Leica Digital Levels
Equipment List

- when it has to be **right**

Leica
Geosystems

Table of Contents

LS Digital Levels

1 Models

	LS10	LS15
Height measurement	●	●
Distance measurement	●	●
Magnetically damped compensator	●	●
32x Magnification telescope	●	●
Manual focus	●	●
Autofocus	-	●
Overview camera for aiming and documentation	-	●
Compass	-	●
MapView / Coordinates for office export	-	●
Inview mechanical bubble	●	●
Electronic bubble / Tilt check	-	●
Communication (USB host, USB device)	●	●
Bluetooth	●	●
RS232/USB Lemo connector interface	-	●
Internal flash memory for 30.000 measurements	●	●

● Standard

\- Not available

1.1 Height Measurement Accuracies

	LS10	LS15
0.3 mm	804 550	804 549
0.2 mm	-	804 548

☞ LS10 0.3 mm and LS15 0.3 mm Digital Levels are delivered with a 3.6" QVGA colour touch screen, standard levelling applications, Quick Guide, USB card, sunshade and rain cover in container GVP731.

☞ LS15 0.2 mm Digital Levels are delivered with a 3.6" QVGA colour touch screen, standard levelling applications, Quick Guide, USB card, sunshade and rain cover in container GVP731.
A Calibration Certificate Silver is issued with the instrument which includes tests on height accuracy in accordance to ISO 17123-1, compensator setting accuracy and magnetic field tests.

1.2 Calibration Certificates

☞ For LS10 and LS15 Calibration Certificates Blue are available via myWorld download. For Service Calibration Certificates see Standard Service Products (SSPs) document.

Accessories

2 Power Supply

2.1 Internal Batteries

	799 190	**GEB331**	Lithium-Ion battery, 11.1 V / 2.8 Ah, rechargeable.

2.2 External Batteries

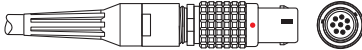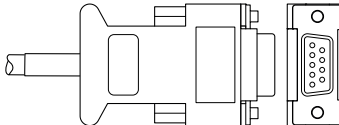|	818 916	**GEB371**	External universal battery, Li-Ion, 13 V / 19 Ah / 250 Wh, rechargeable.
	807 696	**GEV270**	Power supply unit for TPS/GNSS/LS. For indoor use only. Input 100-240VAC to output 13.2VDC, with connection for power cables. ☞ Requires a GEV219, GEV220 or GEV261 cable.
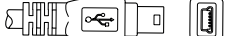
2.3 Battery Chargers

	799 185	**GKL311**	Single-bay Charger Professional 3000. Charger for one Li-Ion battery (GEB211, GEB212, GEB221, GEB222, GEB241, GEB242 and GEB331), including AC/DC adaptor and cigarette lighter cable.
	799 187	**GKL341**	Multi-bay Charger Professional 5000. Charges up to 4 batteries (GEB211, GEB212, GEB221, GEB222, GEB241, GEB242 and GEB331), including power cable.
	734 389	**GDC221**	Car adapter for the GKL341 charger. Allows the use of the GKL341 with a cigarette lighter; 12V/24V DC/DC converter. Can also be used to power CS15 field controller directly from a cigarette lighter.
	774 437	**GEV242**	Charger for GEB371 external battery.

4

3 Connectivity

3.1 Connector Types

Name	Used on	
Lemo1 5-pin	Battery / External power	
Lemo1 8-pin	LS15 Digital Level	
USB A	PC / Laptop	
9-pin RS232 serial	PC / Laptop	
USB mini	LS10 and LS15 Digital Levels	

3.2 Cables

For LS10:			
764 700	**GEV223**	USB cable to connect instrument to PC for office data transfer, USB A to Mini USB, for LS10 and LS15 Digital Levels.	
For LS15:			
439 038	**GEV71**	Car battery cable, connects 12V car battery connector to Lemo1 5-pin. GEV219, GEV220 or GEV261 cables required.	
733 282	**GEV162**	Serial data cable for communication to PC, connects Lemo1 8-pin to 9-pin RS232 serial.	
758 469	**GEV219**	Power cable between LS15 and battery, Lemo1 5-pin to Lemo1 8-pin.	
759 257	**GEV220**	Serial data Y-cable, connects Lemo1 8-pin connector to PC (9-pin RS232 serial) and external battery (Lemo1 5pin), 2m.	
764 700	**GEV223**	USB cable to connect instrument to PC for office data transfer, USB A to Mini USB, for LS10 and LS15 Digital Levels.	
767 899	**GEV234**	USB data cable for communication to PC, Lemo1 8-pin to USB A connector.	
771 057	**GEV236**	Serial data Y-cable for setups including a radio link, Lemo1 5-pin (battery) to Lemo1 8-pin (instrument) and Lemo1 8-pin (external TS radio).	
793 364	**GEV261**	USB data X-cable for communication to PC, connects Lemo1 8-pin to PC USB A connector (USB data) and PC 9-pin RS232 connector (serial data) and external battery (Lemo1 5-pin).	
806 095	**GEV269**	Serial data transfer cable, converter cable USB A to Lemo1 8-pin, connects LS15 to PC, PC driver included on CD.	

4 Setup

4.1 Objective

636 977	**GSB5**	Sunshade for Digital Level. (1x included in standard delivery)

4.2 Tripods

328 422	**GST40**	Heavy duty tripod, with rigid legs, for highest accuracy levelling.
296 632	**GST20**	Heavy duty tripod, with side clamp screws, carrying strap and plumb bob.
394 752	**GST20-9**	Heavy duty tripod, with side clamp screws and carrying strap.
667 301	**GST120-9**	Heavy duty tripod, self-closing, with side clamp screws and carrying strap.
332 200	**GST4**	Tripod-star, for setting up tripods on hard and slippery surfaces.

4.3 Staffs

| **PROFESSIONAL 5000**		
560 271	**GPCL3**	Invar bar code levelling staff, 3 m, with circular level.
560 274	**GPCL3**	Invar bar code levelling staff, 3 m, with circular level, with expansion coefficient certificate and length calibration certificate.
563 659	**GPCL2**	Invar bar code levelling staff, 2 m, with circular level.
632 313	**GWCL92**	Industrial code levelling staff, 92 cm, invar staff with circular bubble and 2 interchangeable bases.
563 733	**GWCL60**	Invar bar code scale, 60 cm.
PROFESSIONAL 3000		
522 794	**GKNL4M**	Dual face levelling staff, 4 m, 3 sections, code/cm graduation, with handles and circular bubble, in transport bag.
522 793	**GKNL4F**	Dual face levelling staff, 13.3 ft, 3 sections, code/ft graduation, with handles and circular bubble, in transport bag.
667 113	**GTL4C**	Telescopic levelling staff, 4 m, aluminium, bar code/mm graduation, with bull's eye bubble, in transport bag.
757 761	**GTL4M**	Telescopic levelling staff, 4 m, fibreglass, bar code/mm graduation, with bull's eye bubble, in transportation bag.

4.4 Staff Accessories

197 000	**GLUS1**	Ground plate.
555 638	**GSL3**	Pair of struts for GPCL3/GPLE3N staff.
555 641	**GVP469**	Transport case for 2 GPCL2/GPLE2N staffs.
555 642	**GVP470**	Transport case for 2 GPCL3/GPLE3N staffs.

5 Other Accessories

5.1 Pen and Screen Protections Foil
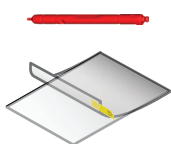
Extra Pen

813 914	**GDZ71**	Pen with tether clip interface for LS Digital Levels, CS20 field controller and TS16/MS60/TS60 instruments.

Screen Protection Foil

799 660	**SPF04**	3.6" QVGA screen protection foil for LS Digital Levels.

6 Office Software Package

6.1 Leica Infinity

Node Locked Licenses

808 787	Infinity Basic License (Node-Locked).
835 322	Infinity Level Data Processing + 1D Adjustment.

Floating Licenses

808 788	Infinity Basic License (Floating).
835 322	Infinity Level Data Processing + 1D Adjustment.

Care Packages

7 Customer Care Packages

A wide selection of comprehensive Customer Care Packages (CCPs) is available bundling Hardware Maintenance, Software Maintenance, Customer Support and Extended Warranty.
For more information about the CCP offering in your country please contact your local Leica Geosystems organization or distribution partner.

Trademarks & Technical Data

8 Trademarks

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Suggested Equipment Setup

9 Using a LS Digital Level

GSL3
555638

LS10 0.3mm
804550
LS15 0.3mm
804549
LS15 0.2mm
804548

GEB331
799190

GPCL3
560271

GSL3
555638

GPCL3
560271

GST40
328422

GLUS1
197000

GVP731
829599

GLUS1
197000

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