

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	The 18-inch Monoloop coil detects to the greatest depth of all the Commander Coils. It is not sensitive to very small gold nuggets, but has great ground coverage and finds very deep gold.
	18" Round Commander Double-D Coil	All SD, GP and GPX detectors	Water resistant	The 18-inch Double-D achieves greater depth and ground coverage but is less sensitive to small gold compared to the other Double-D coils.
	15" x 12" Semi-Elliptical Commander Monoloop Coil	All SD, GP and GPX detectors	Water resistant	The 15 x 12-inch Monoloop coil is quite sensitive to small gold nuggets, has greater depth on larger gold and has better ground coverage than smaller coils. (Standard with GPX-4500 Only)
	15" x 12" Semi-Elliptical Commander Double-D Coil	All SD, GP and GPX detectors	Water resistant	The 15 x 12-inch Double-D achieves good depth and ground coverage but is not quite as sensitive to very small gold compared to the 11-inch Double-D.
	11" Round Commander Monoloop Coil	All SD, GP and GPX detectors	Water resistant	The 11-inch Monoloop coil is very sensitive to small gold nuggets, and has good depth on larger gold. (Standard with GPX 5000 Only)
	11" Round Commander Double-D Coil	All SD, GP and GPX detectors	Water resistant	The 11-inch Double-D is a good combination of depth and sensitivity to small gold with reduced false signals. A great coil to start with. (Standard with all GPX Models)
	10" x 5" Elliptical Commander Double-D Coil	All SD, GP and GPX detectors	Water resistant	The 10 x 5-inch Double-D has good depth and sensitivity to small gold and is very manoeuvrable.

Image	Description	Compatible detectors	Water protection	Application
	8" Round Commander Monoloop Coil	All SD, GP and GPX detectors	Water resistant	The most sensitive of the Commander Coils, to small gold, the 8-inch round provides the best depth on sub gram nuggets in light to moderately mineralised soils. A popular coil for use on old diggings, it is also a great coil for detecting in heavy vegetation.
	11" Round GoldSearch Coil (GoldSearch-1100)	Eureka Gold, Gold Striker and XT series detectors	Water resistant	Great depth and ground coverage for medium to large gold.
	10" Elliptical Easy-sweep GoldSearch Coil (Goldsearch-1000)	Eureka Gold, Gold Striker and XT series detectors	Water resistant	The standard coil supplied with the Eureka Gold. This coil has great sensitivity, good ground coverage and is easily manoeuvrable in rough terrain.
	8" Double-D Goldsearch coil (Goldsearch 800)	Eureka Gold, Gold Striker and XT series detectors	Water resistant	Excellent for detecting sub-gram gold. This coil is lightweight and highly manoeuvrable for getting in tight spots.
	11" FBS Coil	E-TRAC, Safari, Explorer series & Quattro	Water- proof	The standard coil supplied with the E-TRAC and Safari. It is robust yet lightweight, offers great depth, sensitivity and excellent target separation.
	8" FBS Coil (FBS-800)	E-TRAC, Safari, Explorer series and Quattro (includes carbon fibre lower shaft)	Water- proof	Excellent target separation, lightweight and highly manoeuvrable, also more sensitive to smaller targets than the 11" FBS coil.
	8" Tornado Coil (Tornado 800)	All Sovereign series detectors	Water- proof	Excellent target separation, lightweight and highly manoeuvrable, also more sensitive to smaller targets than the 10" Tornado 1000 coil.
	10" Tornado Coil (Tornado 1000)	All Sovereign series detectors	Water- proof	The standard coil supplied with the Sovereign GT. It is lightweight, offers great depth & sensitivity and is perfect for all terrains.

Coil Selection Guide
















Image	Description	Compatible detectors	Water protection	Application
	6" Concentric 7.5 kHz Coil	All X-TERRA Series detectors	Water- proof	Excellent target separation and pinpointing accuracy with high sensitivity to small targets.
	6" Double-D 18.75 kHz Coil	X-TERRA 50, 70, 305, 505 and 705 detectors	Water- proof	Exceptional sensitivity to small targets with good target separation and pinpointing accuracy.
	9" Concentric 7.5 kHz Coil	All X-TERRA Series detectors	Water- proof	The standard coil supplied with the X-TERRA 305, 505 and 705. Good depth, target separation and pinpointing accuracy.
	9" Concentric 18.75 kHz Coil	X-TERRA 50, 70, 305, 505 and 705 detectors	Water- proof	Good depth, target separation and pinpointing accuracy. Has similar properties as the 7.5 kHz version, with greater sensitivity to small targets.
	9" Concentric 3 kHz Coil	X-TERRA 70, 505 and 705 detectors	Water- proof	Good depth, target separation and pinpointing accuracy. Has similar properties as the 7.5 kHz version, with greater sensitivity to large deep targets.
	10" x 5" Double-D 18.75 kHz Coil	X-TERRA 50, 70, 305, 505 and 705 detectors	Water resistant	The standard coil supplied with the X-TERRA 705 Gold Pack. Has exceptional sensitivity to small targets in mineralised ground with good ground coverage.
	10" Round Double-D 7.5 kHz Coil	All X-TERRA Series detectors	Water resistant	Excellent ground coverage and good depth even in mineralised ground.
	10" Round Double-D 18.75 kHz Coil	X-TERRA 50, 70, 305, 505 and 705 detectors	Water resistant	Exceptional sensitivity to small targets in mineralised ground with excellent ground coverage and good target separation.

Image	Description	Compatible detectors	Water protection	Application
	All Terrain 15" Double-D 3 kHz Coil by Coiltek Manufacturing	X-TERRA 70, 505 and 705 detectors	Water- proof	Exceptional ground coverage and depth.
	All Terrain 15" Double-D 7.5 kHz Coil by Coiltek Manufacturing	All X-TERRA Series detectors	Water- proof	Improved depth and ground coverage across a wide range of target sizes.
	All Terrain 15" Double-D 18.75 kHz Coil by Coiltek Manufacturing	X-TERRA 50, 70, 305, 505 and 705 detectors	Water- proof	Provides great ground coverage while being very sensitive to small targets. This coil is a great choice for gold prospecting.
	Digger 6" Double-D 3 kHz Coil by Coiltek Manufacturing	X-TERRA 70, 505 and 705 detectors	Water resistant	Excellent target separation and stability and is ideal for detecting in trashy areas.
	CTX 06 6" Double-D FBS Smart Coil	CTX 3030	Water- proof	Very sensitive to small targets, and perfect for finding treasure in high trash areas. It is also ideal for manoeuvring in difficult terrain.
	CTX 11 11" Double-D FBS Smart Coil	CTX 3030	Water- proof	The standard coil supplied with the CTX 3030. It is robust yet lightweight, offers great depth, sensitivity and excellent target separation.
	CTX 17 17" x 13" Double-D FBS Smart Coil	CTX 3030	Water- proof	Provides maximum depth for specialised treasure hunting. It is also great for wide ground coverage in open spaces.

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

Waterproof: 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 with less sensitivity to small targets. The smaller the diameter, the more sensitive it becomes, but with reduced detection depth.

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

Shape

The most common coil shapes are round and elliptical. They are available in solid and open-web designs. Elliptical coils are more manoeuvrable without sacrificing ground coverage. Round coils are often more stable, higher performing, and achieve greater depth. Open-web coils are waterproof, help cut through water and assist when pinpointing because the ground is visible through the coil.



Round coil



Elliptical coil



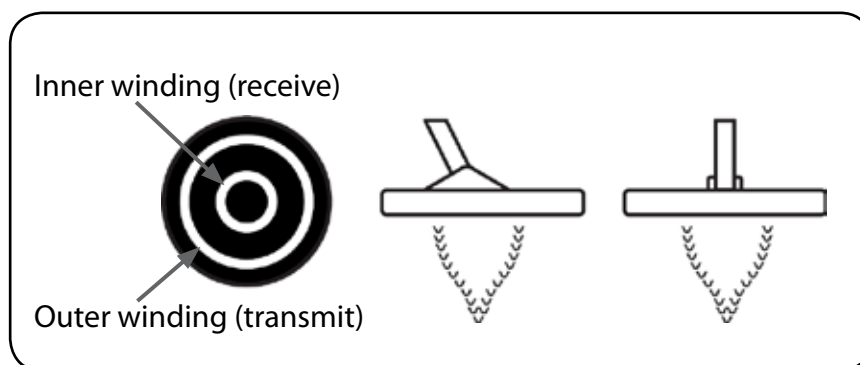
Open-web coil

Configuration

The difference between configurations is the shape of the wire winding within the coil housing. The three most common types are Concentric, Double-D, and Monoloop.

Concentric coil

A Concentric coil has an inner circle and an outer circle wire winding. The search pattern is cone shaped and can be useful for accurately pinpointing targets. Concentric coils require more sweep overlap for thorough ground coverage. They are also noisier in highly mineralised ground and therefore might not be the best choice for gold prospecting.



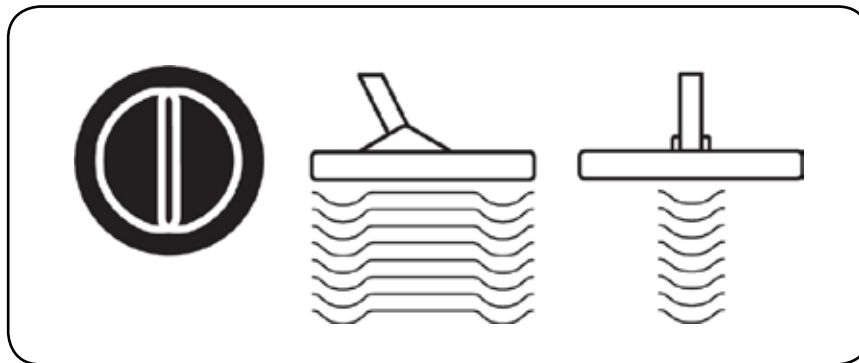
Concentric coil

Double-D (DD)

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

When used with GPX detectors, Double-D coils (unlike Monoloop coils) are able to discriminate between ferrous and non-ferrous targets when Iron Reject is activated. They are also more stable when used on wet salt beach sand and in electrically noisy environments.

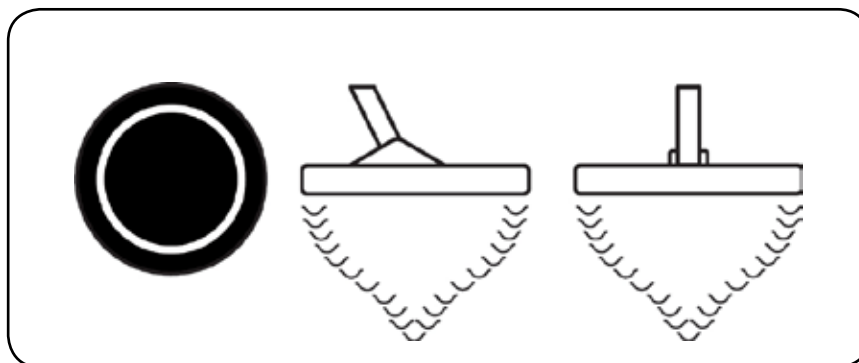
When used with X-TERRA detectors, Double-D coils perform quieter than Concentric coils in mineralised ground and are therefore well suited for gold prospecting.



Double-D coil

Monoloop coil

Monoloop coils are a specific configuration of coil for Pulse Induction technology detectors (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 achieve greater depth and are more sensitive than Double-D coils.



Monoloop coil

Frequency (X-TERRA Series)

X-TERRA detectors are capable of operating at one of three different frequencies; 3 kHz, 7.5 kHz or 18.75 kHz. The operating frequency is determined by the coil being used and affects the detector's performance. Generally, the lower the frequency, the deeper the detector can penetrate the ground. At low frequencies sensitivity to small low conductive targets is reduced. The higher the frequency, the higher the sensitivity to small targets, however detection depth is reduced.

Operate the detector at 18.75 kHz (high frequency) to find small nuggets and fine jewellery. Operate the detector at 3 kHz or 7.5 kHz (lower frequencies) when searching for coins and relics.

Coil selection charts

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

	Small shallow nugget	Large deep nugget	Highly mineralised	Less mineralised	Open ground	Manoeuvrability	Iron Reject
18" Round Monoloop	✓	✓✓✓	✓✓	✓✓✓	✓✓✓	✓	✗
18" Round Double-D	✓	✓✓✓	✓✓✓	✓✓	✓✓✓	✓	✓
15 x 12" Elliptical Monoloop	✓✓	✓✓	✓✓	✓✓✓	✓✓✓	✓✓	✗
15 x 12" Elliptical Double-D	✓✓	✓✓	✓✓✓	✓✓	✓✓✓	✓✓	✓
11" Round Monoloop	✓✓	✓✓	✓✓	✓✓✓	✓✓	✓✓	✗
11" Round Double-D	✓✓	✓✓	✓✓✓	✓✓	✓✓	✓✓	✓
10 x 5" Elliptical Double-D	✓✓✓	✓	✓✓✓	✓✓	✓	✓✓✓	✓
8" Round Monoloop	✓✓✓	✓	✓✓	✓✓	✓	✓✓✓	✗

X-TERRA Minelab coil selection chart

	Small targets	Medium targets	Large/deep targets	Pinpointing accuracy	Ground coverage	High trash ground	Waterproof
6" Concentric 7.5 kHz	✓✓	✓✓	✓	✓✓✓	✓	✓✓✓	✓
6" Concentric 18.75 kHz *	✓✓✓✓	✓✓	✓	✓✓✓	✓	✓✓	✓
9" Concentric 3 kHz ^	✓	✓✓	✓✓✓	✓✓	✓✓	✓✓	✓
9" Concentric 7.5 kHz	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓
9" Concentric 18.75 kHz *	✓✓✓	✓✓	✓	✓✓	✓✓	✓✓	✓
10.5" Double-D 7.5 kHz	✓✓	✓✓	✓✓	✓	✓✓✓	✓	#
10.5" Double-D 18.75 kHz *	✓✓✓	✓✓	✓	✓	✓✓✓	✓	#
10 x 5" Double-D 18.75 kHz *	✓✓✓✓	✓✓	✓	✓	✓✓✓	✓	#

^ Not compatible with X-TERRA 30, 50 & 305

* Not compatible with X-TERRA 30

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

X-TERRA Coiltek Manufacturing coil selection chart

	Small targets	Medium targets	Large/deep targets	Pinpointing accuracy	Ground coverage	High Trash Ground	Waterproof
All Terrain- 15" Double-D 3 kHz [^]	✓	✓✓	✓✓✓✓	✓	✓✓✓✓	✓	✓
All Terrain- 15" Double-D 7.5 kHz	✓✓	✓✓✓	✓✓✓	✓	✓✓✓✓	✓	✓
All Terrain- 15" Double-D 18.75 kHz*	✓✓✓	✓✓	✓✓	✓	✓✓✓✓	✓	✓
Digger- 7" Double-D 3 kHz [^]	✓✓✓	✓✓	✓	✓✓✓	✓	✓✓✓	#

[^] Not compatible with X-TERRA 30, 50 & 305

* Not compatible with X-TERRA 30

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

CTX 3030 coil selection chart

	Small targets	Medium targets	Large/deep targets	Pinpointing accuracy	Ground coverage	High trash ground	Waterproof
CTX 06 - 6" Double-D	✓✓✓	✓✓	✓	✓✓✓	✓	✓✓✓	✓
CTX 11 - 11" Double-D	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓
CTX 17 - 17 x 13" Double-D	✓	✓✓✓	✓✓✓	✓	✓✓✓	✓	✓