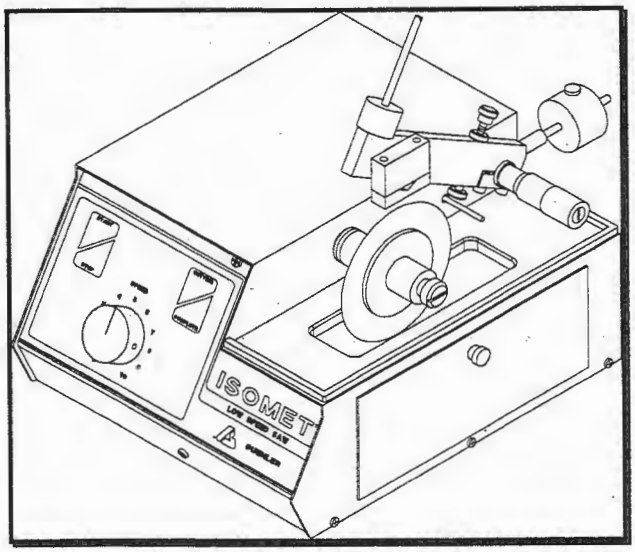
BUEHLER

Operation and Maintenance Instructions

ISOMET™ Low Speed Saw



41 Waukegan Rd.
Lake Bluff, IL 60044 USA

Declaration of Conformity

Manufacturer:
Of:

BUEHLER, Ltd.
41 Waukegan Road
Lake Bluff, Illinois 60044

Declares the following product: ***ISOMET™ LOW SPEED SAW***

To be in accordance with EC Directive(s);

Safety of Machinery:

89/392/EEC and 91/368/EEC and 93/44/EEC according to the following standards:

EN 292 PART 1 1991
EN 292 PART 2 1991
EN 60204 PART 1 1993

EMC Directive:

89/336/EEC and 92/231/EEC according to the following standards:

EN 50081-1: 1992
EN 50082-1: 1992

Position: Director of Engineering

Name: *Chuck Motley*

Signature: *Chuck Motley*

Date: *1/1/97*

This Manual is a custom generated document. It includes all revisions relative to this specific Buehler item as of the date shown below.

TABLE OF CONTENTS

OPERATION AND MAINTENANCE INSTRUCTIONS

BUEHLER ®

ISOMET ™ LOW SPEED SAW

Warranty

This unit is guaranteed against defective material and workmanship for a period of two (2) years from the date of receipt by customer. Warranty is void if inspection shows evidence of abuse, misuse or unauthorized repair. Warranty covers only replacement of defective materials. If, for any reason, this unit must be returned to our plant for warranty service, please apply for prior authorization with shipping instructions, and include the following information: Customer Purchase Order Number, Buehler Ltd. Invoice Number and Date, Serial Number, and reason for return.

Unpacking

Carefully unpack and check contents. If any components are missing or damaged, save the packing list and material and advise the carrier and Buehler ®, Ltd. of the discrepancy.

Assembly

The ISOMET™ Low Speed Saw is shipped fully assembled except for a Diamond Wafering Blade and Dressing Stick which are packed separately in the same box. Three Chucks, Weights, Weight Shaft, Counter-Balance Weight, Balance Weight Shaft, two (2) Allen Wrenches, a Spanner Wrench, and an optional Chuck mounting screw are packed separately in the Lubricant Pan which is accessible via the door on the right panel. (See Accessories)

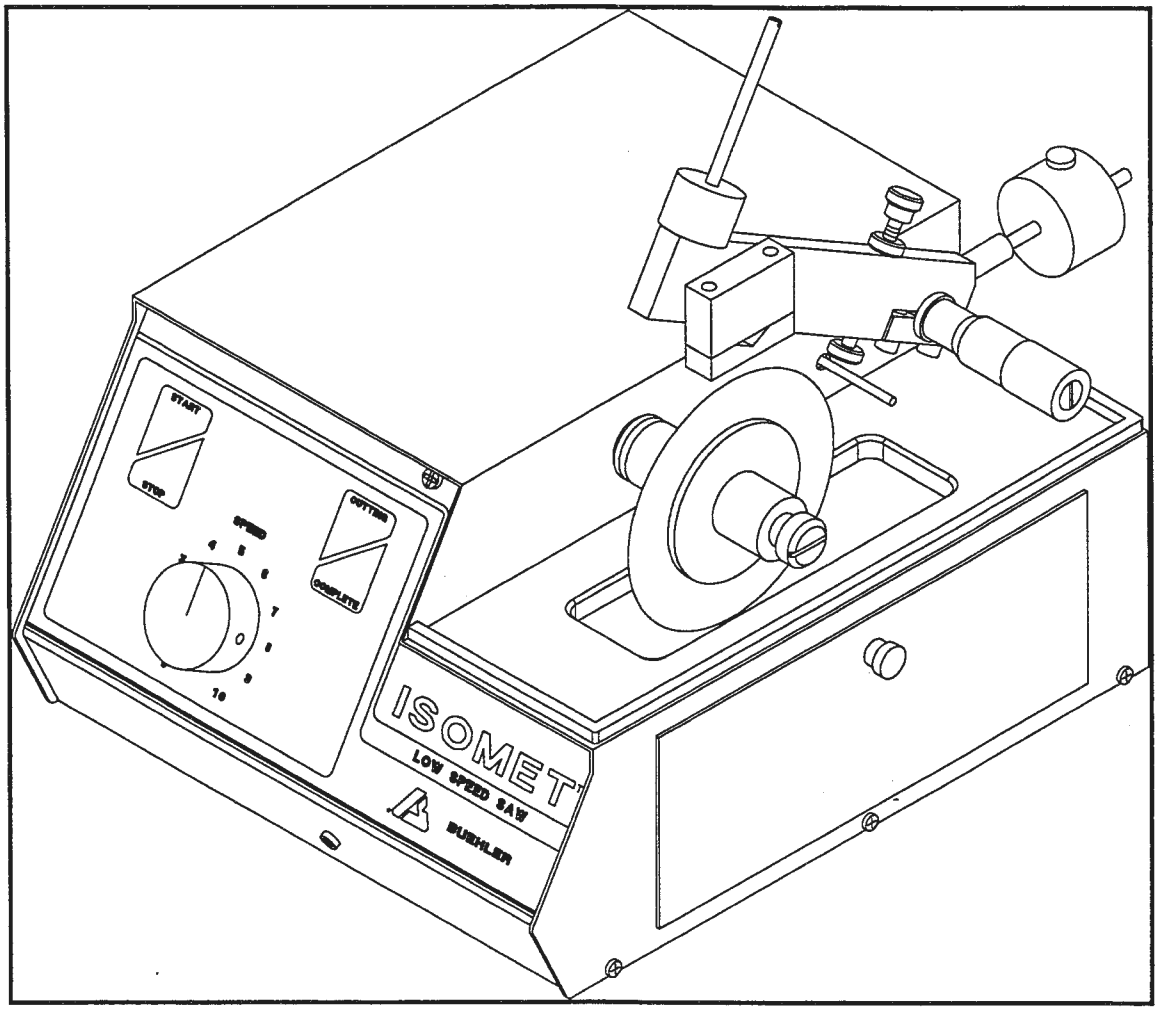


Figure 1

Installation

Location

The ISOMET™ is intended for bench-top placement. Select a convenient location with access to a grounded type electrical receptacle rated for voltage, hertz and phase indicated on the Specification Plate located at the base of the rear panel.

Electrical

Consult Specification Plate for proper voltage for the unit. All units are equipped with an IEC cord connector . Appropriate cord for country of use is supplied.

Blade Installation

To install the Blade on the ISOMET™ perform the following steps:

1 Remove Thumb Screw, End Cap Bushing and Outer Flange from Drive Shaft.

2. Install blade on Drive Shaft against Inner Flange relieved surface.

3. Slip on Outer Flange and End Cap Bushing, then hand tighten Thumb Screw to complete installation.

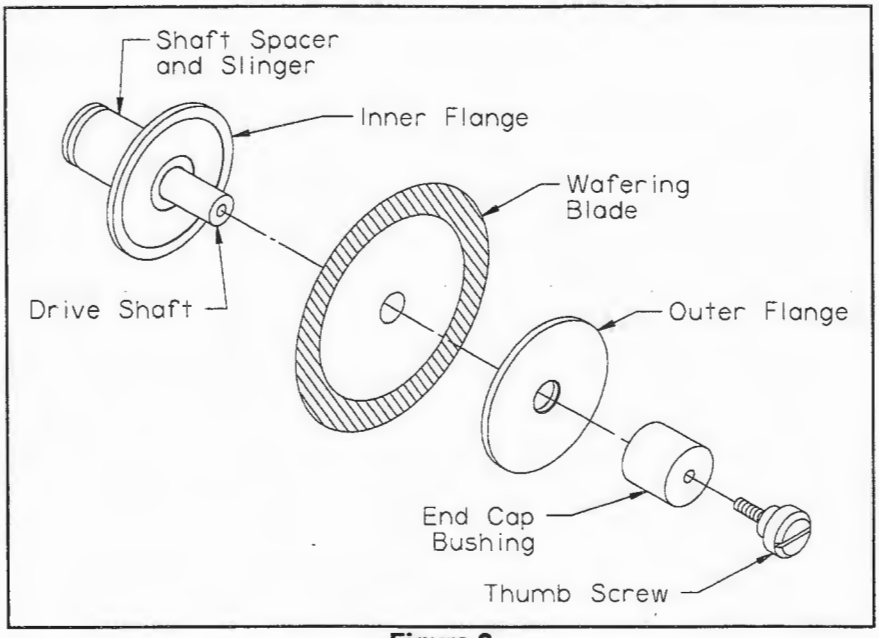


Figure 2

Note: *Smaller flanges must be employed when the 11-1188 Chuck is used for thin sections, or the 11-1189 Chuck for 1" and 1 1/4" dia. specimens.*

If gang-sawing is desired, several Blades may be installed, with appropriate spacers, followed by installation of the Outer Flange, End Cap Bushing and Thumb Screw as previously described.

Flanges provide support for the wafering blades. Failure to provide adequate flange support may result in curved cuts and damaged blades. Always select the maximum flange diameter commensurate with the size of the specimen to be cut.

Note: *Before reinstallation of a Wafering Blade, the End Cap Bushing, Screw and Flanges should be cleaned in a mild detergent solution to remove adherent particles from previous sawing. This will help prevent misalignment of Blade and resultant poor-quality cuts.*

New Wafering Blades, including the original equipment Blade, must be dressed before making sample cuts. Dressing removes normal smeared matrix metal and exposes the abrasive grain to assure free cutting. New Wafering Blades should be dressed several times and older Blades dressed as required by the properties of the sample material. When cutting metal samples it may be necessary to dress after each cut.

To dress, position the Dressing Stick in the 11-1187 Saddle Chuck and make thin transverse cuts through the Dressing Stick, or use a 11-1196 ISOMET™ Dressing Chuck. (See Accessories)
Use of this device permits dressing to be performed without removing a previously fixtured sample.

CAUTION - Feeding the Dressing Stick or any sample materials manually into the Blade could result in damage to the Blade.

Lubrication

The ISOMET™ employs the "drag" principle of lubrication with the lubricant carried to the sample on the periphery of the Blade. ISOCUT® Fluid reduces cutting time and produces superior quality cuts. Its use promotes effective lubrication which allows the diamond particles to cut cleanly. It minimizes Blade loading by the formation of discrete chips and effects their clean release from the Blade and work surface.

Fill the Lubricant Pan with 11-1193-032 ISOCUT® Fluid to a level that will immerse Blade approximately 1/4". ISOCUT® Fluid is best for most metals and many non-metals. When the lubricant becomes contaminated with sludge it should be discarded and replaced.

To remove Lubricant Pan, lift off Door on right side of Saw, grasp Knob on Slide Lock, pull Slide Lock outward until lock disengages, lower the Lubricant Pan Tray and then swing it outward. This will swing the tray outside the case and permit removal and emptying of Lubricant Pan. Clean Pan and Specimen Basket thoroughly and replace in Tray. With Slide Lock still pulled out, swing Tray inward to stop. Press Slide Lock inward to stop and then, while maintaining light pressure on Slide Lock lift Tray upward until Slide Lock engages. Press Slide Lock fully in to secure Tray. Refill with fresh lubricant.

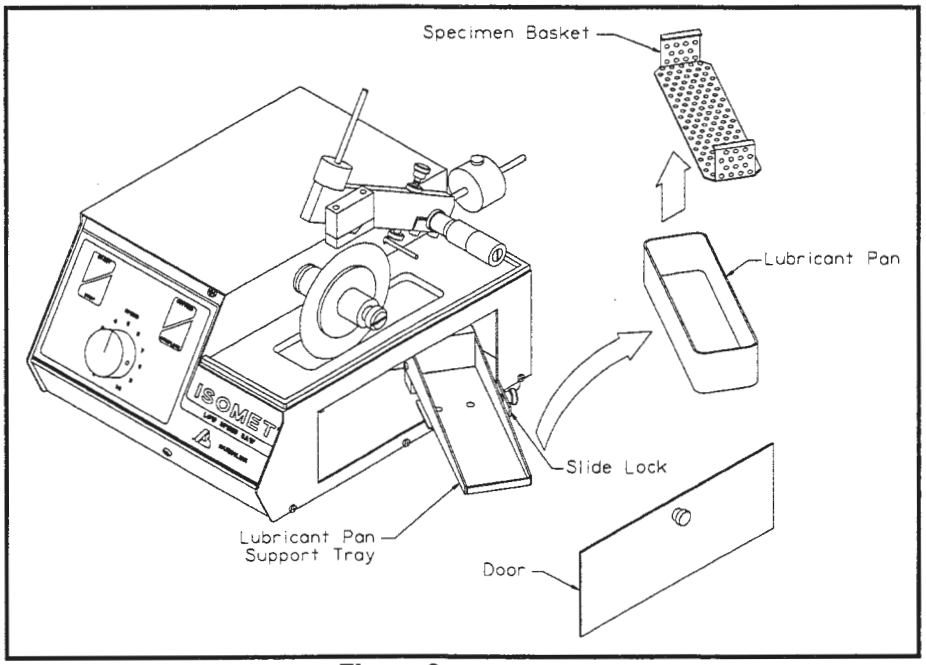


Figure 3

Operation

Loading the Saw

Loosen the Set Knob and slip the Counter Balance Weight to the rear of the Counter Balance Weight Shaft to hold the Support arm in an upright position. Select the proper Chuck for the particular application and clamp the Specimen in place. It may be necessary to sandwich strips of metal between the Specimen and Chuck, or to improvise in other ways in order to clamp certain odd or irregular shaped samples. Attach the loaded Chuck to the Support arm with the Chuck Mounting Thumb Screw (*If a larger Chuck is being used or a heavy specimen is being supported in the Chuck the optional Socket Head Cap Screw can be used to mount the Chuck using the supplied Wrench*). After the Chuck is secured, move the Support arm to the far left by adjusting the Micrometer Head. Slide the Counter-Balance Weight toward the front of the unit until balance is achieved and tighten the Set Knob.

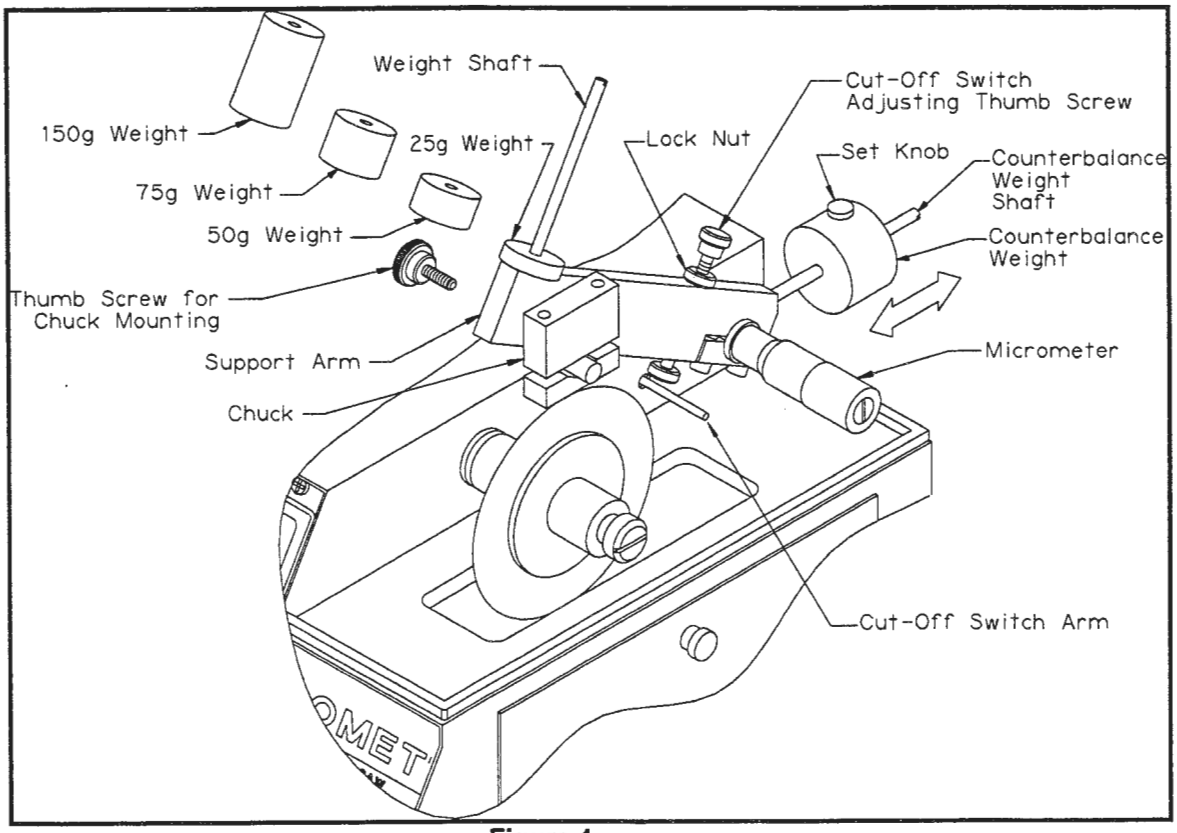


Figure 4

Adjustment of Cut-Off Switch Mechanism

Set the Thumb Screw in the Support Arm to shut off the Saw by depressing the Cut-Off Switch Arm, either at the completion of the cut or just before completion. The latter setting allows a weight reduction before the cut is completed and thereby prevents possible burring or cleaving of fragile materials near the end of the cut.

Micrometer Adjustment and Weight Selection

Adjust the Micrometer to position the Specimen for cutting. Weight can be applied to the work in increments of 25 grams by proper selection of the four Weights supplied with the unit. Intermediate Weights can be applied through careful adjustment of the Counter-Balance Weight at the rear of the Support Arm. In general, since the heavier the load the greater the surface damage to the Specimen, relatively light weights are recommended.

Note: *Care should be taken during the loading operation not to nick the blade or drop the specimen on the blade edge.*

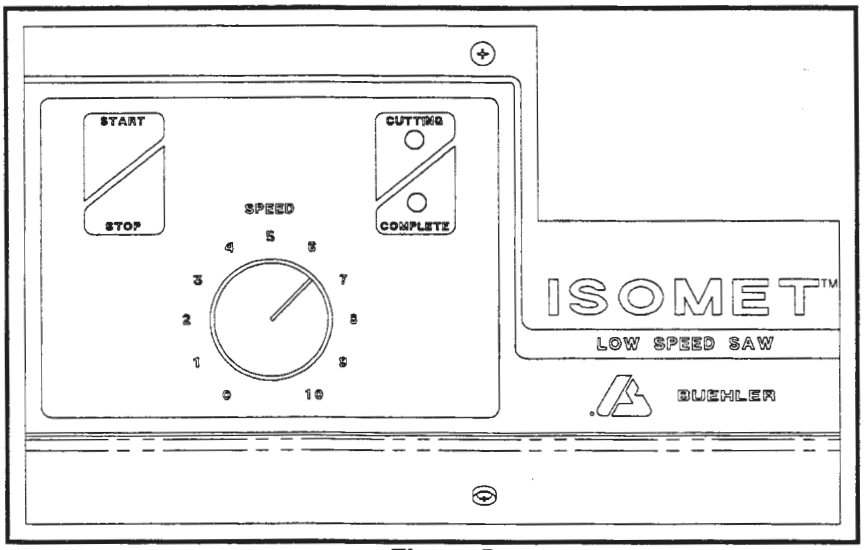


Figure 5

Cutting the Specimen

Adjust the Speed Control Knob to the desired speed while holding the Specimen Arm by hand above the Blade, Since faster speeds, like heavier weights, tend to damage the Specimen surface, the operator must determine the relative importance of cutting time and surface conditions in each case. Settings of about 200 RPM are recommended for general use. (*Approximately 6-7 on the Speed Control.)*

Place the 111182 Blade Wiper as shown in Figure 5a with the "drip lip" down. The brushes on the Blade Wiper should be contacting either side of the Blade for most of their width. Be sure not to allow the Blade to cut the metal "drip lip" on the Blade Wiper. The Blade Wiper will remove excess cutting fluid from the Blade while still allowing enough fluid to be applied to the cut to lubricate it.

After the Speed Control is set, press the Start Button and carefully lower the Specimen Arm onto the Blade to commence cutting. The Cutting Light will come on when the Start Switch is pressed. (*The Blade will not*

start turning until the Speed Control Knob is set above the Zero setting.) When the cut is completed, the Cut-Off Switch Arm is automatically depressed which, in turn, lights the Complete Light and stops the Saw.

The Power Switch on the back of the ISOMET™ is also a 2 pole circuit breaker providing protection for the unit in the event of overload. Continual tripping of the circuit breaker indicates that a problem exists within the unit.

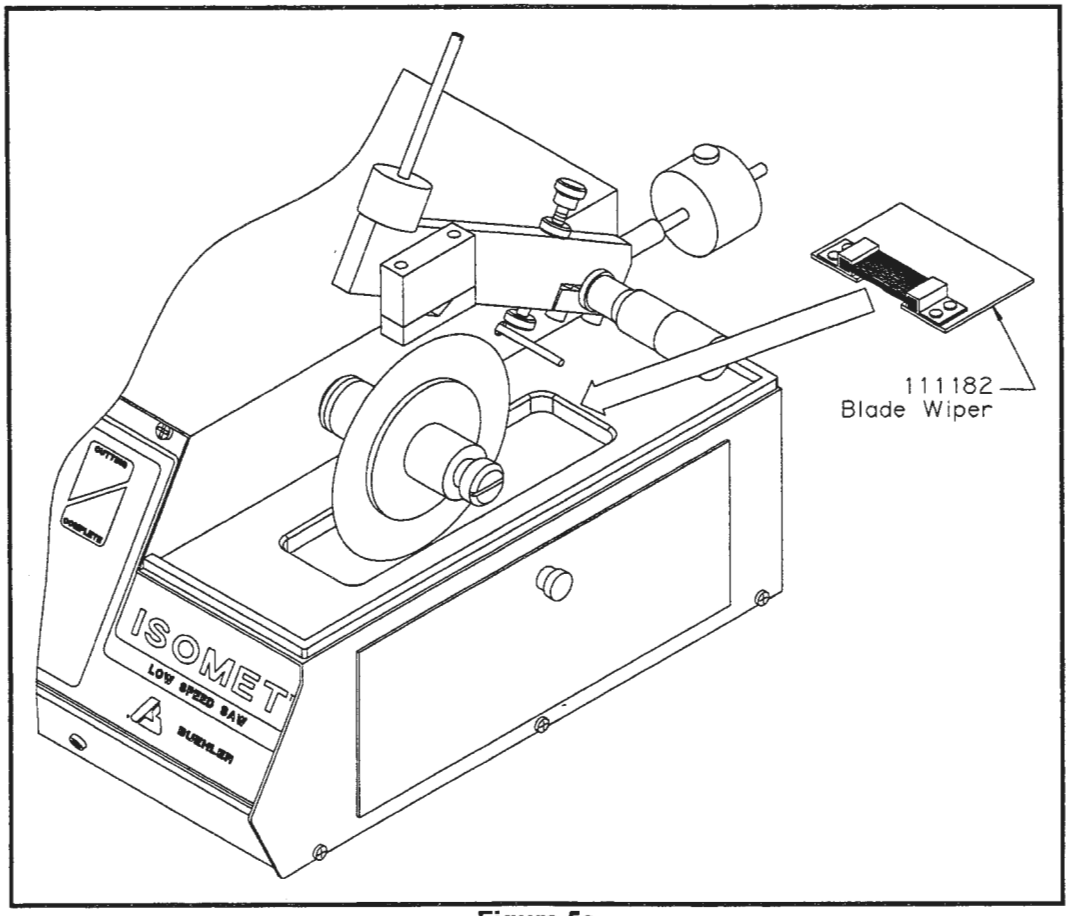


Figure 5a

Maintenance

DO NOT PERFORM ANY REPAIRS OR ADJUSTMENTS FOR A PERIOD OF TWO (2) YEARS. WARRANTY IS VOID IF INSPECTION SHOWS EVIDENCE OF ABUSE OR UNAUTHORIZED REPAIR.

The ISOMET™ Saw is designed and built to require very little service. The sealed ball bearings of the Drive Shaft and Micrometer Shaft and the sealed continuous duty Motor require no lubrication.

CAUTION - **If Maintenance is required, first disconnect unit from electrical power source.**

Motor or Drive Belt Replacement

To replace the Motor (1280S195) or Drive Belt (R10066) the Front and Back Panels of the ISOMET™ need to be removed. Remove the two Screws (3000S104) holding the Front Panel and push the Panel outward from inside the Lubricant Tray compartment. Disconnect the Electrical Plug from the socket and remove Panel. Remove the three small screws (1180S68) holding the Back Panel and push the Panel outward.

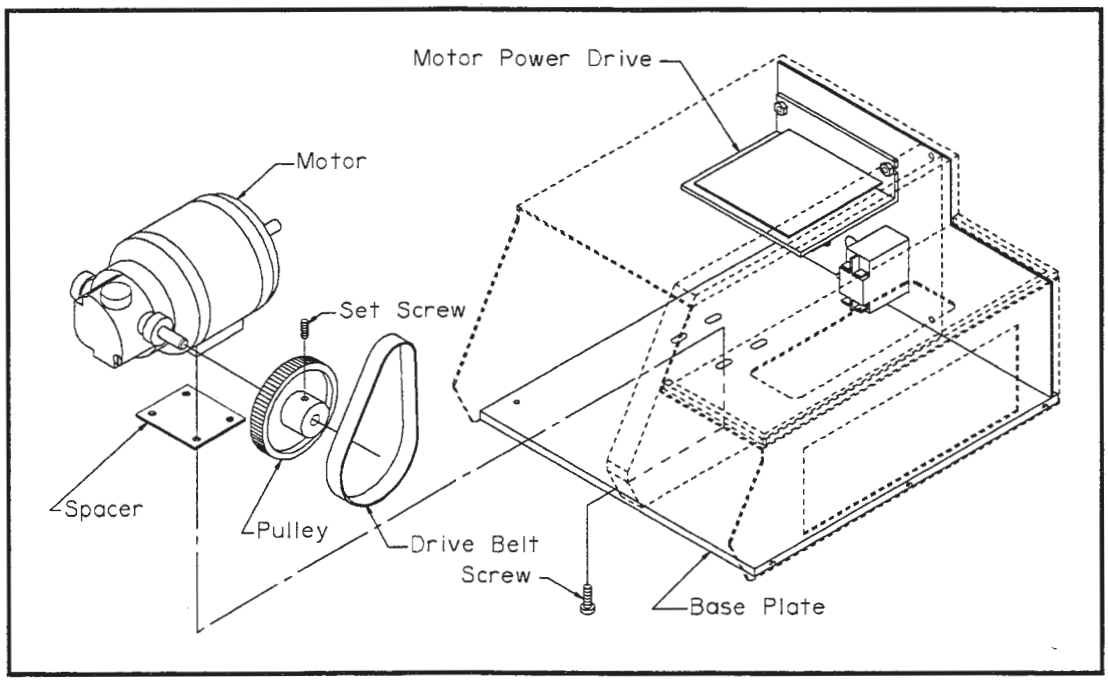


Figure 6

1. To remove the Motor, disconnect the 2 leads from the Motor Control Board and the single ground wire from the Base Plate. Unscrew the four Hex Head Screws (R2405) on the underside of the Base Plate.

2. To replace the Belt, loop the new Belt over the Drive Shaft Pulley (1180S60) and then slip onto the larger Pulley (1280S196). Care should be taken not to stretch the Belt excessively upon installation. (See Figure 7).

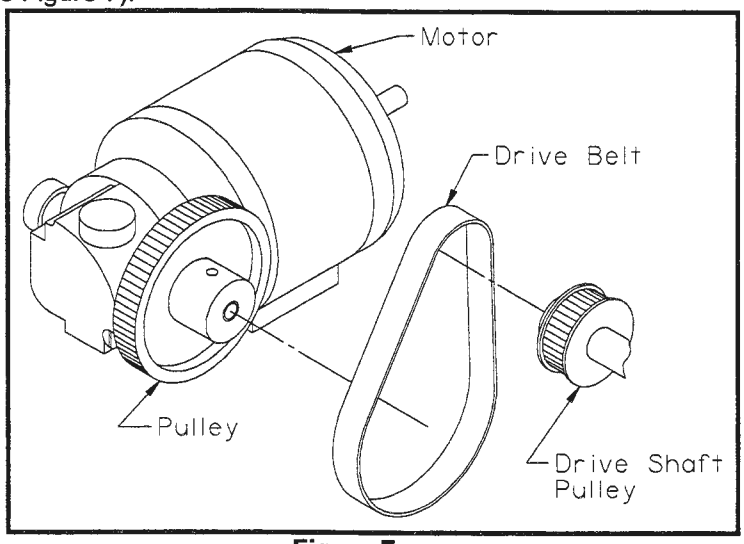


Figure 7

Micrometer Screw Adjustment

To clean or adjust the Micrometer Screw Assembly, perform the following steps:

1. Remove the End Screw with a thin blade screwdriver.
2. Loosen the Thimble by tapping against the end of the Thimble with a plastic hammer or screwdriver handle.
3. Carefully remove the Thimble from the Shaft.
4. Clean the exposed assembly with a grease solvent to remove gummy residues and contaminant particles.
5. To adjust Micrometer Screw Drag attach the provided Spanner Wrench to the hole in the Adjusting Nut. Turn counterclockwise to loosen, clockwise to tighten the drag.
6. Lubricate the assembly with #1620 Starrett Tool and Instrument Oil or equivalent.
7. Reinstall by first lining up the 0 line on the Thimble with the graduated index line on the Sleeve.
8. Tighten the End Screw while holding the Thimble in place.

Replacement or Exchange of Micrometers

It is necessary to remove the exterior case of the ISOMET™ to replace the Micrometer or interchange English and Metric Scale Micrometers. The following procedure should be used:

1. Unplug unit from electrical power source.
2. Remove Shaft Thumb Screw, End Cap Bushing, Flanges, Blade and Spacer.
3. Remove Arm Assembly by removing two (2) Screws that hold Clamp to Arm.
4. Remove Micrometer Thimble by following steps 1-3 under Micrometer Screw Adjustment.
5. Remove Lubricant Pan with Basket by swinging out Support Tray.
6. Remove six Screws (three on each side) attaching Case to Base Plate.
7. Remove two Front Screws, pull off Front Panel and disconnect Electrical Plug.
8. Pull Rear Panel backward after removing the three Rear Screws. The Rear Panel should not be completely detached from the unit (wires should remain connected) but can be pulled far enough back to allow the Case to clear.
9. Tip the case toward the Shaft side and slide over Shaft, Micrometer Spindle, and Cut-Off Switch Arm.

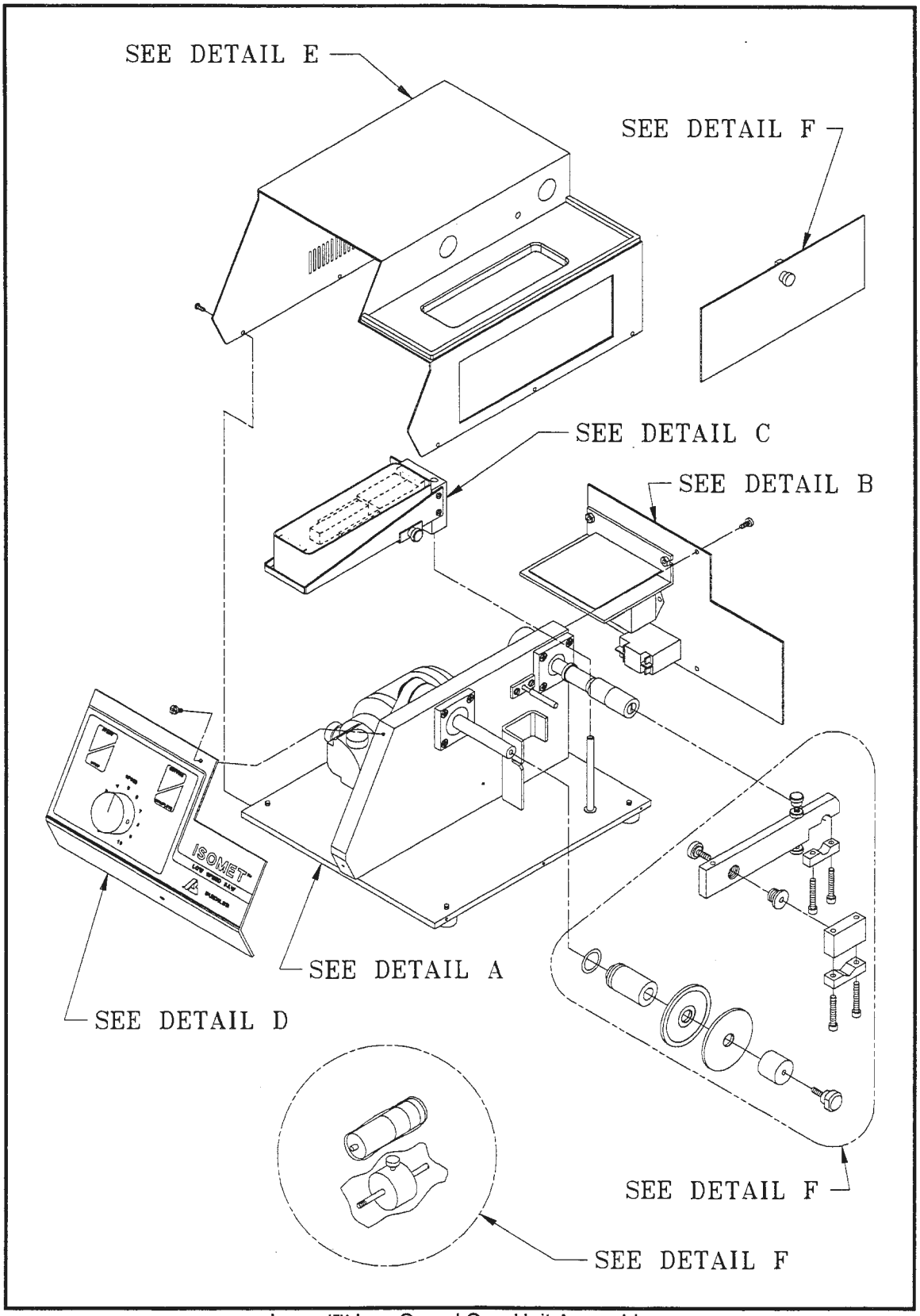
Reassemble in reverse sequence taking care not to pinch electrical wires or bend the Micrometer Spindle, the Cut-Off Switch Arm, or the precision Blade Shaft.

General Specifications:

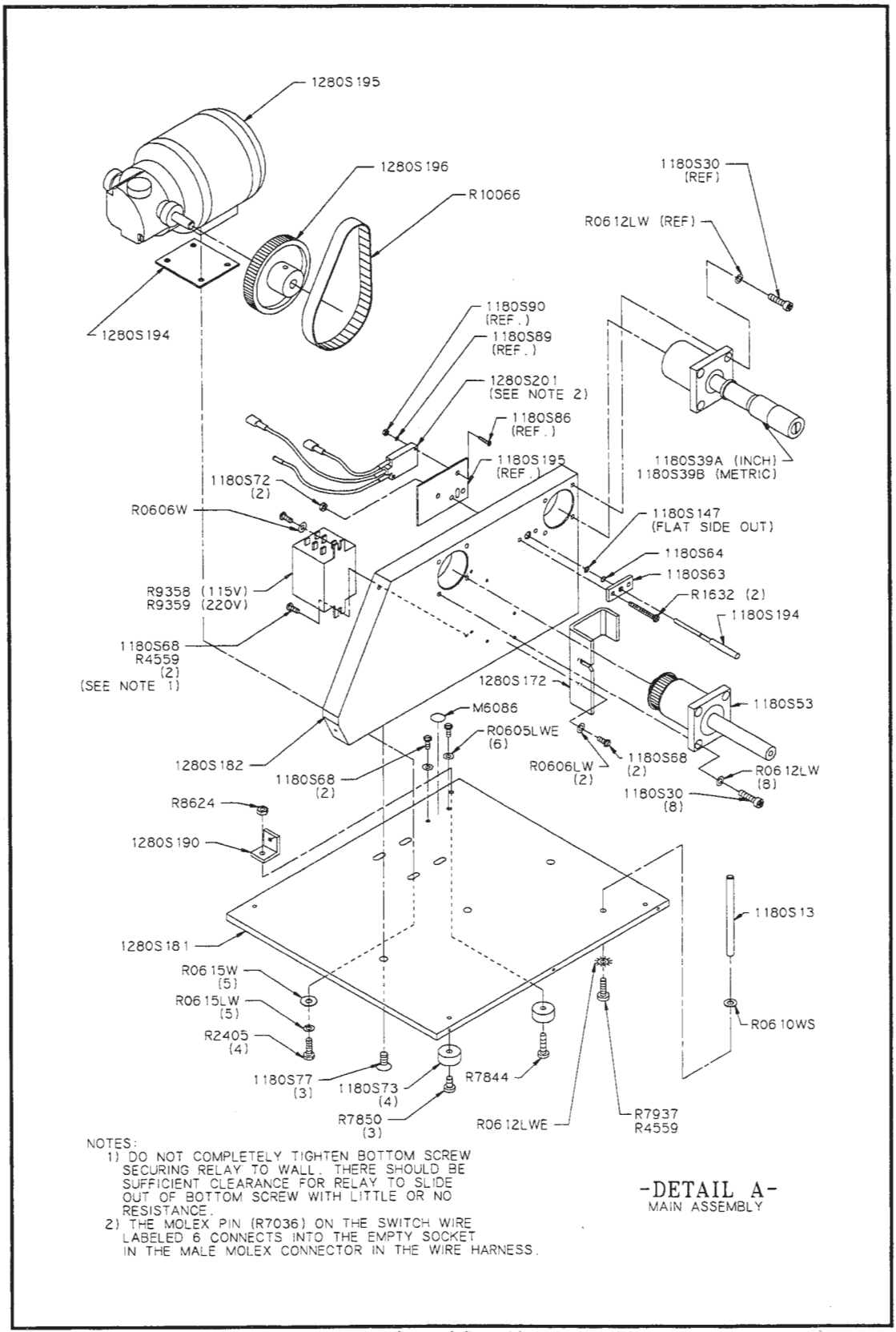
1. Tested sound level pressure less than 70 db.

Hot Cell or Glove Box Use

When the ISOMET™ is used in a Hot Cell or Glove Box, the inert atmosphere may cause excessive motor brush wear. Brushes may need to be replaced as often as once a month. Such replacement is not covered by the Warranty



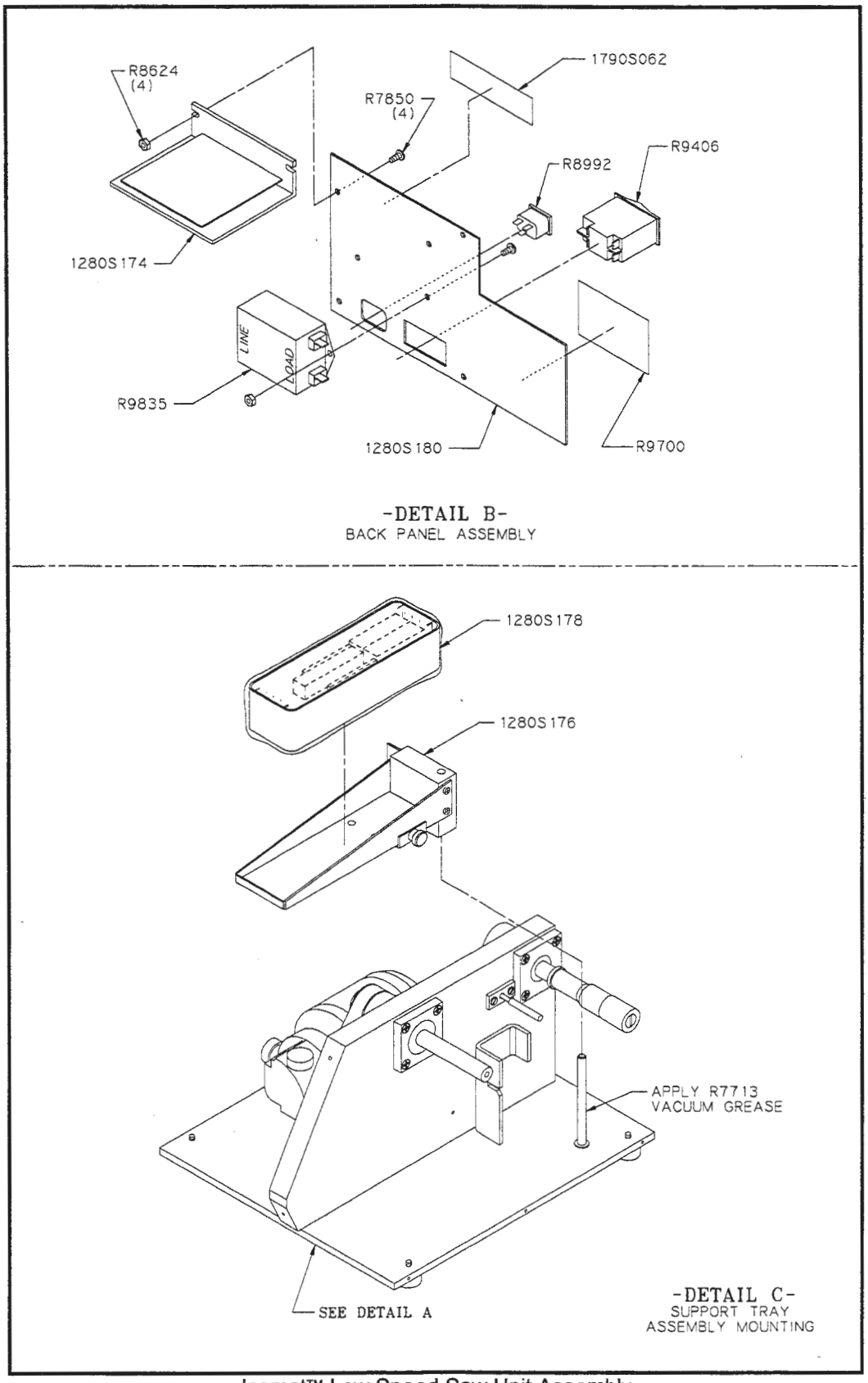
Isomet™ Low Speed Saw Unit Assembly



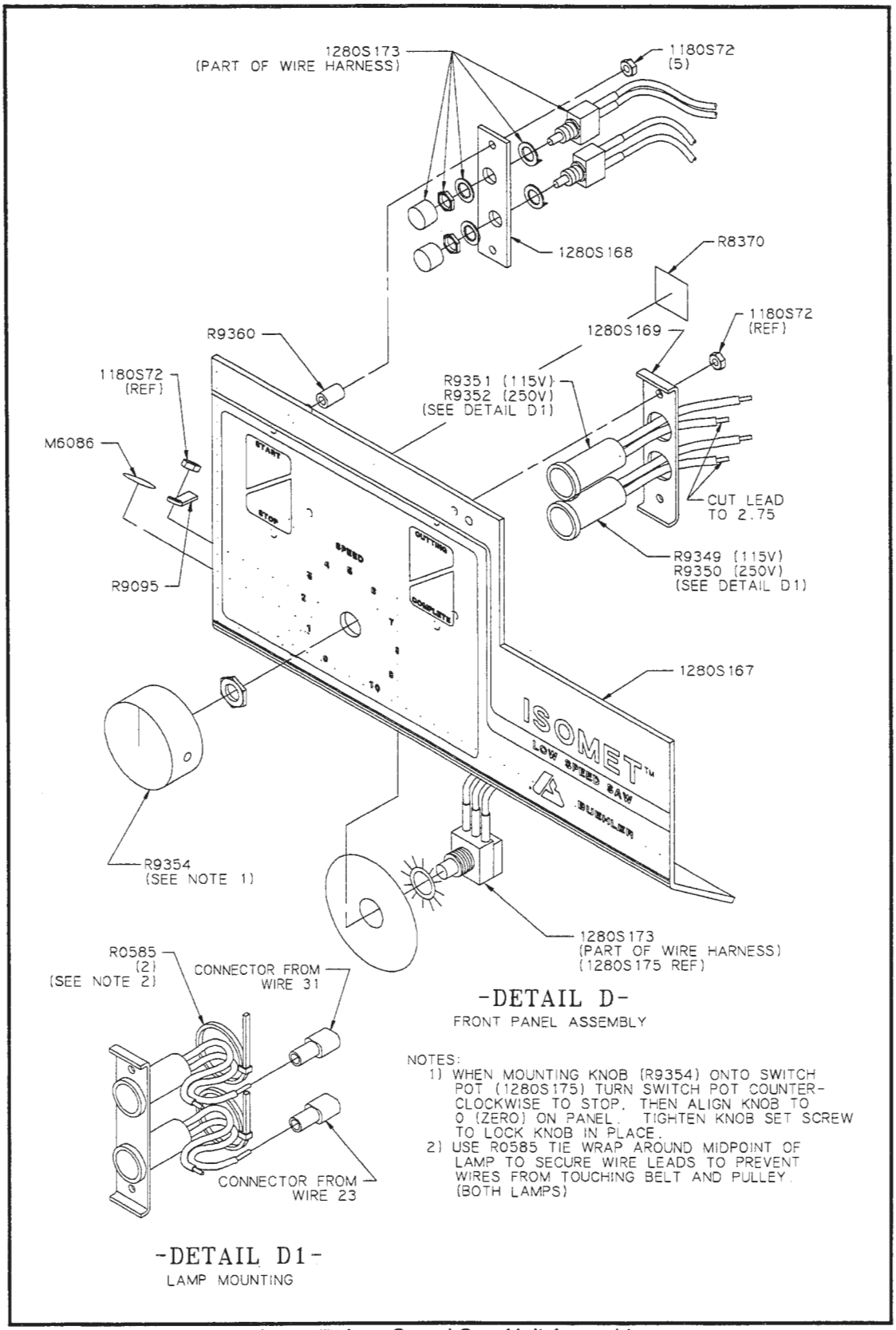
NOTES:
1) DO NOT COMPLETELY TIGHTEN BOTTOM SCREW SECURING RELAY TO WALL. THERE SHOULD BE SUFFICIENT CLEARANCE FOR RELAY TO SLIDE OUT OF BOTTOM SCREW WITH LITTLE OR NO RESISTANCE.
2) THE MOLEX PIN (R7036) ON THE SWITCH WIRE LABELED 6 CONNECTS INTO THE EMPTY SOCKET IN THE MALE MOLEX CONNECTOR IN THE WIRE HARNESS.

-DETAIL A-
MAIN ASSEMBLY

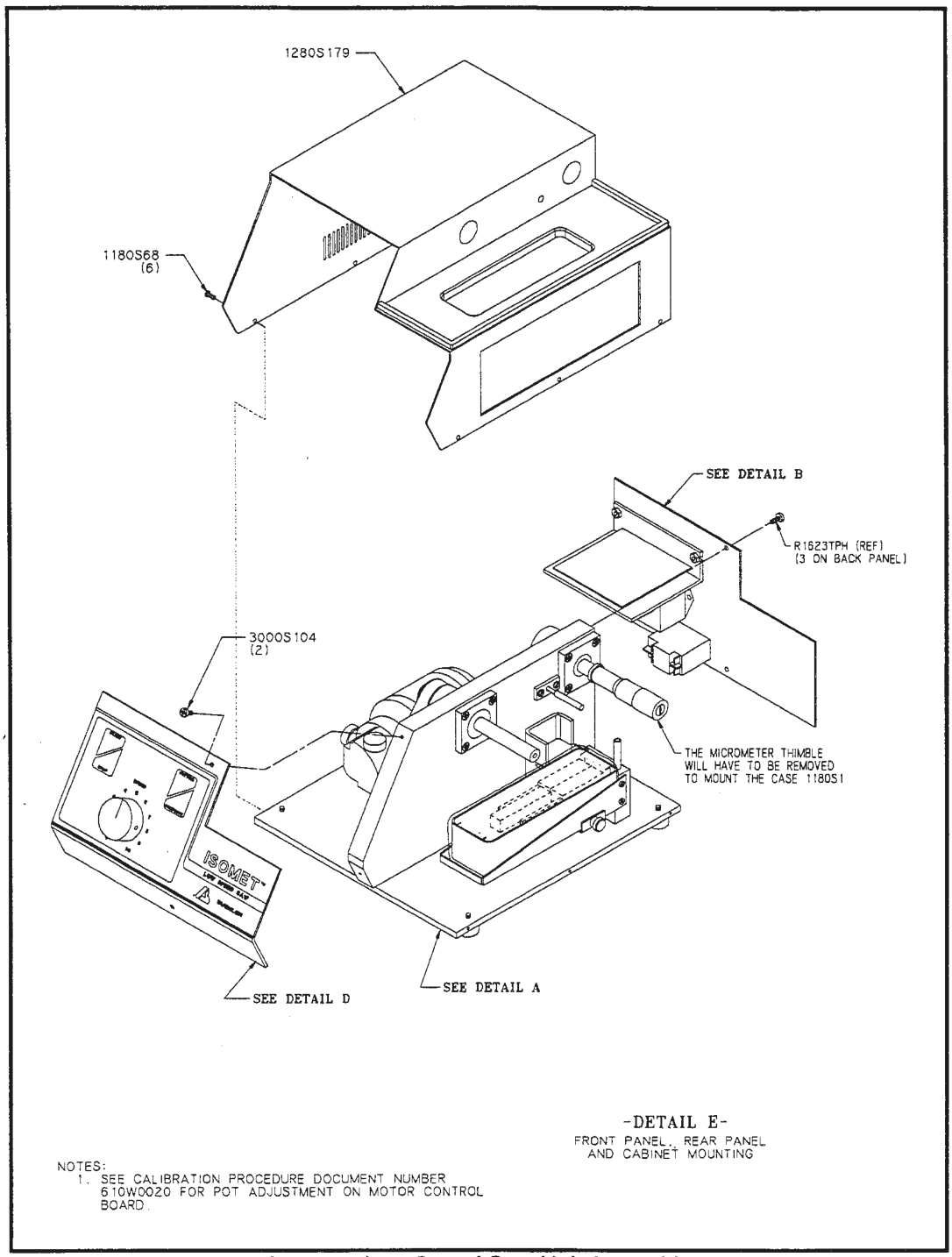
Isomet™ Low Speed Saw Unit Assembly



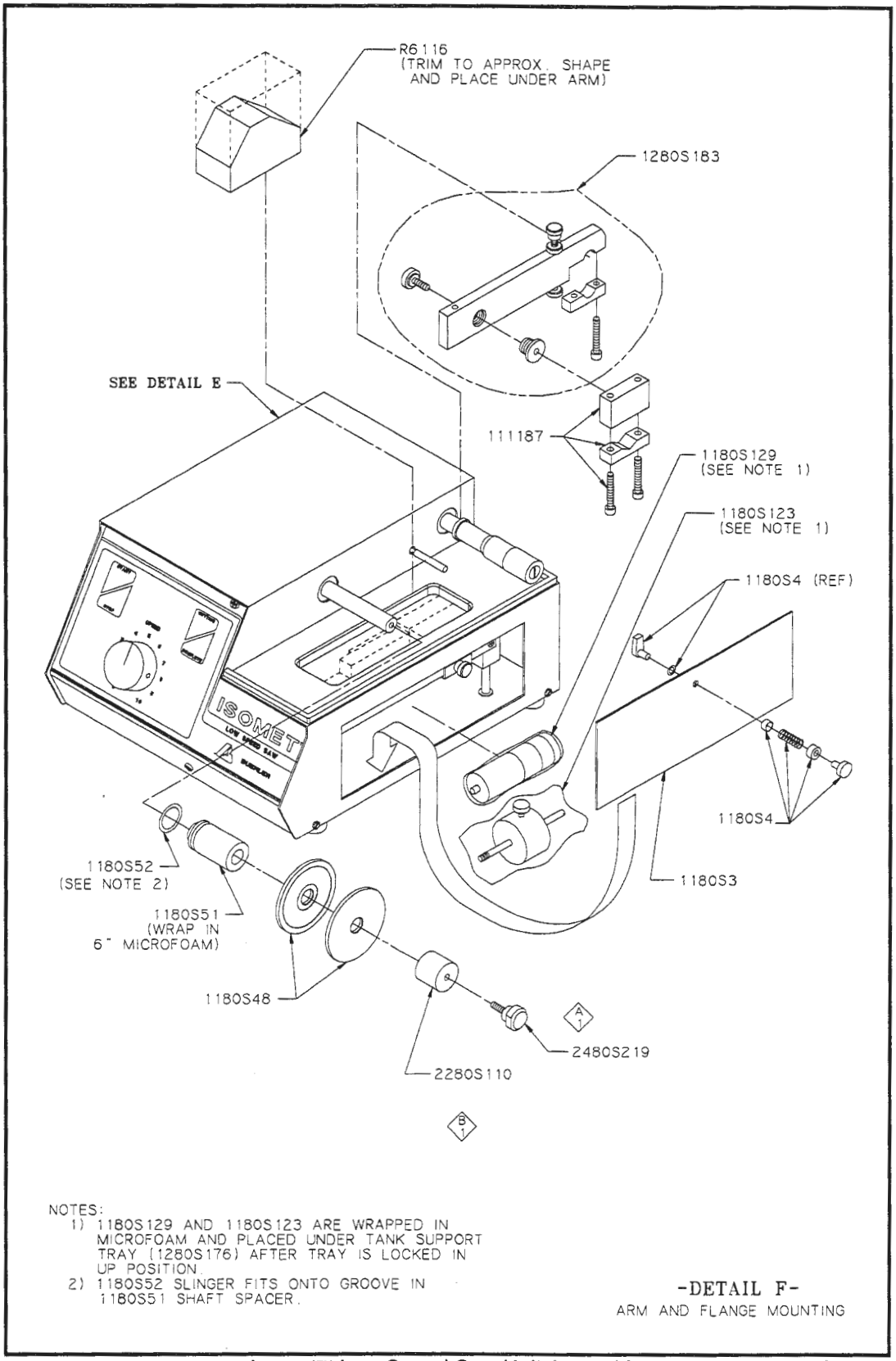
Isomet™ Low Speed Saw Unit Assembly



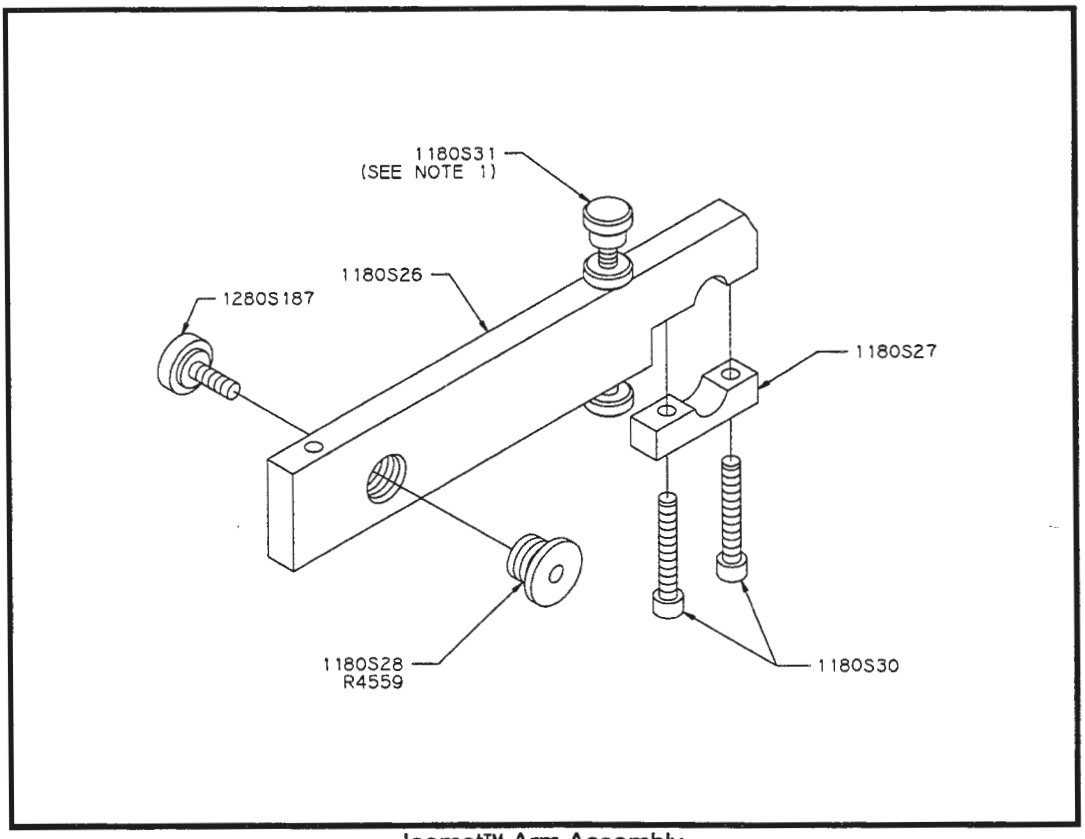
Isomet™ Low Speed Saw Unit Assembly



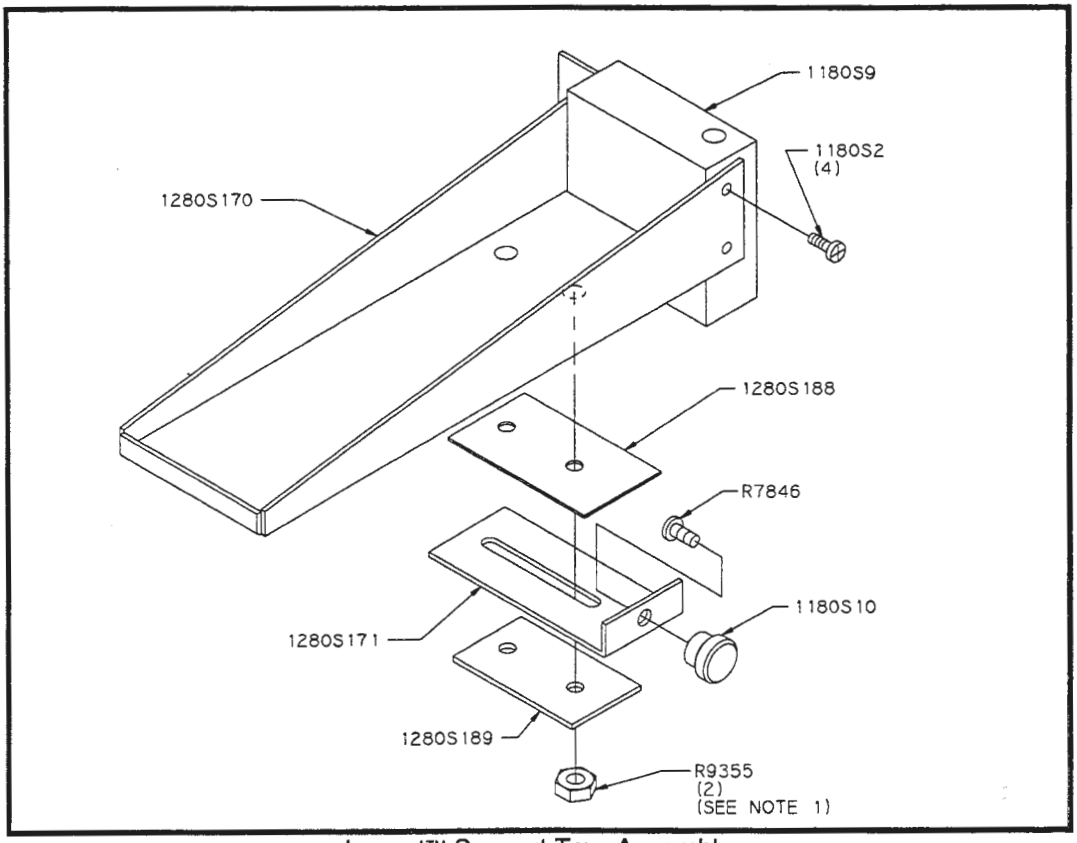
Isomet™ Low Speed Saw Unit Assembly



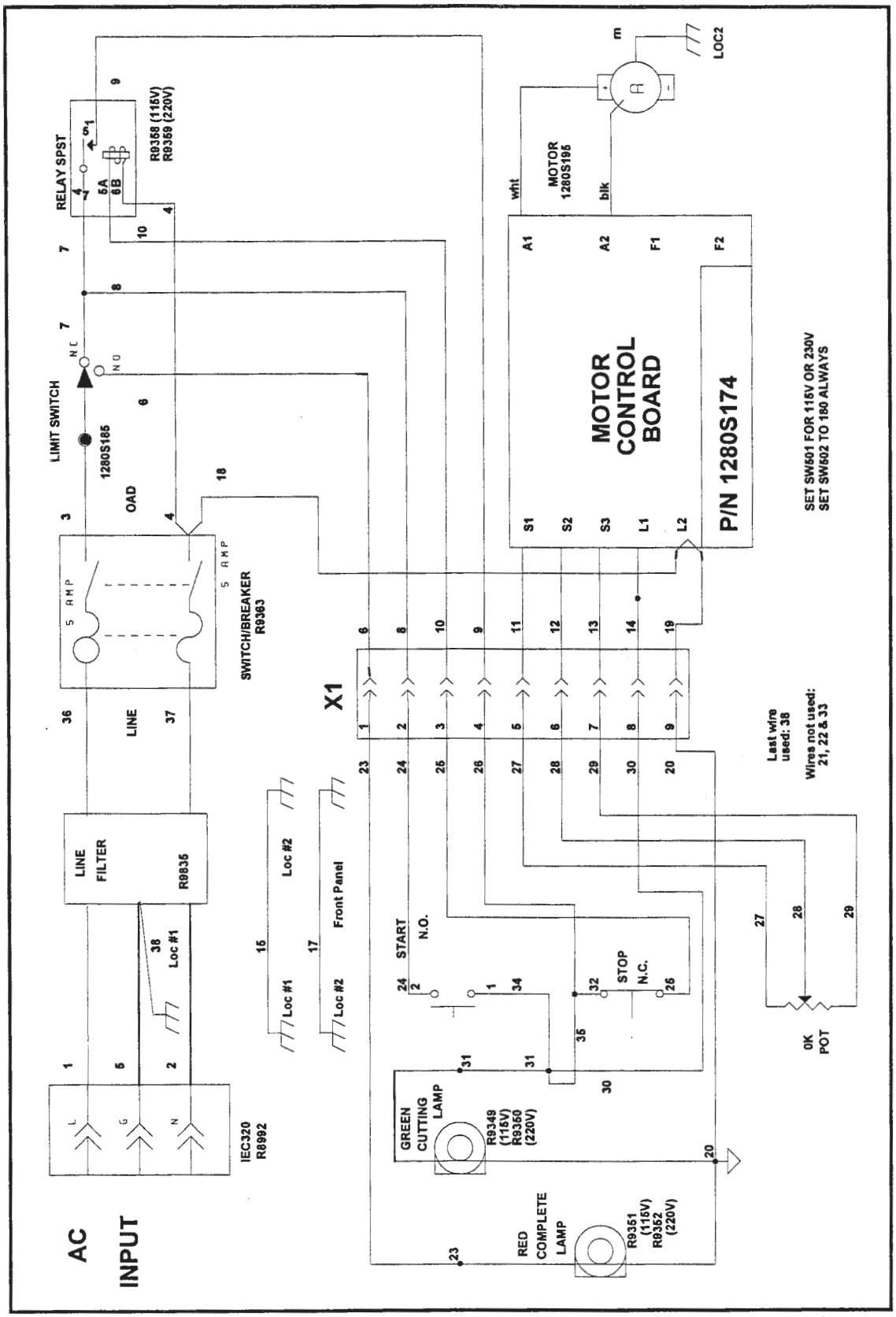
Isomet™ Low Speed Saw Unit Assembly



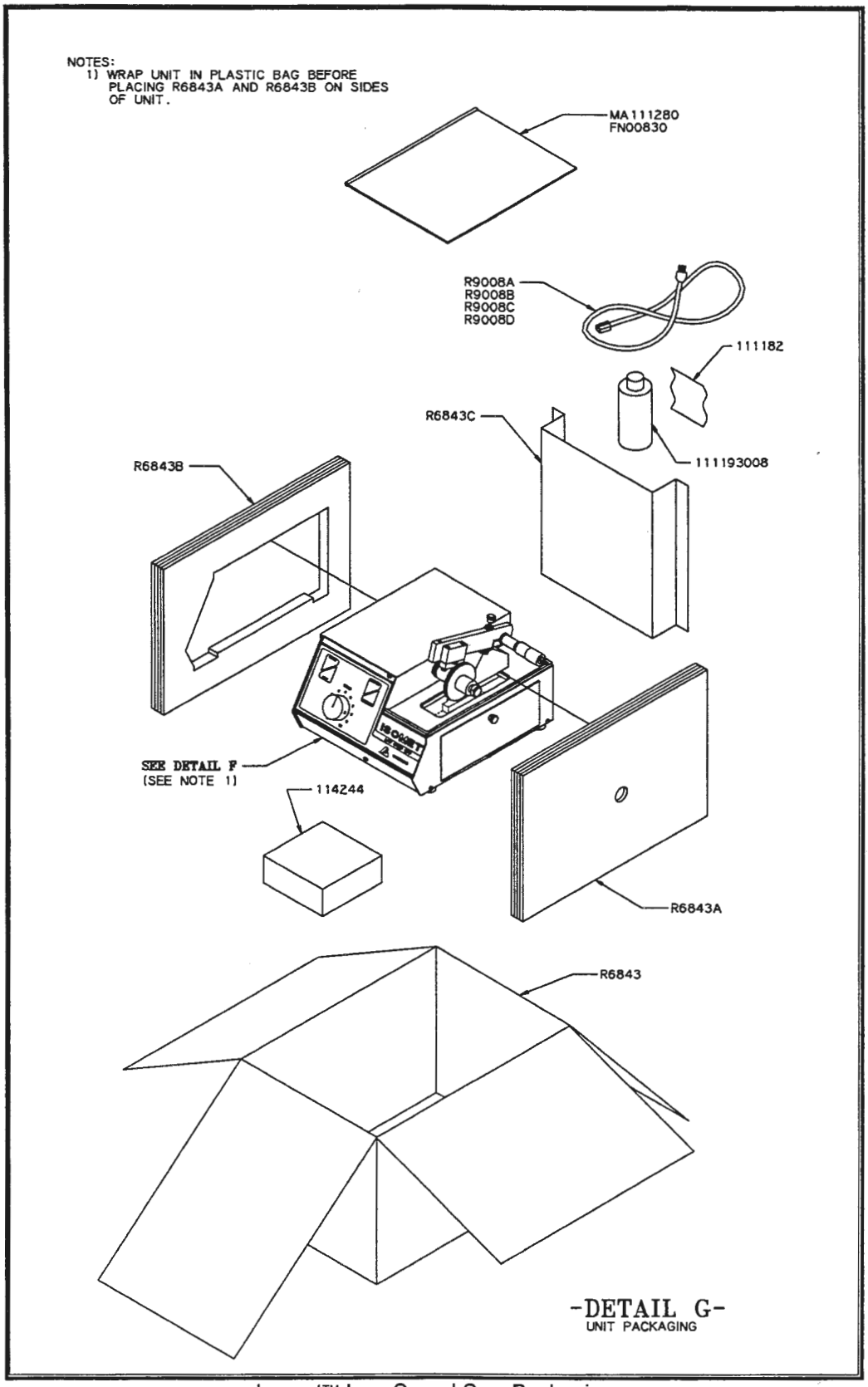
Isomet™ Arm Assembly



Isomet™ Support Tray Assembly



Isomet™ Low Speed Saw Electrical Connection Diagram



Isomet™ Low Speed Saw Packaging

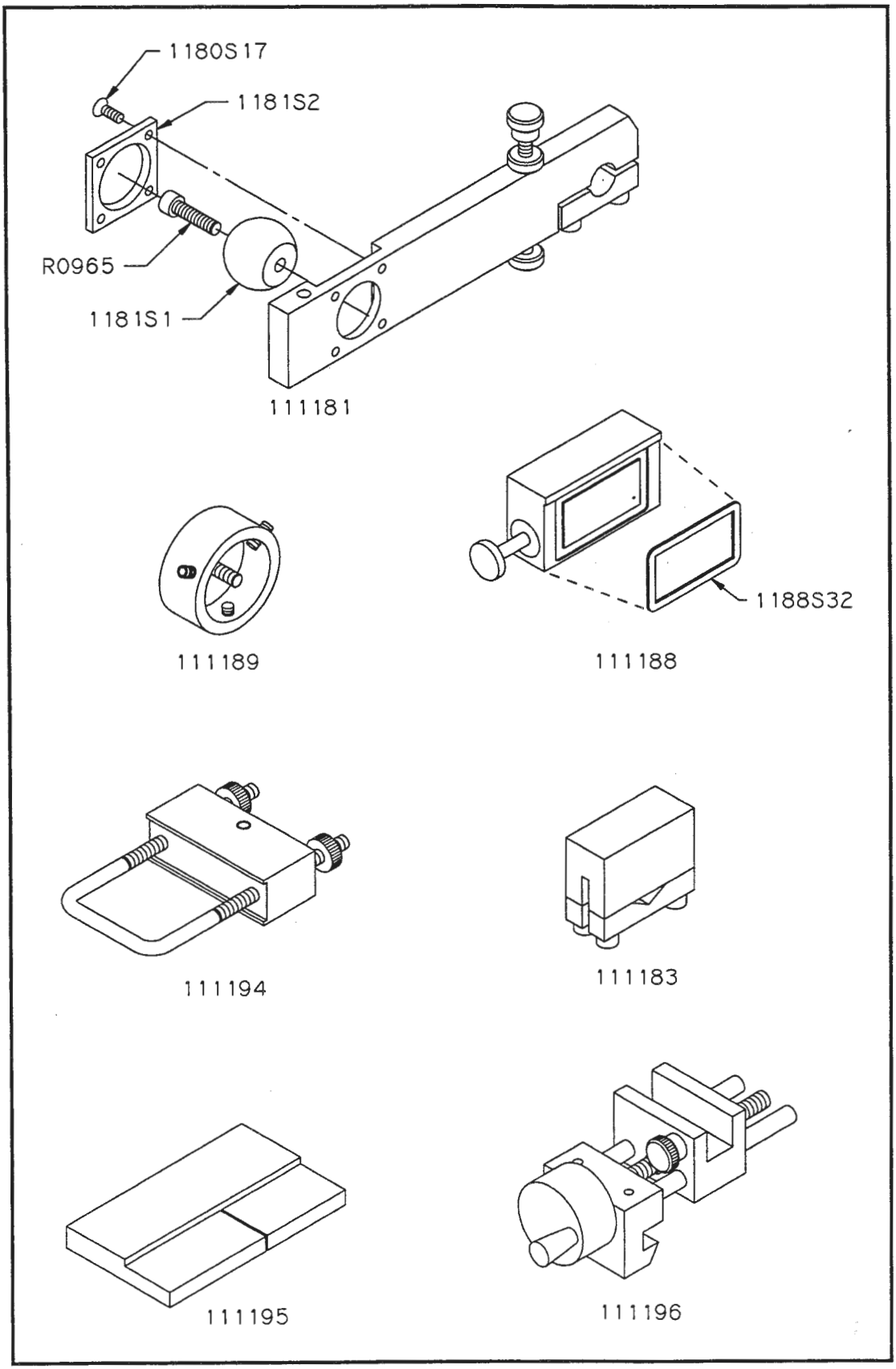
Isomet ® Low Speed Saw Parts List

Part Number	Description	Qty.	U/M
MA111280	MANUAL, INSTR ISOMET SAW	0.00	EA
FN00830	BUEHLER DIGEST VOL 27 ISOMET	1.00	EA
111182	ISOMET BLADE WIPER	1.00	EA
111193008	ISOCUT FLUID 8 OZ	1.00	BT
114244	WAFERING BLADE 4X.012X1/2 15HC	1.00	EA
1180S3	PANEL-DOOR ISOMET	1.00	EA
1180S4	DOOR LATCH ASSEMBLY	1.00	EA
1180S13	SUPPORT TRAY SHAFT	1.00	EA
1180S30	SCREW 10-32 3/4IN CR FIL HD	8.00	EA
1180S39A	MICROMETER ASSEMBLY INCH (111280160)	1.00	EA
1180S39B	MICROMETER ASSEMBLY METRIC (111280170, 111280250)	1.00	EA
1180S48	FLANGE 2.5 INCH DIAMETER	2.00	EA
1180S51	SPACER-SHAFT	1.00	EA
1180S52	SLINGER	1.00	EA
1180S53	DRIVE SHAFT ASSEMBLY	1.00	EA
1180S63	PLATE	1.00	EA
1180S64	O-RING 1/8 ID	1.00	EA
1180S68	SCREW 6-32 3/8IN CR RD HD SS	13.00	EA
1180S72	NUT 6-32 KEPS	7.00	EA
1180S73	RUBBER FOOT	4.00	EA
1180S77	SCREW 1/4-20 3/4IN CR FT CTRSK	3.00	EA
1180S123	WEIGHT ASSY-COUNTER BALANCE	1.00	EA
1180S129	WEIGHT ASSEMBLY	1.00	EA
1180S147	WASHER #5 SS	1.00	EA
1180S194	ARM, CUT-OFF SWITCH	1.00	EA
1280S201	SWITCH, END OF CUT ASSEMBLY	1.00	EA
1187S1	BLOCK	1.00	EA
1187S2	V-BLOCK COSTED W/1187-S1	1.00	EA
1280S167	NAMEPLATE, ISOMET	1.00	EA
1280S168	PLATE, SWITCH MOUNTING	1.00	EA
1280S169	BRACKET, LAMP MOUNTING	1.00	EA
1280S172	BRACKET, SLOTTED SUPPORT	1.00	EA
1280S173	HARNESS, WIRE ISOMET	1.00	EA
1280S174	CONTROL, MOTOR 115V/220V	1.00	EA
1280S176	SUPPORT TRAY ASSEMBLY	1.00	EA
1280S178	PAN, WRENCH & CHUCK KIT	1.00	EA
1280S179	CABINET, ISOMET	1.00	EA
1280S180	PANEL, ISOMET REAR	1.00	EA
1280S181	BASE PLATE, ISOMET	1.00	EA
1280S182	PLATE, MOUNTING	1.00	EA
1280S183	ARM ASSEMBLY	1.00	EA
1280S190	BRACKET, BACK SUPPORT	1.00	EA
1280S194	SPACER-MOTOR	1.00	EA
1280S195	GEARMOTOR, DC	1.00	EA
1280S196	PULLEY-MOTOR W/SCREWS	1.00	EA
1280S201	SWITCH, END OF CUT ASSEMBLY	1.00	EA
1790S062	PLATE, BILINGUAL CAUTION	1.00	EA
2280S110	BUSHING-SHAFT END ANODIZED	1.00	EA
2480S219	SCREW, THUMB 10-32 X .63 LG	1.00	EA
3000S104	SCREW 6-32X3/8" CR TR HD BLACK	2.00	EA
M6086	GROUND LABEL	2.00	EA
R0585	TIE STRAP .10X4IN	10.00	EA
R0605LWE	WASHR, EXT #6 STN STL	6.00	EA

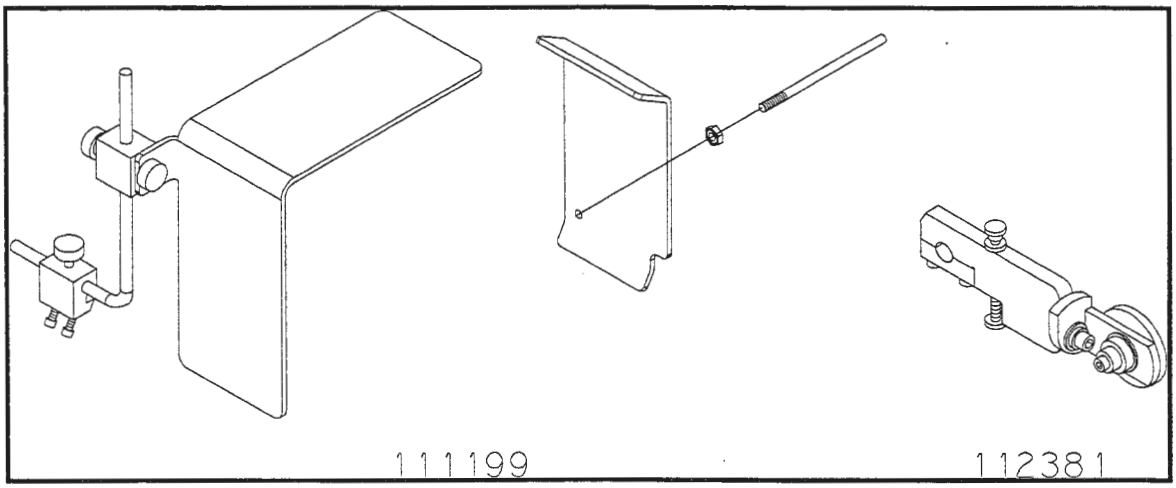
Isomet ® Low Speed Saw Parts List

Part Number	Description	Qty.	U/M
R0606LW	LOCK WASHER #6 SS	2.00	EA
R0606W	WASHER #6 SS	1.00	EA
R0610WS	WASHER #10 SMALL BRASS	1.00	EA
R0612LW	LOCK WASHER #10 SS	8.00	EA
R0615LW	WASHER, LOCK SPLIT 1/4" STN STL	5.00	EA
R0615W	WASHER, 1/4" STN STEEL	5.00	EA
R0969	SCREW 10-32 1-1/4IN SKT HD SS	2.00	EA
R1623TPH	SCREW 6-32 1/4IN CR TR HD SS	3.00	EA
R1632	SCREW 6-32 1-1/4IN CR TR HD SS	2.00	EA
R2405	SCREW 10-32 5/8IN CR PAN HD	4.00	EA
R4559	ADHESIVE-ANAEROBIC THREAD GR.	0.01	EA
R6116	BLOCK, ETHAFOAM 3X3X1-1/2	0.50	EA
R6141	MICROFOAM SHEET 3/32X12X6 IN	1.00	FT
R6328	TWIST-TIE, POLY BAG-12" BLUE	1.00	EA
R6329	POLY BAG 4X10-4 MIL	1.00	EA
R6390	ENVELOPE, WARRANTY-9X14X4MIL	1.00	EA
R6616	POLY BAG 20X20-2 MIL	1.00	EA
R6843	CARTON, 111280 ISOMET SAW	1.00	EA
R6843A	INSERT, DOOR SIDE	1.00	EA
R6843B	INSERT, BLANK SIDE	1.00	EA
R6843C	INSERT, REAR	2.00	EA
R7075	STAKON WIRE JOINTS	1.00	EA
R7844	SCREW 8-32 3/4IN CR PAN HD SS	1.00	EA
R7850	SCREW 8-32 3/8IN CR PAN HD SS	7.00	EA
R7937	SCREW 10-32 X 3/4 CR PAN HD SS	1.00	EA
R8370	MOUNT CABLE TIE	1.00	EA
R8624	NUT, 8-32 KEPS-ZINC PLATE STL.	5.00	EA
R8992	INLET, POWER - IEC - SNAP-IN	1.00	EA
R9008A	CORD, IEC POWER - U.S.	0.00	EA
R9008B	CORD, IEC POWER - EUROPE	0.00	EA
R9008C	CORD, IEC POWER - U.K.	0.00	EA
R9008D	CORD, IEC POWER - JAPAN	0.00	EA
R9095	CONNECTOR, .187 MALE TAB BRASS	1.00	EA
R9349	LAMP, RED NEON .50 DIA 125V (111280160, 111280170)	1.00	EA
R9350	LAMP, RED NEON .50 DIA 250V (111280250)	1.00	EA
R9351	LAMP, GREEN NEON .50 DIA 125V (111280160, 111280170)	1.00	EA
R9352	LAMP, GREEN NEON .50 DIA 250V (111280250)	1.00	EA
R9354	KNOB, 1.50 DIAX.66 HIGH BLACK	1.00	EA
R9358	RELAY, 13 AMP SPDT 115V (111280160, 111280170)	1.00	EA
R9359	RELAY, 13 AMP SPDT 230V (111280250)	1.00	EA
R9360	SPACER, 6-32X.25ODX.375 LG	2.00	EA
R9406	CIRCUIT BREAKER, 5A	1.00	EA
R9700	PLATE, SPEC CE APPROVED	1.00	EA
R9760	WRENCH, OPEN END 1/2 - 5/8 IN	1.00	EA
R10066	DRIVE BELT	1.00	EA

ACCESSORIES AND SUPPLIES FOR 11-1280 ISOMET ™ LOW SPEED SAW



ACCESSORIES AND SUPPLIES FOR 11-1280 ISOMET ™ LOW SPEED SAW



111181	**Swivel Arm Assembly**	Adjustable spherical bushing permits positioning of chuck to allow angular sectioning of specimen. May be used with any ISOMET ™ chuck.
111183	**Chuck Double (hold-down saddle type)**	Prevents possible damage to specimen by holding sectioned portion firmly after cutting is completed.
111188	**Chuck (Vacuum type)**	For petrographic thin sections.
111189	**Chuck**	For 1" and 1 1/4" dia. specimens.
111190	**Dressing Stick**	for Diamond Wafering Blades, Series 15 & 20
111290	**Dressing Stick**	for Diamond Wafering Blades, Series 5 & 10
111191	**Flange 1 3/4" Dia.**	Recessed flange for use with 111188 Vacuum chuck, with 111181 Swivel Arm assembly, for larger specimens and where greater depth of cut is required.
111192	**Flange 1 3/8" Dia.**	Recessed flange for use with 111188 Vacuum chuck, with 111189 Chuck, and where maximum depth of cut is required.
111194	**Isomet ™ Bone Chuck**	Used for gripping bones and other irregularly shaped specimens.
111195	**Plastic Guide Plate**	Used for supporting bones and other specimens during manual operation.
111196	**Isomet ™ Dressing Chuck**	Used for dressing wafering blades without removing fixtured samples.
111199	**Isomet ™ Splash Guard Kit**	Used to catch cutting fluid flung to the front and rear of the saw.
112381	**Goniometer**	Used for precision sectioning along specific planes, with each axis providing movement in 2° increments.
112496	**Chuck Padding**	Used to protect fragile samples.
111193032	**ISOCUT ® FLUID**	per quart
111193128	**ISOCUT ® FLUID**	per gallon

ACCESSORIES AND SUPPLIES FOR 11-1280 ISOMET ™ LOW SPEED SAW

408140032	**Mineral Spirits**	per quart.
408140128	**Mineral Spirits**	per gallon.
111184	**Chuck (Bar & Tube Stock)**	Shipped standard with unit.
111185	**Chuck (Irregular Samples)**	Shipped standard with unit.
111186	**Chuck (Wafers)**	Shipped standard with unit.
111187	**Chuck (Long Samples)**	Shipped standard with unit.

Wafering Blades 1/2" (12.7mm) Arbor

DIAMOND WAFERING BLADES

Type and Use	Diameter and Thickness		
Blade Series	3" x 0.006" (7.6cm x 0.15mm)	4" x 0.012" (10.2cm x 0.3mm)	5" x 0.015" (12.7cm x 0.4mm)
Series 20HC Diamond For aggressive general sectioning of ferrous and non-ferrous materials.			11-4215*
Series 15HC Diamond For routine use,metal matrix composites, PC boards, thermal spray coatings.	11-4243	11-4244	11-4245
Series 20LC Diamond For use with hard/tough materials,structural ceramics, boron carbide, boron nitride, silicon nitride.			11-4225*
Series 15LC Diamond For use with hard/brittle materials, structural ceramics, electronic substrates, alumina, zirconia, silicon carbide.		11-4254	11-4255
Series 10LC Diamond For use with medium to soft ceramics, electronic packages, GaAs, AIN and glass fiber reinforced composites.			11-4285
Series 5LC Diamond For use with soft friabale ceramics, composites with fine reinforcing media, CaF2, MgF2, and carbon composites	11-4298		11-4295

ACCESSORIES AND SUPPLIES FOR 11-1280 ISOMET ™ LOW SPEED SAW

ISOCUT ® WAFERING BLADES

Some materials can be cut at a faster rate using a synthetic alloy abrasive rather than a diamond wafering blade. ISOCUT ® wafering blades work well for many materials and give significantly shorter cutting times with iron and cobalt base alloys, nickel base super alloys and lead base alloys.

1/2" (12.7mm) ARBOR ISOCUT ® WAFERING BLADES

Recommended Use	3" X 0.006" (7.6 cm X 0.15 mm)	4" X 0.012" (10.2 cm X 0.3 mm)	5" X 0.015" (12.7 cm X 0.4 mm)
LOW Concentration			
For Iron and Cobalt Base Alloys, Nickel Base Alloys and Lead Base Alloys	114263	114264	114265