

How to Select Resurfacer Grade

Small Motor and Pocket Resurfacers

Grade code letters designate the following grade combinations:

- | | |
|------------------------|------------------------|
| A Medium/Finish | G Coarse/Medium |
| B Coarse/Finish | H Medium/Polish |
| D Finish/Polish | |

All Other Resurfacers

Resurfacers for commutators and copper-alloy slip rings are made in five grades:

- X** Extra coarse—very fast cutting, for “hogging” off excessive copper
- C** Coarse—fast cutting
- M** Medium—for general use, high mica, small ridges and burns
- F** Finish—for use after the three grades above, for periodic application and for removing small burns and ridges immediately after their appearance
- P** Polish—very fine grade (220 aggregate grain) for burnish finish

For all resurfacers, specify grade by adding the appropriate letter as a suffix to the catalog number. (Example: 80-475M for medium grade.)

How to Select Resurfacer Size

Size is always written length x width x thickness (working face area x depth of stone). For handle types, the handle is mounted parallel to the first dimension. Always use a resurfacer with the largest face possible (length x width). Thickness should be governed by clearance around commutator or ring.

Commutator Resurfacers

The resurfacer should have a width of approximately 3/4 the length of the commutator bar and as long as will conveniently go between the brush riggings. For periodic application, three or four sizes are generally sufficient. After determining approximate dimensions, select nearest standard size and type.

Slip Ring Resurfacers

When space permits, use a resurfacer about 1 in. wider than the face width of the ring. Length should be at least three times greater than the longest flat spot to bridge over and ensure a true ring.

Small Motor-Type Resurfacer

- Different grades of stone on each end
- 10 in. handle
- For use on small fractional horsepower motors

Size (In.)	Grades	Cat. No.
3/4 x 1/2 x 3/8	A, B, D	80-012*

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

Tool-Type Resurfacer

- For use in lathe-turning device
- Two resurfacers required for each grinder

Sizes (In.)	Grades	Cat. No.
3/4 x 3/4 x 3	C	80-504*
1 x 1-1/2 x 6-1/2	C, M, F	80-454*
1 x 2 x 8		80-461*
2 x 2 x 8		80-475*

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

Pencil-Type Resurfacer

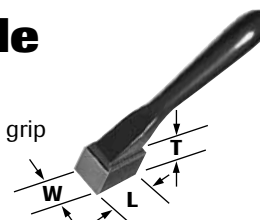
- For use on fans, signal motors, auto generators, locomotive headlight motors and other fractional horsepower motors

Size (In.)	Grades	Cat. No.
5/8 x 3/8 x 6	C, M, F, P	80-075*

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

Tramway-Handle Resurfacer

- Handle shaped to ensure secure grip
- 10-1/2 in. handle permanently mounted at 45° angle



Sizes (In.)	Grades	Cat. No.
2 x 1-1/2 x 2	M, F	80-255*
2 x 2 x 2	C, M, F	80-265*

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

Powr-Polish™ Flexible Abrasive

- Fine-grain, non-dusting abrasive held together by a flexible bond
- Serves as both commutator cleaner and burnisher
- Removes dirt and grease—imparts super-finished surface
- Non-conductive and non-loading

Sizes (In.)	Cat. No.
3/8 x 1/2 x 5	82-001
3/8 x 3/4 x 5	82-002
5/8 x 1 x 5	82-003
1 x 2 x 5	82-004
1 x 4 x 5	82-005
1/8 x 1 x 5	82-006

Please allow 2-3 weeks for delivery.



TOOLS & SUPPLIES

COMMUTATOR MAINTENANCE

Brush Seater & Commutator Cleaner

- Gentle acting abrasive for seating carbon brushes and cleaning commutators and slip rings
- Soft, loosely bound grain produces a scouring effect when held against commutator
- Will not remove or scratch copper
- Self-cleaning
- Available in soft(S), medium(M) and hard(H) grades



Sizes (In.)	Grades	Cat. No.
1/4 x 1/4 x 4-3/4	M, H	23-001*
1/2 x 1/4 x 4-3/4	M, H	23-002*
3/8 x 3/8 x 4-3/4	M	23-003*
1/2 x 3/8 x 4-3/4	M, H	23-004*
1/2 x 1/2 x 4-3/4	M	23-005*
5/8 x 1/2 x 4-3/4	M	23-006*
3/4 x 1/2 x 4-3/4	S, M, H	23-007*
1-1/8 x 5/8 x 4-3/4	S, M, H	23-008*
1/2 x 1 x 4-3/4	S, M	23-027*
1 x 1 x 4-3/4	—	23-035S
2 x 1 x 4-3/4	—	23-036S
3 x 2 x 6	—	23-041S
3 x 2 x 8	—	23-042S

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

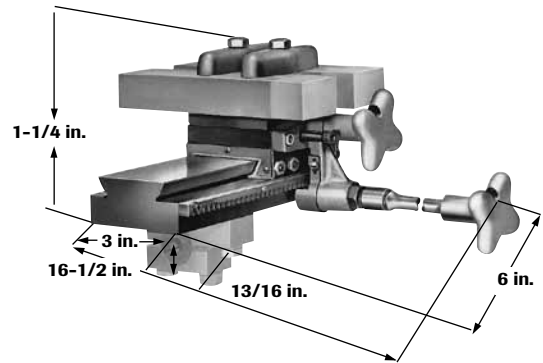
Commutator Smoothie® Resurfacing Tool

- Designed to smooth commutators of auto generators, starting motors and other similar equipment
- 8-1/2 in. plastic handle with a 5/16 in. x 7/8 in. x 11/16 in. resurfacer on each end
- Features one polish-grade and one finish-grade resurfacer
- Bent handle reaches into any motor frame
- Non-conductive for user safety

Description	Cat. No.
Commutator Smoothie® Resurfacing Tool	80-033

Please allow 2-3 weeks for delivery.

Midget Precision Grinder



- Right-angle rack and pinion allows for operation in small areas
- 6 in. base – recommended for commutator widths up to 9-1/4 in. (includes extra 1 in. travel obtained by setting resurfacers at slight angle)
- Includes convenient carrying case
- Two tool-type resurfacers required – 80-454 recommended

Description	Cat. No.
Midget Precision Grinder	24-033

Order tool-type resurfacers and brush arm supports separately.

Fact:

IDEAL INDUSTRIES, INC. was founded by **J. Walter Becker** in 1916 as the **IDEAL Commutator Dresser Company.**



Stripmaster® Wire Strippers and Knife-Type Blades for Metric Wire

Specifications — Stripping Hole Diameter (mm)														Cat. No.	Replacement Blades (Pair) Cat. No.	Replacement Frame Cat. No.
Wire Size mm ²																
0.05	0.1	0.15	0.22	0.34	0.5	0.75	1	1.5	2.5	4	6	8	10			
												4.3	5.0	45-090-341	L-4419M	LA-2358
						1.3	1.6	1.9	2.4	3	3.6			45-092-341 or 45-292-341*	L-4421M	LA-2358
0.6	0.7	0.8	0.9	1.0	1.1									45-098-341	L-5361M	LA-2358

*Boxed Tolerances +001 - .005

Stripmaster® Lite Wire Strippers and Knife-Type Blades for Metric Wire

Specifications — Stripping Hole Diameter (mm)										Cat. No.	Replacement Blades (Pair) Cat. No.	Replacement Frame Cat. No.
Wire Size mm ²												
0.05	0.1	0.15	0.22	0.34	0.5	0.75	1	1.5				
				1.0	1.1	1.3	1.6	1.9		45-671-341	LB-1001M	H-2909
0.6	0.7	0.8	0.9							45-672-341	LB-1002M	H-2909

Free Application Engineering Service available. Contact IDEAL INDUSTRIES, INC. for complete information at 1-800-324-9571 or download application at www.idealindustries.com/products/wire-processing.

Coax Stripmaster® Wire Strippers and Blades



Description	Coax Cable Type (RGU)	Repl. Blade Cat. No.	Cat. No.
Coax Stripmaster® for RG-6	RG-6	LB-740	45-262
Coax Stripmaster® for RG-58	RG-58	LB-742	45-264
Coax Stripmaster® for RG-59	RG-59	LB-743	45-265
Coax Stripmaster® for RG-6 QuadShield	RG-6 QuadShield	LA-3953	45-282

Coaxial Cables: two-step strip for termination, jacket and dielectric.

Stripmaster® Wire Strippers with Rectangular Holes



Description	Cat. No.	Replacement Blades (Pair) Cat. No.
For Flat Telephone Cable (.060 in. or 1.52mm)	N/A	LB-1155
For European Flat Lamp Cord	45-089	L-8762
For SP-SPT Lamp Cord	45-095*	L-4452

*Also strips 2- and 3-conductor low-voltage wire used in E.E. and Touchplate remote control wiring system.

Transparent Adjustable Wire Stop Assembly

- Provides uniform stripping length



Optional Accessories	Cat. No.
Transparent Adjustable Wire Stop (for Stripmaster® Wire Strippers)	L-5270
Transparent Adjustable Wire Stop (for Stripmaster® Lite Wire Strippers)	LB-1195
Replacement Moveable Gripper	L-1953

Short Stop Latch

- Protects wire strands by limiting stripping stroke to 5/32 in.
- Retains slug until wire is ready for terminating



Replacement Frame Assemblies	Cat. No.
For Stripmaster® Wire Strippers	L-5620
For Stripmaster® Lite Wire Strippers	LB-1421

HeatSeeker® Thermal Imagers

- Blended thermal/digital image (0-100% & PIP)
- Hottest/coldest temperature cursors instantly display on live screen
- Sequence image recording activated by alarm settings
- Class II laser
- Built-in LED light
- High and low temperature alarms
- Save images with text and voice annotation
- Adjustable emissivity for maximum accuracy
- IP54 rated
- Multi-lingual - nine languages included
- Tripod mountable
- ThermalVision™ PC software included
- Two-year warranty



Description	Cat. No.
HeatSeeker® 320 Thermal Imager – (320 x 240 resolution)	61-848
HeatSeeker® 160 Thermal Imager – (160 x 120 resolution)	61-846
HeatSeeker® Thermal Imager – (47 x 47 resolution)	61-844

Accessories	61-848/ 61-846	61-844
Includes		
Removable Battery	61-846BAT	—
USB Cable	61-844USB	61-844USB
Camera Handle	—	61-844HAN
Carrying Case	61-844CC	61-844CC
Power Supply	61-846PS	61-844PS
ThermalVision™ Software	61-848SW	61-844SW
Optional		
Light Shade	61-844LS	61-844LS
Car Charger	61-846CAR	61-844CAR
Desktop Charger	61-846DT	—
Hard Transport Case	61-846HC	61-846HC

Specifications

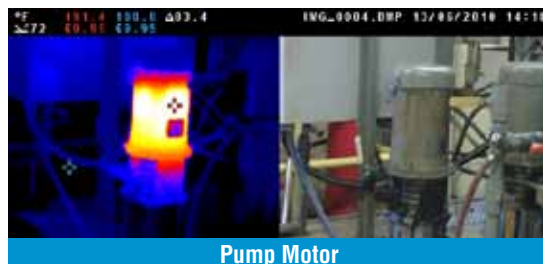
Feature	HeatSeeker® (61-844)	HeatSeeker® 160 (61-846)	HeatSeeker® 320 (61-848)
Temperature Range	14°F to 662°F (-10°C to 350°C)	-4°F to 1652°F (-20°C to 900°C)	14°F to 482°F (-10°C to 250°C)
Temperature Accuracy	±2°C or ±2% of reading		
Emissivity Table	0.2 to 1.0 (adjustable)		
Cursors	Two-movable	Four-movable (with independent emissivity setting)	
Image Storage (2 GB micro SD card)	2000 Images		
Field of View	20° x 20°	10° x 15°	21.4° x 16°
Thermal Sensitivity	< 0.3°C at 30°C	< 0.08°C at 30°C	
Focal Plane Array	47 x 47 (2,209 pixels)	160 x 120 (19,200 pixels)	320 x 240 (76,800 Pixels)
Display	3.5" LCD		
Visible Light Camera Resolution	1.0 Megapixels	2.0 Megapixels	
Spectral Range	8µm to 12µm	8µm to 14µm	
Image Control	Eight color palettes (Ironbow, Rainbow, Isotherm, Hot Metal, High Contrast, Rainbow 16, Black Hot and White Hot)		
Focus	Manual		
Battery Life	6 hours	6 hours	4 hours
Power	Internal rechargeable Li-ion battery	Field replaceable, rechargeable Li-ion battery	



Included Accessories:



61-846 / 61-848



Pump Motor



Fuse Panel

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- 10 in. handle
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- Two resurfacers required for each grinder

Sizes (In.)	Grades	Cat. No.
3/4 x 3/4 x 3	C	80-504*
1 x 1-1/2 x 6-1/2	C, M, F	80-454*
1 x 2 x 8		80-461*
2 x 2 x 8		80-475*

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

Pencil-Type Resurfacer

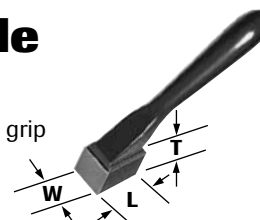
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Size (In.)	Grades	Cat. No.
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Tramway-Handle Resurfacer

- Handle shaped to ensure secure grip
- 10-1/2 in. handle permanently mounted at 45° angle



Sizes (In.)	Grades	Cat. No.
2 x 1-1/2 x 2	M, F	80-255*
2 x 2 x 2	C, M, F	80-265*

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- Non-conductive and non-loading

Sizes (In.)	Cat. No.
3/8 x 1/2 x 5	82-001
3/8 x 3/4 x 5	82-002
5/8 x 1 x 5	82-003
1 x 2 x 5	82-004
1 x 4 x 5	82-005
1/8 x 1 x 5	82-006

Please allow 2-3 weeks for delivery.



TOOLS & SUPPLIES

COMMUTATOR MAINTENANCE

Brush Seater & Commutator Cleaner

- Gentle acting abrasive for seating carbon brushes and cleaning commutators and slip rings
- Soft, loosely bound grain produces a scouring effect when held against commutator
- Will not remove or scratch copper
- Self-cleaning
- Available in soft(S), medium(M) and hard(H) grades



Sizes (In.)	Grades	Cat. No.
1/4 x 1/4 x 4-3/4	M, H	23-001*
1/2 x 1/4 x 4-3/4	M, H	23-002*
3/8 x 3/8 x 4-3/4	M	23-003*
1/2 x 3/8 x 4-3/4	M, H	23-004*
1/2 x 1/2 x 4-3/4	M	23-005*
5/8 x 1/2 x 4-3/4	M	23-006*
3/4 x 1/2 x 4-3/4	S, M, H	23-007*
1-1/8 x 5/8 x 4-3/4	S, M, H	23-008*
1/2 x 1 x 4-3/4	S, M	23-027*
1 x 1 x 4-3/4	—	23-035S
2 x 1 x 4-3/4	—	23-036S
3 x 2 x 6	—	23-041S
3 x 2 x 8	—	23-042S

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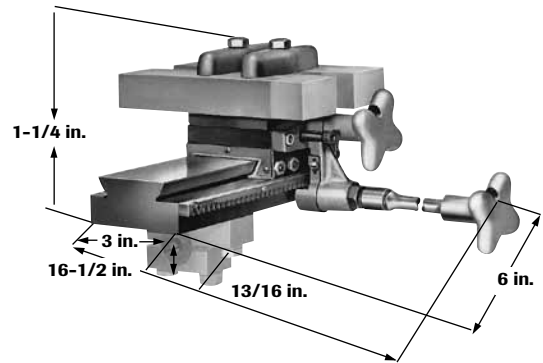
Commutator Smoothie® Resurfacing Tool

- Designed to smooth commutators of auto generators, starting motors and other similar equipment
- 8-1/2 in. plastic handle with a 5/16 in. x 7/8 in. x 11/16 in. resurfacer on each end
- Features one polish-grade and one finish-grade resurfacer
- Bent handle reaches into any motor frame
- Non-conductive for user safety

Description	Cat. No.
Commutator Smoothie® Resurfacing Tool	80-033

Please allow 2-3 weeks for delivery.

Midget Precision Grinder



- Right-angle rack and pinion allows for operation in small areas
- 6 in. base – recommended for commutator widths up to 9-1/4 in. (includes extra 1 in. travel obtained by setting resurfacers at slight angle)
- Includes convenient carrying case
- Two tool-type resurfacers required – 80-454 recommended

Description	Cat. No.
Midget Precision Grinder	24-033

Order tool-type resurfacers and brush arm supports separately.

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Stripmaster® Wire Strippers and Knife-Type Blades for Metric Wire

Specifications — Stripping Hole Diameter (mm)														Cat. No.	Replacement Blades (Pair) Cat. No.	Replacement Frame Cat. No.
Wire Size mm ²																
0.05	0.1	0.15	0.22	0.34	0.5	0.75	1	1.5	2.5	4	6	8	10			
												4.3	5.0	45-090-341	L-4419M	LA-2358
						1.3	1.6	1.9	2.4	3	3.6			45-092-341 or 45-292-341*	L-4421M	LA-2358
0.6	0.7	0.8	0.9	1.0	1.1									45-098-341	L-5361M	LA-2358

*Boxed Tolerances +001 - .005

Stripmaster® Lite Wire Strippers and Knife-Type Blades for Metric Wire

Specifications — Stripping Hole Diameter (mm)										Cat. No.	Replacement Blades (Pair) Cat. No.	Replacement Frame Cat. No.
Wire Size mm ²												
0.05	0.1	0.15	0.22	0.34	0.5	0.75	1	1.5				
				1.0	1.1	1.3	1.6	1.9		45-671-341	LB-1001M	H-2909
0.6	0.7	0.8	0.9							45-672-341	LB-1002M	H-2909

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Coax Stripmaster® Wire Strippers and Blades



Description	Coax Cable Type (RGU)	Repl. Blade Cat. No.	Cat. No.
Coax Stripmaster® for RG-6	RG-6	LB-740	45-262
Coax Stripmaster® for RG-58	RG-58	LB-742	45-264
Coax Stripmaster® for RG-59	RG-59	LB-743	45-265
Coax Stripmaster® for RG-6 QuadShield	RG-6 QuadShield	LA-3953	45-282

Coaxial Cables: two-step strip for termination, jacket and dielectric.

Stripmaster® Wire Strippers with Rectangular Holes



Description	Cat. No.	Replacement Blades (Pair) Cat. No.
For Flat Telephone Cable (.060 in. or 1.52mm)	N/A	LB-1155
For European Flat Lamp Cord	45-089	L-8762
For SP-SPT Lamp Cord	45-095*	L-4452

*Also strips 2- and 3-conductor low-voltage wire used in E.E. and Touchplate remote control wiring system.

Transparent Adjustable Wire Stop Assembly

- Provides uniform stripping length



Optional Accessories	Cat. No.
Transparent Adjustable Wire Stop (for Stripmaster® Wire Strippers)	L-5270
Transparent Adjustable Wire Stop (for Stripmaster® Lite Wire Strippers)	LB-1195
Replacement Moveable Gripper	L-1953

Short Stop Latch

- Protects wire strands by limiting stripping stroke to 5/32 in.
- Retains slug until wire is ready for terminating



Replacement Frame Assemblies	Cat. No.
For Stripmaster® Wire Strippers	L-5620
For Stripmaster® Lite Wire Strippers	LB-1421

HeatSeeker® Thermal Imagers

- Blended thermal/digital image (0-100% & PIP)
- Hottest/coldest temperature cursors instantly display on live screen
- Sequence image recording activated by alarm settings
- Class II laser
- Built-in LED light
- High and low temperature alarms
- Save images with text and voice annotation
- Adjustable emissivity for maximum accuracy
- IP54 rated
- Multi-lingual - nine languages included
- Tripod mountable
- ThermalVision™ PC software included
- Two-year warranty



Description	Cat. No.
HeatSeeker® 320 Thermal Imager – (320 x 240 resolution)	61-848
HeatSeeker® 160 Thermal Imager – (160 x 120 resolution)	61-846
HeatSeeker® Thermal Imager – (47 x 47 resolution)	61-844

Accessories	61-848/ 61-846	61-844
Includes		
Removable Battery	61-846BAT	—
USB Cable	61-844USB	61-844USB
Camera Handle	—	61-844HAN
Carrying Case	61-844CC	61-844CC
Power Supply	61-846PS	61-844PS
ThermalVision™ Software	61-848SW	61-844SW
Optional		
Light Shade	61-844LS	61-844LS
Car Charger	61-846CAR	61-844CAR
Desktop Charger	61-846DT	—
Hard Transport Case	61-846HC	61-846HC

Specifications

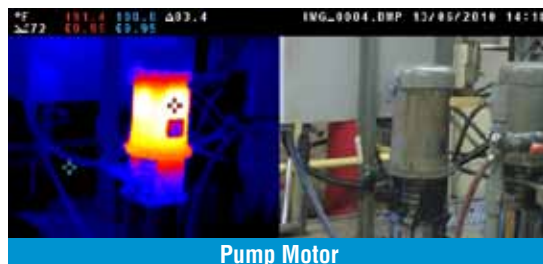
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Temperature Range	14°F to 662°F (-10°C to 350°C)	-4°F to 1652°F (-20°C to 900°C)	14°F to 482°F (-10°C to 250°C)
Temperature Accuracy	±2°C or ±2% of reading		
Emissivity Table	0.2 to 1.0 (adjustable)		
Cursors	Two-movable	Four-movable (with independent emissivity setting)	
Image Storage (2 GB micro SD card)	2000 Images		
Field of View	20° x 20°	10° x 15°	21.4° x 16°
Thermal Sensitivity	< 0.3°C at 30°C	< 0.08°C at 30°C	
Focal Plane Array	47 x 47 (2,209 pixels)	160 x 120 (19,200 pixels)	320 x 240 (76,800 Pixels)
Display	3.5" LCD		
Visible Light Camera Resolution	1.0 Megapixels	2.0 Megapixels	
Spectral Range	8µm to 12µm	8µm to 14µm	
Image Control	Eight color palettes (Ironbow, Rainbow, Isotherm, Hot Metal, High Contrast, Rainbow 16, Black Hot and White Hot)		
Focus	Manual		
Battery Life	6 hours	6 hours	4 hours
Power	Internal rechargeable Li-ion battery	Field replaceable, rechargeable Li-ion battery	



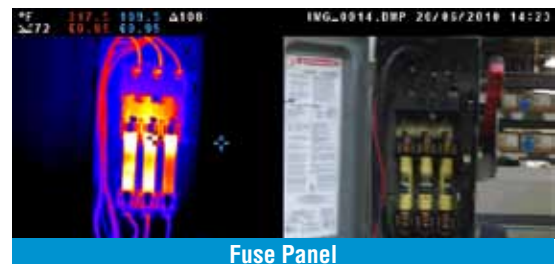
Included Accessories:



61-846 / 61-848



Pump Motor



Fuse Panel