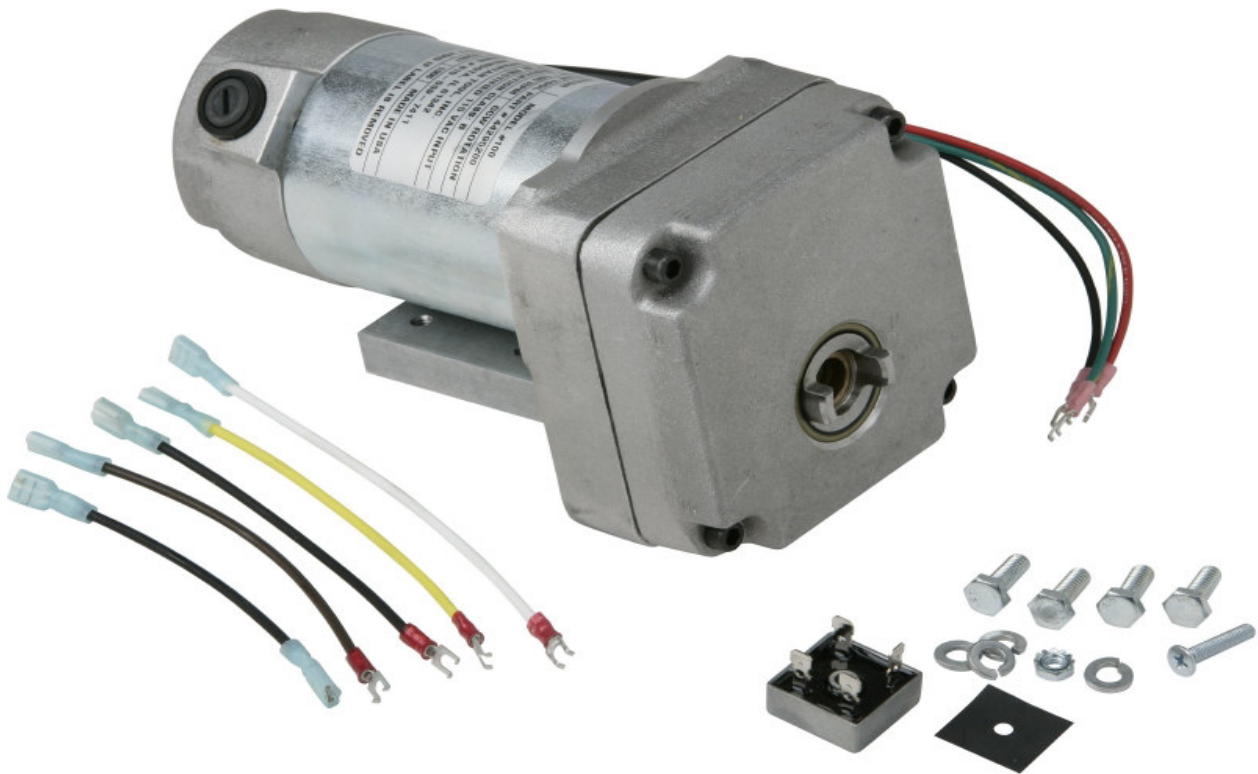




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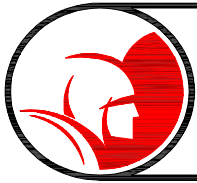
Model 100 PM Motor Conversion Kit Installation Instructions



Spartan Tool L.L.C.

800.435.3866

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Model 100 PM Motor Conversion Kit
44295400 (110 Volt) 44295500 (220 Volt)



Remove Old Motor

- 1) Disconnect Power Cord
- 2) Remove & Retain (2) #6 x 1/4 sheet metal screws from outlet box cover assembly
- 3) Disconnect motor leads from outlet box cover assembly
- 4) Remove motor mounting screws.
- 5) Remove the old motor / gear box assembly

Prepare Frame for Bridge Rectifier

- 6) Mark the location for the rectifier mounting hole. (See fig. 3).
- 7) Drill 7/32 diameter hole through the side of the outlet box.

Install New Motor / Gear Box

- 8) Position motor & align it with mounting holes
- 9) Insert (4) 1/4-20 x 3/4 hex head machine screws and thread into motor
- 10) Tighten mounting screws while maintaining motor alignment to frame
- 11) Feed motor leads through rubber grommet and into outlet box portion of frame
- 12) Connect motor leads to bridge rectifier and outlet box cover assembly as shown in wiring diagram

Install Bridge Rectifier

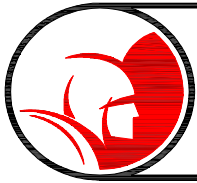
- 13) Insert # 10-32 x 1 flat head screw into hole made in step 6
- 14) Place heat sink pad inside outlet box and on # 10 screw
- 15) Add bridge rectifier to # 10 screw, thereby capturing heat sink pad
- 16) Install # 10-32 hex nut and tighten

Reinstall Outlet Box Cover

- 17) Secure insulating paper on outlet box cover assembly
- 18) Reposition cover assembly on outlet box.
- 19) Install (2) #6 x 1/4 sheet metal screws.

Power Test

- 20) Connect power cord to outlet box cover
- 21) Verify toggle switch is in neutral (center) position
- 22) Connect power cord to 110 volt AC
- 23) Switch toggle switch to "F" (forward)
- 24) Activate Air bulb remote control
- 25) Note direction of gear box output shaft
- 26) If output shaft turns clockwise, motor leads must be swapped on at toggle switch and test repeated.



Model 100 PM Motor Conversion Kit
44295400 (110 Volt) 44295500 (220 Volt)



Old motor wiring connections to outlet cover

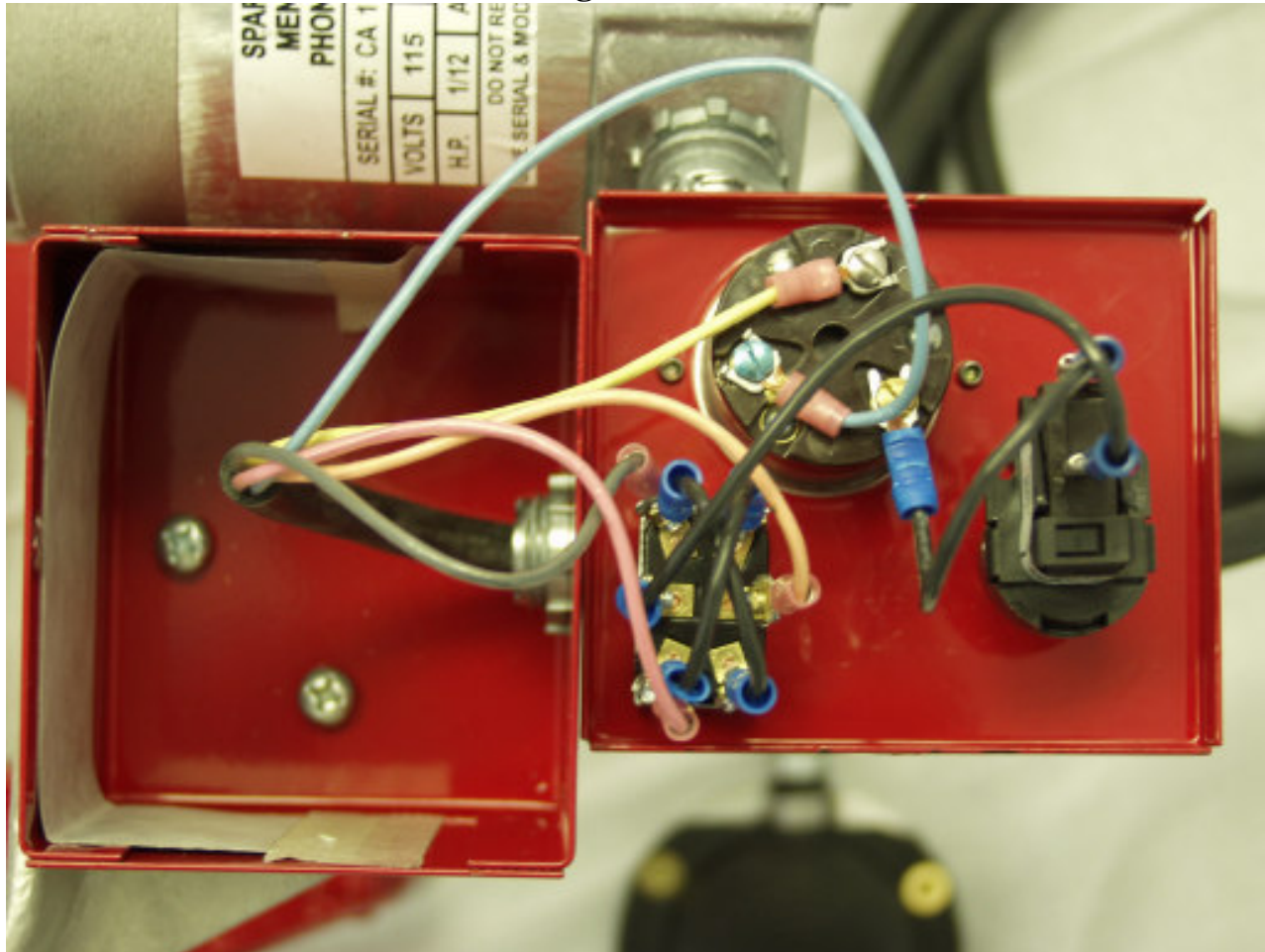
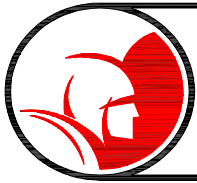


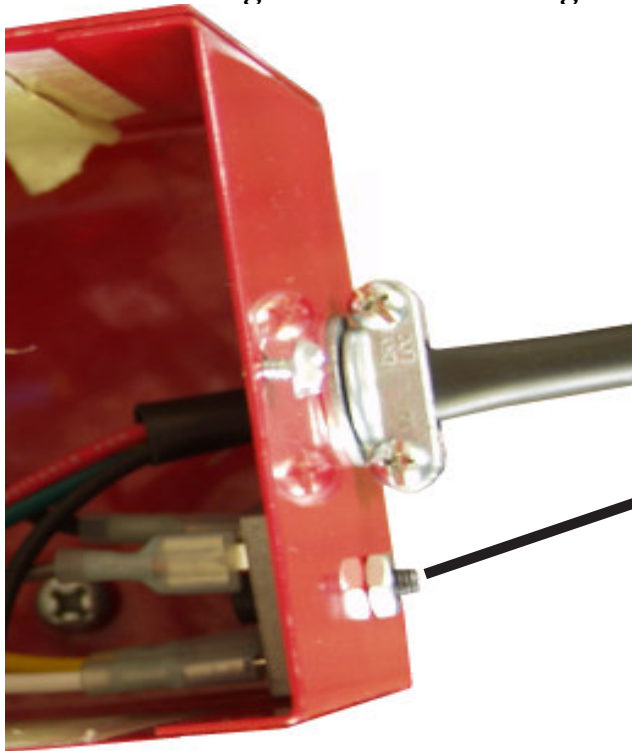
Fig. 1



Model 100 PM Motor Conversion Kit
44295400 (110 Volt) 44295500 (220 Volt)

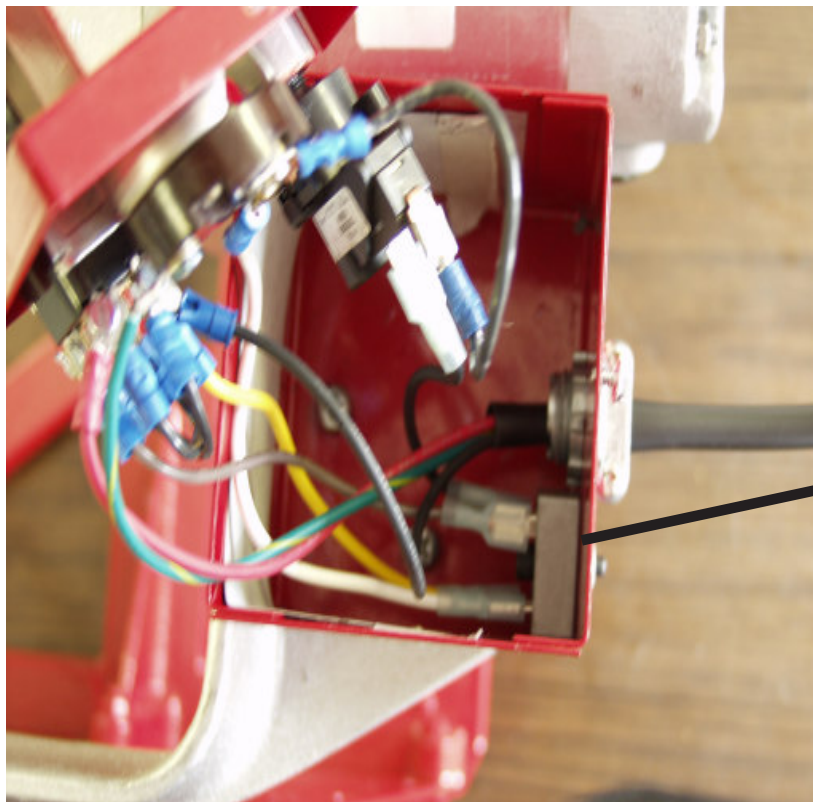


Bridge rectifier mounting using hole drilled through outlet box



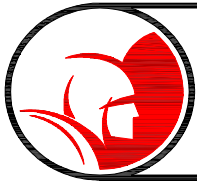
Drilled mounting hole for bridge rectifier

Fig. 2a

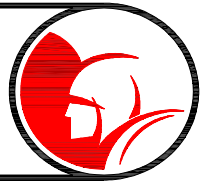


Bridge Rectifier

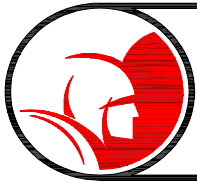
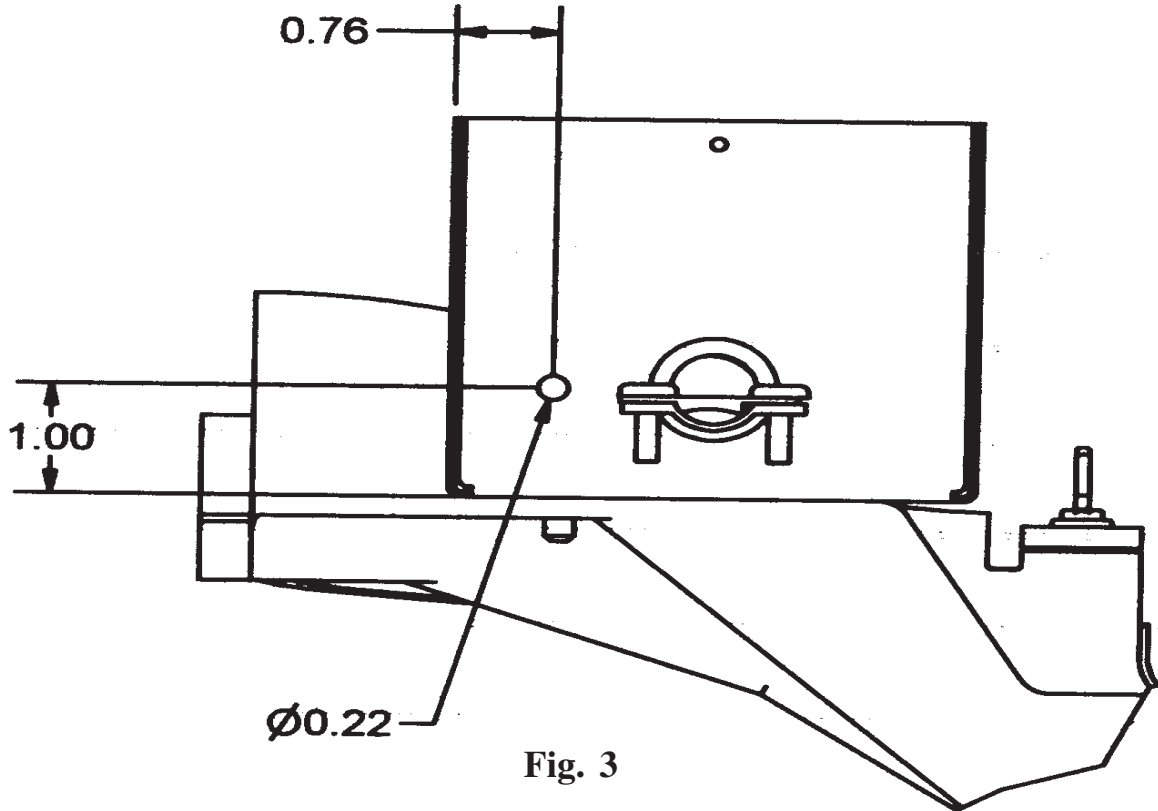
Fig. 2b



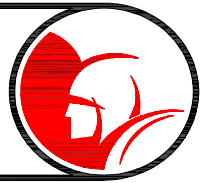
Rectifier Mounting Location Diagram



Hole location as seen from rear of machine



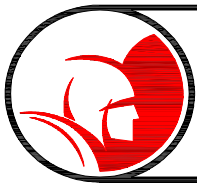
Universal (Old Style) Motor to PM (New Style) Conversion Kit



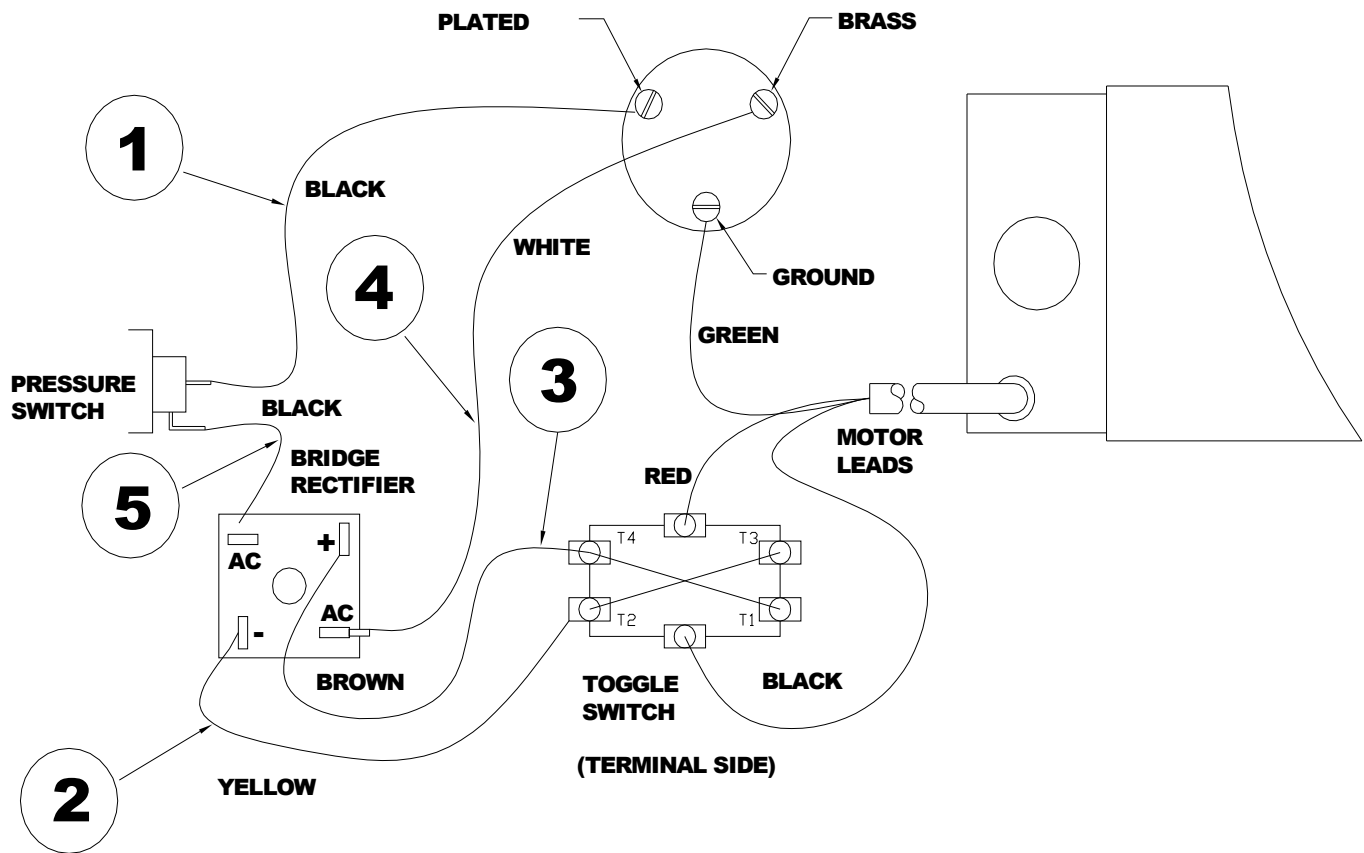
110 Volt 44295400

220 Volt 44295500

QTY	Part #	Description
4	00165400	Lockwasher, 1/4
4	00113700	Screw, Hex Head Cap 1/4-20 x 3/4
1	44295200	PM Motor w/ Gearbox 100 (110 Volt Version Only)
1	44295300	PM Motor w/ Gearbox 100 (220 Volt Version Only)
1	02823900	Screw, Flat Head Phillips #10-32 x 1
1	03850100	Nut, Hex #10-32
1	04647800	Jumper Wire, 5" Black
1	44290800	Jumper Wire, 5" Yellow
1	44290700	Jumper Wire, 5" Brown
1	44292500	Jumper Wire, 6" White
1	44292200	Jumper Wire, 4" Black
1	44290501	Pad, Thermo Conduitive
1	44290500	Bridge Rectifier, PM Motor



Wiring Diagram



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	04647800	Jumper Wire, Black 5"
2	1	44290800	Jumper Wire, Yellow 5"
3	1	44290700	Jumper Wire, Brown 5"
4	1	44292500	Jumper Wire, White 6"
5	1	44292200	Jumper Wire, Black 4"



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