

1 PERSONAL PROTECTION EQUIPMENT



◆ L	welding filter		7
♦ E	tronic helmets 8 t	to 1	8



DO YOU OFFER YOUR WELDERS THE BEST POSSIBLE PROTECTION?



T PERSONAL PROTECTION EQUIPMENT

THE RISKS

FACE & EYES

90% of all workplace eye injuries are preventable with the use of proper safety eyewear, welding goggles and helmets. Only 1% of approximately 770 workers suffering face injuries were wearing face protection.

BODY -

Every day, people are admitted to burn centers annually with severe arc flash burns.

HAND AND FOREARM

25% of all work place accidents involved hands and fingers

LEGS

Risks of clothes catching fire from welding spatter and molten metal.

> FEET Risks are perforations, falling object, burns and slipping.

THE SOLUTIONS

WELDING HELMET & SAFETY GLASSES

Electronic helmet allow the welder to be imediatly and automatically protected during the welding operation. A pair of safety glasses gives additional protection against i.e. grinding particules.

WELDING JACKET

Welding jacket of flame retardant material of leather to protect the upper body, against welding spatters, grinding particles which permit to avoid burns.

WELDING APRON

Welding apron in premium grade, split or grain leather will protect clothes from welding spatters and grinding particles.

GLOVES & SLEEVES

The choice of welding gloves will depend on the welding application in order to offer the right protection and comfort. Sleeves over the jacket offer an additional protection of the arms.

TROUSERS

Trousers of flame retardant material to protect the lower body against welding spatters, grinding particules and molten metal.

SHOES & GAITERS

Leather shoes or boots wire safety be protection for best foot protection.. Combine the welding shoes with gaiters permit to protect completely the bottom of the leg.



Weldline by Lincoln Electric, more comfort and safety for welders. Discover our offer of quality products at www.weldline.eu

HELMETS

All products have to be in accordance with EU standards and the CE marking is mandatory: **EN 175**

Choice of head protection

An **electronic helmet** allows the welder to be immediately and automatically protected when the welding operation begins.

The result is a better efficiency, a better comfort, and at least a better result.

Electronic helmets exist with fixed or variable shade.

The choice depends on the welding process.







	EUROONE	EUROSPEED LS	CHAMELEON 4V LS	EUROLUX 4500 LS	GOLDENARK LS	ZEPHYR 4500 LS FLIP-AIR 4500 LS
To order	W000403823	W000403824	W000403668	W000403672	W000403673	W000403674 W000403675
For welding process	MMA, MIG MAG	MMA, MIG MAG, TIG	Every welding process, especially for TIG	Every welding process	Every welding process	MMA, MIG MAG
Optical class	1/1/1/2	1/1/1/2	1/1/1/2	1/1/1/2	1/1/1/2	1/1/1/2
Lens switching speed	0,06 ms	0,04 ms	0,05 ms	0,04 ms	0,05 ms	0,04 ms
Lens shade	3.5/9-13	3.5/9-13	3/8-13	3/8-13	3/8-13	3/8-13
Independent sensors	2	2	3	4	4	4
TIG Amp Rating	>= 10A DC & >= 10A AC	>= 5A DC & >= 5A AC	>= 5A DC & >= 5A AC	>= 5A DC & >= 5A AC	>= 5A DC & >= 5A AC	
Light Shade technology	No	Yes	Yes	Yes	Yes	Yes
Viewing area (mm ²)	4 312	4 312	4 559	4 312	8 736	5 820
Grinding mode	External	Internal	External	External	External	External
Digital setting	No	No	Yes	Yes	Yes	Yes
Additional features		Delivered with a planch of stickers	-	Xmode & infotrack	Xmode & infotrack	Xmode & infotrack Flow rates: 2 - from 160l/min to 200l/min Flame retardant material Lithium Battery
Weight (g)	490	475	614	542	668	938g + 1760g
Warranty	12 Months	18 Months	2 Years	2 Years	2 Years	2 Years

Passive products (*handshields and helmets***)** would be chosen for punctual or discontinue use. In case of continual welding, **an electronic helmet** is necessary.

Handshields and passive helmets exist for 2 types of applications: **light or heavy duty**.

- Light duty: you will prefer thermoplastic products (light, low price, flexible).
- Heavy duty: generally polyester with fibreglass (heat resistant, spatters resistance).

The **size of the window** depends on countries habits.

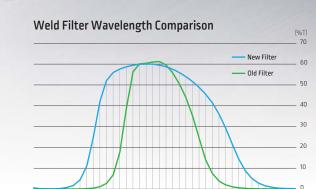




THE NEW RANGE OF HIGH QUALITY AUTODARKENING HELMETS

NEW LIGHT SHADE TECHNOLOGY -NATURAL VISION

- Natural vision for more comfort for the welders
- Better color perception for more safety
- A largest panel color for a clearer vision of the bead and of the environment from shade 3 to 13.



550

600

650

700

750 (nm)

450

400

500



WELDING FILTER UNAPPLIED

OLD WELDING FILTER

Since it needs to be special coated to protect the harmful rays, the penetration ratio is less than the transparent lens and user feels the color as yellow-green.

NEW LIGHT SHADE WELDING FILTER

New Welding Filter has function of protection against harmful rays and the penetration ratio is increased so user can recognize the object more brighter

Also the recognizable color is enhanced natural color from current yellow-green.

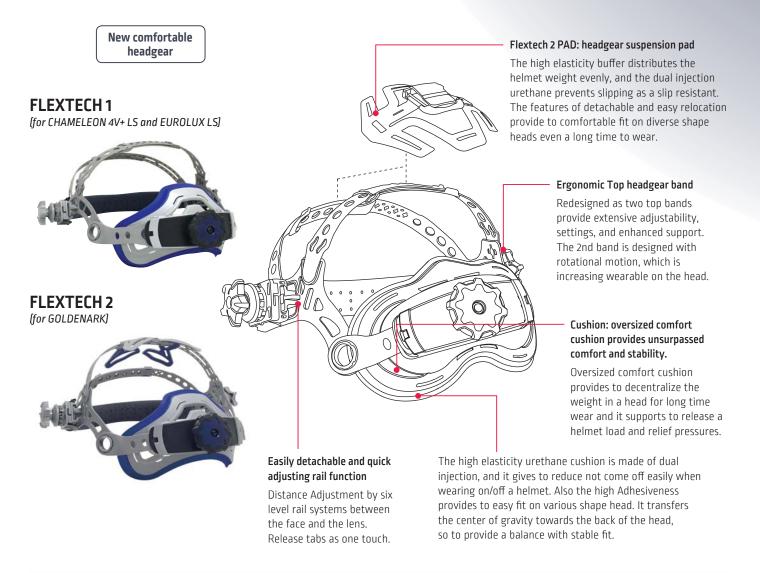
The lens improved as natural color can make the user recognize the object with ungarbled color so it can reduce feeling of fatigue and improve operation efficiency.

HEADBAND

With the filter, the headband is one of the main elements that makes an electronic helmet comfortable.

Weldline by Lincoln Electric is always concerned about the user comfort and has developed a series of head bands, that will allow you to combine comfort and ergonomics.

More than a detail, it is the key for comfort and maintenance of the helmet, an essential criteria in choosing your protection.





FLEX SPEED LS

(for EUROSPEED LS)



Removable sweatband
 Setting on the top
 Rack setting
 Comfort cushion

ELECTRONIC HELMETS EUROONE

All the comfort and security of liquid crystal technology in a protective and comfortable welding helmet.

- Covering shape for an optimized head protection.
- \blacklozenge External grinding mode.
- ♦ 4 312 mm~Filter view.



WARRANTY T YEAR EuroONE

≕ m c € ±





	EUROONE
Applications	Every welding process.; Not for Laser Welding or Oxyacetylene Welding/Cutting
Type cell	Variable shade DIN 3.5/9-13
Optical class	1/1/1/2
Shade	External variable
Cartridge dimensions	110 x 90 x 9 mm
Weight (Filter + shield + head band)	490g
Viewing area	98 x 44 mm
Clear shade	DIN 3.5
Dark shade	Variable from 9 to 13
Switching time clear-dark	1/16000 s
Sensitivity adjustment	Adjust by infinitely dial knob
Switching time dark-clear	0.1-1.0 s by infinitely dial knob
Sensors	2 optical sensors
Grinding mode (shade 4)	External
Power supply	Solar cells, no battery change required
Protection	Permanent protection against UV and IR
To order	
Helmet	W000403823
LCD cell	W000404067

WELDLI

Helmet standard **CE EN 175 Cell standard** CE EN 379

ELECTRONIC HELMETS **EUROSPEED LS / CHAMELEON 4V+ LS**



the original parameters.

Delivered with: 5 outside protection

plates and 2 inside

protection plates,

1 sweat band and

1 comfort cushion

on the headgear.

life remain.

CHAMELEON 4V+ LS - Digital setting • Covering shape for an optimized head protection.

◆ Auto-start: the LCD cell automatically turns on.

◆ 4 plans adjustable headgear delivered with comfort cushion.

• Reset button: press the reset button twice to re-initialize

• The low battery indicator lights when 2-3 days of battery

All the comfort and security of liquid crystal technology in a protective and comfortable welding helmet.

EUROSPEED LS

- Robustness and confortable shape.
- Internal grinding mode.
- ◆ Soft and confortable sweat band.



Delivered with:

2 outside protection plates and 1 inside protection plate, and 1 sweat band. 1 comfort cushion on the headgear apres 1 sweat band.





	EUROSPEED LS	CHAMELEON 4V+ LS
Applications	Every welding process; Not for Laser Welding or Oxyacetylene Welding/Cutting	Every welding process. Recommended for TIG
Type cell	Variable shade DIN 3.5/9 - 13	Variable shade DIN 3/8-13
Optical class	1/1/1/	2
Shade	Internal variable	Variable
Cartridge dimensions	110 x 90 x 9 mm	110 x 90 x 10 mm
Weight (Filter + shield + head band)	475 g	614 g
Viewing area	98 x 44 mm	97 x 60 mm
Clear shade	DIN 3.5	DIN 3
Dark shade	Variable from 9 to 13	Variable from 8 to 13
Switching time clear-dark	1/25000 sec.	1/20000 sec.
Sensitivity adjustment	Adjust by infinitely dial knob	Yes
Switching time dark-clear	0.1~1.0s by infinitely dial knob	Varaible from 1 s to 0.1 s
Sensors	2 optical sensors	Sensors 3 independent highly sensible
Grinding mode (shade 4)	External	yes
Power supply	Solar cell + Battery replaceable (2 x AAA Alkaline batteries) Low battery alarm; Test button	2 lithium CR2450 3 Volts batteries + Solar cells
Protection	Permanent protection against UV and IR	Permanent IR-UV filtration
To order		
Helmet	W000403824	W000403668

W000404097

W000402680









2011--

2011-518



WELDLINE



CHAMPERON 4





LCD cell

List of spare parts : see page 14

Helmet standard CE EN 175 Cell standard CE EN 379

Grinding mode

with external

button

ELECTRONIC HELMETS EUROLUX LS

LCD autodarkening welding helmets

• High Tech LCD autodarkening filter. An extra-wide vision: 5820 mm².

The advantages of the EUROLUX LS helmet

Exclusive design:

- Easy filter release by simply pressing the push button.
- Adjustable headgear with 4 positions.

Comfort and protection:

- Covering shape for an optimized head protection.
- Optimization of the volume for a better breathing comfort.
- Manufactured with high resistance synthetic material (*Nylon 66*).
- Lightweight and heat resistant.
- The low battery indicator lights when 2-3 days of battery life remain.

Delivered with:

5 outside protection plates and 2 inside protection plates, 1 sweat band and 1 comfort cushion on the headgear.



W000403672

W000402681

NOLO

	EUROLUX LS
Optical class	1/1/1/2
Switching time clear-dark	0.05 ms
Switching time dark-clear	10 positions from 0.1 s to 1 s setting per digital key
Sensitivity adjustment	Setting per digital key (10 positions)
Modes Welding Grinding Cutting X mode* Infotrack system**	Yes shade 8 to 13 per digital key Yes shade 3 <i>(per external button)</i> Yes shade 5 to 9 per digital key Yes Yes
Sensors	4 independent optical sensors Magnetic in «X» mode
Clear shade	DIN 3
Dark shade	Adjustable from 5 to 13
Viewing area	97 x 60 mm
Constant UV/IR protection	Yes
Battery type	2 lithium CR2450 3 Volts
Solar cell	Yes
Temperature scale Use Storage	From -5 °C to +55 °C From -30 °C to +70 °C
Weight (Filter + shield + head band)	542 g
Standard LCD filter Helmet	CE EN 379 CE EN 175
To order	

* X-mode: this mode allows welding in outdoor conditions or with very low arc current ** Infotrack system: provides useful information

Filter Advance 4500 LS - Infotrack shade 3/8-13:

The top-of-the-range solution for any application:

- 4 adjustment modes via the LCD screen with digital keys:
- Welding: variable shades 8-13, 4 optical sensors, sensitivity regulation and return to a clear shade.
- Grinding: filter activation in clear shade level 3.
- ◆ Cutting, low current welding: adjustable shades 5 to 8 for low intensity TIG process, microplasma, oxy-fuel gas welding...
- "X mode": adjustable shade 3 to 8-13 with magnetic sensors for outside use or obscured arc welding.

Infotrack system: provides useful information (current time - total welding time - alarm - temperature).

- WARRANTY **2** YEARS
- Auto-start function: it is not necessary to push the "on" button before starting to weld. Automatic starting.
- Reset button: press the "reset" button twice to re-initialize the original parameters.
- Grinding mode: fixed shade 4 is activated, to ensure optimum protection when grinding.



Complete helmet

I CD filter

ELECTRONIC HELMETS **GOLDENARK LS** Think bigger.

• Extra wide field of view: 112 x 78 mm



- ♦ All applications: 4 operating modes : Welding, Cutting, Grinding & X-mode.
- Multi language help menu Available in English, French and Spanish with InfoTrack system.
- The low battery indicator lights when 2-3 days of battery life remain.



150iw - InfoTrack

(auto darkening welding lens)





A display function of arc time Control

The arc time function records the amount of time the lens assembly is dark (exposed to an arc]. Arc time is accumulated and displayed hours and minutes as Max. 99 hours 59 minute.





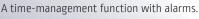
A display function of Current time You can access to set a current local time.



πA

Timer function

Multi-language support



Help menu displays in Korean and English as

default setting (up to 6 languages supportable)



External grinding button

Alarm function

4 optical sensors

Alarm clock functions to turn on alarm at a specific time.

WELDLINE



Help menu

Help menu displays abbreviated instructions, modes, and notes on proper usage.





Better weight distribution on the head. Feeling of comfort and maintains more important.



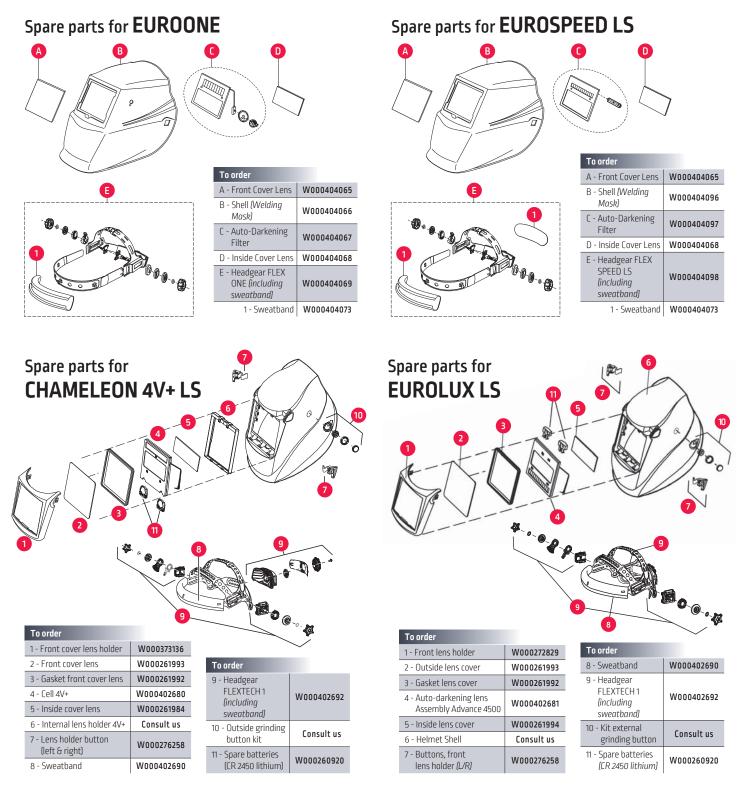


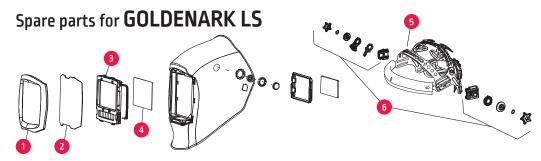
	GOLDENARK LS	
Optical class	1/1/1/2	
Viewing area	112 x 78 mm	
Switching time clear to dark	0.00005 sec	
Switching time dark to clear	Between 0.1 and 1.0 sec	
Clear shade	DIN 3	
Available shades All shades provide continuous UV and IR protection	- Welding: DIN 8-13 - Cutting: DIN 5-8 - Grinding: DIN 3 - X-mode: DIN 8-13	
Color of the cell	Yellow, to help clearing color sorting	
Power supply	CR2450 Lithium batteries	
Sensors	4 independent	
Operating temperature	From -10°C to +55°C	
Storage temperature	From -20°C to +70°C	
Weight (Filter + shield + head band)	668 g	
To order		

W000402683

Electronic welding helmet GOLDENARK
List of spare parts : see page 14







To order		
1 - Front cover lens holder	W000386520	
2 - Front cover lens	W000386521	
3 - LCD autodarkening cell	W000402683	
4 - Inside cover lens	W000386528	
5 - Sweatband	W000402693	
6 - Headgear FLEXTECH 2 (including sweatband)	W000402694	

Pure Stream is an initiative to help reducing the exposure of welding fumes to the welders.

PURE STREAM FUME MANAGEMENT IN 3 STEPS

- **1.** Optimization
- 2. Ventilation & exhaust
- 3. Safe work practice and PPE

When used properly, the solutions proposed by **LINCOLN ELECTRIC** can significantly reduce the amount of fumes inhaled by welders.



STRE



GLOBAL SOLUTION TO REDUCE THE EXPOSURE TO WELDING FUMES

Where welding operations are concerned, safety is directly connected to air quality. **PURE STREAM** is not only a customized offer but also an initiative to reduce the exposure of welding fumes to the welders.

ZEPHYR LS CLEANSPACE 2™

Bring fume protection and filtered air directly to the operator in difficult environments and keep it there all day with the **ZEPHYR LS** Powered Air Purifying Respirator or the **CLEANSPACE2™**



Contact us for more information.



Autodarkening LCD filters with wide vision field. Filter Advance 4500 LS - Infotrack shade 3/8-13:

The top-of-the-range solution for any application:

- 4 adjustment modes from an LCD screen with digital keys:
- ♦ Welding: variable shades 8-13, 4 optical sensors, sensitivity regulation and return to a clear shade.
- Grinding: filter activation in clear shade level 3 (except on FLIP'AIR with its flip-up front filter).
- Cutting, low current welding: adjustable shades 5 to 8 for low intensity TIG process, microplasma, oxy-fuel gas welding...
- "X mode": adjustable shade 3 to 8-13 with magnetic sensors for outside use or obscured arc welding

Infotrack system: provides useful information (current time - total welding time - alarm - temperature).



Helmet standard

EN 12941 TH2

ELECTRONIC HELMETS

The ZEPHYR LS / FLIP'AIR LS air flow system

- ◆ Air flow system: 2 flow rates (low 160 l/min and high 200 l/min).
- This equipment includes an indication of the chosen flow, an indication of the battery charge, and two alarms in case of flow insufficiency:
 a tone and a vibration. This is important for the welder who is often in a noisy environment. A specific system sends the tone through the hose to bring the sound to the welder.
- The belt, as well as the shoulder strap, is made in **flame retardant material**.
- ${\ensuremath{\bullet}}$ The belt includes a cushion to ensure a high comfort level.
- Disconnecting the battery is easy with only one button to push.
- It is a **lithium battery with an 8-hour lifetime duration**. A stronger one can be put in place for special cases with **14-hour duration ±5%** (on request). No need to fully discharge the Li-lon battery before recharging it.
- Opening the filter is simple by turning a quarter to the left. Two symbols indicate if it is locked or open, this is also indicated inside the filter box.

Hose connection and hose cap.

The connection between the flow system and the helmet is made via the hose. The connection with the air flow system is water proof. The helmet includes a quick connection allowing flexibility when the welder moves his head. The hose is protected with an outer covering [75% cotton, 25% Kevlar].

Flow circulation

You can choose between:

◆ air flow from the top of the helmet **1**

 or a lateral flow coming from each side at the mix level 2 (only for ZEPHYR),
 or a mix of these two solutions.
 These features ensure excellent welder



Inside, 3 kinds of filters can be included.

- One pre filter against the biggest particles
- One particle filter against the dust (> 0.3 micron)
- One carbon filter against the fumes and the odour.

The whole system is water proofed.



	ZEPHYR LS Advance 4500	FLIP'AIR LS 4500 i
Optical class	1/1/	/1/2
Switching time light to dark	0.05 ms	
Switching time dark to light	10 positions fr (setting per	
Delay setting	10 positions (setti	ng per digital key)
Mode Welding Grinding Cutting X mode* Infotrack system**	Yes shade 8 to 13 per digital key Yes shade 4 (per external button) - For FLIP'AIR flip-up LCD for grinding Yes shade 5 to 9 per digital key Yes Yes Yes	
Sensors	4 independent optical sensors - Magnetic in «X» mode	
Viewing area	97 x 6	0 mm
Constant UV/IR protection	Ye	25
Battery type	2 lithium CR2450 3 Volts	
Mix power (battery/cell)	Yes	
Temperature scale	Use : -5 °C to +55 °C - S1	torage : —30 °C to +70 °C
Weight	938 g (helmet) + 1 760 g (air flow system)	
Standard	LCD filter: CE EN 379 - Helmet: CE EN 175	

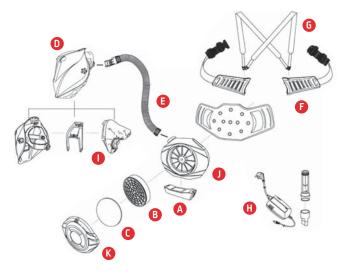
* X-mode: this mode allows welding in outdoor conditions or with very low arc current ** Infotrack system: provides useful information (current time - total welding time alarm - temperature)

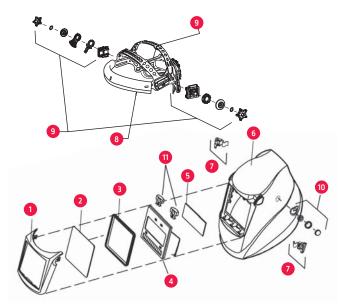
To order

Package (helmet + airflow system + LCD filter)	W000403674	W000403675
LCD filter	W000402681	W000402682
l ist of spare parts · see page 18		

List of spare parts : see page 18

Spare parts for **ZEPHYR LS / FLIP'AIR LS**



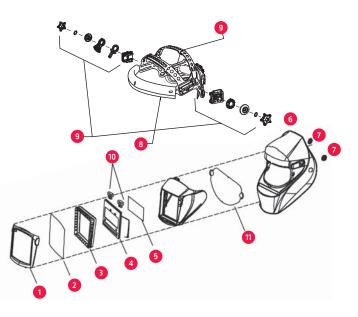


ZEPHYR LS 4500

W000272829
W000261993
W000261992
W000402681
W000261994
On request
W000276258
W000402690
W000402692
On request
W000260920

ZEPHYR LS air flow system

To order	
A hours battery (± 5%)	W000271210
A 14 hours battery (± 5%)	W000274379
B Particle filter P3	W000271208
C Pre filter	W000271207
Carbon filter (odours filter)	W000271209
D ZEPHYR shell without lens	W000271212
E Hose 110 cm	W000271205
Hose protective cover	W000271206
F Comfort belt (size 70 - 113 cm)	W000271203
G Shoulder strap	W000271204
\rm Battery charger	W000271211
Green protection ZEPHYR	W000272540
Green protection FLIP'AIR	W000382676
Ø Motor	W000377929
K Filter cover	W000378987



FLIP'AIR LS

To order	
1 - Front Lens Holder	W000272829
2 - Outside Lens Cover	W000261993
3 - Gasket, Lens Assembly	W000261992
4 - Auto-darkening Lens Assembly Advance 4500	W000402681
5 - Inside Lens Cover	W000261994
6 - Helmet Shell	On request
7 - Buttons, Front Lens Holder (L/R)	W000276258
8 - Fabric Sweatband	W000402690
9 - Headgear FLEXTECH 1 (including sweatband)	W000402692
10 - Kit external grinding button	On request
11 - Spare batteries (CR 2450 lithium)	W000260920