

**ATTACHMENT N. 1
TO
UT-MT-422 DOCUMENT**

**HIGH INTENSITY UNIDIRECTIONAL
ELEVATED FLASHING LIGHT
(THREE LEVELS - PARALLEL POWER SUPPLY)
OC62A-P-3-X OC62R-P-3-X**

OPTION: LAMP FAILURE MONITORING

A.1 REIL LIGHT UNITS

Two different lamp failure monitoring options are available for OC62R light units:

- "L1" cumulative lamp failure monitoring;
- "L2" selective lamp failure monitoring.

In both cases the control box is equipped with an additional auxiliary relay so to double the dry contact normally used to provide the interlock between the two lights of the system: the first contact of the relay, NO when the lamp is properly working, will be used for the interlock, the second one, NC when the lamp is properly working, will be used for remote signalling. The NC contact (48VDC 300mA) will be made accessible through additional terminal strips.

For both options all control boxes will be equipped with three additional terminal strips, so to made easy and quick any exchange.

Take as reference Figg. A1 and A2 for wiring details.

A.2 APPROACH LIGHT UNITS

Three different lamp failure monitoring options are available for OC62A light units:

- "L1" cumulative lamp failure monitoring;
- "L2" selective lamp failure monitoring for a system of not more than 21 lights;
- "L3" selective lamp failure monitoring for a system up to 30 lights.

In all cases a dry contact, NC when the lamp is properly working, will be used for remote signalling. The NC contact (48VDC 300mA) will be made accessible through additional terminal strips.

In case of "L1" option all control boxes will be equipped with three additional terminal strips, in case of "L2" option with twenty-two additional terminal strips and in case of option "L3" with thirty-two additional terminal strips. For each option all boxes are identical to made easy and quick any exchange.

Take as reference Figg. A3, A4 and A5 for wiring details.

A.3 REMOTE SIGNALLING

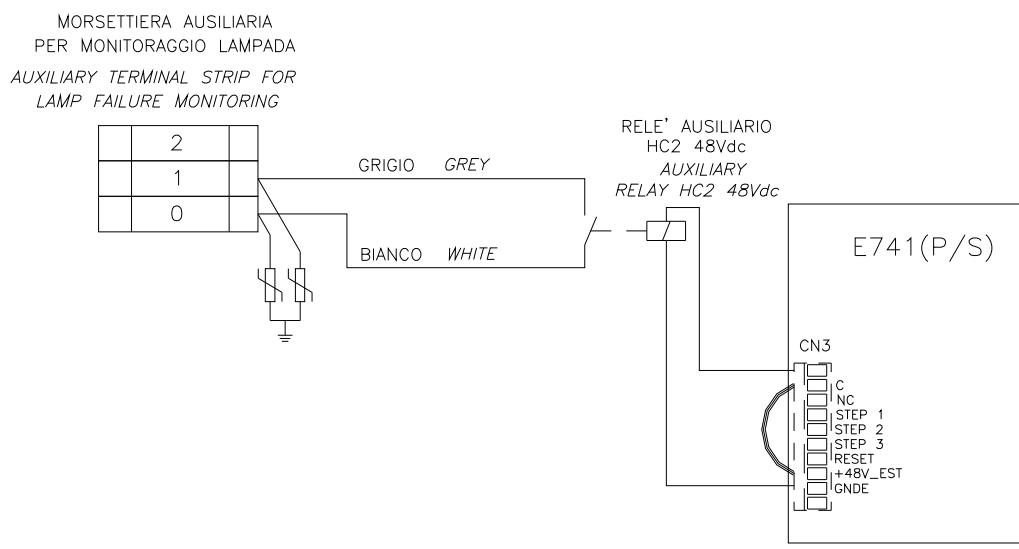
The remote signalling has to be realized in TWR (or in the Maintenance Centre).

The customer must realize a suitable panelboard to be powered at the local power supply voltage, including at least the following:

- main switch with fuses of suitable rating;
- AC/DC power supplier (for example 220VAC/24VDC or 48 VDC) of suitable rating;
- led(s) or signalling lamp(s) according to the required option (L1, L2 or L3) and to the number of flashing light units;
- label(s) to exactly identify the correspondence between led(s) or signalling lamp(s) and flashing light unit(s);
- push-button for led or signalling lamp test;
- terminal board.

CASSETTA DI ALIMENTAZIONE COLLEGAMENTI ADDIZIONALI
INTERNI PER MONITORAGGIO LAMPADA

CONTROL BOX
LAMP MONITORING ADDITIONAL WIRING



COLLEGAMENTI ADDIZIONALI ESTERNI
ADDITIONAL EXTERNAL WIRING

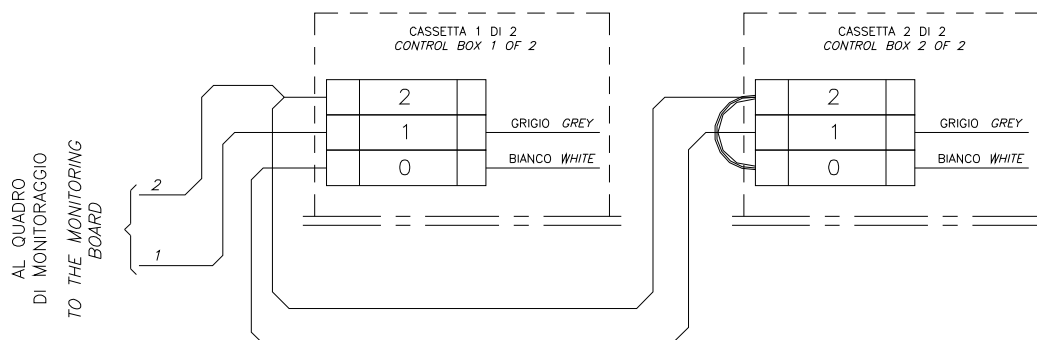
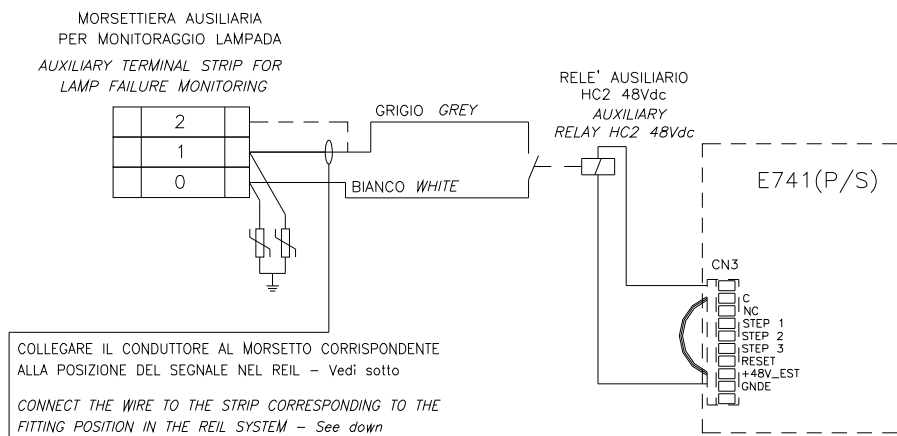


FIG. A1 - REIL SYSTEM - OPTION "L1"
CUMULATIVE LAMP FAILURE MONITORING

CASSETTA DI ALIMENTAZIONE COLLEGAMENTI ADDIZIONALI
INTERNI PER MONITORAGGIO LAMPADA
CONTROL BOX
LAMP MONITORING ADDITIONAL WIRING



COLLEGAMENTI ADDIZIONALI ESTERNI
ADDITIONAL EXTERNAL WIRING

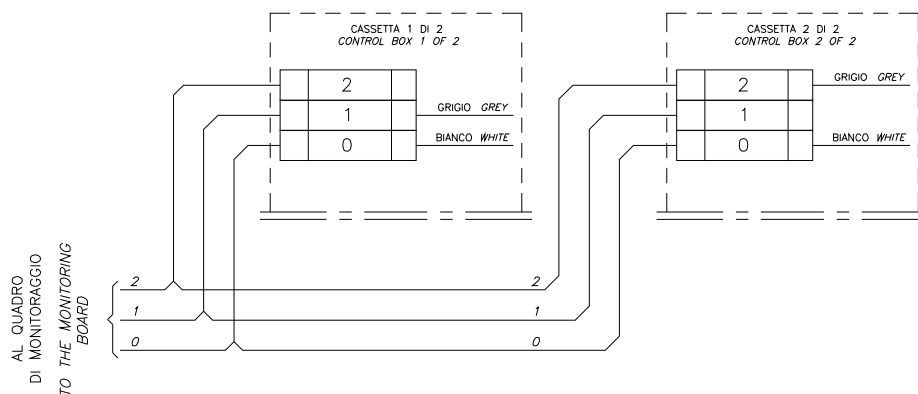


FIG. A2 - REIL SYSTEM - OPTION "L2"
SELECTIVE LAMP FAILURE MONITORING

When all the lamps are properly working, the remote signalling must be ON: led(s) or signalling lamp(s) on the panelboard must be lighted.

For cumulative signalling one led (or signalling lamp) only is required; if any lamp faults, the led (or signalling lamp) switches-off to inform the operator of the faulty condition.

According to Figg. A1 and A3 all the NC signalling contacts (inside the control boxes) are series connected each to other [and to the led (or signalling lamp) on the panelboard], so when any lamp faults the corresponding contact opens and the remote led (or signalling lamp) switches-off.

For selective signalling one led (or signalling lamp) for each flashing light unit is required; if a lamp faults, the relevant led (or signalling lamp) switches-off to inform the operator of the exact faulty light unit.

According to Figg. A2, A4 and A5 all the NC signalling contacts (inside the control boxes) have to be connected each to a corresponding led (or signalling lamp) on the panelboard, so when any lamp faults the corresponding contact opens and the relevant remote led (or signalling lamp) switches-off.

A.4 SHORT TROUBLE-SHOOTING

This paragraph provides suggestions to find defective component (or wiring) to solve malfunctioning conditions.

The checks are given in weighted sequence; after each check it is suggested to operate the system to verify its effect.

Remote cumulative signalling

The remote led (or signalling lamp) switches-off within few seconds after the switching-on of the flashing system, but all the flashing light units are properly working.

Check the electrical connection between the toroid on the card F126 (ex E752-1) and the motherboard E741P realized by means of two wires with a two-pole mobile connector; then reverse the insertion of the two-pole mobile connector inside the fixed one on the motherboard E741P. Check a control box at a time and then switch-on the flashing system up to the proper operation is reached.

NOTE

This malfunctioning condition can happen only for approach flashing lights because for REIL lights the incorrect insertion of the two-pole connector causes the switching-off of both lights due to the interlock protection.

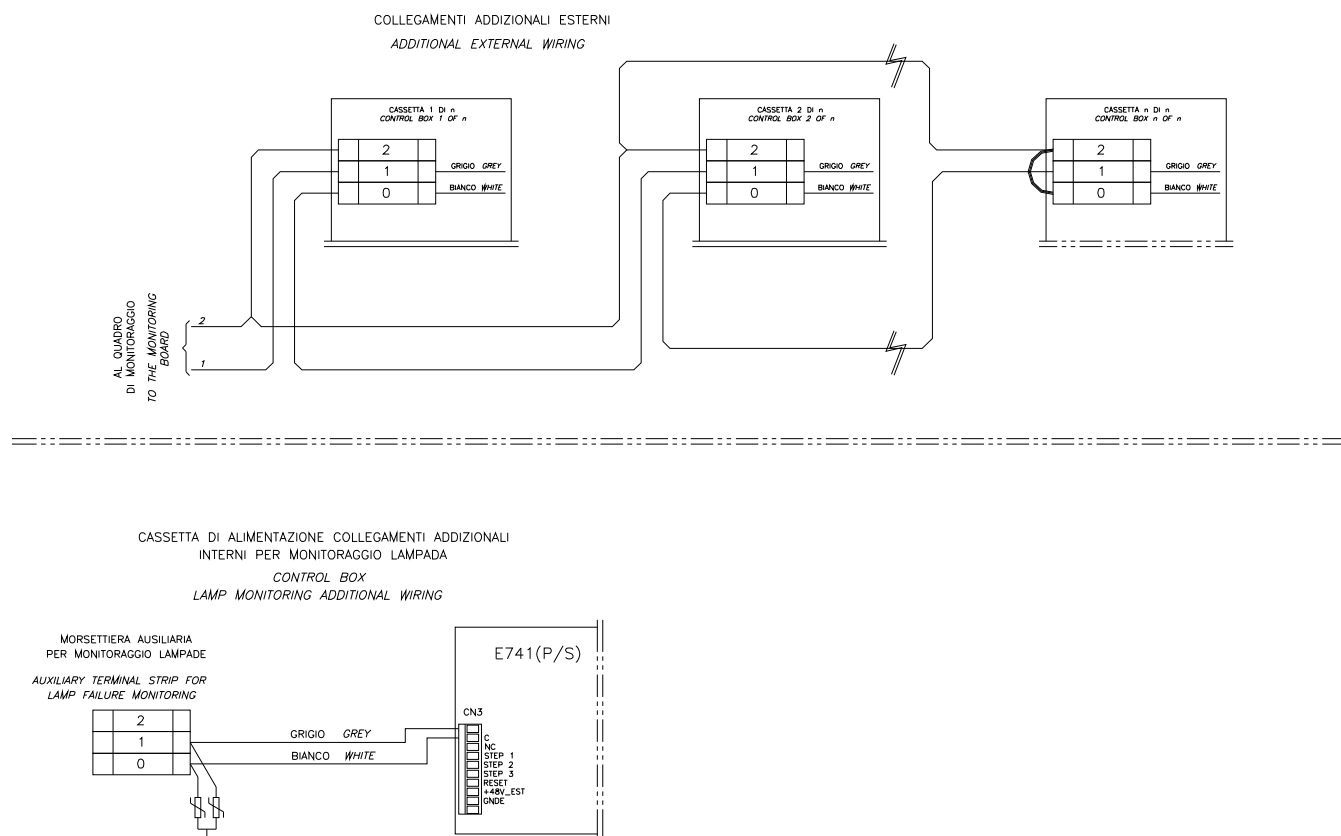


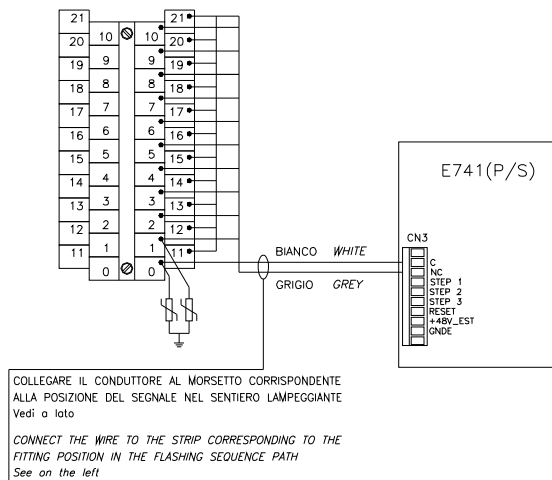
FIG. A3 - APPROACH SYSTEM - OPTION "L1"
CUMULATIVE LAMP FAILURE MONITORING

CASSETTA DI ALIMENTAZIONE COLLEGAMENTI ADDIZIONALI
INTERNI PER MONITORAGGIO LAMPADA

CONTROL BOX
LAMP MONITORING ADDITIONAL WIRING

MORSETTIERA AUSILIARIA
PER MONITORAGGIO LAMPADA
(MAX 21 SEGNALI)

AUXILIARY TERMINAL STRIP
LAMP FAILURE MONITORING
(MAX 21 LIGHTS)



COLLEGAMENTI ADDIZIONALI ESTERNI
ADDITIONAL EXTERNAL WIRING

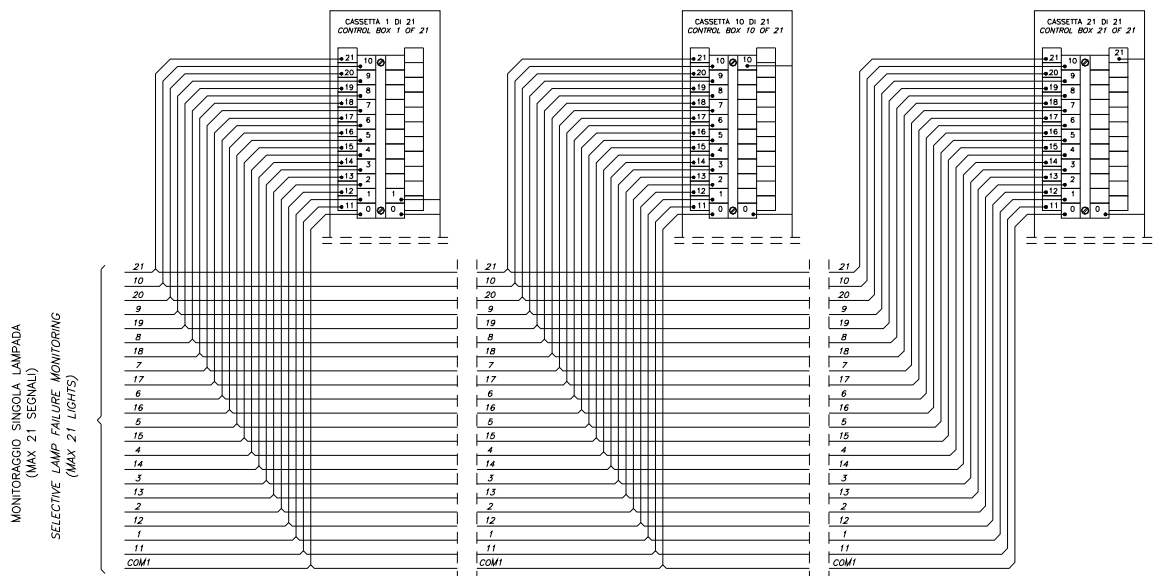
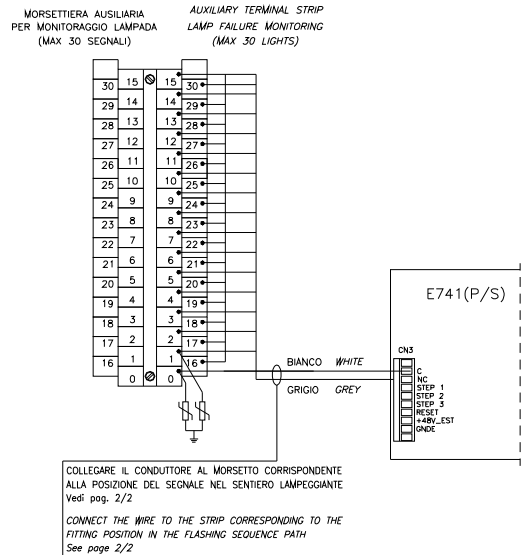


FIG. A4 - APPROACH SYSTEM - OPTION "L2"
SELECTIVE LAMP FAILURE MONITORING
(MAX 21 LIGHTS)

CASSETTA DI ALIMENTAZIONE COLLEGAMENTI ADDIZIONALI
INTERNI PER MONITORAGGIO LAMPADA
CONTROL BOX
LAMP MONITORING ADDITIONAL WIRING



COLLEGAMENTI ADDIZIONALI ESTERNI
ADDITIONAL EXTERNAL WIRING

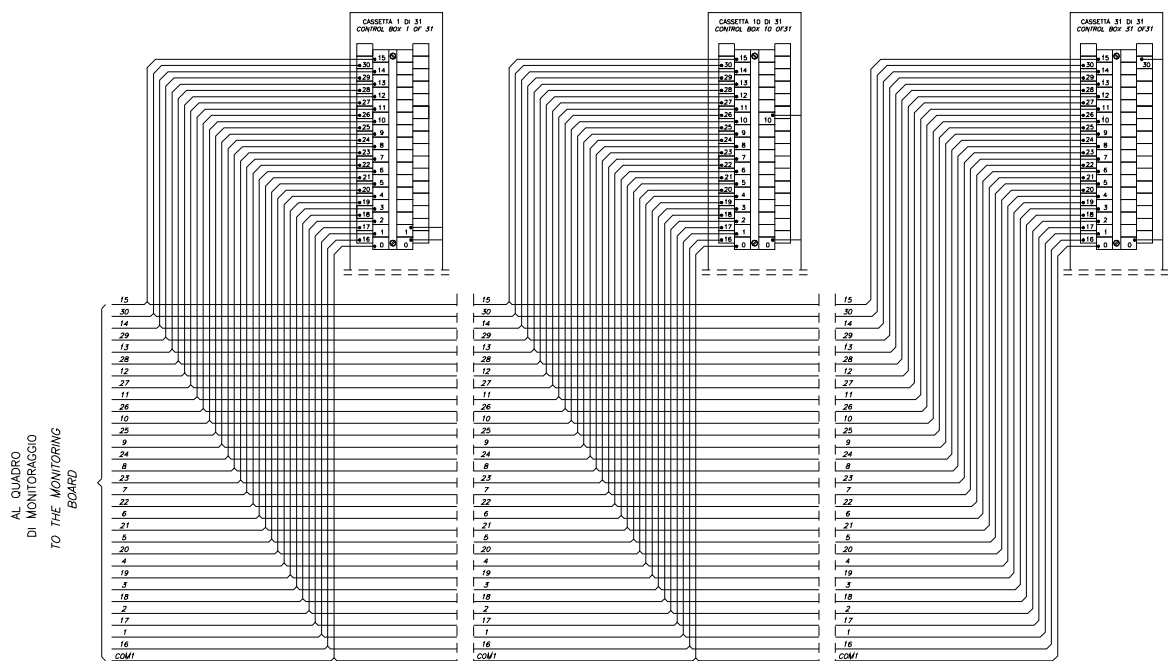


FIG. A5 - APPROACH SYSTEM - OPTION "L3"
SELECTIVE LAMP FAILURE MONITORING
(MAX 30 LIGHTS)

After a period of proper operation the remote led (or signalling lamp) suddenly switches-off, but all the flashing light units are properly working.

Check the continuity of the NC signalling contact loop.

Check a control box at a time as follows, and then switch-on the flashing system up to the proper operation is reached:

- check the wiring between the motherboard E741P and the terminal board (for REIL light units check the auxiliary relay too);
- check the electrical connection between the toroid on the card F 126 (ex E752-1) and the motherboard E741P realized by means of two wires with a two-pole mobile connector (only for approach lights, in fact for REIL lights an incorrect connection causes the switching-off of both lights due to the interlock protection);
- replace the card E855/3S;
- replace the card F126 (E752-1) with toroid.

Remote selective signalling

A remote led (or signalling lamp) switches-off within few seconds after the switching-on of the flashing system, but the relevant flashing light units is properly working.

Inside the control box of the light unit corresponding to the switched-off led, check the electrical connection between the toroid on the card F126 (ex E752-1) and the motherboard E741P realized by means of two wires with a two-pole mobile connector; then reverse the insertion of the two-pole mobile connector inside the fixed one on the motherboard E741P.

NOTE

This malfunctioning condition can happen only for approach flashing lights because for REIL lights the incorrect insertion of the two-pole connector causes the switching-off of both lights due to the interlock protection.

After a period of proper operation a remote led (or signalling lamp) suddenly switches-off, but the relevant flashing light units is properly working.

Inside the control box of the light unit corresponding to the unlighted led, check the following:

- the wiring between the motherboard E741P and the terminal board (for REIL light units check the auxiliary relay too);
- the electrical connection between the toroid on the card F 126 (ex E752-1) and the motherboard E741P realized by means of two wires with a two-pole mobile connector (only for approach lights, because for REIL lights an incorrect connection causes the switching-off of both lights due to the interlock protection);
- replace the card E855/3S;
- replace the card F 126 (ex E752-1) with toroid.

WARNING

If a flashing light works in a not-regular way and loses some flashes (from 6 to 8), the auxiliary relay for the burnt-out lamp remote signalling operates and it can be reset by removing the power supply to the electronic section only. As consequence the burnt-out lamp remote signalling remains active, also if the lamp restarts to properly flash.