



INSTALLATION AND OPERATION MANUAL

Safety Light Center

EXI-24, 24/600 and 24/1200

24V AC/DC

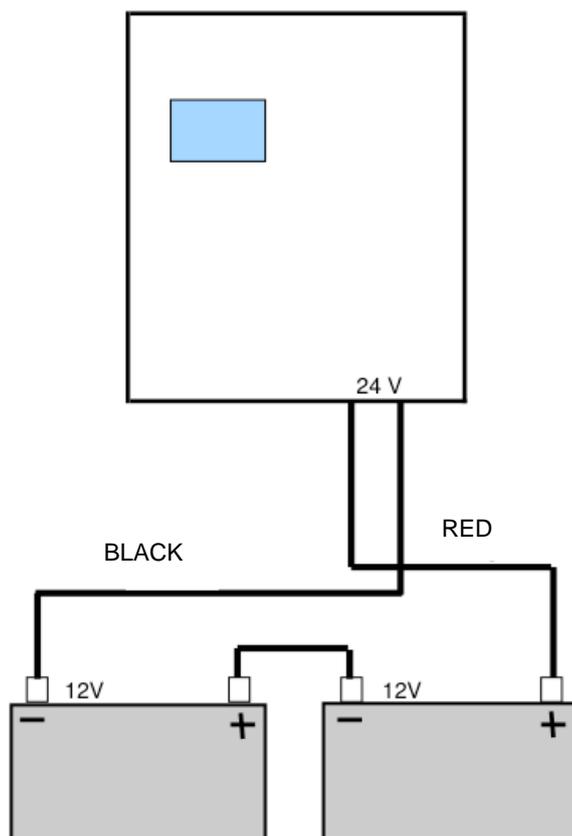
Safety Light Centers supplied by Exilight Oy use 24 V voltage battery, which gives the lightning groups direct current of 24 V.

1. INSTALLATION

The Safety Light Center must be mounted on to the wall using all the four (4) fixing points in the device. The center must always be located in a closed space, preferably in the general electric center room.

2. CONNECTIONS

- First connect the main current cable to connectors L, N and PE.
- Ensure that all the switches of the center are turned off, i.e. in zero position.
- Connect battery cables correctly to the poles of 24 V batteries.
- Ensure that you use the right poles of the batteries. The center can be damaged if the poles are wrongly connected to the center.

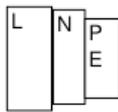


INSTALLING THE BATTERIES

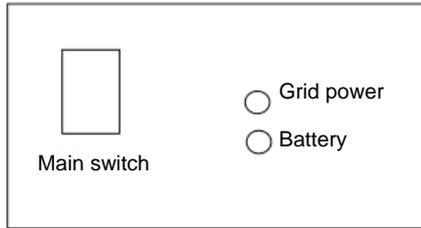
- Batteries must be located outside the center case in a separated battery case or a battery rack as near as possible to the center. It is highly recommended to use a fuse as a short-circuit protection either inside the battery case or in its very close surroundings.
 - o When using centers EXI-24 and EXI-24/600 the batteries up to 42Ah can be fitted inside the center case. Any battery larger than 42Ah must be installed outside the center into a separate battery case.
- Do not make any connections while the lightning current is on.
- Connect power grid to the center, turn the main switch to position 1 and after this turn on the switches of the batteries to position 1.
- The indicator light on the center should be on, while the main switch is in position 1 and the power grid is connected.

Safety Light Center EXI-24

INPUT
230 V AC

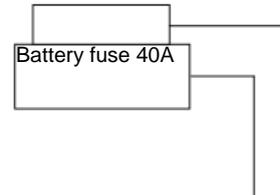
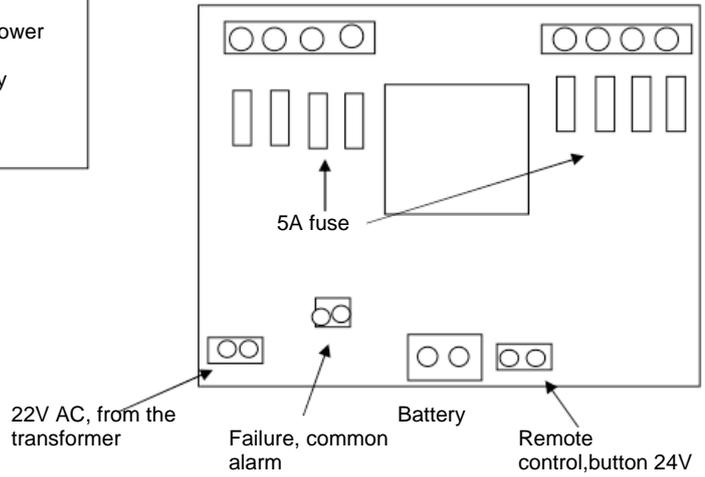
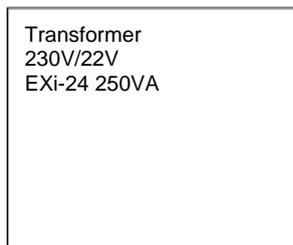


Common 24 V output connector for
safety and guide lightning

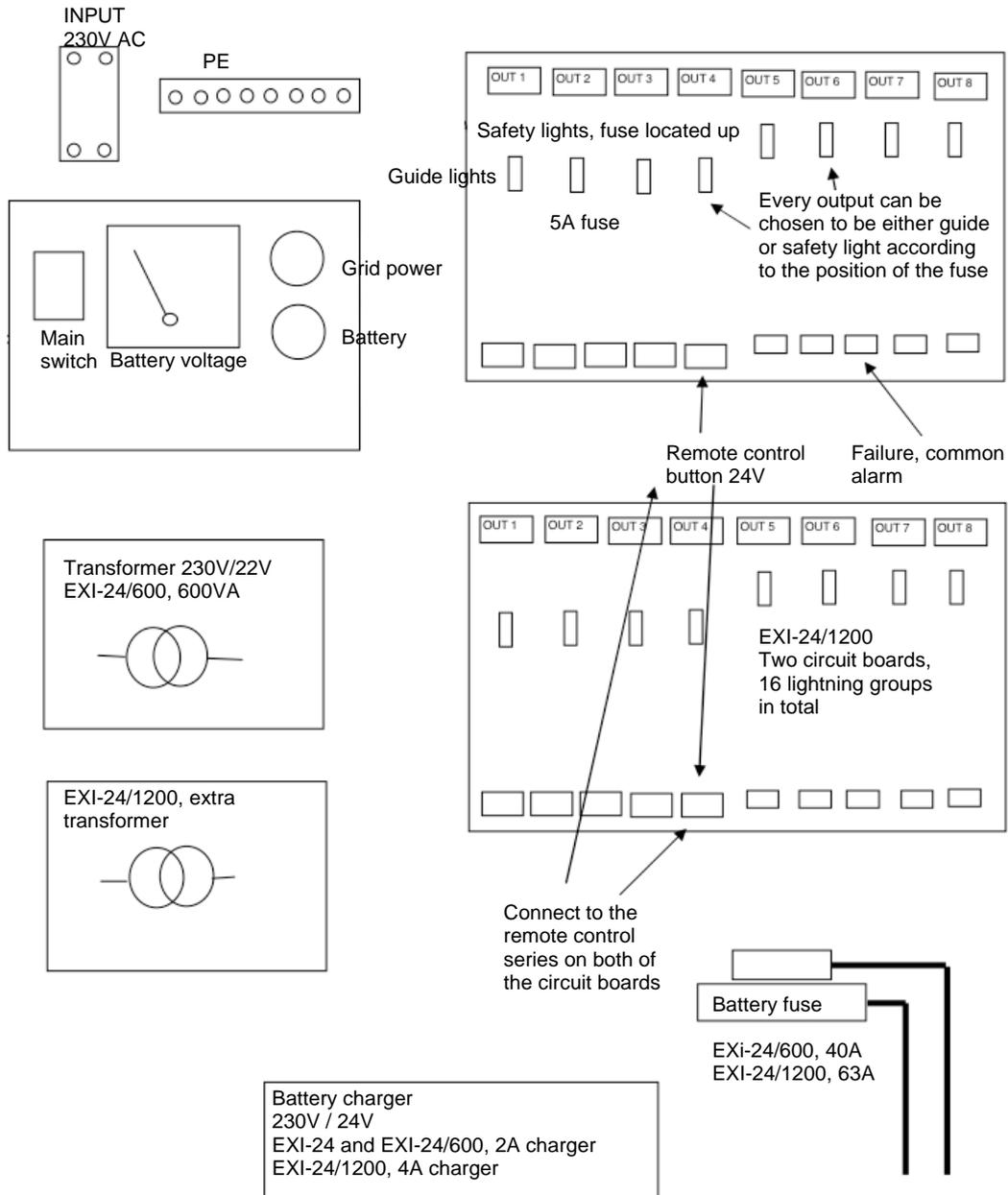


Guide lightning
4 groups, +24 V DC

Safety lightning
4 groups, +24 V DC



Safety Light Center EXI-24/600 and EXI-24/1200



3. TESTING

Operational testing of the Safety Light Center on deployment

Always test the system first without any lightning groups connected.

- Test is done using the main switch in the center while the power grid and batteries are connected to the center.
- When the main switch is in position 1 the electric grid signal light is on. Guide lightning groups have 24V DC voltage. Safety lightning groups don't have a voltage at this phase.
- When the main switch is switched to position 0 the center needs to change to battery input, which is indicated by the battery signal light. Batteries provide power to all lightning groups, both guide and safety lightning groups.
- Contactors and inverters on the circuit boards control and feed both the guide and safety lightning groups.
- Lightning groups are equipped with 5A auto fuse. Do not change the amps without manufacturer's authorization.
- After successful test without any connected lightning groups connect the lightning groups to the center when the power grid and batteries are disconnected.
- Disconnecting only the power grid or switching off the main switch does not cut the voltage off the groups.
- Disconnect both the batteries and power grid while working in the center or the lightning groups. This is the only way to ensure zero voltage and work safety.
- While testing the center lightning groups connected, the guide lights need to be on at all times when the center is on grid power or in battery state.
- After grid power has been cut off (either by loss of grid power supply or by turning the main switch off) the safety lights must be turned on. In this state both safety and guide lights must be on.
- On test the center will start using the batteries and all the lightning is turned on. The center will continue to use the batteries as long as the battery voltage reaches the level under 19 V after which the center will disconnect the lightning. The maximum time of battery supply depends on the size of the battery and the required power supply for the groups. Standard time is one (1) hour.
- Ensure after the test that main switch is in position 1 and the batteries are charging by checking the signal light of the charger.

4. BATTERIES

The center is supplied by two 12V batteries, battery voltage 24V. Batteries used in the system must be isolated service free lead gel batteries. The charging of the batteries is taken care of by the separated charger in the center. Maximum voltage on charging is 27,2V when the batteries are fully charged.

Center includes a battery discharge guard that disconnects the power supply to the lightning groups when battery voltage has reach the critical 19V level. However, the center itself continues working as long there is any power in the batteries. Because of this batteries may undergo a profound battery discharge if the center has remained for several days under a low voltage state without recharging the batteries. In low voltage state the center will give an alarm as potential free alarm message output.

Do not leave the center for a long time without grid power. The warranty given to the Safety Light Center does not apply to the batteries if the center is left for several days in a state where batteries are not charged and there is no technical failure in the center. This may occur if the main switch is left to position 0 and the remote control button has been used.

REMOTE CONTROL

A remote control button or another type of external opening control switch as a voltage watch can be connected to the center. Remote control button is a repress type button that turns the center on battery use and keeps it on this state until the voltage level reaches the critical level of 19V. If the button is not repressed the center will remain in a state where batteries are not charged, which mean that the center is not fully operational before repressing the button. The batteries may be damaged and/or undergo a profound discharge if the center has remained for a long time in a state where remote control button hasn't been repressed.

The remote control button must be repressed into the normal state immediately after use.

If there is no remote control button or other type of remote control connected to the center the remote control button must be replaced with short circuit connection in order to ensure normal operation.

If more than one remote control button is used they must be connected in series.

Connection voltage is 24V.

5. POSSIBLE FAULTS

- The center does not work on battery supply
 - o Low battery voltage; check the voltage, charging, connections and the size of the battery in context of the needed power supply for the lightning groups.
- Center is working normally when lightning groups are disconnected, but faults occur when lightning groups are connected
 - o Overload; too many lights connected to the center. Do not exceed the nominal output of the center by using too many lights.
 - o Low battery voltage; check the voltage, charging, connections and the size of the battery in context of the required power supply for the lightning groups.
- Center cannot remain in normal state but uses battery state all the time
 - o The remote control button has been checked but not repressed.
 - o There are neither any external control buttons nor short circuit connections in the remote control port.

6. MAINTENANCE

A nominated maintenance person must check both the guide lightning and the safety lightning in accordance with the maintenance and operation manual at least four (4) times a year. These checks must also be documented in the maintenance book.

The maintenance person must keep this maintenance book and show it to local authorities in charge of building and personnel safety issues. A system s check is performed using the main switch. During the test all the lights connected to the system must be checked and faulty lights and lamps must be replaced. The test must last long enough so that the condition of the batteries can be confirmed as good and the battery voltage does not drop quickly when system is under load.

Manufacturer warranty covers all material and manufacturing faults for 24 months from the deployment of the center. During the warranty time the manufacturer will repair or change the device without any cost to the client. The warranty does not cover faults that have been caused by overloading the system, misuse of the batteries, bad connections or other external reasons not affected by the manufacturer. Warranty does not apply to faults in the batteries or other parts of the system that have been caused by a broken fuse. Warranty does not apply to the batteries.

This warranty lapses if the device has been externally and visibly damaged, the device has been misused, the device has been overloaded, the device has been used against any directions of use given to it, the device has been wrongly connected or the device has undergone maintenance carried out by a person not authorized by the manufacturer.

Replacement and repair are the only actions offered by the warranty from the manufacturer. The warranty does not apply to any other secondary damage caused to other devices, systems, persons or batteries used in the system. Warranty does not apply to any possible work expenses.

If a fault occurs contact immediately the manufacturer:

Exilight Oy
Hermiankatu 6-8A
33720 Tampere
Finland

Tel. +358 10773 5400
Fax +358 10773 5409
www.exilight.fi