





Leica DD Utility Locators Introduction

Leica DD SMART utility locators, signal transmitters and data management software

- Leica DD series, technology to identify underground assets
 - Faster
 - Deeper
 - More accurately than any other system
 - With increased user confidence
 - Featuring on-board diagnostics to ensure optimal performance





Leica DD Utility Locators Introducing the SMART range





Leica DD230 SMART





Leica DD Utility Locators Introducing the range - Construction



Leica DD220 SMART

- Best in class detection performance
- Industry leading processing power
- Innovative digital antenna
- Depth detection up to 7 meters (23 feet)
- Good-to-Go™ Health Check and Start up test
- On-board video user guides
- IP66 rating protection from dust and water
- Web Calibration Verification
- SMART technology (GPS, Memory, Bluetooth)
- Li Ion rechargeable battery





Leica DD Utility Locators Introducing the range - Utility



Leica DD230 SMART

Additional to DD220 SMART

- Extended trace range with additional 512Hz,
 640Hz frequencies
- Signal current measurement
- Increased depth detection up to 10 m





SMART Technology Open the door to a connected world



Data logging Data stored to internal memory including GPS positioning



GPS
Assists report visualisation, providing a clearer view of site activities



Bluetooth Connectivity

Wireless connection to mobile devices, upload data to cloud based analysis software

Windows, Android and Apple compatible



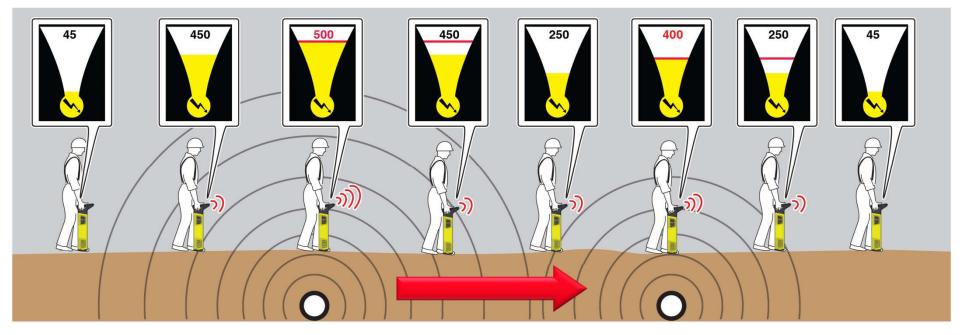
USB

Wired connectivity to office based analysis software





Providing greater performance Simplifying Use



- Auto mode sweeps in both Power and Radio modes
- Digital Signal Processing (DSP) filters signals to ensure best detection capabilities
- Automatic controls replaces manual sensitivity
- Pinpointing with numerical and graphical display readings





Providing greater performance Passive modes



Power Mode

Detect power signals radiated by energised cables which pose a serious risk



Radio Mode

Detect signals originating from distant radio transmitters



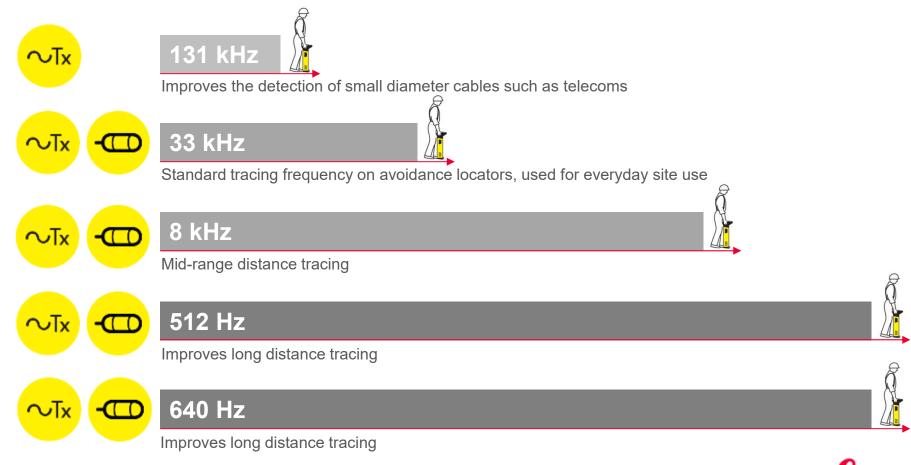
Auto Mode

Combines power and radio for a one sweep process





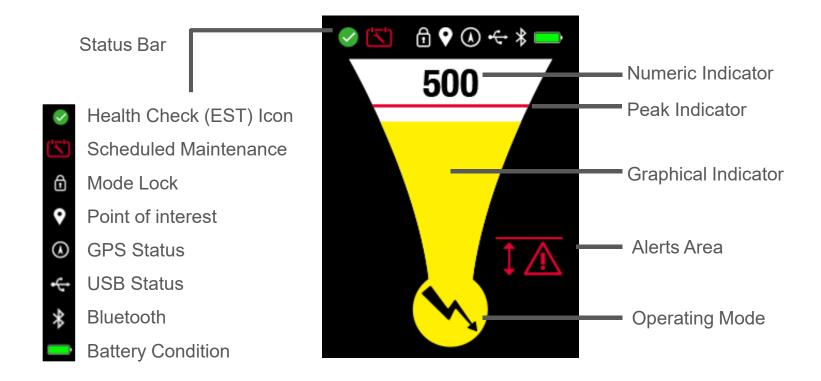
Providing greater performance Active Modes







Providing clear information Instrument display

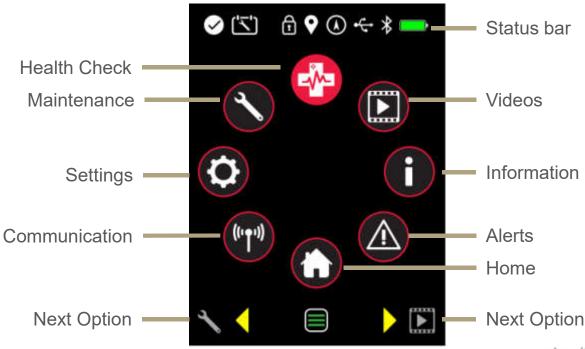






Providing clear information lcon based navigation

- Simplified navigation
- View maintenance history and training videos
- Customise and configure your locator

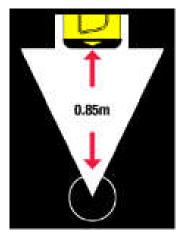


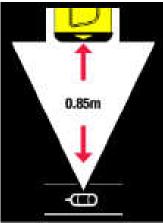




Providing clear information Depth identification

- Clear depth readings
- Indicates depth reading to line or sonde
- Large graphical indication to the utility type
- Signal current measurement (DD230 models)









Increasing operator confidence On-board training videos

- Provides onsite operator support
- Refresh operator skills
- Promotes best practice

- Supports point of delivery
 - Simplifies hand over process during hire
 - Strengthens demonstration process







Increasing operator confidence Good-to-Go™ Health Check

- Checks functionality on-demand
- Confirms each day that the instrument is Good-to-Go™
- Can be run manually or scheduled
- Stores results to the instrument's memory

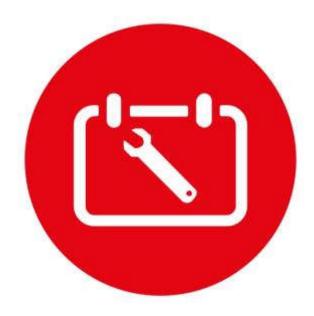






Increasing operator confidence Maintenance - Service due indicator

- Provides a service due indicator
- Alerts when a service is recommended
- Can be set to lock out unit, preventing operation if no service has been carried out







Increasing operator confidence **Calibration Verification**

- Pay as you go calibration verification
- Connect instrument to PC / Laptop
- Calibration verified using an internet connection
- Certificate can be printed







Green Credentials Improved sustainability

Rechargeable battery pack

- Interchangeable between locator and transmitter
- Compatible with Leica Rugby laser chargers
- Extended operating life to 5 years



Waste Reduction

- Save more than 200 Alkaline batteries or €400
- Eliminates disposal of Alkaline batteries
- Reduced environmental impact







Built for the environment Highest Protection

- Class-leading IP66 rating
 - Protects against water ingress
 - Protects against dust ingress
 - Designed to withstand tough site conditions

Extends working life

 Reduced downtime from repair caused by water or dust ingress







Industry leading warranty Peace of mind support

- Leica PROTECT
 - 3 Year warranty
- myWorld
 - Technical support
 - Instant access to information
 - Keep you and your equipment up-to-date









Leica DD Utility Locators Introducing the range





Leica DD130





Leica DD Utility Locators Simplifying Use

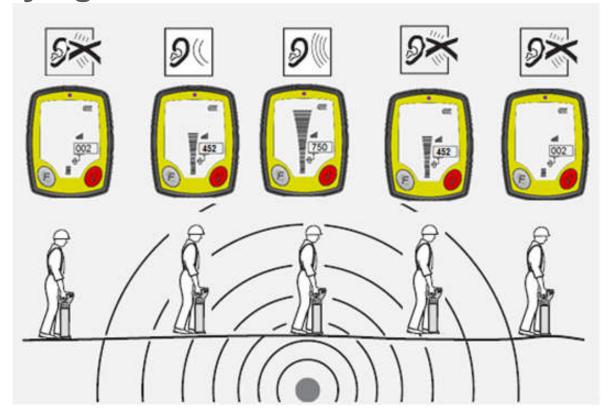
- **Ease of Use** The locator requires minimal adjustment to locate services. Removing the sensitivity control also ensures detectable services cannot be missed where the user reduces sensitivity too much.
- In-built Self Test A quick check can easily be performed by staff or users to ensure units are
 working correctly. This can be carried out when off-hiring locators or handing over to users for the
 first time.
- Signal Strength Indication (SSI) features numeric signal strength readout, specifically designed for easy cable identification.
- Hazard Zone Alert the user to shallow services within 30cm of the locator. This can enable
 users to change their method of breaking ground and prevent cable strikes.
- 512Hz, 640Hz, 8kHz and 33kHz frequencies
 A mixture of low and high frequencies gives operators flexibility. They can use the standard avoidance frequency (33kHz) or long distance tracing frequency (512 or 640Hz).





Leica DD Utility Locators

Simplifying Use



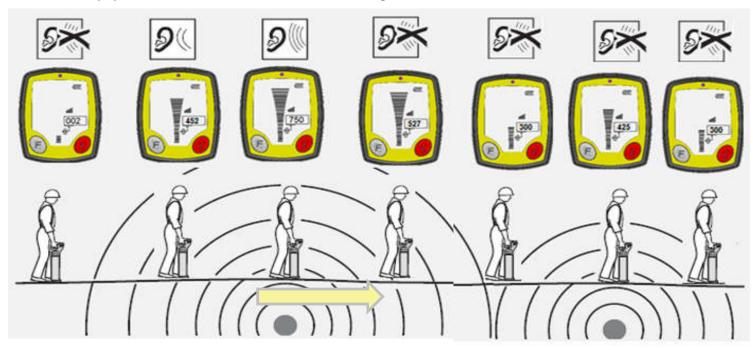
Automatic Pinpointing- No manual adjustment required





Leica DD Utility Locators Simplifying Use

The sweep process can be used to identify additional utilities within the work area.



Once you have pinpointed a utility continue with the sweep process.

Additional utilities will be indicated on the Locators display.





Providing greater performance Passive modes



Power Mode

Detect power signals radiated by energised cables which pose a serious risk



Radio Mode

Detect signals originating from distant radio transmitters



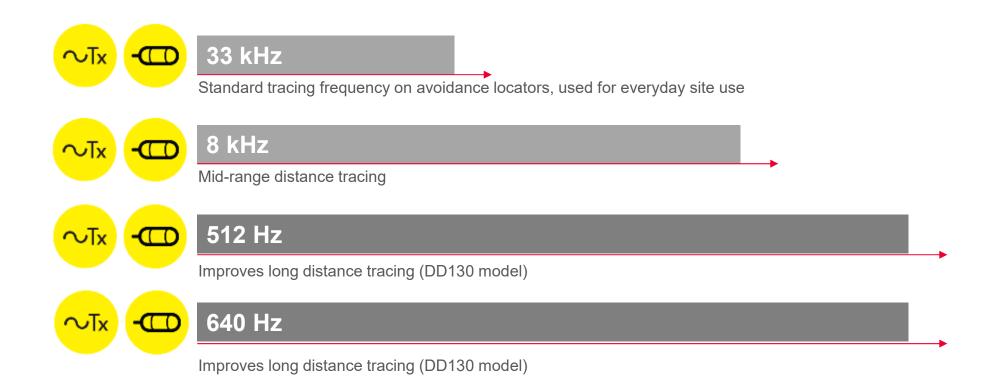
Auto Mode

Combines power and radio for a one sweep process





Providing greater performance Active Modes







Leica DD Utility Locators Control Panel

Operating Mode Display



Light Sensor

Battery Indicator

Signal Strength Indicator

Dynamic Display Area



with automatic backlight for low-light conditions

Dual Speakers

On/Off Trigger

Battery Hatch







Built for the environment Protection

IP54 rating

- Protects against water ingress
- Protects against dust ingress
- Designed to withstand tough site conditions

Extends working life

 Reduced downtime from repair caused by water or dust ingress







Industry leading warranty Peace of mind support

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Leica DD Utility Locators Powerful Features

	Leica DD120	Leica DD130	Leica DD220 SMART	Leica DD230 SMART
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Detection Modes				
Passive Modes	Power, Radio, Auto	Power, Radio, Auto	Power, Radio, Auto	Power, Radio, Auto
Transmitter Modes(Standard)	33kHz, 8kHz	33kHz, 8kHz	131kHz, 33kHz, 8kHz	131kHz, 33kHz, 8kHz
(Long distance trace)	No	512Hz, 640Hz	No	512Hz, 640Hz
Depth Estimation - Line	3m (10ft)	3m (10ft)	5m (16ft)	7m (23ft)
Depth Estimation - Sonde	3m (10ft)	9.9m (33ft	7m (23ft	10m (33ft
• Accuracy	+/- 10%	+/- 10%	+/- 5%	+/- 5%
Current Measurement	No	Yes	No	Yes
Detect Aides				
 Display Type 	Monochrome	Monochrome	Large Colour	Large Colour
Utility Pinpointing	Automatic	Automatic	Automatic	Automatic
Numeric Peak Indicator	Yes	Yes	Yes	Yes
 Graphical Peak Indictor 	Yes	Yes	Yes	Yes
 Automatic audio pinpointing 	Yes	Yes	Yes	Yes
Mode Lock	No	Yes	Yes	Yes





Leica DD Utility Locators Powerful Features

User Aides	DD120	DD130	DD220 SMART	DD230 SMART
 Onboard Video Tutorials 	No	No	Yes	Yes
Swing Alert	No	No	Yes	Yes
Hazard Zone	Yes	Yes	Yes	Yes
 Maintenance Reminder 	Yes	Yes	Yes	Yes
Diagnostic Alerts	No	No	Yes	Yes
Health Check (EST)	Yes	Yes	Yes	Yes
Smart Features				
 Datalogging 	No	No	8Gb	8Gb
• (Internal Memory)	INO	NO	OGD	OGD
• GPS	No	No	2.5m (8.2ft) CEP	2.5m (8.2ft) CEP
Bluetooth	No	No	Classic & Low	Classic & Low
	NO	NO	energy	energy
• USB	No	No	Yes	Yes
 Digital Spray Mark 	No	No	Yes	Yes
(Point of interest)		110	100	100
 Protection 	IP54	IP54	IP66	IP66
 Battery Supply (Standard) 	Alkaline	Alkaline	Li lon rechargeable	Li Ion rechargeable
 Warranty 	1 years	1 years	3 years	3 years
Weight	2.7kg (5.95lbs)	2.7kg (5.95lbs)	2.7kg (5.95lbs)	2.7kg (5.95lbs)





Leica DA Signal Transmitters Signal Transmitter Range - Construction

Image	Overview	Compatibility
	DA220 1 Watt Signal Transmitter	DD120 Locator
DAZZO DAZZO	Trace frequencies, 8kHz, 33kHz,131kHz and combined (33 kHz +131 kHz) Rechargeable battery as standard Power charger IP67 rating 3 Year warranty	DD220 Smart Locator
	DA220 3 Watt Signal Transmitter	DD120 Locator
DAZZO DAZZO	Trace frequencies, 8kHz, 33kHz,131kHz and combined (33 kHz +131 kHz) Rechargeable battery as standard Power charger IP67 rating 3 Year warranty	DD220 Smart Locator





Leica DA Signal Transmitters Signal Transmitter Range - Utilities

Image	Overview	Compatibility
	DA230 1 Watt Signal Transmitter	DD130 Locator
DA 330	Trace frequencies, 512Hz, 640Hz 8kHz, 33kHz,131kHz and combined (33 kHz +131 kHz) Rechargeable battery as standard Power charger IP67 rating 3 Year warranty	DD230 Smart Locator
	DA230 3 Watt Signal Transmitter	DD130 Locator
<u>Gira</u> 0.4230	Trace frequencies, 512Hz, 640Hz 8kHz, 33kHz,131kHz and combined (33 kHz +131 kHz) Rechargeable battery as standard Power charger IP67 rating 3 Year warranty	DD230 Smart Locator





Leica DA Signal Transmitters Powerful Features

	Leica DA220 1 Watt	Leica DA220 3 Watt	Leica DA230 1 Watt	Leica DA230 3 Watt
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Locator Compatibility	DD220 Smart DD120	DD220 Smart DD120	DD230 Smart DD130	DD230 Smart DD130
Output Frequencies	131kHz, 33kHz, 8kHz	131kHz, 33kHz, 8kHz	131kHz, 33kHz, 8kHz,	131kHz, 33kHz, 8kHz,
Output Frequencies (long distance)	No	No	512Hz, 640Hz	512Hz, 640Hz
Power Output	1 Watt	3 Watt	1 Watt	3 Watt
Power Output levels	4 levels	4 levels	4 levels	4 levels
Health Check	Yes	Yes	Yes	Yes
Protection	IP67	IP67	IP67	IP67
Battery Supply (Standard)	Li Ion rechargeable	Li lon rechargeable	Li lon rechargeable	Li lon rechargeable
Warranty	3 years	3 years	3 years	3 years
Weight	2.38 Kg (5.25 lbs)	2.38 Kg (5.25 lbs)	2.38 Kg (5.25 lbs)	2.38 Kg (5.25 lbs)



