

GOLD MAGIC

"Spiral" Gold Recovery System



Model 12-U
GM-6186



**THE FIRST MAJOR CHANGE
IN THE GOLD PAN
IN 4,000 YEARS**

Congratulations on your purchase of the Gold Magic® Spiral Gold Recovery System. Your new Gold Magic® will allow you to work more material faster and recover more gold than ever before. This machine will work wet or dry to highly concentrate material.

Please be sure to read all of the owner's manual all the way through. This will instruct you in the proper use and care of your Gold Magic®. Remember there is only one Gold Magic®, and it is so unique, so revolutionary that nothing else works like it.

SAFETY PRECAUTIONS:

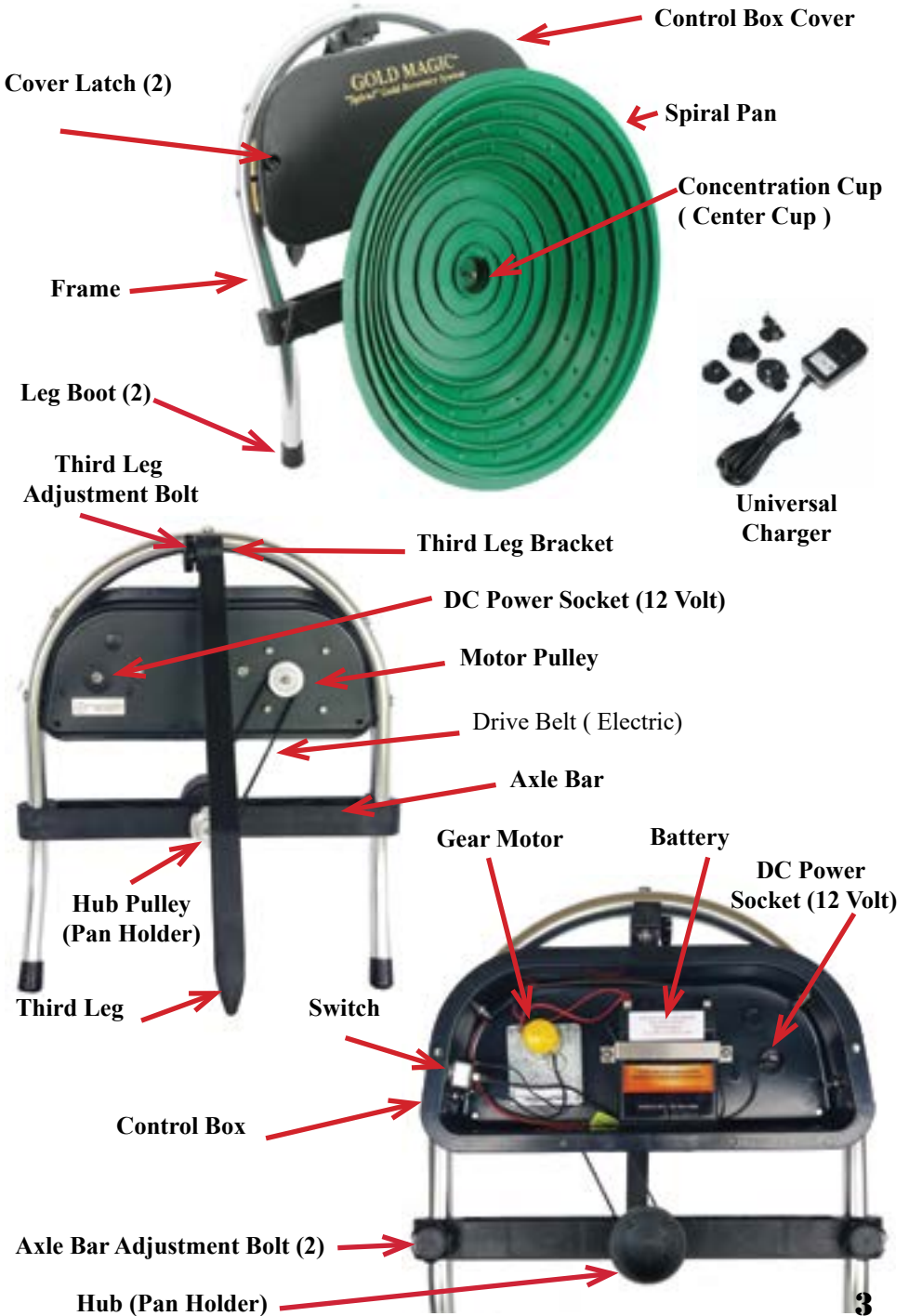
MAKE SURE TO COMPLETELY READ AND UNDERSTAND ALL OF THE FOLLOWING SAFETY INSTRUCTIONS AND WARNINGS IN THIS BOOKLET, ON THE BACK OF THE CONTROL BOX, AND ON THE BATTERY PRIOR TO USING YOUR GOLD MAGIC®

Keep fingers, hair, all other body parts, and loose clothing away from pulleys and belts.

The Battery: The battery was fully charged before the machine was assembled but it is a good idea to charge a new machines before the first use. Do not completely discharge the battery. Charge the battery after each use before storing and keep it charged if it is not being used for longer periods of time. Do not attempt to charge the battery from a vehicle alternator.

**Gold Magic
PO Box 3375 Wickenburg AZ 85358
GoldMagic.com
800-458-8889**

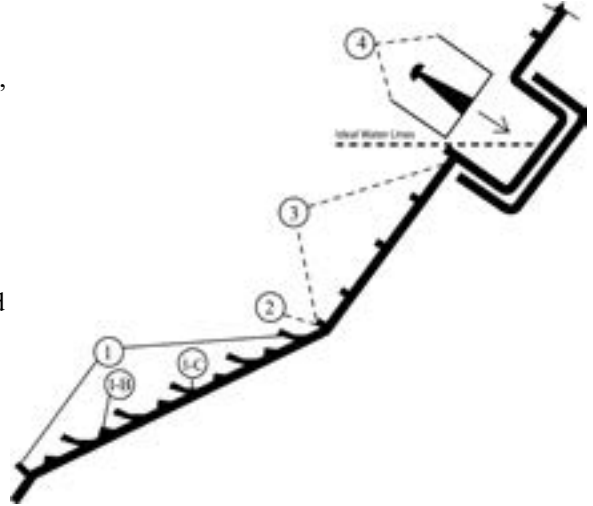
A tour of the Gold Magic Model 12-U Parts:



How your Gold Magic Works

The 17-inch Gold Magic® pan is computer designed for maximum gold recovery. As the wheel turns and you deposit material into the wheel, some of that material will immediately move up the wheel into the concentration cup. As gold and other more dense material arrives at the concentration cup, it replaces less dense material in the cup so that the center cup is continually filling with the most dense material in the pan. This process starts as soon as you introduce material into the pan and is complete within a matter of minutes. There are 69 agitator knobs, (1B), in the primary processing area of the Gold Magic pan. These agitator knobs move through the material in rapid succession causing it to mix and tumble, all designed to quickly get the gold into area (1-C). The larger, low density materials will be expelled from the pan while the heavier, smaller materials (black sand, gold, platinum, and gemstones) will be carried up the spiral riffle into the removable concentration cup.

(Area 1) This is the primary classification area - all materials, sand, gravel, etc. (wet or dry) is shoveled into this area. Large size and most low specific gravity materials roll out of the pan as it rotates. Heavy weight materials (gold) sink to the lowest point at the joining of riffle and the pan (1-C) and commence rotating toward areas (2,3,4).



(Area 2) This is the riffle transition and large nugget recovery area. Nuggets too large to spiral up the riffle in area (3) into concentrate cup (4) will remain in area (2) until visually sighted and removed.

(Area 3) This is the secondary classification area. The heavy material, (high specific gravity) like gold, platinum, flour gold and black sand, will continue to travel at the low point where the riffle joins the pan (1-C), to area (4). Most light (low specific gravity) material falls from the riffle in area (3) and it's ultimately ejected from the pan.

(Area 4) Final classification area. Here you immediately see the results. The gold settles in the removable cup (4). As it continues to tumble wet, it is "cleaned up" with a gentle splash of water and is ready for removal. Dry gold concentrate is removed from here for final wet cleanup.

New Machine SET-UP

GOLD MAGIC® Model 12-U

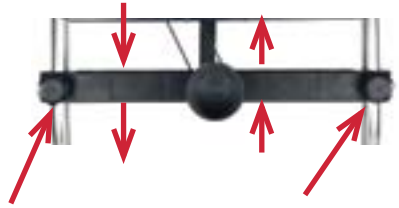
(1) HOOKING UP THE BATTERY:

Your GOLD MAGIC was shipped with one of the power wires disconnected from the switch. This is to prevent the unit from accidentally being turned on during shipping and arriving with the battery discharged. This wire is attached to the battery with a sticker instructing you how to connect it. Remove the cover of the Control Box by gently pulling back on the two Cover Latches. You need to pull the wire free of the battery and push the terminal onto the center terminal of the switch.



(2) BELT DRIVE TENSION ADJUSTMENT:

The drive belt tension is adjusted by loosening the two Axle Bar Adjustment Bolts on the front of the Axle Bar and moving the bar up or down. The belt should be just tight enough to prevent slipping. Over-tightening will reduce motor life and operating time. The toothed timing belt was chosen for its ability to function, with light tension, in wet conditions without slipping.



(3) INSERT THE PAN INTO THE HUB (Pan Holder):

You do not need to push the Pan all the way in. If the Pan is not evenly inserted into the Hub the Pan will wobble a little but that does not affect how the machine works. Keep in mind that you may be frequently removing and reinserting the Pan.



This part of the Pan is inserted into the Hub, Pan Holder, on the machine.

(4) INSERT THE CENTER CUP:

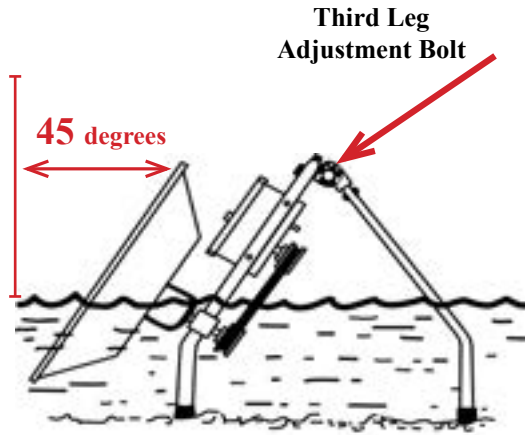
Push the Center Cup into the center of the Pan and the setup is complete.



Working The Gold Magic

Set the Operating Angle of the Spiral Pan:

Loosen the Third Leg Adjustment Bolt on the third leg. Adjust the third leg to achieve an angle of about 45 degrees to the horizontal for gold recovery. For gem stones set the angle at about 30 degrees. An easy way to tell you are at the 45° angle is when you start to feed material into the pan while it is running, the waste material will exit the pan between the 7 and 8 position, if the pan was a clock.



SIDE VIEW IN WATER

If you are setting up your Gold Magic in a tub, fill the tub up with water until the water level is at the center of the concentration cup as illustrated above. If you are setting the pan up in a creek, pond, lake, etc, find a spot so that the water level will be at the correct height.

Turn the power switch to the “On” position and the spiral wheel should start to rotate clockwise. Use a scoop, trowel, or small shovel to feed the material into the pan at the 3 to 5 o’clock position. Make sure to pour your material into the outer three riffles where the agitation knobs are. The even flow of material gives the gold a chance to classify and get behind the riffle rather than flow out of the pan on the top of the lightweight material being ejected at the 7 to 8 o’clock position. After shoveling into the pan for several minutes, you will want to determine if you have recovered any gold.

You will note that the concentration cup has filled with many kinds of foreign material. With your shovel or small container, splash water into the center cup with a light rinsing motion while the pan is running. The lightweight material will quickly rinse out of the concentration cup and the heavier gold will remain in the cup. Should you splash some of the gold out of the cup, it will quickly return during the next few revolutions of the pan. Keep rinsing until the gold is entirely clean of any sand and then stop the pan immediately, remove the center cup and pour your gold directly into a vial. Also check your black sand with a 30x power scope. The gold may be smaller than what is visible to the naked eye.



Feed material into this area.
3 to 5



Waste discharged in this this area.
7 to 8

PAN CLEANING & PREPARATION:

Before the first use we suggest that you clean the inside of the pan with alcohol or liquid detergent to remove any mold release compound or oil that might be in the pan. The plastic molding production process and handling can result in a fine film of oil on the surface of a new pan. In water this oil will tend to impair the recovery of fine gold and acts like a “life jacket” for that piece of gold and reduces its specific gravity and thus makes it hard or impossible to recover. Do not use any abrasives in the process. You only want to remove the surface film of oil. You do not want to “rough up” the surface as this will impair the recovery of fine gold.

Tips On The Center Cup

The center cup is one of the most important parts of the machine because it allows you to easily remove the concentrates from the center of the wheel. Here are a couple of tips on the center cup.

(1) If black sand or other material is building up behind a new center cup you can prevent this by stretching the cup a little bit between your thumbs. You may need to do this a few times to get a new cup sealed correctly.



(2) You can use the machine without the center cup. The center cup is a handy way to remove the concentrates from the machine but if you can't find your center cup you can do the same thing with a snuffer bottle or suction tweezers.

Using The Gold Magic Dry:

If possible you should always use your Gold Magic in water. Gold has about a 5 to 1 specific gravity advantage over most material in water. However the Gold Magic works very well with dry material. Keep in mind that the material must be dry to run it dry. If you have damp material you need to run it in a wet process.

Place your Gold Magic® as near as possible to the material you want to process. Set the pan at approximately a 45 degree angle and leave some area below the pan for removing the material falling from the pan. With a shovel/scoop, feed the pan with a steady flow of material into the outside riffles at the 3 to 5 o'clock position on the face of the pan. The gold quickly passes through the tumbling sand and gravel to settle against the riffle. The gold begins moving towards the concentration cup. When working dry, feed your Gold Magic® a little slower to allow time for the fine gold to process through the pan. If the gravel balls up in your hand, it is too damp to process dry. The material must tumble freely. You should be able to process 5 gal. of material in 30 minutes. After 5 to 10 minutes, remove the concentration cup and dump the contents into a small gold pan or tray. Check the concentrates with a 30X power scope set directly on top of the sand. If you see some gold, dump the concentrate into your collection container and continue to process. If you do not see any gold, move to the next location. Your chances of finding gold improve greatly if you move frequently.

Gold Magic® Model 12-U Battery and Charger

Most Gold Magic® models have a built in charger designed to work on a standard North American 110 volt AC electrical grid. This created a problem using those machines in other areas of the world that utilize different electric power systems. The Gold Magic® 12-U was designed to rectify that problem because it does not have a built-in charger. Instead it comes with an External Charger that is designed to work on the standard 110 volt power grid in the US or Canada and on most international 220 volt power grids. There is a 12 volt DC receptacle on the back of the machine where the external charger is plugged into the Control Box.

12 Volt DC Receptacle



The Gold Magic Universal Charger is item number GM-5435 and it comes complete with plug adapters for Australia, Canada, Europe, and the UK. (or any other country that has adopted a power grid compatible with any of these systems.

Hooking up a Solar Charger. This is a 12 volt system. Make sure your charger is compatible. Locate the pre-wired hookup for a solar charger that is wrapped around the motor and gently pull the wire out as illustrated.



Locate the hole that is above the charging port on the back of the machine. The hole is closed with a plastic plug. Remove the plastic plug and feed the wire through the hole as illustrated.



Use this wire to connect your solar charger. Make sure the polarity is correct. The red wire on the Gold Magic is positive.

This connection is attached directly to the battery. It is not routed through the switch so the solar charger connection is always charging regardless of which position the switch is in. It is even charging when the machine is running. A seven watt solar charger will add up to 10 hours per day of running time to the Gold Magic®. The amount of charge will depend on the amount of sun light, your latitude, longitude, the time of the year and whether or not you keep the cell aimed at the sun. A solar cell will produce some charge even under artificial light or cloudy days.

How to Charge the Battery:

Plug the Universal Charger into the appropriate 110 or 220 volt outlet and into the DC Power Socket on the back of the Control Box.



Flip the toggle switch, on the outside of the control box, down to the charge position.



Eight to 12 hours will bring the battery back to full charge depending on how far the battery has been discharged. Unlike Ni-cad batteries, our sealed Lead Acid A.G.M., Absorbent Glass Mat, battery will reach full charge from any point in its cycle. These batteries are designed to be charged and recharged multiple times without damage. Be sure to always recharge the battery after each use, especially if the machine is going to be in storage. Properly maintained this battery will run the machine for many years.

Adding a Hand Crank to the Model 12-U Hand Crank Set Up and Operating Instructions

To add the ability to use your Gold Magic® without electric power you need to add the Hand Crank Kit , GM-9170. This kit consist of a hand crank mechanism that bolts on to the frame and a longer belt.

The longer belt is to be used with the hand crank. You can store the belt that is not being utilized inside the Control Box. The way to change operating modes is to change the belts. This is done by loosening the two Axle Bar Adjustment Bolts on the front of the Axle Bar. Push up on the bar to release the pressure on the belt. Remove the current belt. Attach the new belt, push down on the Axle Bar to set the correct pressure on the new belt and tighten the adjustment bolts. Do not put too much pressure on the belt. Overtightened belts will increase wear on the motor and bushings.

There are arrows molded into the face of your pan to show the direction it should turn, clockwise. For best results rotate the pan at approximately 19 to 23 RPM.



Model 12-U with the Hand Crank Installed

Gold Magic Model 12-U Parts List

Parts List:

Axle Bar	GM-9100
Axle Bar Adjustment Bolt	GM-9183
Battery	GM-5429
Center Cup	GM-9110
Control Box Cover	GM-5448
Cover Latch (Set)	GM-9180
DC Power Socket	GM-5185
Drive Belt Electric	GM-5440
Drive Belt Hand Crank	GM-5444
Frame	GM-Asy-Frame
Gear Motor	GM-5427
Hub (Pan Holder)	GM-9130
Hub (Pan Holder) Pulley	GM-5438
Leg Boot	GM-4260
Motor Pulley	GM-5436
Third Leg	GM-9160
Third Leg Bracket	GM-4220
Third Leg Adjustment Bolt	GM-9182
Third Leg	GM-9160
Spiral Pan	GM-4275
Universal Charger	GM-5435

Gold Magic Model 12-U Optional Accessories

Hand Crank Kit	GM-9170
Wet Separation Tub	GM-6182
Solar Charger	GM-6181



Gold Magic Limited Warranty

The Gold Magic® Spiral Panning Machines are warranted by AU Engineering Inc against defect in workmanship or materials under normal use for one year after the date of the original purchase from AU Engineering Inc or to the final consumer when purchased from an authorized Gold Magic® dealer.

Any part which is determined by AU Engineering Inc to be defective in material or workmanship and returned to AU Engineering Inc shipping cost prepaid, will be, as the exclusive remedy, repaired or replaced at Gold Magic Inc's option.

WARRANTY DISCLAIMER:

AU Engineering Inc. has made a diligent effort to illustrate and describe the product Gold Magic® accurately. However, such illustrations and descriptions are for the sole purpose of identification, and do not express or imply a warranty that the Gold Magic ® is merchantable, or fit for a particular purpose, or that the product will necessarily conform to the illustrations or descriptions. No warranty or affirmation of fact, express or implied other than as set forth in the limited warranty statement above is made or authorized by AU Engineering Inc.

LIMITATION OF LIABILITY:

Any liability for consequential and incidental damage is expressly disclaimed. AU Engineering Inc liability in all events is limited to, and shall not exceed the purchase price paid.

PROMPT DISPOSITION:

AU Engineering Inc will make a good faith effort for prompt correction or other adjustment within warranty period. Before returning any product, write or call AU Engineering Inc giving date of original invoice, and describing defect.

FREIGHT POLICY:

If product is damaged in transit, recipient must file claim with carrier.

Gold Magic
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☀ Prospect Wet

☀ Prospect Dry

☀ Fine Gold Recovery from Black Sand

☀ Light Weight, Can Carry in One Hand

☀ Runs 16 Hours on a Charge

☀ Made In The USA



Magic Drop

When working wet in a tub, it is a good idea to add a few drops of Magic Drop to the water in the tub to help recover fine gold. Magic drop is a specially formulated type of soap to get maximum control of the surface tension with minimal suds. Magic Drop reduces the surface tension of the water to prevent very small pieces of gold from floating. Recommended use is 1 teaspoon per 10 gallons of water. A four oz bottle will treat 250 gallons of water.

