

Minelab manufactures a range of accessory search coils to suit different detecting requirements and conditions. The following chart will assist you to select the right search coil for the right job. Whether you're hunting for coins in shallow water at the beach or searching for large deep nuggets, Minelab has the search coil to suit.








Image	Description	Compatible detectors	Water protection	Application
	18" Round Commander Monoloop Coil	All SD, GP and GPX detectors	Water resistant	Good depth and sensitivity in most ground types. Performs particularly well with the Enhance and Sensitive Smooth timings on the GPX-4500.
	18" Round Commander Double-D Coil	All SD, GP and GPX detectors	Water resistant	Designed for depth in highly mineralised ground. Great for large gold and deep relics. A serious coil for the serious detectorist.
	15" x 12" Semi-Elliptical Commander Monoloop Coil	All SD, GP and GPX detectors	Water resistant	Extremely popular coil. Achieves great depth and sensitivity. Performs particularly well with the Enhance timing. This coil doesn't leave much behind.
	15" x 12" Semi-Elliptical Commander Double-D Coil	All SD, GP and GPX detectors	Water resistant	Provides improved depth and ground coverage over the 11" DD. Great for general detecting in open areas and in highly mineralised ground.
	11" Round Commander Monoloop Coil	All SD, GP and GPX detectors	Water resistant	The most stable monoloop coil available. The 11" performs well on old workings, as it will find small gold at great depth.
	10" x 5" Elliptical Commander Double-D Coil	All SD, GP and GPX detectors	Water resistant	Excellent in heavy scrub, creeks and high trash. This coil is very sensitive for a DD. Can also be used as a pin-point tool when recovering deep targets.
	8" Round Commander Monoloop Coil	All SD, GP and GPX detectors	Water resistant	For detecting sub-gram gold, this coil is excellent. From old diggings, surfacing and shallow ground, if there is small gold the 8" will find it.


















Image	Description	Compatible detectors	Water protection	Application
	11" GP Series Double-D Coil	All SD, GP and GPX detectors	Water resistant	The 11" DD has the perfect blend of depth and sensitivity. It performs well with all Timings, as well as the Cancel option. It is very stable in all ground types.
	11" Round GoldSearch Coil (GoldSearch-1100)	Eureka Gold, Gold Striker and XT series detectors	Water resistant	Use this coil in deeper ground, or where larger targets are anticipated. Performs well on the 20 kHz frequency of the XT18000 and Eureka Gold.
	10" Elliptical Easy-sweep GoldSearch Coil (Goldsearch-1000)	Eureka Gold, Gold Striker and XT series detectors	Water resistant	This coil has great sensitivity, good ground coverage and is easily manoeuvrable in rough terrain.
	11" FBS Coil	E-TRAC, Safari, Explorer series & Quattro MP	Water proof	The standard coil on the E-TRAC and Safari. It is robust yet lightweight, offers great depth, sensitivity and excellent target separation.
	10" Slimline Coil (FBS Slimline)	E-TRAC, Safari, Explorer series and Quattro MP	Water proof	The standard coil on the Explorer SE. It is robust yet lightweight, offers great depth, sensitivity and is ideal for shallow wading.
	8" FBS Coil (FBS-800)	E-TRAC, Safari, Explorer series and Quattro MP (Includes carbon fibre stem)	Water proof	The 8" FBS coil offers good target separation and performs well in heavy scrub. It is also ideal for detecting in shallow streams and beach gutters.
	8" Tornado Coil (Tornado-800)	All Sovereign series detectors	Water proof	The 8" Tornado coil offers good target separation and performs well in heavy scrub. It is a favourite for shallow wading and has improved sensitivity.
	10" Tornado Coil (Tornado-1000)	All Sovereign series detectors	Water proof	The standard coil on the Sovereign GT. It is robust yet lightweight, offers great depth, sensitivity and is perfect for shallow wading.
	8" Slimline Treasure Searcher Coil (TS-800)	Eldorado, Eureka Ace Sterling and all Musketeer, GT and FT series detectors	Water proof	The 8" Slimline coil offers good target separation and is great in heavy scrub. It is a favourite for shallow wading and has good sensitivity.

Image	Description	Compatible detectors	Water protection	Application
	6" Concentric 7.5 kHz Coil	All X-TERRA series detectors	Water proof	If there are coins and relics hiding amongst iron junk, this coil is the one that will find them. The best X-TERRA coil for target separation.
	6" Double-D 18.75 kHz Coil	X-TERRA 50, 70, 305, 505 and 705 detectors	Water proof	The most sensitive X-TERRA coil available, it is great for sub-gram nuggets, specimens and gold jewellery. Also ideal for shallow streams.
	9" Concentric 7.5 kHz Coil	All X-TERRA series detectors	Water proof	The standard X-TERRA coil for good reason – good depth, great target separation and accurate pin-pointing – the perfect coin hunting coil.
	9" Concentric 18.75 kHz Coil	X-TERRA 50, 70, 305, 505 and 705 detectors	Water proof	Has same properties as the 7.5kHz version, but more sensitive to low conductive targets. Also performs well when detecting for jewellery on ocean beaches.
	9" Concentric 3 kHz Coil	X-TERRA 70, 505 and 705 detectors	Water proof	Ideal for highly conductive targets such as silver, copper, large rings and relics. Performs well in all soils with the exception of highly mineralised soil.
	10" x 5" Double-D 18.75 kHz Coil	X-TERRA 50, 70, 305, 505 and 705 detectors	Water resistant	This coil has great sensitivity, good ground coverage and is easy to use in rough terrain. An ideal gold hunting coil, that also performs well for beach work.
	10" Round Double-D 7.5 kHz Coil	All X-TERRA series detectors	Water resistant	For improved depth and ground coverage over the standard 9" Concentric, this is the coil to use. It also performs well in mineralised soils.
	10" Round Double-D 18.75 kHz Coil	X-TERRA 50, 70, 305, 505 and 705 detectors	Water resistant	An ideal coil for beach work and open areas. This coil offers good depth and sensitivity as well as great stability in mineralised soils and beaches.

Water resistant: May be splashed, washed, used in drizzling rain, or moved through wet grass. Must not be submersed under water.

Water proof: Submersible to 1 meter. Ideal for shallow water wading and gold prospecting in shallow streams.

## Coil selection basics

When choosing a coil there are a few basics to remember that relate to the size, shape, configuration and frequency (X-TERRA series) of the coil.

### Size

The size of a coil can influence the detection depth and sensitivity of a detector. The larger the coil, the deeper it tends to detect, but will have less sensitivity to small targets. The smaller the diameter, the more sensitive it becomes, but with reduced detection depth.

Smaller coils will also be lighter in weight, easier to control and may be chosen for their ability to negotiate difficult terrain or undergrowth. Smaller coils also have an advantage in areas of high trash, due to their smaller detection footprint.

### Shape

The most common coil shapes are the conventional solid Round coils, the Elliptical shaped coils and the Open-web coils. The main reason for the change in shape is to conform to a physical requirement, i.e. the elliptical coil can be pushed around bushes or between stony country easier than round coils. Open-web coils help cut through water when detecting in water and are lighter for their size. Conventional round coils are often more stable, higher performing, and are particularly popular when gold prospecting.



Round coil



Elliptical coil



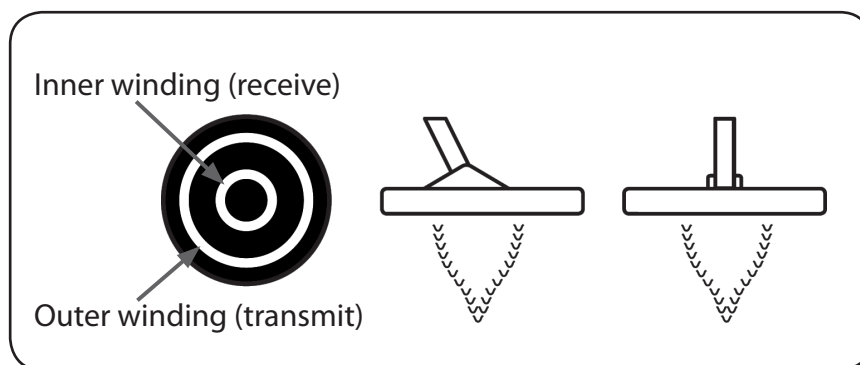
Open-web coil

### Configuration

The three most common types of coil windings are Concentric, Double-D (DD), and Monoloop. The difference between these coil types is the pattern the wire is wound within the coil.

#### Concentric coil

A Concentric coil has an inner circle and an outer circle wire winding. Its search pattern is cone shaped and can be useful for accurately pinpointing the target. Concentric coils tend to be noisier in highly mineralised ground and require more overlap of sweep for thorough ground coverage.

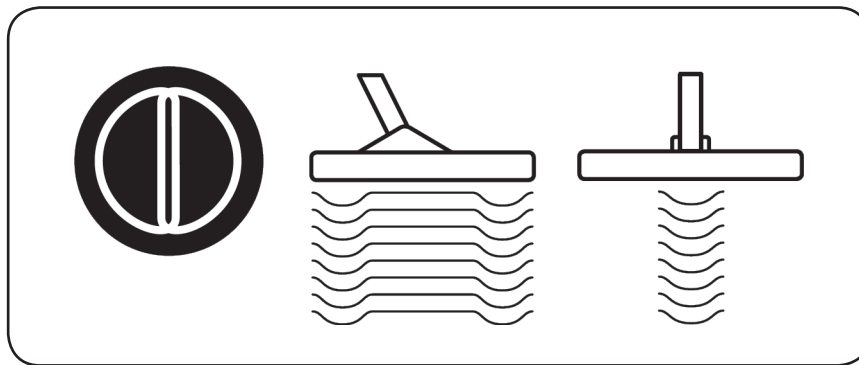


Concentric coil

### Double-D (DD)

A Double-D coil has two overlapping wire windings in the shape of two D's (one reversed). The characteristics of a Double-D coil are stability (especially in heavily mineralised ground), good depth, sensitivity and a very thorough search pattern.

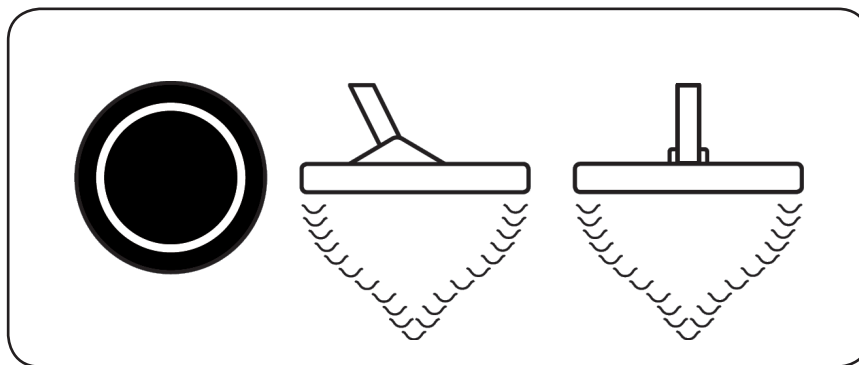
When used with a GPX detector Double-D coils (as opposed to monoloop coils) are able to discriminate between ferrous and non-ferrous targets. They are also more stable when used on wet salt beach sand and in electrically noisy environments.



Double-D coil

### Monoloop coil

Monoloop coils are a special style of coil for Pulse Induction (PI) technology detectors (SD & GPX Series). These coils have one winding of wire around the circumference of the coil, which is used to both transmit and receive. The signal pattern of the Monoloop coil is cone shaped, requiring more overlapping. In extremely heavily mineralised grounds they can be more difficult to ground balance, however they tend to provide slightly better depth than the Double-D coils.



Monoloop coil

### Frequency (X-TERRA Series)

The range of X-TERRA detectors are capable of operating at one of three different frequencies; 3kHz, 7.5kHz or 18.5kHz. The operating frequency is determined by the coil being used (refer to the chart above) and affects the detector's performance. As a rule of thumb, the lower the frequency, the deeper the detector can penetrate the ground. At low frequencies however, sensitivity to small low conductive targets is reduced. The higher the frequency, the higher the sensitivity to small targets, however detection depth is reduced.

In general, when gold prospecting operate the detector at 18.75kHz (high frequency) to find small nuggets and at lower frequencies (3kHz or 7.5kHz) for deeper penetration when searching for coins and relics.

**Commander coil selection chart** (Suit all SD, GP and GPX detectors)

	Small shallow nugget	Large deep nugget	Highly mineralised	Less mineralised	Open ground	Heavy scrub	Iron disc'
18" Round Monoloop		✓		✓	✓		
18" Round Double-D		✓	✓		✓		✓
15" x 12" Elliptical Monoloop	✓	✓		✓	✓		
15" x 12" Elliptical Double-D		✓	✓		✓		✓
11" Round Monoloop	✓	✓		✓	✓	✓	
10" x 5" Elliptical Double-D	✓		✓			✓	✓
8" Round Monoloop	✓			✓		✓	