JT-3012 LED Machine Work Light

Flexible Arm CNC Lathe Lamp - 7 W to 35 W

User Manual

Model JT-3012 Series

310 / 750 / 1000 / 1300 mm Arm - DC 24-36 V or AC 110-220 V - White or Yellow

JIAKMJ Industrial Lighting

sales01@birtechnology.com - www.cnclight.com

This manual covers the JT-3012 series in all arm-length, power and voltage options. Read it before installing or wiring the lamp.

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1. PRODUCT OVERVIEW

JT-3012 is a sealed LED work light for machine tools. An aluminium head with a sealed cover keeps coolant, oil mist and metal dust away from the LEDs, and an articulated arm bends to any angle and holds position so light lands on the work instead of the operator's eyes.

The series covers four arm lengths (310 mm short, 750 mm long, 1 m and 1.3 m extended), five LED power levels from 7 W to 35 W, and two voltage families: DC 24-36 V or AC 110-220 V. White light is standard, yellow light is available on request.

Typical users: CNC lathe, milling, grinding and EDM operators, tool rooms, sewing and textile workshops, and inspection benches.

2. TECHNICAL SPECIFICATIONS

Model	JT-3012
Type	Sealed LED machine work light, flexible arm
LED power	7 W / 9 W / 12 W / 21 W / 35 W
Halogen version	50 W (short and long arm only)
Voltage	DC 24-36 V or AC 110-220 V (NOT interchangeable)
Light colour	White (standard) / Yellow (on request)
Arm lengths	310 mm / 750 mm / 1000 mm / 1300 mm
Head material	Aluminium alloy with sealed cover
Mounting hole spacing	45 mm standard, 60 mm on request
Base sizes	60 x 75 mm (45 mm holes) / 75 x 75 x 60 mm (60 mm holes)
Fixing hardware	Plate and screws supplied with the 45 mm version
Protection	Sealed against coolant, oil mist and dust
Warranty	1 year

Dimensions are measured manually, tolerance 1-3 mm. Check the nameplate for the exact voltage before connecting.

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2.1 ARM LENGTH OPTIONS

Code	Arm length	Total reach	Typical use
310	Short arm	310 mm	small lathe, bench work
750	Long arm	750 mm	standard CNC machine
1000	1 m extended	420 + 380 mm	large machine, wide bench
1300	1.3 m extended	600 + 400 mm	big gantry / long bed

2.2 POWER AND VOLTAGE

Power	Led count	DC version	AC version
7 W	standard	DC 24-36 V	AC 110-220 V
9 W	standard	DC 24-36 V	AC 110-220 V
12 W	standard	DC 24-36 V	AC 110-220 V
21 W	standard	DC 24-36 V	AC 110-220 V
35 W	standard	DC 24-36 V	AC 110-220 V
50 W halogen	halogen tube	DC 24 V	AC 220 V

3. PACKAGE CONTENTS

- 1 x JT-3012 LED work light, selected arm length and power
- 1 x fixing plate and screw set (45 mm hole spacing version)
- 1 x user manual

The 60 mm hole spacing base is supplied only when ordered or noted on the order. Ask before assuming it is in the box.

4. INSTALLATION INSTRUCTIONS

Step 1 - Confirm the voltage: read the nameplate. DC 24-36 V and AC 110-220 V versions are not interchangeable; connecting a 24 V lamp to mains destroys it.

Step 2 - Choose the position: pick a spot where the arm can reach the work area without crossing the operator's line of sight.

Step 3 - Fix the base: drill for 45 mm hole spacing (or 60 mm if ordered), fit the plate and tighten the screws evenly. Do not over-tighten on sheet-metal panels.

Step 4 - Wire the lamp: isolate the supply, connect per section 5, then check each conductor with a multimeter.

Step 5 - Adjust the arm: loosen each joint slightly, set the angle, then tighten. The arm should hold without drifting during machining vibration.

Step 6 - Test: restore power, confirm the beam covers the work and not the operator's eyes, and check the head does not touch the workpiece.

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5. WIRING

Function	AC 110-220 V version	DC 24-36 V version
Supply	Live + Neutral	Positive + Negative
Earth	Earth conductor, must be connected	Earth / chassis, connect if present
Switch	In-line or machine panel switch	Machine panel switch or relay

Wire colours can differ between production batches, and the supplied cable may end in bare conductors. Identify each conductor with a multimeter before connecting. Never connect the DC version to mains voltage, and never run the lamp without the earth conductor where one is fitted.

6. COLOUR STATUS

NOT APPLICABLE.

This is a work light, not a signal light. Colour is chosen at order (white or yellow) for visibility on the workpiece; it does not indicate machine status.

7. MAINTENANCE AND CARE

- Wipe the head with a soft damp cloth; coolant residue should be removed weekly.
- Do not use solvents, thinners or abrasive pads on the aluminium or the lens.
- Check the arm joints every month; re-tighten if the head drifts under vibration.
- Inspect the cable entry and gland for cracks; replace the cable if the sheath is damaged.
- Keep the sealed cover seated. A loose cover lets oil mist in and cuts LED life.
- Do not aim a pressure washer directly at the head or cable gland.

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8. SAFETY WARNINGS

ALWAYS isolate the power before installing, wiring or cleaning this lamp.

- Match the nameplate voltage. DC 24-36 V and AC 110-220 V versions are not interchangeable.
- The lamp is sealed against coolant and dust, NOT rated for immersion. Do not submerge it.
- Do not cover the head or wrap it in cloth; the housing is the heat sink.
- Keep the lamp clear of moving machine parts and hot chips.
- Do not modify the cable or open the sealed head - this voids the warranty.
- Only qualified personnel should connect the lamp to a machine's electrical panel.

9. TROUBLESHOOTING

Problem	Possible cause	Solution
Does not light	No supply or wrong voltage version	Check supply and nameplate rating
Dim output	LED board aged or lens dirty	Clean the lens; replace the LED board
Flickers	Loose conductor or unstable DC supply	Re-check terminations and supply
Head drifts under load	Joint screws loose	Tighten joints; replace worn washer
Water or oil inside head	Cover not seated or cable gland damaged	Reseat cover or replace gland
Overheats	Head covered or wrong power board	Remove cover; check LED board rating

10. WARRANTY POLICY

1 year warranty from the date of delivery. We repair or replace, at our option, any fault caused by a manufacturing defect: LED board failure inside the rated hours, sealed head leaking at the joint, arm joint failure, or a wrong part supplied.

Not covered: wrong voltage connection, submersion, impact, cut cables, modified lamps, and normal wear of the arm joints.

Claims need the model, arm length, voltage, order number and a photo of the fault.

11. AFTER-SALES SERVICE

Contact	Jude
Tel / WhatsApp	+86-15915305795
Email	sales01@birtechnology.com
Website	www.cnclight.com

Please quote model JT-3012 plus the arm length (310 / 750 / 1000 / 1300 mm) and voltage when contacting us. Spare LED boards and 60 mm bases can be quoted separately.

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