

Primer Pump Kits

RKP1912 (12 vdc) and RKP1924 (24 vdc)

Instruction Part Number 14356 Rev C



Primer pump kits are an innovative and proprietary system consisting of a pre-screen filter, a flow by-pass circuit, and a roller cell pump powered by a 12 VDC brushed motor or a 24 VDC brushless motor.

When the switch is activated the fuel is drawn into the pre-screen, then pumped through the housing, refilling the unit with fuel. When not in use the primer pump system is bypassed and the fuel filter/water separator functions normally.

These kits can be installed on all 900 or 1000 Turbine Series filter assemblies. Do not use these with 500 Series Turbine filters or in commercial marine applications. Multiplex Turbine Series assemblies have different instructions (instruction number 15426). **Use with diesel fuel only!**



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Product Features

- Easy installation.
- Pump adds only 3.3" to the overall assembly height.
- 60 GPH (227 LPH) flow rate while in priming mode.
- 12 VDC brushed electric motor.
- 24 VDC brushless electric motor.
- 100 micron cleanable pre-screen.
- Kit includes wiring harness and controller switch.
- Allows for electric re-priming of filter and fuel system.
- Not for use in continuous duty applications.

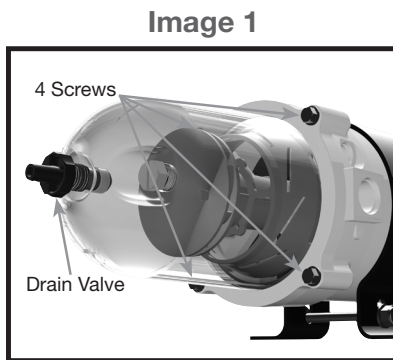


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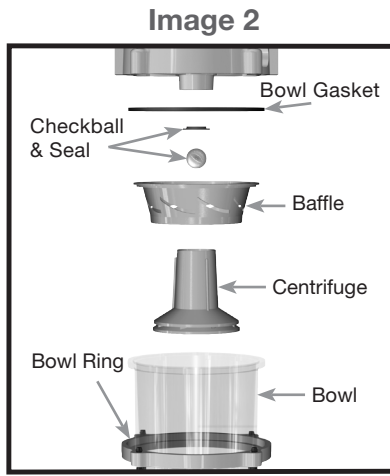
Installation Instructions

Read through all instructions to determine if removing the Turbine assembly from the equipment is needed. Some may find it easier to install this kit with the Racor filter on a workbench.

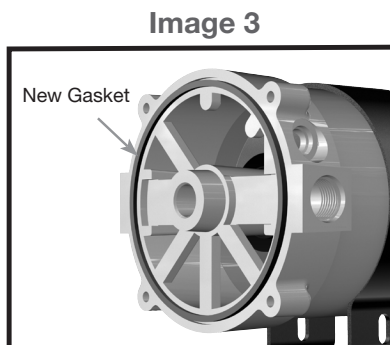
1. Engine/equipment should be off and cool to touch.
2. With a collection pan in place, open self-venting drain on bottom of bowl and drain filter assembly completely (see Image 1).



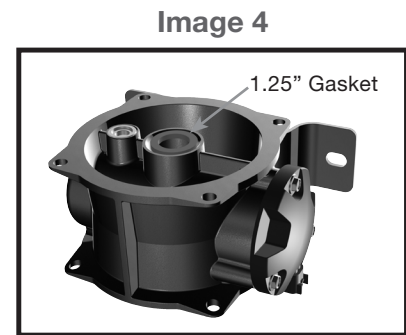
3. Use a 3/8" socket wrench and remove the four screws that hold the bowl and bowl ring in place. Discard screws once removed (see Image 1).
4. Remove bowl and bowl ring. Set aside for later reassembly (see Image 2).



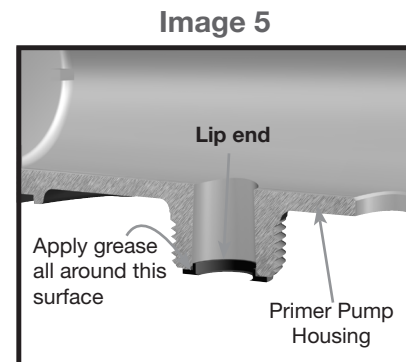
5. In a counter-clockwise rotation, unthread the centrifuge and baffle and set aside for reassembly. Checkball and seal should also come out at this time - remove and discard (see Image 2).
6. Remove bowl gasket and discard. Lubricate new bowl gasket provided with silicone grease and install into gland in filter housing (see Image 3).



7. Lubricate and install 1.25" rubber gasket into hole on primer pump housing (see Image 4).

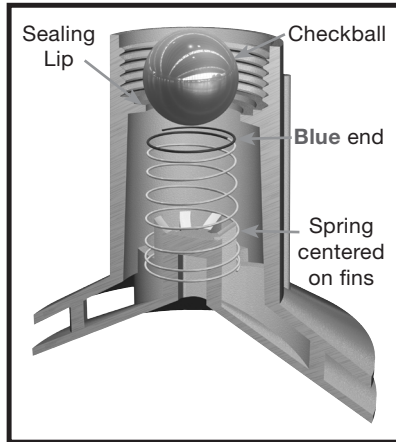


8. Apply a coating of silicone grease on pump housing threaded boss flat. Install the red seal *lip end first*, onto the boss. The grease will help the seal stay in place during installation (see image 5).



9. **Important Step:** Place spring into centrifuge. *Blue painted end* faces up towards ball (see image 6).

Image 6



The bottom end should encircle the centering fins at the bottom. The *blue* end of the spring will be about even with the sealing lip of the centrifuge when correctly seated (see image 6).

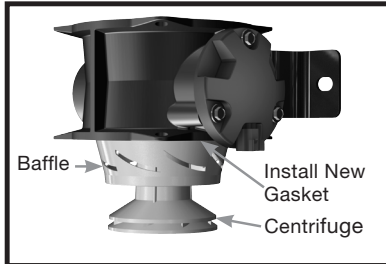
Note: This kit includes two (2) springs. For a single unit, you will only use one. For a duplex unit, such as a FHX or MAX, you need to install the extra spring in the remaining filter unit.

10. Lubricate new bowl gaskets (two provided) with silicone grease, and install new bowl gasket into gland on primer pump housing (see Image 7).

This is an important step, and it is recommended the Centrifuge/Baffle be assembled vertically to keep all parts in place.

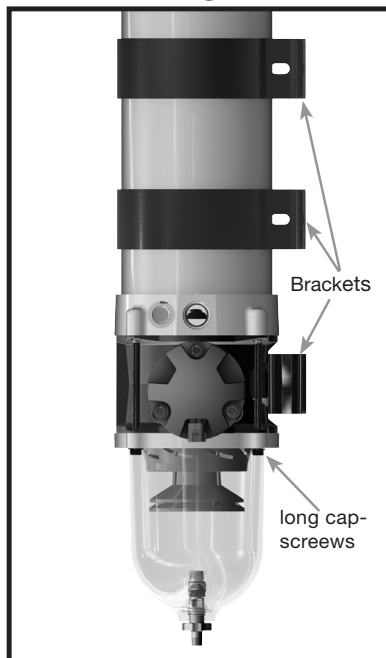
11. Place Baffle over Centrifuge and tighten (hand tighten only) onto pump body threaded boss (see image 7).

Image 7



12. With 4 long capscrews, secure clear bowl and bowl ring through the primer pump housing assembly to the filter housing. **Note:** mounting bracket holes should line up in back with existing bracket(s). Make sure both gaskets stay in place and the clear bowl and bowl ring all line up and tighten down without catching on one-another (see Image 8). Tighten long capscrews to 55-65 in.lbs—overtightening may strip base threads.

Image 8

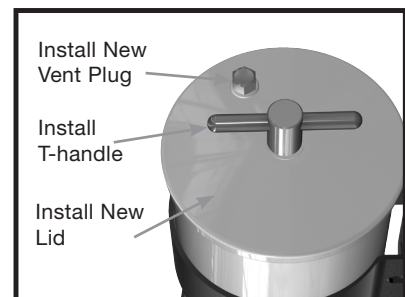


13. Remove T-handle and lid from top of filter assembly (discard lid), remove dirty filter from inside of housing, install new filter (fuel filters are sold separately. Always carry an extra filter. Fuel sources may vary and one tankful of dirty fuel can quickly clog a filter.) (see Image 9).

Note: The first priming of the pump kit must be done as follows, subsequent priming may be done using the pump feature.

14. Lubricate new lid gasket with silicone grease, install new lid. Re-install T-handle, tighten by hand only - do not use tools (see Image 9).

Image 9



15. Install small vent plug into port in lid hand tight only, at this time (see Image 9).

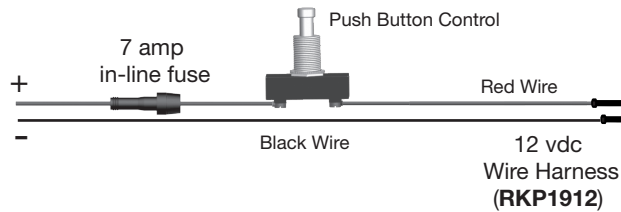
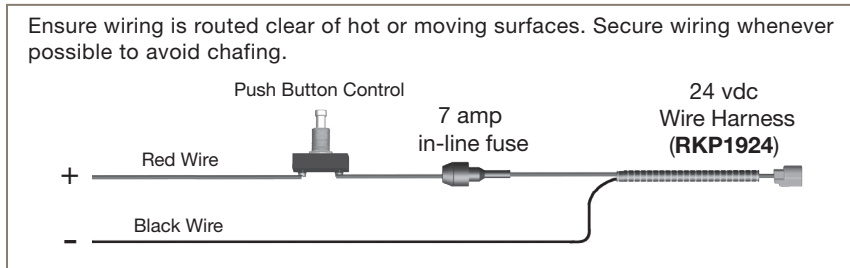
16. Mount or reposition filter as required.

17. Attach harness to primer pump connector and follow wiring instructions on next page.

After initial installation or pump

Primer Pump Wiring Options

Depending on the kit you are installing, follow the diagrams below.



Priming Instructions

pre-screen cleaning, otherwise, skip to step 4 below.

1. Remove T-handle and lid.
2. Fill Racor housing with clean fuel.

FG Models: Ensure filter cartridge is installed prior to filling with fuel.

FH Models: You may fill the housing with or without the filter cartridge in place.

3. Install lid and T-handle, unscrew vent plug from top of lid. Place a rag or towel around top of lid vent. This will aid in soaking up any splashing fuel.

Note: Future priming can be done with the pump.

4. Push button to start pump and fill assembly. Release button when fuel starts to spill out of vent hole.
5. Tighten vent plug, start engine and check for leaks. Correct as necessary with engine off.

Note: If fuel does not purge at vent during priming, ensure any inlet valves are open, if applicable. If fuel still does not fill unit, checkball is not properly sealed (refer to step 8, on pg 2).

6. Refer to original equipment manufacturers manual for any specific priming requirements.

Pump Screen Cleaning

Over time the primer pump pre-screen may become clogged with contaminants, this is evident by reduced pump efficiency or slow fuel priming. This interval will vary by application.

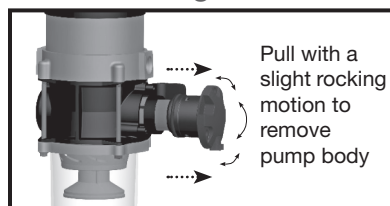
1. Drain filter of all fuel.
2. Disconnect electrical pig-tail from pump motor.
3. Remove 3 capscrews from pump body cover.
4. Grasp pump body cover and slowly pull pump out of primer pump housing with rocking motion (see Image 10). Ensure screen is removed with pump. If pump vent is difficult to remove, use Parker tool #KR-700AL (see pages 6 and 7). To improvise a tool, insert a 90° allen wrench into vent housing holes to extract pre-screen. Use caution to avoid scratching pump bore surfaces.

5. Reverse flush the pre-screen of contaminants in diesel fuel or solvent, repeat as necessary until clean. Air dry and inspect pre-screen for any damage or tears, replace if applicable.
6. Inspect inside of primer pump housing for any debris and required cleaning.

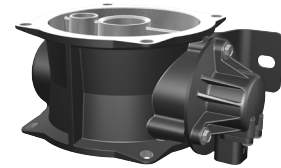
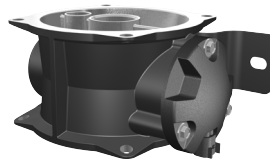
Reassembly

1. Coat inside primer pump housing with a light coat of clean diesel, install pre-screen.
2. Apply light coat of diesel to pump vent O-rings and install into housing.
3. Insert pump assembly into housing, push pump body and cover firmly onto housing until it bottoms.
4. Install capscrews to 35-55 in.lbs. Overtightening may strip body threads.
5. Reinstall electrical connector to pump cover. Refer to priming instructions.

Image 10

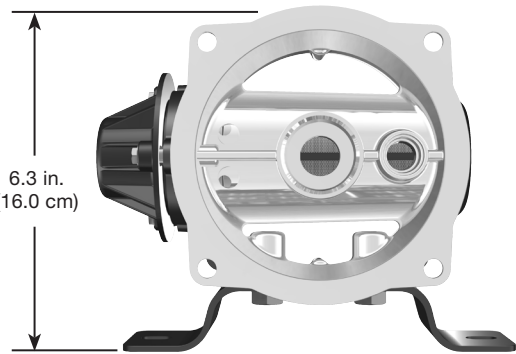
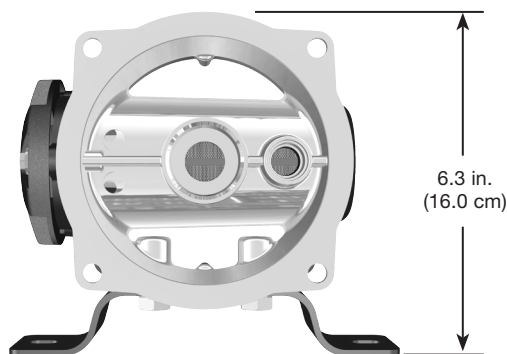
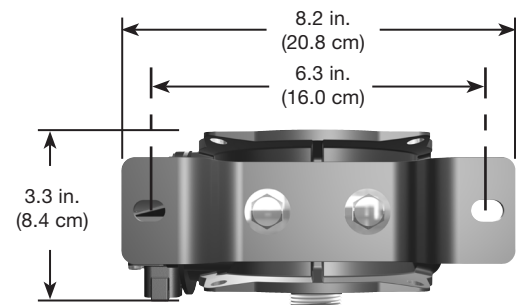
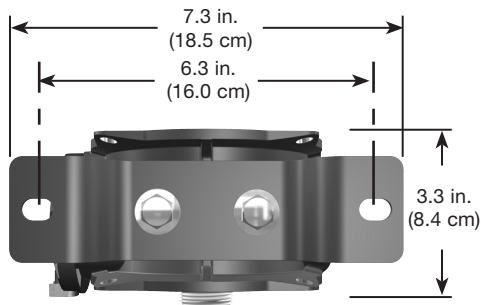


Specifications



	RKP1912	RKP1924
Power (Voltage)	12 Volt (Brushed)	24 Volt (Brushless)
Max. Flow Rate	60 GPH (227 LPH)	60 GPH (227 LPH)
Filter Micron Rating	100 micron	100 micron
Height	3.3 in. (8.4 cm)	3.3 in. (8.4 cm)
Width	7.3 in. (18.5 cm)	8.2 in. (20.8 cm)
Depth	6.3 in. (16.0 cm)	6.3 in. (16.0 cm)
Weight (dry)	2.3 lb (1.0 kg)	2.3 lb (1.0 kg)
Ambient Temperature Range (when fuel is between)	-40° to +255°F (-40° to +121°C) 80° to +190°F (27° to +88°C)	

Mounting and Dimensions



RKP1912

RKP1924

RKP1912 Part Breakdown

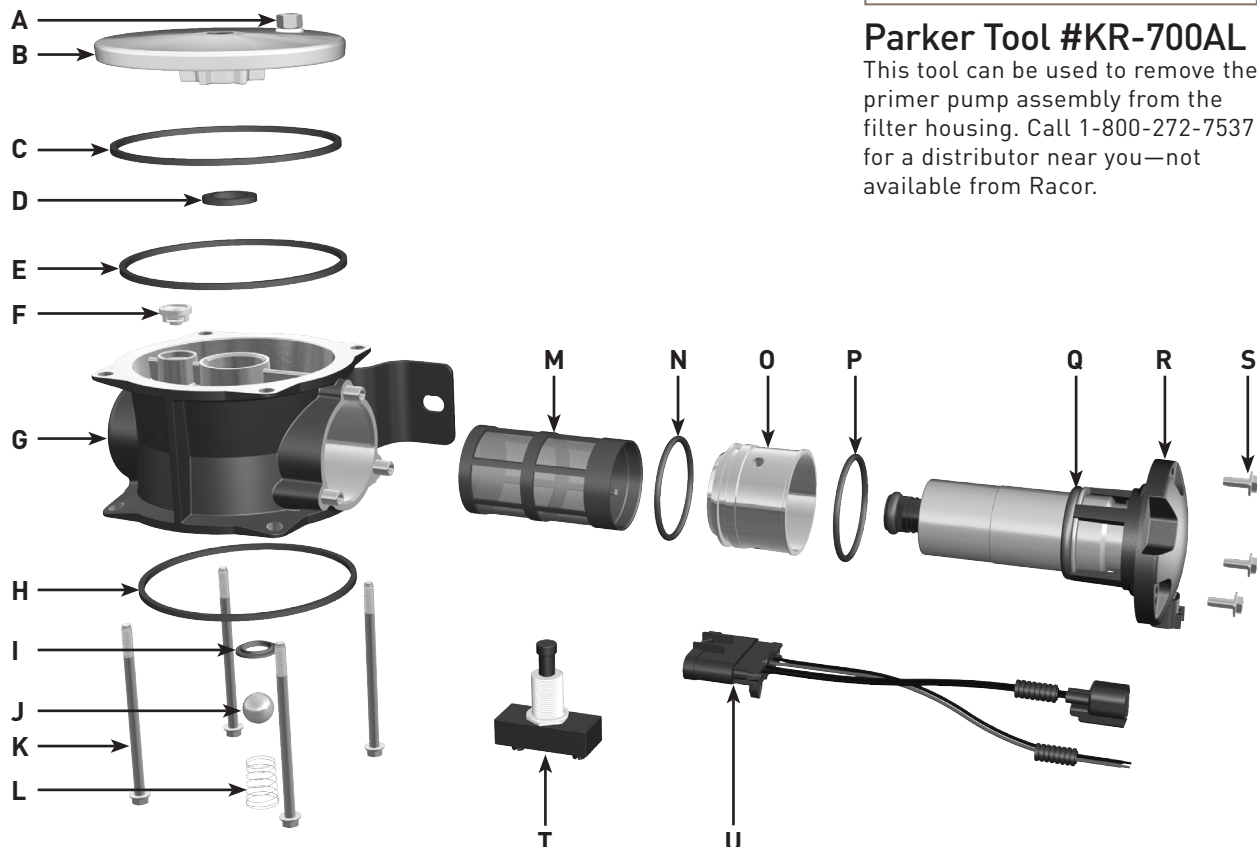
	Description	Replacement Kits
A	Vent Plug	RK 10110
B	Lid (Vented)	RK 11-1933-06 (includes A-C)
C	Lid O-ring	See B
D	1.25" Rubber Gasket	N/A
E	Housing O-ring	N/A
F	Check Valve	N/A
G	Primer Pump Housing	N/A
H	Housing O-ring	See J
I	Checkball - Gasket	See J
J	Checkball	RK11-1978 (includes H, I, & L)
K	Mounting Screws (x4)	N/A

	Description	Replacement Kits
L	Centerfuge Spring	See J
M	Prescreen Element	RK22934 (includes N, P, & Q)
N	Adapter O-ring	See R or M
O	Adapter	See R
P	Pump O-ring	See R or M
Q	Body O-ring	See R or M
R	12V Primer Pump	RK22933 (includes M-S)
S	Pump/Head Screws (x3)	See R
T	Push Button Switch	N/A
U	12V Connector Harness	RK 58091



Parker Tool #KR-700AL

This tool can be used to remove the primer pump assembly from the filter housing. Call 1-800-272-7537 for a distributor near you—not available from Racor.



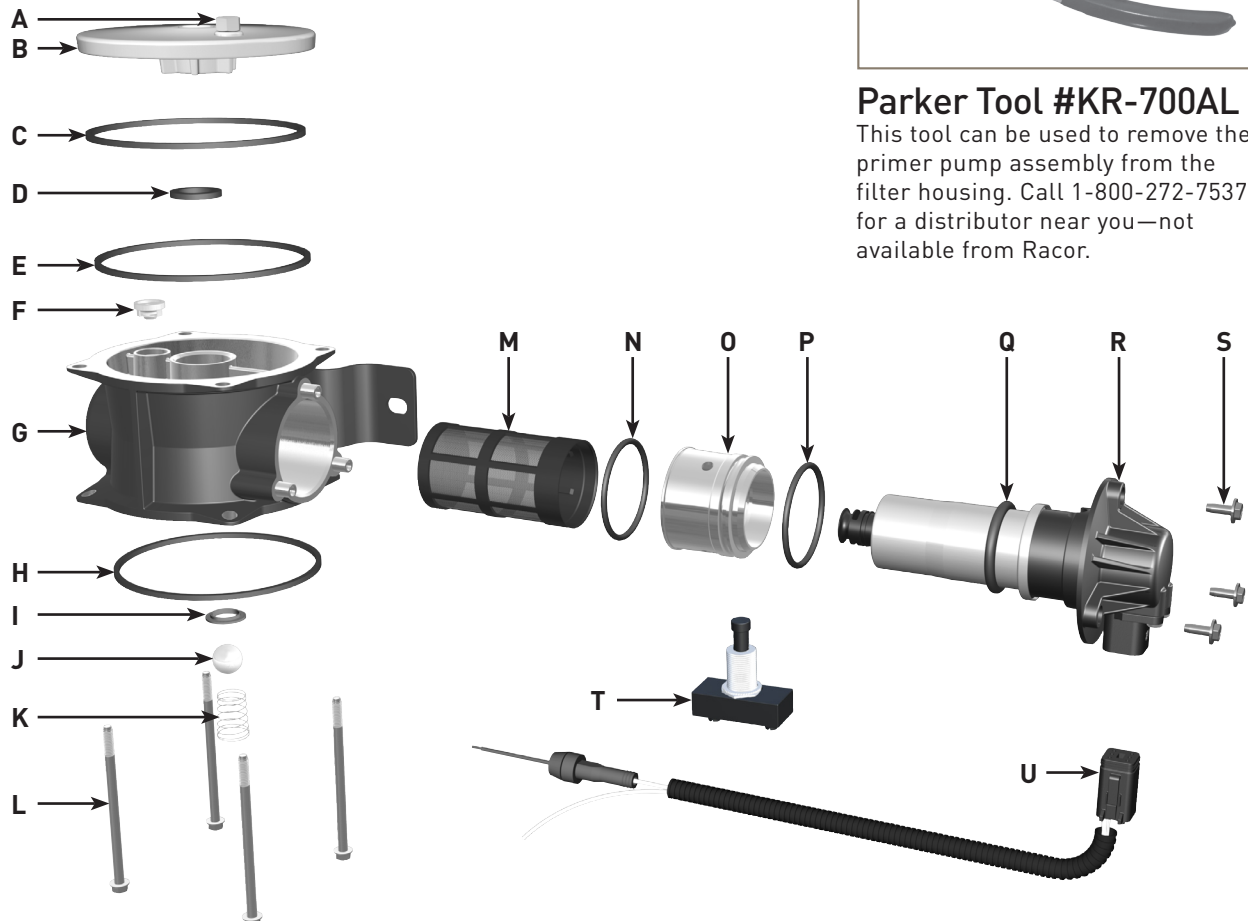
RKP1924 Part Breakdown

	Description	Replacement Kits		Description	Replacement Kits
A	Vent Plug	RK 10110	L	Mounting Screws (x4)	N/A
B	Lid (Vented)	RK 11-1933-06 (includes A-C)	M	Prescreen Element	RK22934 (includes N, P, & Q)
C	Lid O-ring	See B	N	Adapter O-ring	See R or M
D	Rubber Gasket	N/A	O	Adapter	See R
E	Housing O-ring	N/A	P	Pump O-ring	See R or M
F	Check Valve	N/A	Q	Body O-ring	See R or M
G	Primer Pump Housing	N/A	R	24V Primer Pump	RK23087 (includes M-S)
H	Housing O-ring	See J	S	Pump/Head Screws (x3)	See R
I	Checkball - Gasket	See J	T	Push Button Switch	See T
J	Checkball	RK11-1978 (includes H-K)	U	24V Connector Harness	RK23088 (includes T)
K	Centerfuge Spring	See J			



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