

WARNING: THIS TOOL SHOULD NOT BE USED ON LIVE ELECTRICAL CIRCUITS. IT IS NOT PROTECTED AGAINST ELECTRICAL SHOCK!
ALWAYS USE OSHA/ANSI/CE OR OTHER INDUSTRY APPROVED EYE PROTECTION WHEN USING TOOLS. THIS TOOL IS NOT TO BE USED FOR PURPOSES OTHER THAN INTENDED. READ CAREFULLY AND UNDERSTAND INSTRUCTIONS BEFORE USING THIS TOOL.



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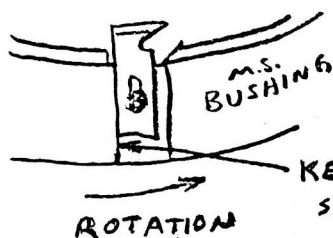
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A. Setting the Blade in the Master Shaving Bushing

1. First determine which is the smallest O.D. cable of a three phase trio, and/or of reels of cable that are to be used. This can be done easily by using the available Adapter Sleeves on hand, or a cable tape measure.
2. With a hacksaw, cut a 2-3 ft. length of this cable.
3. Straighten cable.
4. Select the Adapter Sleeve that fits tightly over this cable (tight, but not binding). You must use the proper Adapter Sleeve. If you do not have the proper Sleeve, use Table I of the Instruction Sheet and order the Sleeve nearest the .015" over the measured cable O.D.
5. Mount the proper Adapter Sleeve in its Master Shaving Bushing. Be sure the Allen screw goes down into the mounting hole in the Sleeve.
6. Put the Bushing over the end of the sample cable and, for a preliminary Blade setting, "eyeball" the Blade depth to cut just at the point between insulation and semi-con.

NOTE: There is some play in the slot of the Master Shaving Bushing where the Blade is located. Always hold the Blade against the same side of the slot when re-adjusting and tightening the Blade. Use the side that allows the Blade to rest against the Bushing's rotation direction.



KEEP BLADE AGAINST THIS SIDE OF
SLOT, & DO NOT LET BLADE TILT IN THE SLOT

7. Rotate the Bushing around the cable 4 or 5 times to make a sample shaving. Use silicone lubricant to reduce friction. Press the Bushing forward as you rotate. (Or hold the Bushing stationary and rotate the cable, pressing the cable into the Bushing as you rotate.)
8. Examine the cable to determine if Blade setting is removing all semi-con, with the least amount of insulation removal.
9. If Blade setting does not appear correct, reset Blade. When resetting Blade, be sure to move the Blade an extremely small amount each time. Use the scale guide and remember the NOTE above.
10. When you think Blade is set properly, try the Bushing in the WS40, and make a 1/2" to 1 " strip. The Blade may still need a bit of re-adjusting because Steps 6 to 9 are only preliminary. Before making the WS40 shave, use the hacksaw and start the cable anew. Cut off the preliminary shaves. Usually one or two more attempts will result in setting the Blade properly.

If a cable is concentric, only 2-3 mils of insulation need removal. This is no detriment because the Elastimere inside an elbow, splice kit or terminator will make up the loss. Tape will make up for a hand wrapped splice. (Even 4-5 mils can be removed without being detrimental.)

If a cable insulation has a "flat" spot, do not lower the Blade depth but remove the "left on" semi-con with aluminum oxide cloth.

11. Once the Blade is set there should be no need to re-adjust it, even if an Adapter Sleeve is changed. The shave O.D. of the insulation on all cables will be the same. (On those cables with a slightly larger O.D., obviously a bit more insulation will be removed.) It will never be required to reduce the insulation diameter to below the range that is specified on your elbow, splicing kits or terminators. In fact, in most cases, your shaved O.D. of the insulation should be in the middle or toward the high side of middle of this range. The important thing is to set the Blade adjustment on the smallest O.D. cable of those to be used.

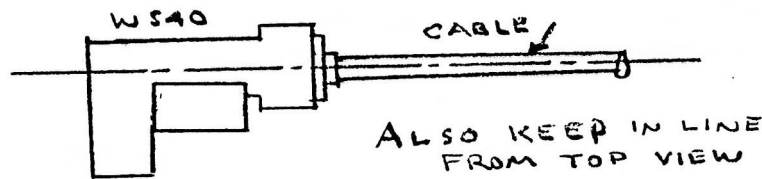
B. Blade Positioning in the End Stripping Bushing

1. To set the Blade in the End Stripping Bushing (ESB), place the ESB over the same cable end that has just had the semi-con removed. Position the Blade so it is approximately 1/64" to 1/32" away from the conductor. Rotate the ESB 360 degrees to be sure the Blade does not come any closer than 1/64" to any conductor eccentricity. Blade is set.

C. Operating the WS40, Removing Semi-con

Assuming Blade adjustments have been set and proper Adapter Sleeve installed:

1. Always straighten the cable. (Cut end with a hacksaw.)
2. Lubricate cable length to be shaved with silicone lubricant.
3. Put the WS40 over the cable end, butting the Blade in the Master Shaving Bushing against the cable end.
4. Hold the WS40 firmly and make certain the longitudinal axis of the WS40 is held in line with the cable axis.



5. Apply slight forward pressure and turn power on, keeping same slight forward pressure until length of shave is complete. Allow WS40 to rotate a few times against the stopping device. Turn power off and DO NOT EXTRACT WS40 UNTIL ROTATION CEASES.
6. Use the "Stop bar" in the WS40 up to approximately an 8" shave. The length the bar protrudes out the rear is the length of the shave, except the shave will be 1/4" less, consequently if you desire to shave 6 1/2", set the bar protrusion to 6 3/4".
7. If a longer length is to be shaved than the Stop bar provides, remove the Stop bar assembly from the WS40. Put the WS40 over the cable, letting the Blade butt against the cable end. Now from the front of the Adapter sleeve, measure up the cable the desired length to be shaved. If 15" is to be shaved, measure 15" from Sleeve and put on a layer or two of tape and place a cable clamp or such to act as "stop" to produce a squared end cut. Let the WS40 rotate a few revolutions against the stop device. Again, BE SURE WS40 ROTATION CEASES BEFORE EXTRACTING IT FROM THE CABLE.
8. If a spot or two of semi-con is left on insulation, it is due to the cable and can be removed with aluminum oxide cloth. Use a 100 grit first and finish over with a 300 grit (or grits near this).
9. The Blade will maintain its sharpness for many uses. When the edge dulls, the insulation will appear "crinkly" or somewhat like an orange skin. Blades can be re-honed with a fine India stone, but never to be ground on a wheel.

D. Operating the WS40, Removing Insulation

1. Set the Stop bar protrusion to the exact distance of the desired end strip length. (Do not add the 1/4" as in semi-con removing.)
2. Place the WS40 over the shaved insulation. The End Stripping Bushing is a fixed size and should not fit too "sloppy" over the insulation. The End Stripping Bushing should not be greater than .035" I.D. versus cable insulation O.D. Obviously, the ESB cannot be too tight.
3. Again, keep the axii in a straight line.
4. This time, apply hard forward pressure and turn power on. The WS40 will travel fast. Turn power off as soon as "stop" is reached, but allow it to rotate a few turns before shutting off. Always hold forward pressure. DO NOT REMOVE TOOL UNTIL ROTATION CEASES.

If the conductor is concentrically, or nearly so, within the insulation, all strand shield will be removed.

**TO REPEAT: Keep a hard forward pressure
 Turn power off upon reaching stop
 Let rotation cease before extracting**

WARRANTY: RIPLEY warrants its products against defective materials and workmanship for a period of one year from date of shipment from the RIPLEY factory provided the product is utilized in accordance with instructions and specified ratings.

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WS 40 ORDERING INFORMATION

MASTER SHAVING BUSHING: Table 1. Select the Master Shaving Bushing (MSB) having a range that covers the OD over semi-con insulation shield of your cable. All MSB's include a Cutting Blade. All MSB's require an Adapter Sleeve sized to fit over your cable.

ADAPTER SLEEVE: Table 2. Select the Sleeve having the size nearest the OD of your cable semi-con. Then select 1 Sleeve one size larger, and 1 sleeve one size smaller. (Usually 3 Sleeves will handle cable variations).

REPLACEMENT BLADE: Table 3. Use the blade that corresponds to the MSB and Adapter Sleeve.

TABLE 1 - MASTER SHAVING BUSHINGS

Bushing	Range	Part No.	Bushing	Range	Part No.	Bushing	Range	Part No.	Bushing	Range	Part No.
MSBA	.610" - .895"	17890	MSBC	1.105" - 1.390"	17892	MSBD	1.345" - 1.495"	17893	MSBE	1.600" - 1.660"	17894-002
MSBB	.850" - 1.150"	17891				MSBD	1.510" - 1.645"	17893-001	MSBE	1.675" - 1.900"	17894-003

TABLE 2 - ADAPTER SLEEVES

A Size	Part No.	B Size	Part No.	C Size	Part No.	D Size	Part No.	E Size	Part No.
.610	17938-610	.850	17939-850	1.105	17940-1105	1.345	17941-1345	1.570	17942-1570
.625	17938-625	.865	17939-865	1.120	17940-1120	1.360	17941-1360	1.585	17942-1585
.640	17938-640	.880	17939-880	1.135	17940-1135	1.375	17941-1375	1.600	17942-1600
.655	17938-655	.895	17939-895	1.150	17940-1150	1.390	17941-1390	1.615	17942-1615
.670	17938-670	.910	17939-910	1.165	17940-1165	1.405	17941-1405	1.630	17942-1630
.685	17938-685	.925	17939-925	1.180	17940-1180	1.420	17941-1420	1.645	17942-1645
.700	17938-700	.940	17939-940	1.195	17940-1195	1.435	17941-1435	1.660	17942-1660
.715	17938-715	.955	17939-955	1.210	17940-1210	1.450	17941-1450	1.675	17942-1675
.730	17938-730	.970	17939-970	1.225	17940-1225	1.465	17941-1465	1.690	17942-1690
.745	17938-745	.985	17939-985	1.240	17940-1240	1.480	17941-1480	1.705	17942-1705
.790	17938-790	1.000	17939-1000	1.255	17940-1255	1.495	17941-1495	1.720	17942-1720
.805	17938-805	1.015	17939-1015	1.270	17940-1270	1.510	17941-1510	1.735	17942-1735
.820	17938-820	1.030	17939-1030	1.285	17940-1285	1.525	17941-1525	1.750	17942-1750
.835	17938-835	1.045	17939-1045	1.300	17940-1300	1.540	17941-1540	1.765	17942-1765
.850	17938-850	1.060	17939-1060	1.315	17940-1315	1.555	17941-1555	1.780	17942-1780
.865	17938-865	1.075	17939-1075	1.330	17940-1330	1.570	17941-1570	1.795	17942-1795
.880	17938-880	1.090	17939-1090	1.345	17940-1345	1.585	17941-1585	1.810	17942-1810
.895	17938-895	1.105	17939-1105	1.360	17940-1360	1.600	17941-1600	1.825	17942-1825
		1.120	17939-1120	1.375	17940-1375	1.615	17941-1615	1.840	17942-1840
		1.135	17939-1135	1.390	17940-1390	1.630	17941-1630	1.855	17942-1855
		1.150	17939-1150			1.645	17941-1645	1.870	17942-1870
								1.885	17942-1885
								1.900	17942-1900
								1.915	17942-1915

TABLE 3 - REPLACEMENT BLADES

Bushing	Range	Blade	Part No.	Bushing	Range	Blade	Part No.	Bushing	Range	Blade	Part No.	Bushing	Range	Blade	Part No.
MSBA	.610" - .895"	CB43	17918	MSBC	1.105" - 1.390"	CB43	17918	MSBD	1.345" - 1.495"	CB43	17918	MSBE	1.600" - 1.660"	CB43-1	17951
MSBB	.850" - 1.150"	CB43	17918					MSBD	1.510" - 1.645"	CB43-1	17951	MSBE	1.675" - 1.900"	CB43-2	17952