

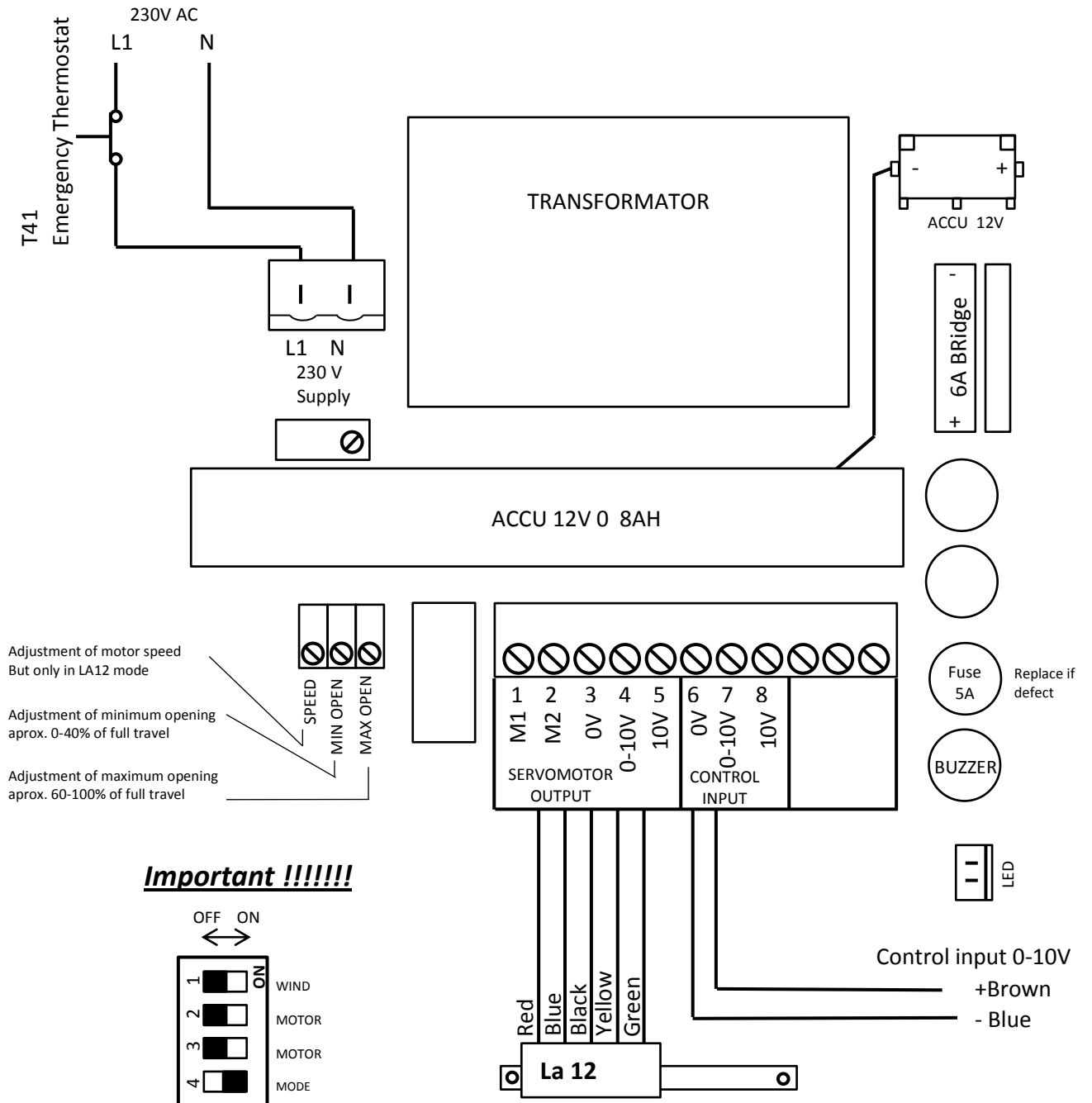
# Electrical connection TSN1 - Linak



**FUNKI**

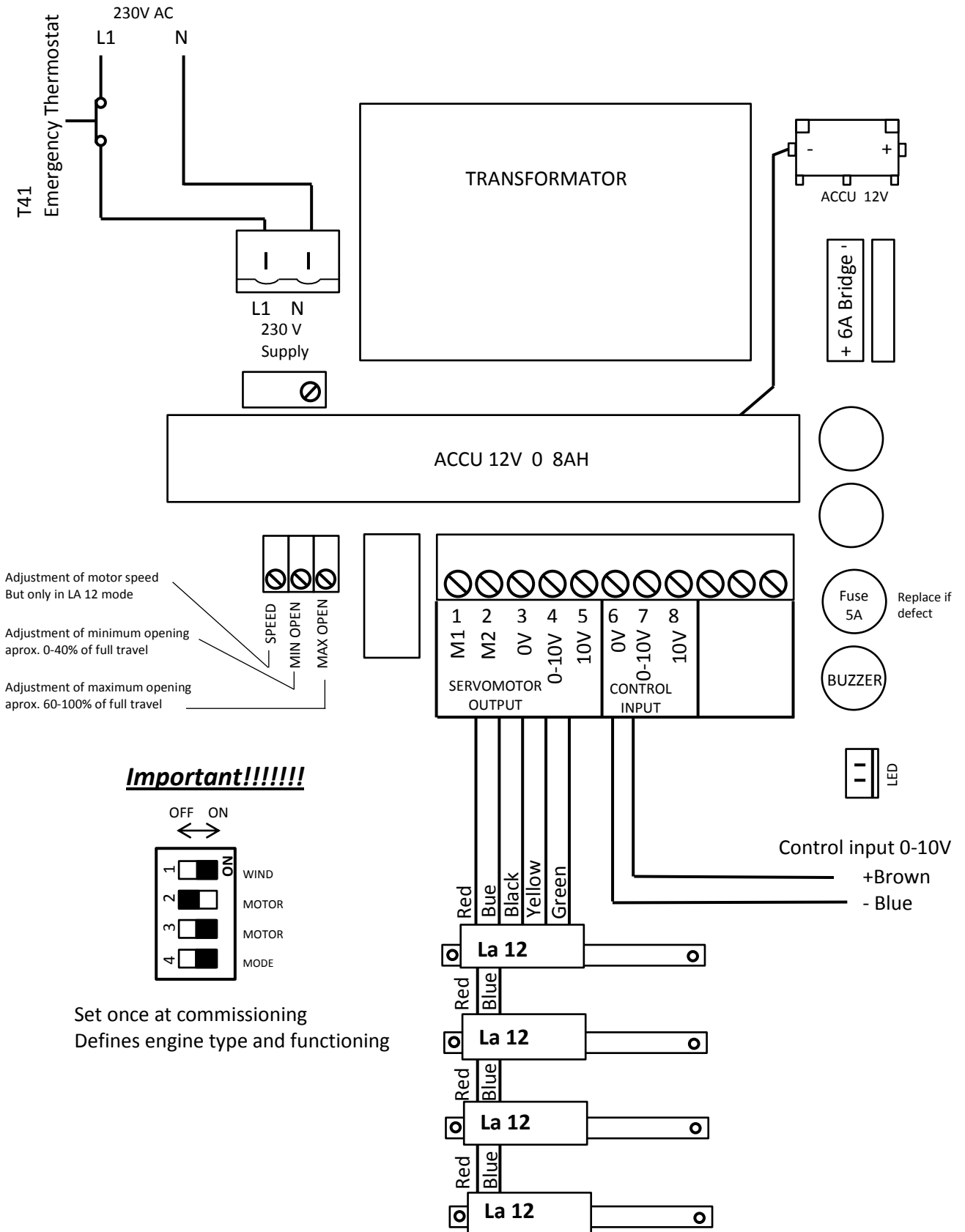
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# Electrical Connection – TSN 1 for Linak LA 12

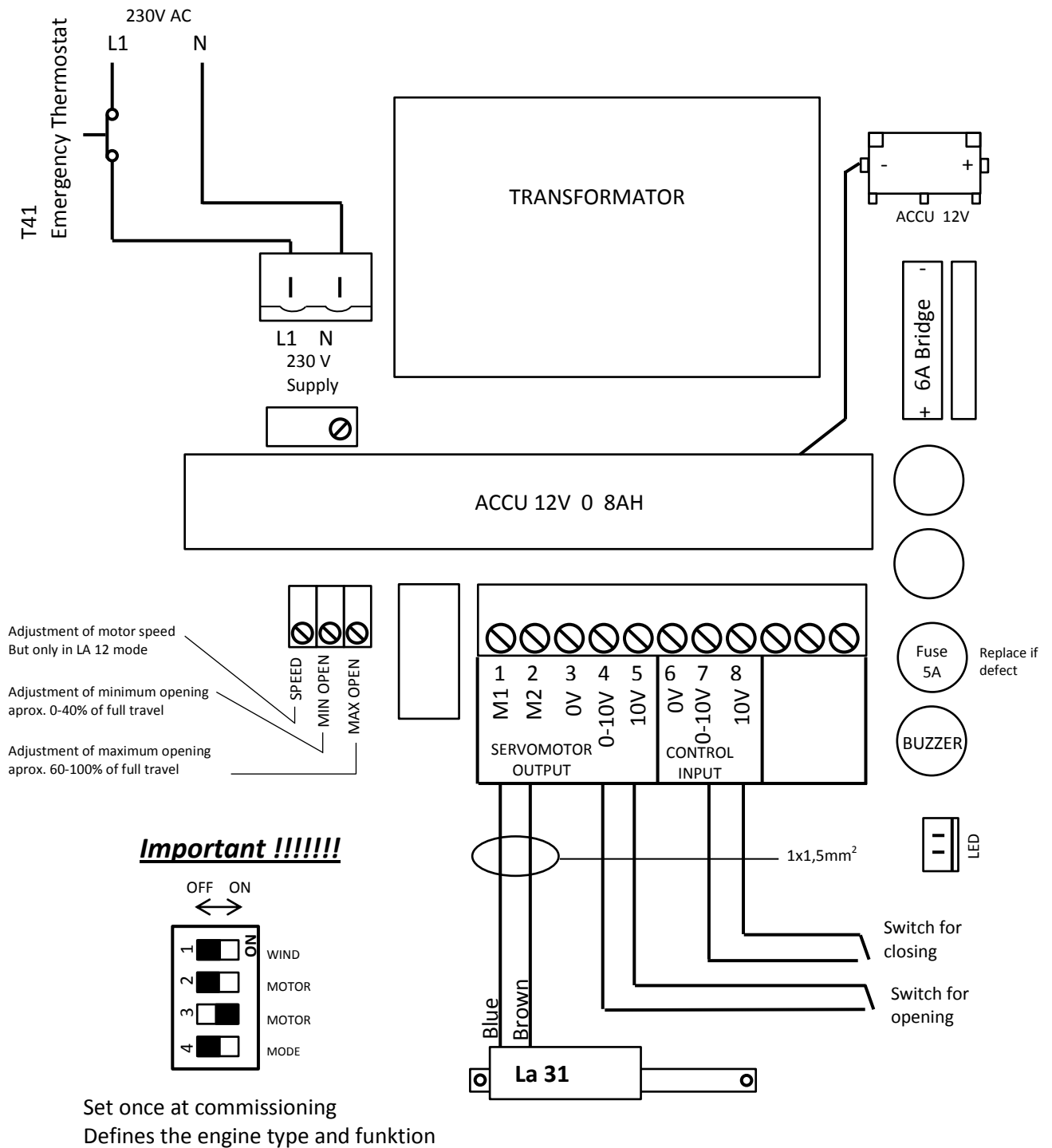


Set once at commissioning  
Defines engine type and functioning

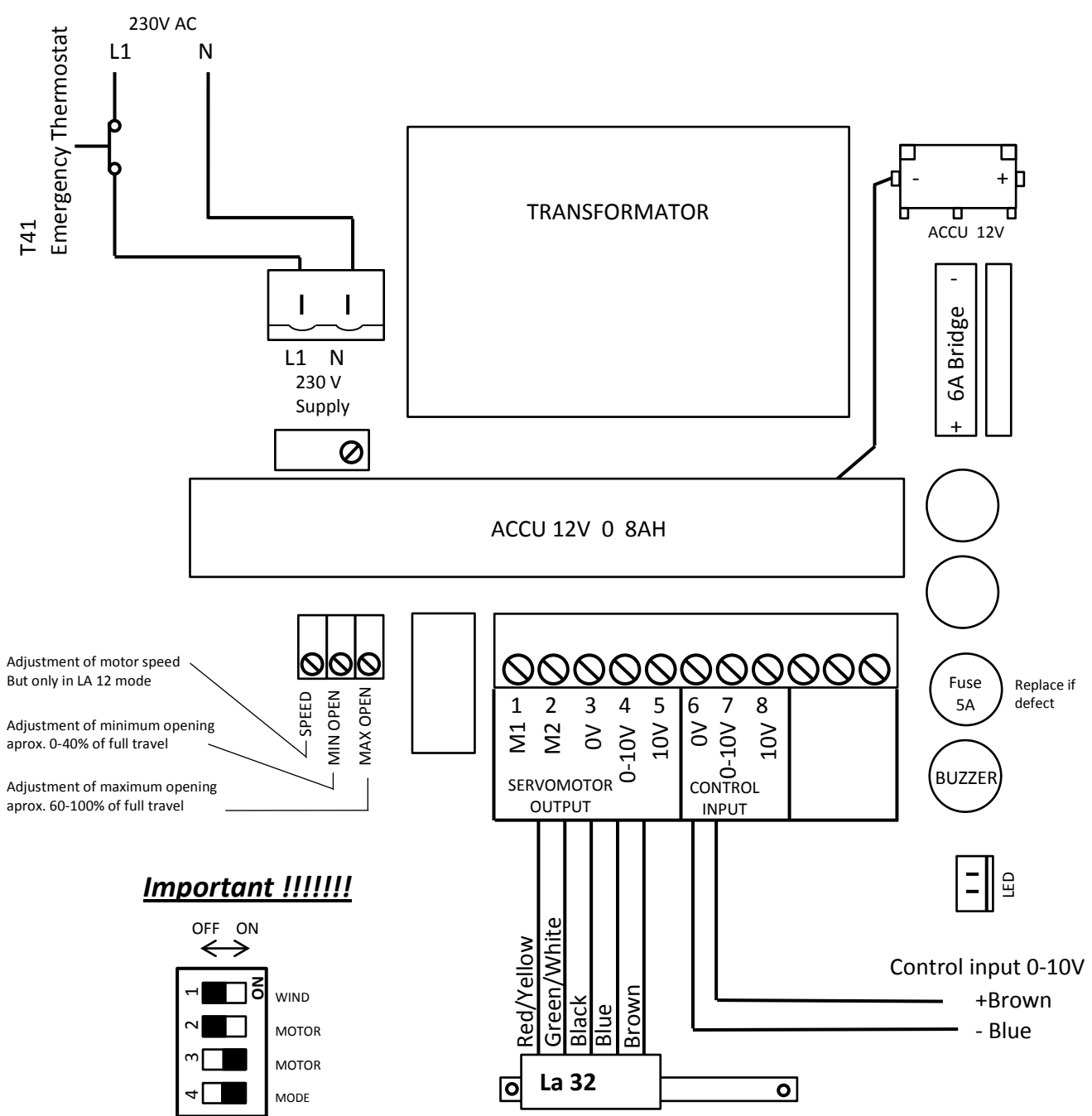
# Electrical Connection– TSN 1 for more Linak LA 12



# Electrical Connection– TSN 1 for Linak LA 31

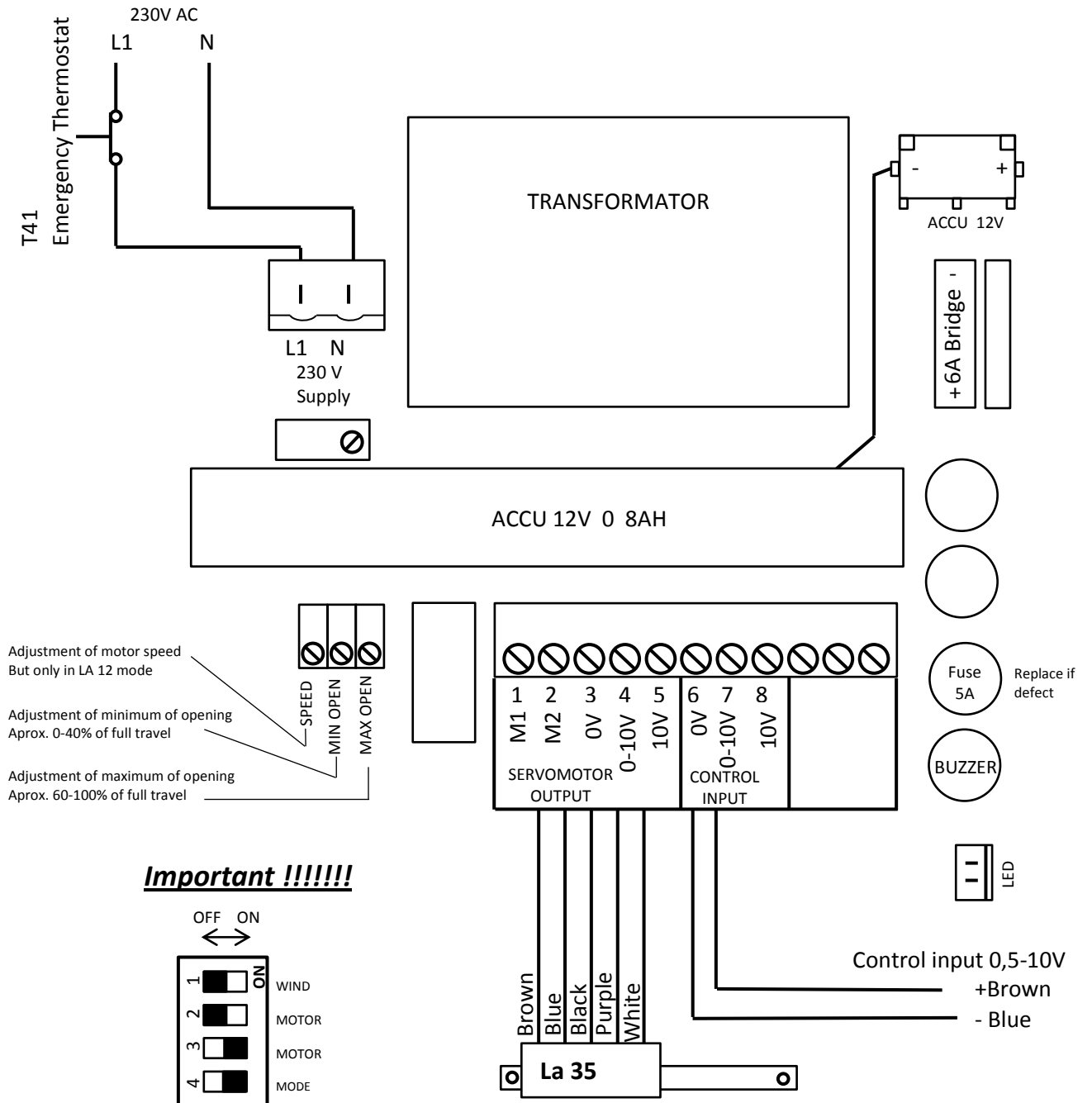


# Electrical Connection– TSN 1 for Linak LA 32



Set once at commissioning  
Defines the engine type and functioning

# Electrical Connection– TSN 1 for Linak LA 35



Set once at commissioning  
Defines the engine type and functioning

# TSN1V2 FUNCTIONAL DESCRIPTION

- \* TSN1 V2 is a modern automatic control unit used to control LINAK actuators. Using an actuator, the control unit will set a damper at a position corresponding to the input voltage 0-10V. This voltage can come from a DIGITRON or other temperature regulator.
- \* The damper position is determined from the input voltage, measured reference position and Max and Min set on the trimmers in the automatic control unit. 2 types of actuators, LA12 or LA32 can be used. LA12 is a high-speed servo with a current limit of 1.4A, LA 32 is a slow servo with greater torque and a current limit of approx. 4A.
- \* Emergency opening on built-in battery and charging circuit for the battery. Automatic stop at limits, also on battery back-up.
- \* Light-emitting diode indication of operating condition, including faulty connection and failure at current limits.
- \* Battery monitor indicates visually and audibly that the battery must be replaced.
- \* Option for slave operation, On/Off function from external automatic control unit determines open/close function.
- \* Automatic detection of interrupted control signal, opens if cable connections are broken.
- \* Adjustment of speed to motor with LA12 operation, enables more precise regulation around set point.
- \* Dip switch sets function and motor type, see wiring diagram.
- \* T41 thermostat in series with power supply 230V will ensure emergency opening in the event of circuit being broken.
- \* Technical specifications:
 

Input	230V AC +/- 10%
Output	5-24V DC max 4A
Battery	12V / 0.7AH
Charging	Fixed 13.8V
Emergency opening	Relay/Battery, stops in the event of excessive current.
Control	0-10V DC
Current limit	1.5A for LA12, 4A for LA32
Audio	Built-in beeper in the event of failure, etc. (see table)
Lamp	Built-in light-emitting diodes for open/close/failure
Certification	CE marked
Settings	Motor speed, Max opening, Min opening, actuator type, control mode.
- \* Visual and audio indicators in various situations:

Situation	Light-emitting diodes	Beeper	Remarks
Motor stopped	off	off	normal situation
Emergency opening	off	off	electronics off
Short-circuit	rapid push-pull	rapid beep	must be switched off before new operation !
Interrupted control signal	rapid push-pull	rapid beep	automatic reclosing
Battery flat	slow push-pull	slow beep	wait until recharging is complete If continues, replace battery
Current limit	medium push-pull	off	direction change resets failure

