TD-50 LED Tower Signal Light

Multi-Layer Red-Yellow-Green Machine Warning Lamp

User Manual

Model TD-50 - 50 mm sections - 1 to 4 layers - DC 24 V or AC 110-220 V

Foldable 90 degrees - square snap-fit base - optional buzzer - IP50

Kemotronics Industrial Lighting

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This manual covers the TD-50 LED tower signal light: 50 mm LED sections stacked in red, yellow and green, supplied with 1 to 4 layers, in a DC 24 V, AC 110 V or AC 220 V version, with steady (C) or flashing (F) light and with or without an audible buzzer, on a foldable square snap-fit base.

Read section 8 (Safety Warnings) before installing, wiring or servicing this signal light.

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1. PRODUCT OVERVIEW

The TD-50 is a modular LED tower signal light. High-brightness LED sections of 50 mm diameter are stacked on top of each other in red, yellow and green, so the state of a machine or a line can be read from across the shop floor without walking up to the panel. The light is supplied with 1 to 4 layers as ordered, and models with an audible buzzer give a sound and light alarm at the same time.

The lamp head folds down 90 degrees against the base, which keeps the light low when the machine has to pass under a guard, a crane or a door, and protects the sections during transport and storage. The joint is a positive detent, so the column stays upright in service and stays folded when it is laid down.

The base is the new square snap-fit type: the parts clip together without screws and without tools, and the multi-hole pattern keeps the fixing centres of the old round base, so an existing machine can be re-fitted without drilling new holes. The base itself needs no screws; fixing screws for the machine surface are not included because the correct screw depends on the panel you mount to.

Typical users: CNC machine tools, automated production lines and work cells, warehousing and conveyor systems, packaging and filling equipment, and any machine that has to signal run, standby and fault to the operator.

2. TECHNICAL SPECIFICATIONS

Model	TD-50 series (tower signal light)
Section diameter	50 mm
Layers	1 / 2 / 3 / 4 layers, supplied as ordered
Light colours	Red, yellow, green (red + blue and red + green combinations also available)
Light source	High-brightness LED, one colour per section
Voltage	DC 24 V / AC 110 V / AC 220 V - model dependent, not interchangeable
Light modes	C = steady on / F = flashing
Buzzer	Optional (F models). Sound and light alarm together.
Protection	IP50 - dust-protected, NOT waterproof
Base	Square snap-fit folding base, multi-hole, old round-base hole pattern kept
Folding	Lamp head folds 90 degrees to the side
Housing colour	Black or white, as ordered
Mounting screws	NOT included - the base clips together without screws
Certification	CE (EMC and LVD reports cover the TD50-TD90 range)
Note	Dimensions and section count depend on the ordered model. Confirm the values on the unit label before installation.

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3. PACKAGE CONTENTS

- 1 x TD-50 LED tower signal light, sections fitted and base clipped on
- 1 x Square snap-fit folding base (already assembled to the light)
- No mounting screws in the box - the base is screw-free; use screws suited to your machine panel if you fix it down

Check the label before wiring: it states the voltage, the number of layers, the colours, the mode (C or F) and whether a buzzer is fitted. A DC 24 V model connected to 110-220 V, or an AC model connected to 24 V, will be destroyed.

4. INSTALLATION INSTRUCTIONS

Step 1 - Read the label: confirm the voltage (DC 24 V, AC 110 V or AC 220 V), the layer count, the colours and the mode. The versions are not interchangeable.

Step 2 - Choose the position: pick a flat surface where the light is clearly visible from the operator position and from the aisle, clear of the coolant jet, hot chips and moving guards.

Step 3 - Fix the base: place the square base on the surface and align the holes with the existing fixing centres. On a new machine, drill to the multi-hole pattern; on an old round-base machine the same holes can be re-used. Fix the base with screws suited to the panel - screws are not supplied.

Step 4 - Wire the unit: isolate the supply, then connect the common wire and the colour wires as in section 5. On AC models connect live and neutral, and earth where a PE terminal is provided. Keep the wiring short, protected and clear of moving parts.

Step 5 - Test and fold: power on and check each colour in its mode (steady or flashing) and the buzzer if fitted. Fold the head down and back up once to confirm the joint moves freely, then leave the column upright in service.

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5. WIRING

The cable is wired to the light at the factory. Only the connection to the machine supply has to be made. Wire colours differ between production batches, so work from the functions printed on the label of your unit - the table below shows the functions, not fixed colours.

Function	Wire	Meaning
COM	Common	Return for all colour sections and for the buzzer. Must be connected.
R	Red section	Fault / stop / alarm
Y	Yellow section	Attention / standby / warning
G	Green section	Normal operation / machine running
BUZ	Buzzer	Buzzer models only; sound and light alarm together

DC 24 V models: connect the common to the negative or positive pole as marked on the label, and the colour wires to the switched side. AC 110 V / AC 220 V models: connect live and neutral as marked, and earth where a PE terminal is provided.

Never connect the supply to a colour wire without the common return, and never join a DC model to mains. Wiring must be carried out by a qualified electrician, with the machine isolated.

6. COLOUR STATUS RECOMMENDATIONS

Colour	Meaning	Typical use
Green	Normal operation	Machine running, cycle in progress, line OK
Yellow	Attention / warning	Standby, set-up, material low, operator called
Red	Fault / stop	Alarm, fault, machine stopped
Red flashing + buzzer	Critical alarm	Immediate action required (F models)

Use the same colour code across all machines on the line so that operators read every light the same way.

7. MAINTENANCE AND CARE

- Wipe the sections and the lens with a soft dry cloth; in oily shops use a slightly damp cloth and dry afterwards.
- Do not use solvents, petrol, thinners or abrasive pads on the lens - they cloud the plastic and dim the signal.
- Check the base clips and the fixing screws every 6 months and re-seat the column if it has been knocked.
- Keep the folding joint clean and free of chips; do not force the head if it feels obstructed.
- Check that no cable is chafed where it enters the base.
- Store spare lights folded, in a dry place, out of direct sunlight.

8. SAFETY WARNINGS

- ALWAYS isolate the machine before installing, wiring, cleaning or servicing the light.

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- Connect the light only to the voltage printed on its label. A DC 24 V model on mains, or an AC model on 24 V, destroys the light and is not covered by the warranty.
- IP50 means dust-protected, NOT waterproof. Use the light indoors or in a sheltered position; do not expose it to rain, splashing water, direct coolant spray or washdown.
- Do not dismantle the LED sections or modify the internal circuit - the sections are sealed units.
- Do not cover the light while it is on; the sections are cooled by their surface.
- Do not use the light column as a handle, a step or a lifting point, and do not hang anything on it.
- When the head is folded, keep hands clear of the joint.
- Where local regulations require it, installation and wiring must be carried out by a qualified electrician.

9. TROUBLESHOOTING

Problem	Possible cause	Solution
Light does not come on	No supply, wrong voltage version, common wire not connected	Check the supply and the label voltage, check the COM connection
Only some colours light	Colour wire not connected, section contact loose	Isolate the supply, re-seat the section, check the colour wire
Buzzer does not sound	Model without buzzer, BUZ wire not connected	Confirm the ordered model and connect the BUZ wire on F models
Light is dim	Low supply voltage, cloudy lens	Check the supply voltage; clean the lens, replace a badly clouded section
Flashing does not work	C (steady) model supplied	Confirm the model marking; C models are steady only
Lamp head will not fold	Joint obstructed by chips or dirt	Isolate, clean the joint, move it gently - do not force it
Column loose on the base	Base clips not fully engaged, machine vibration	Press the column down until the clips click, re-check the fixing screws

10. WARRANTY POLICY

1 year warranty from the date of delivery, covering manufacturing defects: a section that fails to light under the correct voltage, a faulty buzzer on an F model, and a base or joint that fails in normal use.

Not covered: damage caused by wrong voltage, water or coolant ingress, dismantling of the sealed sections, mechanical impact, unauthorised repair, or normal fading of the lens over years of service.

11. AFTER-SALES SERVICE

Contact	Jude
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Please quote model TD-50, the number of layers and colours, the voltage, the mode (C or F), whether a buzzer is fitted, and your order number.

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