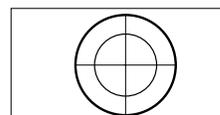
CORRECT



##### Adjustments Permanent Faceplate Horizontal



INCORRECT



CORRECT

1. Remove slug tray.
2. Close blades using set up switch at top of machine. It is helpful to use a light source beneath the machine to illuminate the hole through the blade and bushing. Visually check bushing and blade cutting holes for proper alignment.
3. By turning both front left and front right set screws (use 3/32 hex wrench), reposition the carriage left or right to obtain the proper alignment.
4. Install slug tray.

##### Adjustments Permanent Faceplate Clamp Bar

1. With air connected to machines, turn power off and remove slug tray.
2. To raise gap of the clamp bar, turn setscrews clockwise. To reduce gap of the clampbar, turn setscrews counter-clockwise.
3. Replace Slug tray.

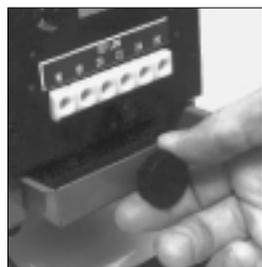
Note: Over extending one or both setscrews may result in wire being "pulled" into the machine during the stripping action. Not enough setscrew adjustment could result in an excessive amount of clamping force resulting in damage to outer insulation.

# Tips and Troubleshooting

**CAUTION: Always disconnect air and power supply before servicing unit.**

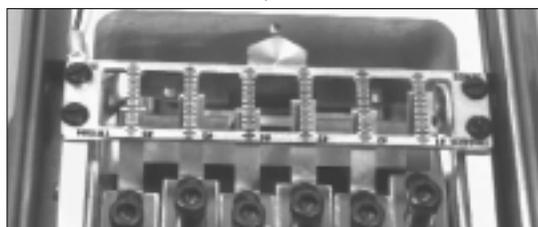
## UNIT WILL NOT CYCLE

- Actuate manual switch.
- Check to see that you have proper air supply.
- Empty slug tray and make sure all slugs have been removed from the unit.



- Check to see that no slugs are trapped in the blade or trigger area. ▲ If a slug is present, clear with a blast of air (Item 11)\*.

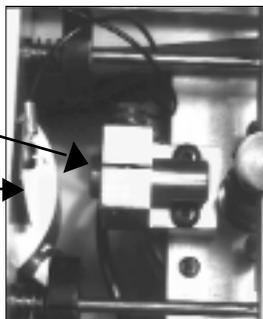
- Check to see that all triggers are clean and making necessary contact with the contact plate (Item 19)\*. These surfaces should be lubricated with Conductive Grease: Part number 1181.021.



## Unit Will Not Cycle Remaining in Tripped Position

- Actuate manual switch.
- Check basket stop pin to see that contact is being made.
- Check basket stop pin and carriage plate contact for excessive wear or contamination. Wipe both mating surfaces clean.
- Insure basket stop contact wire is properly connected and not broken.

THIS PIN SHOULD CONTACT THIS PLATE DURING CYCLE



## Multiple or Continuous Cycling

On occasion the unit may repeat cycles while clearing a slug. If the condition becomes excessive, the following steps may help you in identifying and eliminating the problem.

- Make sure stripped wire is removed promptly after each cycle.
- Empty the slug removal tray and make sure that all slugs have been removed from the unit.
- Disconnect the unit from the air and power supply and check to see that no insulation slugs are trapped between the blades and triggers.
- If a slug is trapped, remove carefully.

## Unit Will Not Strip Wire

- Use air switch slug blast (Item 11)\* to clear any slugs away from the blade/guide area and manually actuate the machine.
- Check to see that the wire is being inserted into the proper wire guide/blade.
- Check to see that the wire being used is proper mil. spec. and within the proper tolerance.
- Insure proper alignment and installation of blades (see Blade and Wire Guide Installation).
- Check to see that the blades and wire guides are not damaged or worn. If there is any question, replace the affected guides and blades or consult IDEAL.



## Wire Strip is Incomplete or Damages the Conductor

- Use air switch slug blast (Item 11)\* to clear any slugs away from the blade/guide area and manually actuate the machine.
- Check to see that the wire is being inserted into the proper guide/blade.
- Check to see that the wire being used is proper mil. spec. and within the proper tolerance.
- Insure proper alignment and installation of blades (see Blade and Wire Guide Installation).
- Check to see that the blades and wire guides are not damaged or worn. If there is any question, replace the affected guides and blades or consult IDEAL.

# Ordering Blades and Wire Guides

Due to varying manufacturing techniques, standard wire gauge sizes have begun to indicate "nominal" wire sizes and no longer indicate conductor diameters accurately. Therefore, in order to maintain accurate precision wire stripping, IDEAL requests that exact mil spec. information for the types of wire and insulation you will be stripping be provided to IDEAL when ordering blades and wire guides.

IDEAL also requests wire samples when ordering. If an IDEAL Custom Stripmaster™ Wire Stripper® hand tool is currently being used to strip the particular wire please specify the blade number being used with each wire type and size.

Due to varying outside diameter dimensions on every wire, IDEAL recommends ordering multiple wire guide bushings to match a given wire. Depending upon wire tolerances, it may be necessary to order a wire guide one size larger and one size smaller than supplied with the machine. Guides are easily interchanged to match varied wire size

When ordering, please specify the preferred face plate location and number designation for each blade/guide set.

For larger wire sizes (e.g. 10 AWG, 12 AWG, 14 AWG) blade location is preferred in the center ports of the machine.

## Specification Chart Instructions

List the wire size, insulation type and mil. spec. per each wire size and type for which you are ordering stripping blades and wire guides under the location/s (1 thru 6) you prefer.

Indicate numerical wire gauge legends (10 thru 30) or any identification you wish to appear above each corresponding air guide/blade configuration.

(Choose and complete the desired label format below. 1, 2 or 3)

Note: For better stripping results, locate 10, 12, 14 gauge wires nearest to center ports.

### LABEL FORMAT

	1	2	3	4	5	6	
1 Single Line	_____	_____	_____	_____	_____	_____	4 Character max each port
2 Single line Plus	_____ _____	_____ _____	_____ _____	_____ _____	_____ _____	_____ _____	Top line 30 character max. max. 4 character max. each port
3 Double Line Plus	_____ _____	_____ _____	_____ _____	_____ _____	_____ _____	_____ _____	5 character max. each line each port

### Wire Information

	AWG	Insulation	Mil Spec	Stripping Comments
1	_____	_____	_____	_____
2	_____	_____	_____	_____
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____

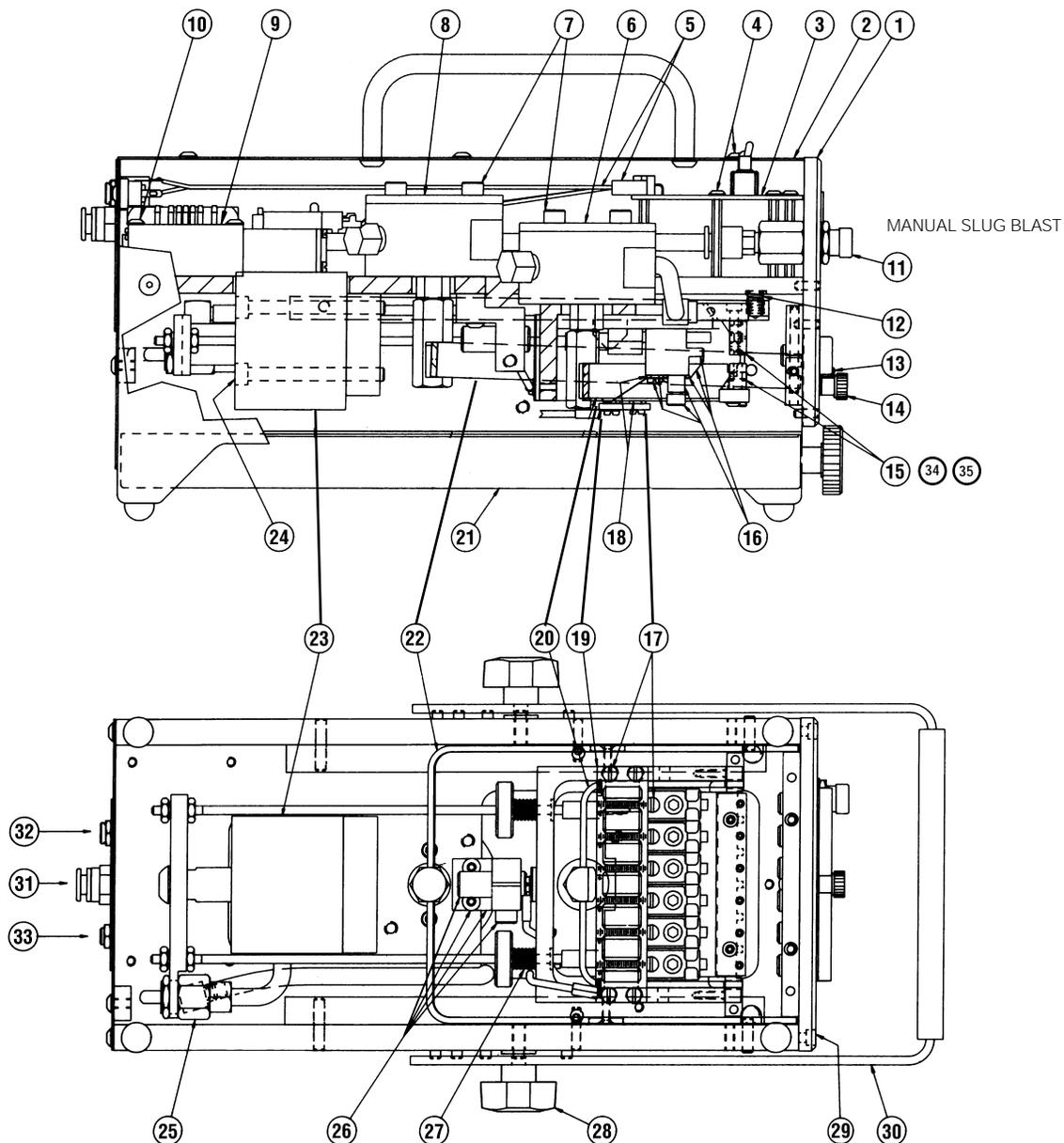
Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# Stripmaster® Model 950™

ITEM	REQ	NAME	PART NO.
1	1	FRONT PLATE ASSEMBLY	IA1819
2	1	TOP PLATE ASSEMBLY	LB1523RP
3	1	CIRCUIT BOARD ASSEMBLY	K-7109
4	14	SCREW #6-32 X .25 BHCS	115.002
5	1	WIRE HARNESS	IA1892
6	1	BLADE CYLINDER ASSEMBLY	K-7124RP
7	4	SCREW #10-32 X 1.50 SHCS	113.095
8	1	CLAMP CYLINDER ASSEMBLY	K-6863RP
9	2	SOLENOID VALVE	1532.007
10	4	SCREW #6-32 X 1.00 BHCS	115.028
11	1	AIR SWITCH SLUG BLAST	LB1524
12	2	SPRING	LB1513
13	1	BUSHING RETAINING PLATE	K-6940
14	1	RETAINING SCREW	LB1525
15	1	BLADE HOLDER	H-2472
16	6	TRIGGER ASSEMBLY	LB1526RP
17	5	SCREW #4-40 X .25 PH NYLON	358.033

ITEM	REQ	NAME	PART NO.
18	4	WASHER #4 NYLON	637.006
19	1	CONTACT PLATE	LB1504
20	1	CUT YOKE	K-6806
21	1	SLUG TRAY ASSEMBLY	K-7112RP
22	1	YOKE CLAMP	K-6800
23	1	STRIP CYLINDER ASSEMBLY	K-6864RP
24	2	SCREW #10-32 X 2.00 SHCS	113.096
25	1	AIR BLAST VALVE ASSEMBLY	K-7153RP
26	1	BASKET STOP ASSEMBLY	LB1527RP
27	2	SPRING	LB1514
28	2	KNOB	341.016
29	4	SCREW #6-32 X .38 SHCS	113.100
30	1	HANDLE	LB1528RP
31	1	AIR HOSE	K-6865
32	1	PLUG-IN TRANSFORMER	K-7156
		BLADE MOUNTING SCREWS	115.010
		BLADE MOUNTING WASHERS	633.051
		NAMEPLATE HOLDER	LA-2675

NOT SHOWN  
NOT SHOWN  
NOT SHOWN  
NOT SHOWN





Warranty limited solely to repair or replacement; no warranty of merchantability, fitness for a particular purpose or consequential damages.  
1000 Park Avenue, Sycamore, IL 60178 — Manufacturing facility

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