




Wolf ATEX Rechargeable Worklite Range Operation and Maintenance Instructions Please Retain – Read Before Use

EU Declaration of Conformity

The Wolf ATEX Worklite meets all relevant provisions of the 2014/34/EU Explosive Atmospheres (ATEX Equipment) Directive by virtue of the issued EC type examination certificate, and subsequent review confirming compliance with all relevant harmonised standards and essential health and safety requirements.

The Wolf ATEX Worklite is a self-contained portable Worklight with a durable construction of stainless steel and anodised aluminium enclosures. The Worklite is powered by a sealed lead acid battery available in two sizes and supplying arrays of 6 or 12 High Power LEDs. The Worklite range is approved as Group II, Category 2 equipment for use in zone 1 & 2 potentially explosive gases, vapours, mists and dusts where the T4 temperature class/135°C maximum surface temperature permits.

Approval Codes/Certification:

 II 2 GD Ex e ib mb IIC T4
Ex tD A21 IP65 T135°C

EC Type examination certificate: **SIRA07ATEX3027**

Notified Body: Baseefa Ltd.
Rockhead Business Park,
Staden Lane, Buxton,
SK17 9JN, UK.
Notified body number: **1180**

Harmonised standards applied:

EN60079-0:2012 +A11:2013*(+EN60079-0:2004), EN60079-7:2007*(+EN60079-7:2003), EN60079-11:2007*(+EN50020:2002), EN60079-31:2009*(+EN61241-0:2004, EN61241-1:2004), EN60079-18:2004

*A subsequent review of the harmonised standards demonstrated the Wolf ATEX Worklites are not affected by the formal changes to maintain compliance.

Ingress protection level: **IP65** to EN60529:1992,

Wolf Worklites are certified compliant with the 2014/30/EU EMC Directive to the following harmonised EMC standards BS EN 61000-6-3:2007 +A1:2011 and BS EN 61000-6-2:2005

The **WL-150 Worklite Chargers** are certified compliant with the 2014/30/EU EMC Directive and 2014/35/EU Low Voltage Directive to the following harmonised EMC standards; EN 55022:2010 Class B, EN 61000-3-2:2006 +A2:2009, EN 61000-3-3:2008, EN 55024:2010 and to the following LVD standards EN 60950-1:2006 +A1:2010 +A12:2011



Alex Jackson – Managing Director
Wolf Safety Lamp Company Ltd.

Use of the Wolf Worklite

First Use:

Read Instruction Manual, Remove protective switch cap and charge fully before first use.

A damaged Worklite should be repaired in accordance with these instructions, before being put back into service.

Repair work may **ONLY** be carried out by qualified technicians using components supplied by Wolf and fitted in accordance with these instructions.

Worklite Models:

TABLE 1:

Model	Battery	Lamp	High Pwr Duration	Low Pwr Duration	Charge Duration
WL-85	12V 33 Ah	12 LED 1020 lm	~12h	~24h	~12h
WL-80	12V 18 Ah	12 LED 1020 lm	~6h	~12h	~8h
WL-70	12V 18 Ah	6 LED 510 lm	~12h	~24h	~8h

Use of the Wolf Worklite:

Inspect the following before each use:

- Battery box lid must be closed and the four retaining screws tightened.
- Charge socket cover must be in place and tightened by hand – [This is a certification requirement to maintain IP65]
- Cable should have no tears/splits or signs of separation from glands
- If damage is visible to any seals or the glass lens, the part must be replaced.
- Dust layers must not be allowed to build up on the Worklites.

Caution when handling:

Precautions should be taken when lifting and carrying heavy objects. Following extended use, The lamp head can get hot. Do not cover head fins. Do not stare directly into the beam as damage to the eye may occur.

Disposable Lenses:

Anti-static lens covers W-200 (12 LED) (Pk.3) can be fitted to protect the Worklite glass lens from damage.





Operation:

- Press Switch Once – ON Full Power
- Press Switch Again – ON Half Power
- Press Switch Again – OFF

Battery Level Indication:

The indicator LED on the enclosure lid will indicate in the sequence as shown in table 2. Actual indication periods may vary as a result of temperature, charge cycle, battery condition, and electrical tolerances. When the battery level is very low; the red indicator and beam will flash. To assess whether a battery needs to be replaced, the duration of a full discharge should be compared with table 1. If <70%, replace the battery.

TABLE 2:

			
WL-85	~3 hours	~8 hours	~1 hour
WL-80	~1 hour	~4 hours	~1 hour
WL-70	~3 hours	~8 hours	~1 hour

Deep discharge protection: The lamp will automatically cut off when the battery reaches a pre-determined low voltage. A red followed by flashing red indicator and flashing beam will warn of imminent cut-off. The lamp must be re-charged before further use or storage.

Storage: Due to the self-discharge characteristics of this type of Lead Acid battery, it is imperative that it is charged every SIX months when in storage, otherwise permanent loss of capacity might occur.

Replacement Battery:

WL-85 12V 33Ah pt.no. W-235 ONLY
WL-80 & WL-70 12V 18Ah pt.no. W-218 ONLY

Head Angle Adjustment: To adjust head angle for your work area, retract the indexing plunger and angle lamp head.

Cleaning: Use a mild soap and water and soft brush only. Do not immerse.

Charging:

Use only the **WL-150 Worklite Charger**.

The charge socket cover must first be removed before the charger plug can be connected.

The Worklite indicator will show flashing Red and Green at all times when connected to a charger.

The WL-150 Charger was updated in Q4 2012, check the part number on the charger label before referring to the LED status description below. Both chargers are compatible with all versions of the Worklite.

Charger Status LEDs – Part No AC 0412A (Pre Q4 2012)

RED = Mains power connected and charger is switched ON.

ORANGE = Charging (Cooling fan on fast speed).

GREEN = Fully Charged (Cooling fan on slow speed).

The charger continues to supply a trickle charge and can be left in this mode on standby.

*Charger Status LEDs – Part No 31AC0412A – A03 (Post Q4 2012)

RED = Mains power connected and charger is switched ON.

ORANGE = Charging (Cooling fan on fast speed).

GREEN = Fully Charged (Cooling fan on slow speed).

The charger continues to supply a trickle charge and can be left in this mode on standby.

*This version of the WL-150 has a system to detect when the battery in the Worklite has reached the end of its life and cannot be charged. At the end of the normal charging period if the RED LED is OFF and the other LED is ORANGE or GREEN then the battery in the Worklite **must** be replaced.

To ensure the ingress protection level is maintained, The charge socket cover **MUST** be re-fitted to the charge socket and tightened beforehand. (Ensure area around charge socket is free from dirt)

- Do not charge in Hazardous Area.
- Charger operating ambient: +10°C to +25°C.
- Charger ingress protection IP20, protect from dirt and moisture.
- Do not cover ventilation slots.
- When charger is not in use: disconnect from mains and Worklite.

The **WL-150 Charger** is rated to the following.

Peak Output Current (during charge period) = 4.0A

Peak Output Voltage (standby - fully charged) = 14.6V max

Voltage on Trickle Charge = 13.8V

FOR APPROXIMATE CHARGE/DISCHARGE DURATIONS SEE TABLE 1

MAINTENANCE. [Repair by qualified technicians ONLY]

Precautions should be taken when handling batteries, do not allow terminals to short across any metal parts or objects.

Connect cables as per Fig 6. Do not allow cables to short or touch battery terminals at any time as this may cause damage to circuit.

Removal of lamp head.

Loosen handle bolts W-433, ii) Loosen pivot bolts W-411 and whilst supporting the head, remove pivot bolts, retract the indexer and spread the side plates by approx 5mm lifting the head upwards and backward until it is free and it can then be rested upside down next to the box. (Avoid pulling on the cable)

When re-fitting lamp head, ensure threaded hole in lamp head aligns centrally with spacer washers and hole in frame prior to fully tightening pivot bolts.

Torque Setting: Handle (x2) = 10.0 Nm

Torque Setting: Pivot Bolts (x2) = 6.0 Nm (Use Loctite 222 on thread)

Removal of battery enclosure lid.

Remove the four retaining screws W-405 and lift and slide the enclosure lid rearward taking care not to pull on any of the connecting wires inside the enclosure.

Before carrying out any work on cable, lamp, switch or indicator connections, it is important to disconnect the battery first.

Re-fitting lid. Ensure the vent pipe is properly fitted to connections and is tucked inside the enclosure. Ensure the lid is fitted in the correct orientation and that seal W-300 is in place. Ensure that no wires overhang this seal, the box edge or the battery top foam or rest directly above the battery terminals when tightening each of the four lid retaining screws W-405. Tighten screws in equal increments to ensure lid lowers evenly (Seal W-300 is bonded to the enclosure)

Torque Setting: Battery Enclosure Lid Screws (x4) = 3.0Nm

Battery Replacement: WL-85

(Requires removal of both lamp head and enclosure lid)

To replace: **W-235** 33Ah battery in a **WL-85**

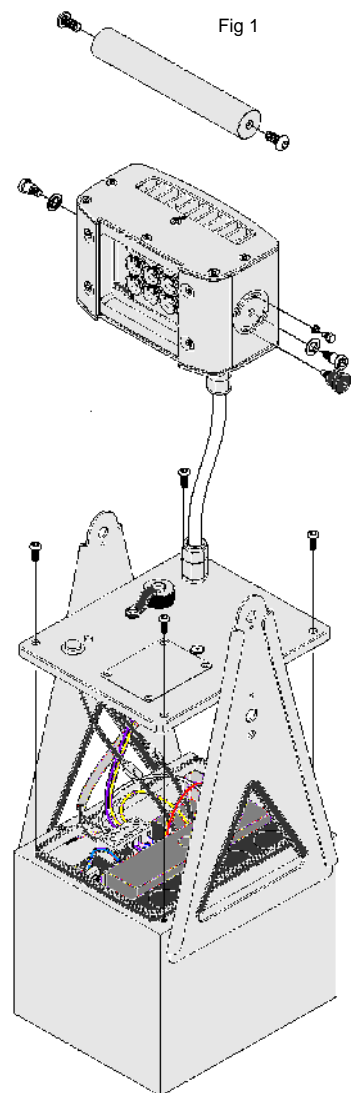


Fig 1

First disconnect both wires from the battery. Disconnect the vent pipe from the fitting under the flange by pressing on the blue ring to release the pipe. Remove circuit top foam from under box flange and disconnect vent pipe from under flange. Lift the encapsulated circuit block assembly from alongside the battery, remove from the box and place next to the lid again taking care not to snag any cables.

To replace battery, remove foam and spacers which surround the circuit, slide battery forward to release top spacer and lift battery out taking care not to short the battery terminals on enclosure flange or metal tools.

Re-assembly is the reverse of above, See diagram for foam/spacer positions and orientations. Inspect all wire connections, connect battery terminals. Re-connect vent pipe.

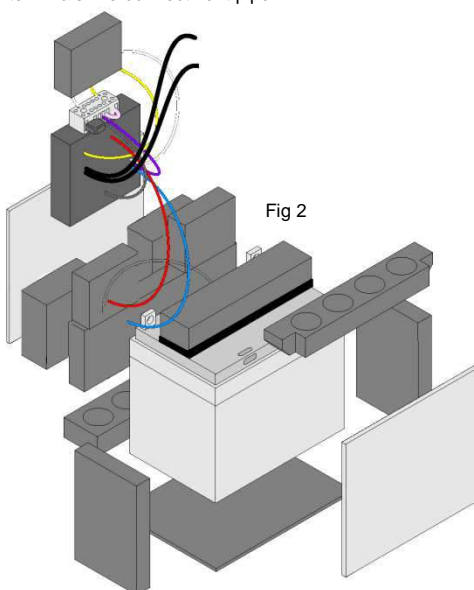


Fig 2

Battery Replacement WL-80 & WL-70

To replace **W-218** 18Ah battery in **WL-80 & WL-70**:

Unscrew the two terminal block retaining screws (A) to remove terminal block and remove cross-piece retaining screws at (B). The circuit block (C), foam block (D) and foam side piece (E) can now be removed in that order. Disconnect vent pipe at (F) by pressing on the blue ring of the fitting while pulling on the pipe. The Worklite box can now be tipped on to its side so the battery stands upright and the top of the battery can be pulled forward and removed from the box. Disconnect battery wires and replace battery. Re-fitting is the reverse of the above. Ensure vent pipe is connected to fitting under flange.

Fig 3



Component Replacement Procedures – Applies to all Models:

Switch Replacement:

(Requires removal of enclosure lid – see above)

i) Disconnect the switch connector. ii) Using a spanner, remove switch locknut and push switch through lid. iii) Place new switch in lid ensuring o-seal is in place, fit and tighten. iv) re-connect the 3-way connector, re-fit any removed packing foam and replace lid as per enclosure lid removal instructions above.

Torque Setting: Switch Locknut = 0.57Nm

Charge Socket Assembly Replacement:

(Requires removal of enclosure lid – see above)

i) Lift circuit block assembly from enclosure to gain access to terminal block. ii) Disconnect charger socket wires (Yellow and Violet) from the terminal block, iii) Unscrew Charge Cap and move to one side. iv) Remove the three screws retaining the charge socket base from the underside of the lid. v) The old base can now be lifted out and replacement fitted in the reverse order of the above ensuring that the o-rings are in place and in good condition. vi) Connect the Yellow and Violet charge socket wires in to the terminal block as shown in Fig 6.

Indicator Replacement:

(Requires removal of enclosure lid – see above)

i) Disconnect the indicator LED connector. ii) Using a spanner, remove locknut and pull the indicator housing through the lid, iii) grip the lower part of the LED holder and unscrew the housing from the assembly, iv) the LED can now be released through the underside of the lid, Assembly is the reversal of removal, take care not to twist or stress the cable while screwing the lower part of the indicator to the housing and ensure o-seals are in place, v) connect 2 way connector and assemble as above.

Glass Lens Replacement.

(Requires partial disassembly of the head) See fig 4.

- Loosen and remove the six screws (W-414) retaining the lamp TOP plate, ii) Partially loosen off the four lens clamp screws (W-421) until the lens is free to move, iii) Carefully slide the old lens upwards and out, and replace with new lens and seal, [Ensure seal fits squarely around the new lens after insertion].
- Gradually tighten each of the four W-421 lens screws, v) re-fit top plate ensuring that the seal edge follows the edge of the plate and that the holes align and that no dirt particles are present on the sealing edge. Tighten all six screws.

Torque Setting: Top/Bottom Plate retaining Screws (x12) = 3.2Nm

Torque Setting: Lens Clamp Screws (x4) = 3.2Nm

Fig: 4



Fig: 5



LED Board Replacement:

(Requires disassembly of the head and disconnection of battery)

- Follow "Glass Lens Replacement" steps i to iii above to remove the lens, ii) Loosen and remove the screws (W-404) retaining the LED board. Remove the two right-hand lens screws completely and now remove the six W-414 screws retaining the lamp bottom plate, iii) The LED board, lower plate, clamping plate and connector block can now all be separated from the head. [Take care not to damage the LED lenses when handling], iv) the LED board can now be disconnected from the connector block and the new LED board connected (White to No.1 (or brown), Black to No.2 (or blue) v) feed the LED board up in to the head and ensure that the thermal interface sheet W-428 for WL-85 and WL-80 (or W-429 for WL70) is in position with holes aligned. Insert and tighten screws W-404 and line up the lens clamp threaded holes with the screws, Partially tighten, Fit bottom plate and tighten the six screws, vi) Re-assemble as per iii, iv and v from 'Glass Lens Replacement'. See Fig: 5.

Note: THERMAL GASKET MUST ALWAYS BE USED

Torque Setting: LED PCB Screws (x4) = 2.5Nm

Control Circuit Replacement:

(Requires removal of enclosure lid – see above)

Disconnect the Battery. ii) At the terminal block; disconnect Lamp Output wires identified as '1' and '2' (or 'blue/brown') and Yellow and Violet (charge socket) and also the two connectors to the switch and the indicator LED. The circuit block can now be removed and the new Circuit fitted, see Fig: 6 for connections. Always connect the battery last.

Torque Setting: Terminal Block Screws = 0.5Nm

Model	Description	Battery Pt No:	Circuit Spare Pt No:
WL-85	12V 35 Ah 12 LED	W-235	W-494
WL-80	12V 18 Ah 12 LED	W-218	W-534
WL-70	12V 18 Ah 6 LED	W-218	W-495

Cable Replacement

ONLY USE GENUINE WOLF REPLACEMENT PARTS

(Requires disassembly of the head and disconnection of battery)

- Follow steps i to iii from 'LED Board Replacement', ii) Disconnect terminal block from cable assembly and using a spanner, remove the cable gland locknut and remove the cable gland from the bottom plate. iii) Disconnect the cable from the terminal block, tilt the battery enclosure top-plate to expose the cable gland locknut. If necessary, disconnect the switch and indicator, lift the circuit block from the enclosure if necessary. iv) Remove the locknut, and completely remove the cable assembly from the Worklite, v) Fitting is the reverse of the above, fit the cable gland in to enclosure lid and lamp head bottom plate ensuring that the gland seal is external and the shakeproof washer and locknuts are internal. vi) Connect the new cable to the

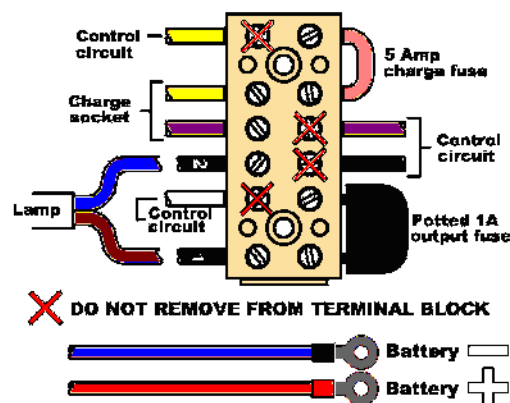
head connector block; No.1 (brown) to White, No.2 (blue) to Black and re install the LED board, lens clamp plate and bottom plate as per the instructions above, vii) In the battery enclosure; connect the wires in to the connector block No.1 (brown) to White, No.2 (blue) to Black viii) Re-connect any disconnected switch or indicator cables and replace the circuit block if necessary. When all wire connections are checked and the head has been re-assembled, the battery can now be connected and the enclosure lid replaced [ensuring no cables are snagged, or obstructing the sealing edge when the lid is in position].

Torque Setting: Cable Gland Locknut = 18Nm

Spare Parts List:

Part No.	Description	Used on:
W-200	3 x Antistatic Lens Guards in Bag	ALL
W-201	Cable and Gland Assembly	ALL
W-202	Battery Foam Kit 18Ah Battery	WL-70 & WL-80
W-203	Fuse Kit: 5A & Encapsulated 1A	ALL
W-204	Battery Foam Kit 33Ah Battery	WL-85
W-205	Index Plunger Kit	ALL
W-206	Head Pivot Bolts and Washer Kit	ALL
W-207	Charge Socket Cap and Chain	ALL
W-208	4 x Enclosure Lid Screws (W-415)	ALL
W-209	Lens Glass, Lens Seal & O-ring kit	WL-85 & WL-80
W-210	Head Seal and set of Screws	ALL
W-212	Lens Glass, Lens Seal & O-ring kit	WL-70
W-213	Charge Socket with Base, Seals & Screws	ALL
W-300	Battery Enclosure Lid Seal	ALL
W-440	Switch Assembly with wires/connector.	ALL

Fig: 6



Disconnect battery before maintenance to any of the Worklite circuit.

For re-assembly; ensure all foam blocks are correctly inserted as per fig 2 / fig 3, and re-fit lid.

A short charge with charger WL-150 will be required each time a battery is re-connected before the lamp will light.

WARNING:

- USE ONLY WOLF CHARGERS WITH THESE PRODUCTS
- USE ONLY GENUINE WOLF REPLACEMENT PARTS.
- LAMP MUST NOT BE USED WITHOUT BATTERY SPACERS AND PACKING CORRECTLY IN POSITION
- LAMP MUST NOT BE USED WITHOUT CHARGE CAP FITTED

The Wolf Safety Lamp Co. Ltd has a policy of continuous product improvement. Changes in design details may be made without prior notice.