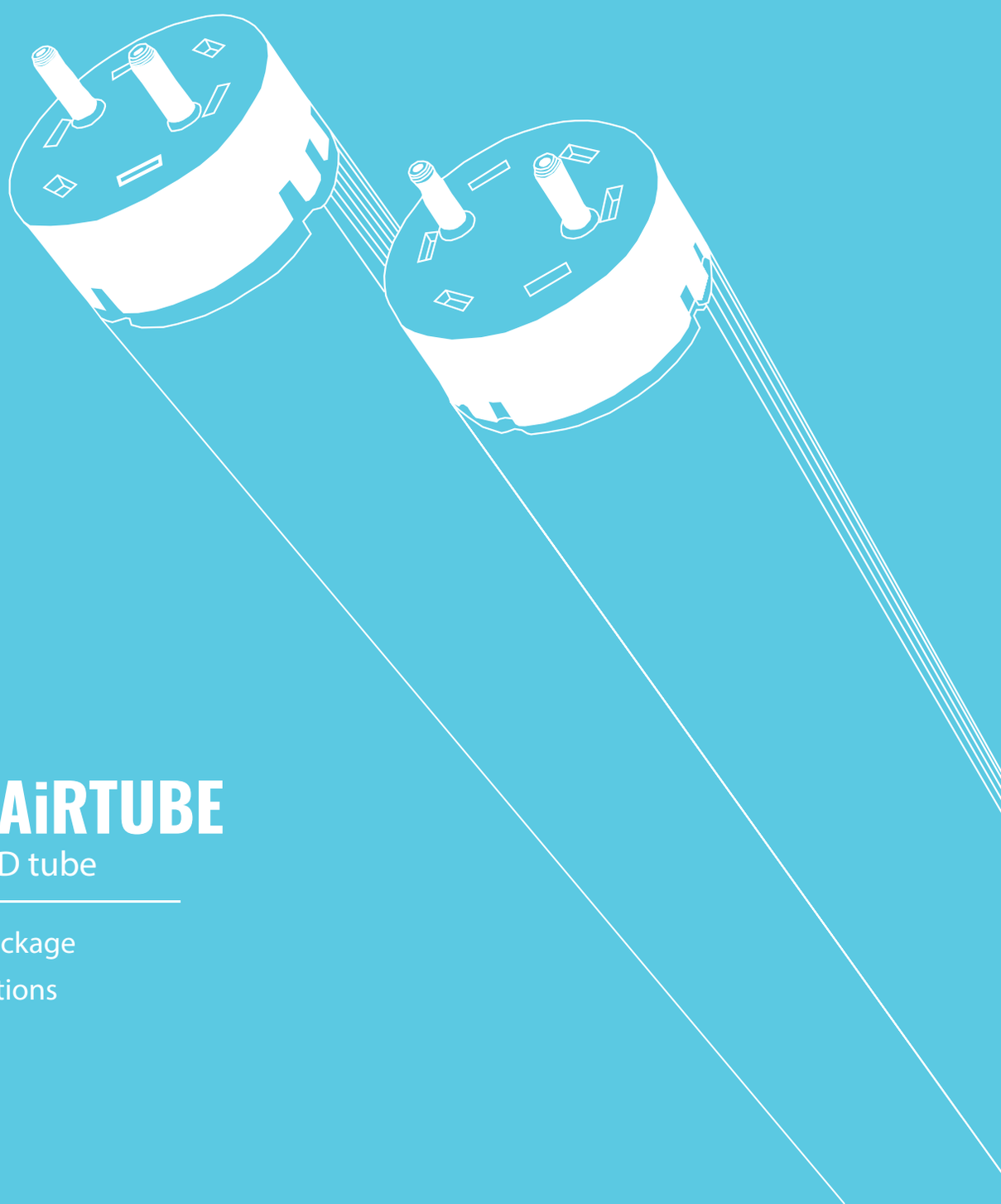
LED TAILOR®
Blue is Clean™



ANTiBAC AiRTUBE

- antimicrobic LED tube

Read the installation instructions before installation.

Conforms to EC Directives.

Does not contain hazardous substances.

Recyclable

1. Content of the package

1. ANTiBAC AiRTUBE LED tube
2. Starter
3. Installation instructions

2. Product specifications

ANTiBAC AiRTUBE

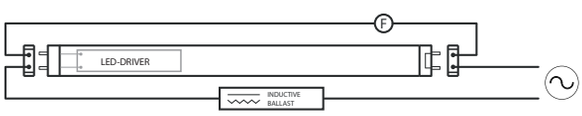
Length (mm)	600	900	1200	1500
Power (W)	10	15	19	28
Luminous flux (lm)	1280	1890	2400	3460
Weight (g)	225	300	385	445

CRI	Ra >70
Flickering percentage	< 5%
Input voltage	230 V AC, 50/60 Hz
Socket type	T8 / G13
Colour consistency	McAdam 3 SDCM
Average lifetime	125 000 h (L70B50 / Ta 25°c)
Operating temperature	-40...50°c
Beam angle	120°
Protection class	IP20
Materials	Anodised aluminium, PC-plastic (fire resistance class of plastics UL94-VO)
Warranty	Unlimited 3-year warranty up to 35°C
Certifications	CE, RoHS

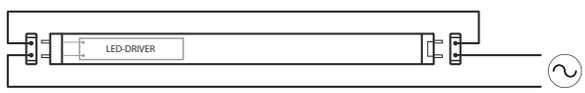
3. Installation

Before installation, ensure that the luminaire is switched off and make sure to clear any obstacles from the immediate environment. Ensure also that the LED tube is suitable for use in the luminaire. The ANTiBAC AiRTUBE LED tube is designed to replace a traditional fluorescent tube in luminaires where the electric wiring consists of only a magnetic ballast, a starter and a T8/T10 fluorescent tube, but it can also be installed in luminaires equipped with an electronic ballast, if the luminaire in question is modified accordingly. If the luminaire contains a compensation capacitor, it needs be removed before installation of LED tubes.

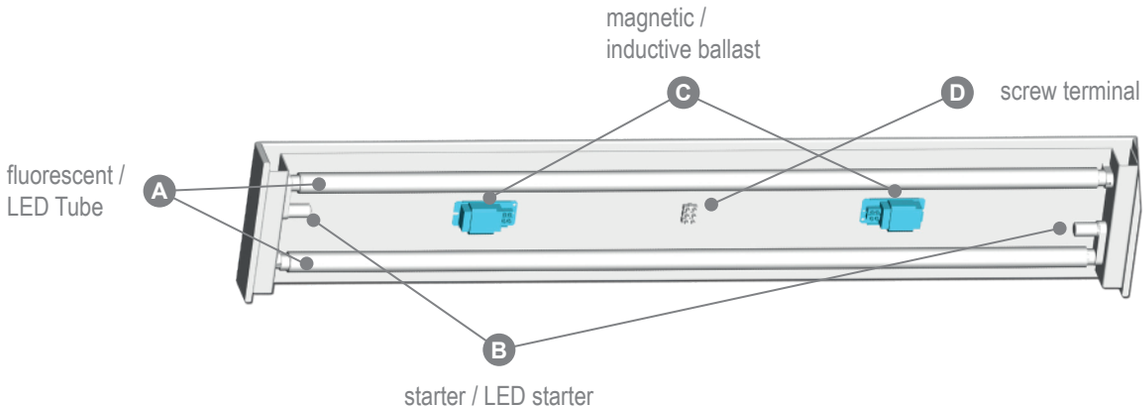
If the luminaire is modified, for example, wiring changes are made to the luminaire or the compensation capacitor is removed, a new electrical device is created and the responsibility of the original manufacturer of the luminaire ceases. All modifications must be performed by certified electricians. In these cases, the luminaire must also be marked with a luminaire modification sticker. In unclear cases, contact LED TAILOR INNOVA7ION.



The electrical wiring of a ANTiBAC AiRTUBE LED tube in a luminaire with a magnetic ballast.



The electrical wiring of a ANTiBAC AiRTUBE LED tube in a modified luminaire.



Installation in a LED Luminaire

Install the LED tubes in the luminaire by pushing the pins located at both ends of the tube directly into the slots on the luminaire. Using gentle pressure, spin the tube by hand to attach. After installation, check that the light emitting components point in the desired direction. If a LED starter is required, install the starter (B) that was delivered together with the LED tube in its place.

Replacing Traditional Fluorescent Tubes

Ensure that the luminaire contains a magnetic ballast (C). In this case, the luminaire will also always have a starter (B). ANTiBAC AiRTUBE LED tube is compatible with luminaires containing an electronic ballast only after a luminaire has been rewired. If you are uncertain as to the type of ballast present within the luminaire, consult an electrician or LED TAILOR technical support. If the luminaire contains two fluorescent tubes, replace them both at the same time with LED tubes. In two-tube luminaires, ensure that both tubes have their own ballast.

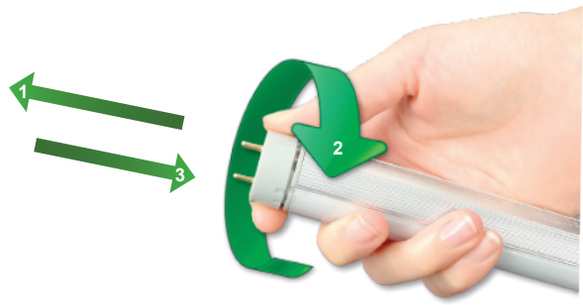
2.1. Remove the old tubes (A) from the luminaires by spinning the tube until the slots in the luminaire release the pins of the tube.
2.2. Remove the old starters (B) from the luminaires. Replace the old starter with the white LED starter delivered together with the tube.
2.3. Install the LED tubes into the luminaire by pushing the pins at both ends of the tube directly into the slots. Gently spin the tubes by hand until the luminaire connector parts lock the tube.

Turn on the power and check that the LED tubes work.

Adjusting the light emitting angle

The tube ends of ANTiBAC AiRTUBE LED tubes can be rotated to direct the light from the luminaire to where it is needed.

1. Hold the tube near to its end and use your forefinger and thumb to push the end cap outwards approximately 2 millimetres in the direction of the tube thus turning the end cap in the adjustment position.
2. You can now adjust the lighting angle, manually rotate the outer tube cap into 4 alternative positions located at 90 degree intervals.
3. Once you have found a suitable angle, lock the end cap by manually pulling inwards until it locks into its position. After this, the tube end cap should no longer rotate.
4. Repeat the process at the other end of the tube.
5. Before installing the tube, make sure that both end caps are adjusted to the same angle.
6. Finally, check that the light is emitted in the desired direction. If the light still requires adjustment, repeat steps 1-6.
7. Please note that the tube can be installed in the luminaire in alternative directions, therefore enabling the light to be emitted in the other opposite direction.



Additional information

Compensation capacitors
If the LED tube is installed in a luminaire with a compensation capacitor, the capacitor needs to be removed. Removal must be performed by a certified electrician. If the compensation capacitor is not removed, the power factor of the luminaire will decrease significantly.

If the tube or starter cannot be removed from the luminaire
If the tube or starter cannot be spun in the luminaire by using finger power, a suitable lubricant should be sprayed onto the problem area. Lubricant is available at the electronic and luminaire retailers. Using excess power may break the tube or the luminaire.

If the tubes do not light up or only one tube lights up
Turn off the luminaire and check the connection points. If necessary, reinstall the tube. Also make sure that the pins of the LED tube are tightly attached to the connector parts at both ends. Sometimes the bending of end caps away may cause the connectors to bend away from each other. In this case carefully bend the ends of the luminaire carefully closer to each other to allow the LED tube connectors to connect tightly with the luminaire connectors at both ends.

If one/several of the tubes is brighter/dimmer than the other or the tubes are flickering
In some luminaires with multiple tubes, LED tubes that are not functioning properly may denote a luminaire connected in series. In this case the connection has to be reinstalled as a parallel circuit and conformity has to be reassessed. Luminaire rewiring may only be carried out by a qualified electrician. Series circuit connection usually can be identified by single ballast for two or more tubes.

Recycling
When removing fluorescent tubes, it should be kept in mind that fluorescent tubes break easily and contain toxic gases, so they should be handled with care. Do not store fluorescent tubes. Old fluorescent tubes and ballasts are hazardous waste and should be treated accordingly. Deliver them to your local hazardous waste recycling plant. ANTiBAC AiRTUBE LED tubes are electronic waste and can be recycled along with other electronic waste. In Finland, they can be recycled along with SER waste in all SER recycling facilities.