

THIS IS YOUR OWNER'S MANUAL

ABOUT OUR WARRANTY...

All Camel gold panning machines are guaranteed against defects in materials and labor for an initial period of one year from the date of purchase. IN ADDITION we extend the basic warranty for a period of four more years to original purchasers who take reasonable care of the equipment covered by this warranty. We will repair or replace the equipment at no cost to the customer except transportation to and from our plant *IF* there is no evidence of abuse or lack of reasonable care described in this manual. Alteration of any part of this machine will void this warranty

Call 1-928-927-4009 for warranty repairs or replacement.

**WE BELIEVE THIS IS THE BEST WARRANTY IN
THE MINING EQUIPMENT INDUSTRY.**



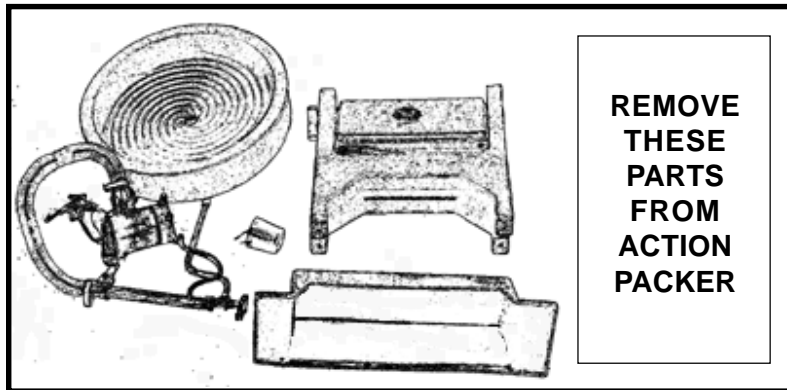
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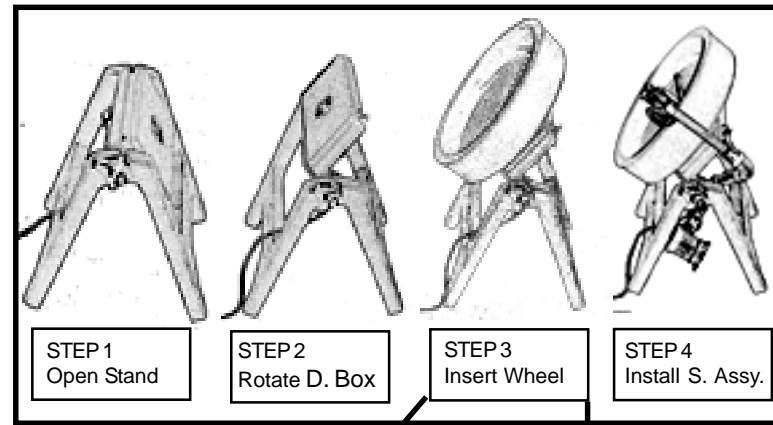
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Revision DFI 1-12-2009

DESERT FOX QUICK SETUP GUIDE



REMOVE THESE PARTS FROM ACTION PACKER

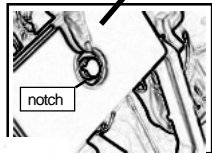


STEP 1
Open Stand

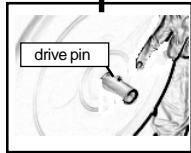
STEP 2
Rotate D. Box

STEP 3
Insert Wheel

STEP 4
Install S. Assy.



notch

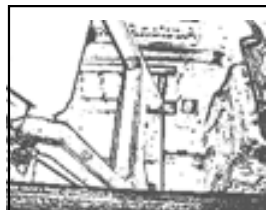


drive pin

PLACE MACHINE IN ACTION PACKER.



PLACE TAILINGS TRAY AS SHOWN



VIEW INSIDE ACTION PACKER. THE STAND IS PLACED TOWARD THE BACK OF CASE

Taking care of your Desert Fox...

The Desert Fox is not a fussy machine but it does require a certain amount of common sense in its care and keeping. You should **never** put the machine away with wet or dirty parts. Always keep it clean and dry when it is stowed away. Never stow the machine with wet sand in the tub. If water is allowed to condense on the parts of the machine, you can damage the drive motor assembly, (a costly part to replace).

It is a very good idea to keep your Desert Fox out of direct sunlight when you are not using it. Ultraviolet radiation can cause the plastics to crystallize and crack. Likewise it is a very good idea not to store it in too hot an area... like the trunk of an automobile in the summertime. Extreme heat can cause the plastics to warp or change shape as well as dry the plasticizers from the plastic making it brittle.

If you wish to leave your machine set up while you do something else for more than an hour or two, it is a good idea to remove the spiral wheel from the drive unit. This is because the minerals in the water can dry and "weld" the wheel to the drive tube and make it almost impossible to remove. A thin coat of Vaseline petroleum jelly on the wheel tube may prevent this from happening.

Never store chemicals or mercury in your closed Action Packer. This includes Jet Dry or other wetting agents. Chemical fumes can DESTROY your machine!

Lastly, take it out and use it occasionally! The fresh air and exercise will do both of you a lot of good and you may even find some gold!

When prospecting with the Desert Fox as a gold locator you can test an area by panning samples from a grid. Make a map of the area you are investigating and draw a grid over it. Take a sample from each intersect or hole on the grid. Number the sample or note the results from each test on your map. When you start finding gold you will know which areas to work. . With the Desert Fox you do not have to pay for assay work because each sample run is likely to be as accurate as any assay you can get and you alone will know what the findings are and from where the samples came!

ALWAYS WASH THE MUD OUT OF YOUR CONCENTRATES

FAQ FREQUENTLY ASKED QUESTIONS

Q. I AM LOSING GOLD INTO THE TAILINGS TRAY.

A. THE NUMBER ONE CAUSE OF THIS PROBLEM IS THE AIMING OF THE SMALL TUBE (AQUA-JET). ON PAGE 4 OF YOUR MANUAL THE BOXED DIAGRAM SHOWS YOU THE PROPER SETTING OF THE SMALL TUBE. ALWAYS CHECK THE SOFT COPPER TUBE BECAUSE IT CAN BE ACCIDENTLY BENT.

THE SECOND POSSIBLE PROBLEM IS THAT YOU ARE NOT CLASSIFYING YOUR CONCENTRATES. IF YOUR CONCENTRATES CONTAIN DIFFERENT SIZES OF GOLD AND LARGE GRAVEL, THE SMALL PINPOINT GOLD MAY WASH OUT. PAGE 10 WILL HELP YOU UNDERSTAND THIS PROBLEM

Q. THE SPRAY HOLES IN MY SPRAY SYSTEM KEEP STOPPING UP.

A. THE AVERAGE PLACER SAND USUALLY CONSISTS OF EVERY POSSIBLE SIZE FROM GRAVEL DOWN TO FACE POWDER SIZE. IF YOU DO NOT WASH OUT THE FACE POWDER SIZE IT BECOMES MUD AND THE WATER YOU ARE USING BECOME MURKY. YOU WILL NO LONGER BE ABLE TO SEE WHAT YOU ARE DOING. EXPERIENCED PROSPECTORS PRE WASH THEIR CONCENTRATES BEFORE FEEDING THE GOLD PANNING MACHINE. IT IS FAIRLY EASY TO CLARIFY THE CLEANUP WATER BY SPRINKLING IN A LITTLE COMMON BUILDERS LIME TO HELP THE MUD SETTLE OUT.

Q. I USED THE STOCKING YOU SUPPLIED OVER THE PUMP BUT THE MUD AT THE BOTTOM OF THE ACTION PACKER SWAMPS THE PUMP AND THE STOCKING SUCKS INTO THE PUMP.

A. ALWAYS EMPTY THE TAILINGS TRAY BEFORE IT OVERFLOWS INTO THE ACTION PACKER. READ THE FAQ ABOUT PRE-WASHING YOUR CONCENTRATES.

Q. MY MACHINE HAS A VARIABLE SPEED CONTROL BUT I CANNOT TELL ANY DIFFERENCE BETWEEN THE FAST AND SLOW SPEEDS.

A. The variable speed option allows you to slow down the wheel without slowing down the water pressure from the pump. This feature is handy when separating **properly classified precious stones like diamonds and sapphires. You will hardly notice the change in wheel speed until you add gravel to the wheel.**

You will not need the speed control when panning ordinary placer gold sand. Use the control in the normal speed setting.

SETTING UP FOR OPERATION

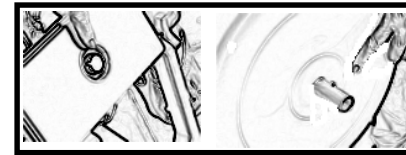
When you unpack your machine you will find the following items...

- | | |
|-------------------------------|---------------------|
| 1 Wheel assembly | 1 Pump and spraybar |
| 1 Drive unit and filing frame | 1 Gold catch cup |
| 1 Action Packer Tub & Lid | 1 Nylon stocking |
| 1 Tailings tray | Instructions pkg. |

Gold and sand sample is for you to practice with. The gold sample is in a **small plastic bag** in the same bag as the sand. add the gold flakes to the sand before feeding it to the wheel.

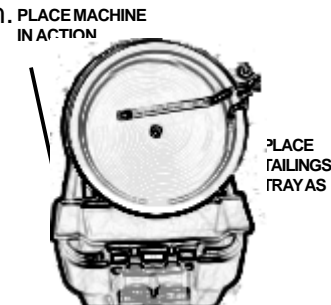
Begin assembly of the machine by spreading the stand legs and rotating the drive unit into an approximate 45 degree position.

Secure it with the adjuster knob located on the right side of the frame.



The drive unit has a 1" diameter tube running through it. On the front side there is a drive notch. The wheel has a 7/8" dia tube sticking out on the back side. The wheel tube has a pin on it.

The pin mates with the notch on assembly of the wheel to the drive unit. Place the wheel in position on the drive unit and turn it while pressing gently down until you feel the pin drop into the drive notch.



General description of the Desert Fox...

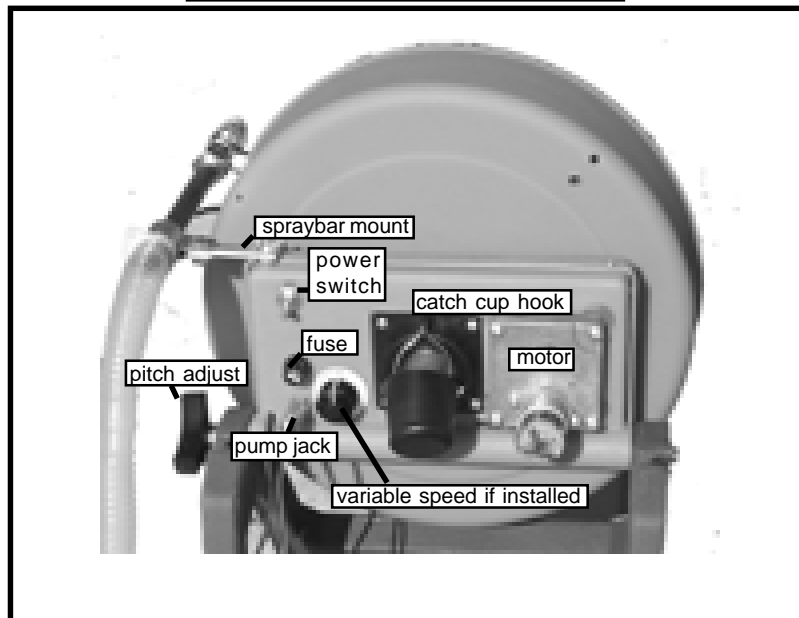
The Desert Fox operates on any 12 volt DC power source capable of at least SEVEN amperes output. This can be a motorcycle or automobile battery, a power supply or a 35 watt solar panel. (Avoid liquid lead acid type batteries which tend to spill)

The Fox has an enclosed gear drive motor assembly and a detachable pump and spraybar. It is designed to be very portable and sets up in a Rubbermaid Action Packer which is included with the machine. The wheel is 13" in diameter and the whole machine weighs about 11 pounds.

The machine dismantles and stows inside of the Action Packer which makes the stowed size about 19 1/2" in by 15 1/2" by 12" high.

The photo below points out the principal parts of the drive unit. This is a back side view.

COMPONENT LOCATIONS



FAQ FREQUENTLY ASKED QUESTIONS

Q. I DID NOT FIND ANY SAND SAMPLE TO TEST MY MACHINE.

A. THE GOLD IS SEPARATE IN A TINY ZIPLOC BAG IN A LARGER BAG CONTAINING THE SAND. CAREFULLY ADD THE GOLD INTO THE SAND BEFORE FEEDING IT INTO THE MACHINE. BE CAREFULL... EVEN THIS TINY AMOUNT IS VALUABLE.

Q. WHY DO I NEED TO ADD A WETTING TO MY WATER?

Wetting agents and clarifiers for your water are important. Wetting agents are used to make the water "wetter", that is they break the natural surface tension of water and cause it to wet or "get on" the surface of the gold. Crystal Clear or Jet Dry anti-spotting agent for automatic dishwashers can be found at any super market. Put three or four drops per gallon of water in your machine and you are ready. We do not recommend regular soaps because of the sudsing factor.

Q. I PACKED A WETTING AGENT IN WITH MY MACHINE IN THE CLOSED ACTION PACKER AND NOW MY MOTOR DOES NOT RUN.

A. NEVER STORE WETTING AGENTS OR ANY OTHER CHEMICALS IN A CLOSED ACTION PACKER. THE FUMES CAN DESTROY YOUR ELECTRICAL SYSTEM.

Q. I LEFT MY MACHINE SET UP A FEW DAYS AND NOW I CANNOT REMOVE THE WHEEL TO PACK IT UP.

A. ALWAYS REMOVE THE WHEEL FROM THE DRIVE UNIT IF YOU MUST LEAVE THE MACHINE IDLE FOR A FEW HOURS. MINERALS IN THE WATER CAN WELD THE WHEEL TO THE DRIVE UNIT.

Q. CAN I OPERATE MY MACHINE ON HOUSE CURRENT?

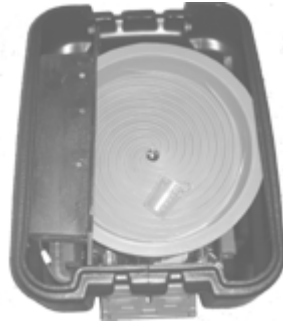
A. YOUR MACHINE OPERATES ON SAFE 12-VOLT D.C.CURRENT. YOU CANNOT SHOCK YOURSELF USING BATTERY POWER. HOWEVER, YOU CAN PURCHASE A 3.3 AMP POWER SUPPLY THAT ELIMINATES THE NEED FOR A BATTERY. YOU MUST BE CAREFUL WITH THIS SETUP AND MAKE SURE THE POWER SUPPLY IS KEPT IN A HIGH AND DRY LOCATION. 110 VOLT CURRENT CAN ELECTROCUTE YOU!

FAQ FREQUENTLY ASKED QUESTIONS

Q. I WAS TOO ANXIOUS TO SET UP MY NEW MACHINE AND NOW I CAN'T REMEMBER HOW TO PACK IT UP.



STEP ONE



STEP TWO

A. BEGIN BY PUTTING THE FOLDED MACHINE IN THE BOTTOM OF THE ACTION PACKER. NOW NEST THE SPRAY SYSTEM AND PUMP BETWEEN THE LEGS OF THE STAND AS SHOWN IN THE STEP ONE PICTURE.

PUT THE SPIRAL WHEEL INSIDE THE TAILINGS TRAY AND PLACE BOTH INTO THE TOP OF THE ACTION PACKER. IT SHOULD LOOK LIKE THE PICTURE IN STEP TWO.

Q. MY MACHINE SLOWS DOWN AFTER A COUPLE OF HOURS WHEN RUNNING IT ON A BATTERY.

Q. I FEED GRAVEL INTO THE WHEEL AND WHEN I TURN ON THE MACHINE THE GRAVEL JUST ROLLS AROUND AND DOES NOT CLIMB THE SPIRALS.

A. APPARENTLY YOU HAVE PUT THE BATTERY CLIPS ON THE BATTERY TRMINALS BACKWARDS. THIS WILL CAUSE THE WHEEL TO TURN CLOCKWISE. REVERSE THE CLIPS AND YOU WILL BE GOOD TO GO.

Q. I AM RUNNING PURE BLACK SAND IN MY MACHINE AND I CANNOT SEPARATE PIN POINT GOLD FROM THE SAND.

A. DO NOT ATTEMPT TO SEPARATE MICROFINE GOLD FROM PURE BLACK SAND! MIX CLASSIFIED BROWN SAND WITH YOUR CONCENTRATES ABOUT 50-50. THIS WILL HELP FALL TO THE BOTTOM THROUGH THE DENSE BLACK SAND.

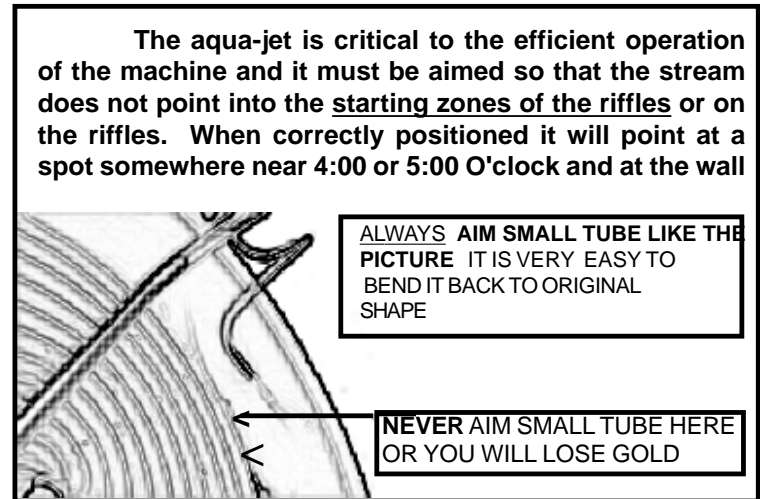
Q. I HAVE LOOKED EVERYWHERE FOR THE SMALL SEALED LEAD ACID BATTERIES. MOST STORE HAVE HEAVY CAR BATTERIES.

A. THESE BATTERIES ARE USED IN ALARM SYSTEMS. SEE YOUR YELLOW PAGES.

Fine Tuning your Desert Fox Panning Machine...

Make sure that the pump is plugged in and the switch is turned off before connecting to the battery. Hook up the battery connections, red to positive and black to negative. Turn the switch on. Adjust the valve until an even but not splashing flow is obtained on the wheel from the spraybar.

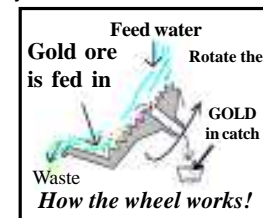
You can adjust the Aqua-Jet by gently bending it to point the stream of water into the area shown by photo below



The correct feed point is on the lower left bottom of the wheel. You can use a small scoop or cup to put in about 4 ounces of material every 20 to 30 seconds. The tailings will be displaced by what you are adding and will sluff out of the wheel over the lower front edge. Some materials can run faster than others and you will need to experiment with your ore to find a suitable feed rate. Feed material gradually rather than dumping it in all of a sudden.

Loosen the adjuster knob and set the pitch steeper to hold the black sand back or flatter to tune the machine. Adjust the wheel tilt to obtain a pyramid of black sand that stops below the center hole.

Water settings and wheel pitch interact and since no two placer sands run the same in the machine you may have to make both adjustments to find the best running combination for your machine.



The Desert Fox is an easy machine to set up and use and it can be fine tuned to specific ores. Because no two placer ores will work exactly the same in the machine there are a few basic things you should understand about how the Fox separates gold from sand.

The Desert Fox uses specific gravity differences between the gold and sand to allow for mechanical separation of the two materials. When grains of gold, black sand and brown sand are compared it will be noted that if the weights of the grains are equal the size is greatly different. Likewise, if the grains are classified so that they are uniform in size then the weights are very different.. It is this size to weight ratio that allows the FOX to separate the gold from the sand.

Always be suspicious of minerals that won't separate from the gold in your panning machine. Remember that anything more than 10 times the weight of water is worth something!

Some black sands carry platinum and palladium group metals. Platinum occurs as a gray metal which is as heavy as gold and is worth more! The Fox cannot separate platinum from gold.

The wheel is made of a slippery material which allows gold or other heavies to slide in the bottom of the riffles. This effect is enhanced by the water and motion of the wheel.

Gold is usually nearly pure in nature and being a metal has a natural affinity for oil. Oil attaches to the surface of the gold and will cause small pieces of gold to float on water due to the surface tension of the water. You can counter the effects of oil on your gold by using a wetting agent to stop flotation of oily gold. Wetting agents such as *Jet Dry Rinsing Agent* are available in most grocery stores in the soap department. We do not recommend regular soaps or detergents because of sudsing.

Water settings and wheel pitch interact and since no two placer sands run the same in the machine you will have to work both adjustments to find the best running combination for your machine.

Grain size is also of importance, especially when the placer material is much larger than the placer gold. The general rule is that if you have gold of a specific size range then your maximum sand grain size should not be more than 5 times the gold flake size. How is this calculated? Well, let's say your target gold is in the -100 grain size (1/100 of an inch or smaller) then your correct starting screen size would be #20. This formula is very easy to remember, just divide the average grain size of the gold by 5 and you have the screen size!

We recommend a starting screen size for unknown materials at 1/10" or #10. The mesh size of the screen is generally given as the particle size (fraction) which will pass through the screen.

Simply set the wheel up at a convenient angle between 30 and 45 degrees and start it up. Feed in a little ore after the water is running on the wheel and watch what happens. If the black sand is getting in the hole make the wheel pitch a little steeper. If the black sand is way down on the face of the wheel do the opposite. Always remember this...

You will not lose any gold from this machine because it is a closed system, If you think you have spilled gold into the tailings then rerun them. Once you become comfortable with the machine then you will know when it is OK to dump the tailings

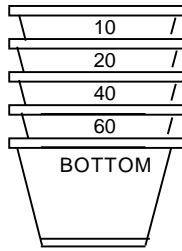
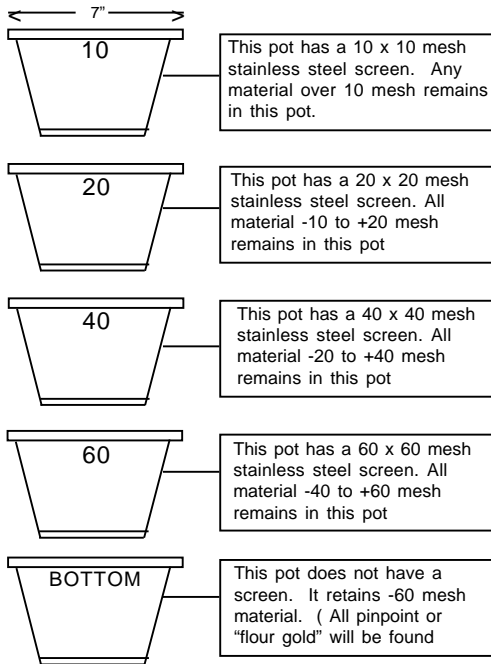
Can't separate your gold from the black sand? Let's explore the possible causes... First if you are running straight black sand in the machine that is probably the problem! De-concentrate by mixing in an equal volume of brown sand. This will give the machine a chance to work the material and allow for some flotation effect on the wheel.

THE VARIABLE SPEED OPTION (If installed)

The variable speed option allows you to slow down the wheel without slowing down the water pressure from the pump. This feature is handy when separating **properly classified** precious stones like diamonds and sapphires. You will hardly notice the change in wheel speed **until you add gravel to the wheel.**

You will not need the speed control when panning ordinary placer gold sand. Use the control in the normal speed setting.

CAMEL NESTING CLASSIFIER SET



CLASSIFIERS NESTED

\$39.00
Per Set
+ S & H

THE SHAPE OF THESE POTS MAY CHANGE SOON

This system is compact and easy to use. Just put your placer material in the top (10) pot, nest the other four pots as shown below and shake vigorously to separate the five sizes. Highest efficiency is achieved if the material is dry, but wet separation is possible by shaking the set in water.

Any professional prospector will tell you that proper classification of placer material is the most important single step that leads to high recovery of placer gold. **You will be amazed how easy it is to recover micro-fine gold, if it has been classified to the approximate size of the gold.**

Always process the contents of each pot separately. Gold will separate much faster when the lighter materials are less than five times its mass. Specific gravity differences between gold and sand are what makes gold panning machines effective. When grains of gold, black sand and brown sand are compared, it will be noted that if the weights of the grains are equal, the size is greatly different. **Likewise, if the grains are classified so that they are uniform in size, then the weights are very different. It is this size to weight ratio that makes classification important when using a panning machine or when you are panning by hand.**

Pump Details



The pump sometimes gets a rock or piece of trash stuck in it and needs to be cleaned. The procedure is simple.



The first thing to do is to remove the stocking from the pump to gain access to it.

Follow the instructions on the enclosed pump warranty.

Special Note:

The fuse is your only protection against burn out! ALWAYS check the pump for debris in any event that the pump does not pump water when it is turned on. Never substitute a fuse bigger than 6 amperes rating. Never operate pump dry or if it is clogged and not pumping water.



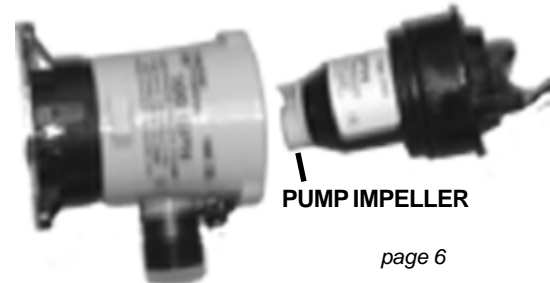
Place stocking over pump

LIFT AND HOLD LEVER

TURN TOP OF PUMP AND LIFT TO OPEN PUMP.



REMOVE MOTOR CARTRIDGE TO CLEAN IMPELLER



PUMP IMPELLER

OPTIONAL ACCESSORIES FROM CAMEL (Call for current price)

CHARGE YOUR BATTERY FROM THE CEL-PHONE - CIGARETTE LIGHTER OUTLET IN YOUR VEHICLE. This is the fastest way to charge small lead acid batteries. Just plug the charger into your vehicle's 12-volt outlet and put the clips on the battery. You will have a full charge in about 30 minutes. You can also use this device to power your device from your vehicle. just plug it into the outlet and hook the clips on your Desert Fox to the clips on the charger. (ITEM # CLC)



12-VOLT WALL CHARGER FOR GEL CELLS. Plug this charger into your 110 volt wall outlet and the clips to your battery. It takes about 14 hours to charge most small 12-volt batteries. (ITEM # WC)



(ITEM # PS)

POWER YOUR FOX DIRECTLY ON 120 VOLTS This 3 amp power supply eliminates the need for a battery to power your Fox when working at home. Simply plug the unit into a house outlet and hook the clips on your Fox to the power studs.

BACK PACK HARNESS. This padded harness is made to attach to the handles of the Desert Fox Action Packer. It leaves your hands free to carry all the other things need on your prospecting trips.



(ITEM # BPH)



SEMI-AUTOMATIC BLACK SAND MAGNET (ITEM BSM)
Powerful neodymium magnet in this device snatches the black sand out of your pan of concentrates. Simply pull the rod to release the magnetic black sand. More powerful and effective than any other brand of magnet that we have seen.



ACCESSORIES YOU SHOULD FIND LOCALLY

Powering your FOX



Any 12-volt battery 8 ampere hour capacity can power your Desert Fox for at least 8 hours of normal off and on cycles. **You should not** select a motor cycle battery that you must fill with liquid acid

If you are going to carry your machine into the field, you should look for a small sealed lead acid battery weighing around 5 or 6 pounds. The battery pictured is a replacement battery for home and business alarm systems. You can find companies that carry these batteries in your Yellow Pages under "Alarm Systems" Most Radio Shacks have computer backup batteries too. Remember.. ANY 12-volt battery will work including your car or RV battery



This handy plastic scoop was found in our local dollar store for a buck! You will be suprised to find other handy tools for prospecting.



Another dollar store item. Prospectors never have enough buckets. The best way to clean the mud out of your concentrates is to slosh the concentrates in water and pour off the muddy water into another bucket. If you are working in the desert, you can ceanup and save your water until the mud settles out.



This a mortar and pestle found in some larger prospector shops. If you are one of those that can't stand the thought of losing even one speck of gold, this is the tool for you. Black sand occasionally has embeded gold which you may release with one of these.

If you are handy with tools, you can make some of your own special prospecting tools such as a sluice box or perhaps crevacing tools. If you have access to the internet there is a wealth of free plans for such tools. We use "google" to search for ideas submitted by old and new prospectors.

Prospecting clubs can help you to learn this exciting hobby and some clubs have their own claims for member's use. Use your Yellow Pages to find your nearest club.

Go to your local library or college library. Ask for books on gold prospecting, gold mining, rock hounding or geology. Some libraries even have films on the subject.