

# Electronic lubrication control unit

Model 85307



Date of issue	May 2021
Form number	404766
Version	2

# Description

Controller model 85307 is a universal electronic control unit compatible with dual-line, single-line and progressive lubrication systems. Compact size and monitoring capabilities allow controller to be used in both mobile and industrial applications.

Quickguide defines digital and audio features available on control unit and includes wiring diagrams for reference. For complete instructional manual, visit [www.skf.com](http://www.skf.com).



Quickguide is not meant to be an alternative to instructional manual, but rather description of key features for someone with lubrication experience. Owner/operator should be familiar with electrical equipment before operating.

## NOTE

- Never weld on machine while main switch is **ON**. Ensure main switch is **OFF** and correctly tagged. Welding on machine can cause serious damage to controller.
- Do not alter or modify any part of controller.
- Do not mount controller near area with excessive heat.
- Always use specified fuse rating for controller.
- Never exceed voltage rating of controller.
- Never expose controller to direct sunlight.
- Never expose controller to water or other substances.

Table 1

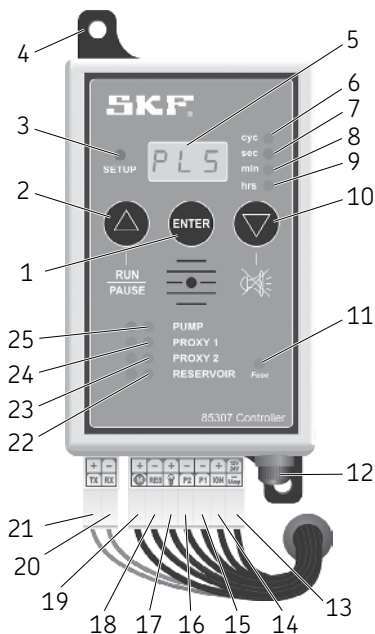
### Specifications

Voltage	10V  to 30V 
Current drain	150 mA maximum(no load) 70 mA nominal
Pump output	7 A rms. maximum
Lamp output	3 A maximum
Switching	Solid state short circuit protected
Fuse	Fast-acting GDB-8A 8 Amp fuse 0.79 in (20 mm) glass
Connection	14 circuit dual row receptacle
Communications	RS232 type
Dimensions	2.8 × 5.7 × 1.5 in (70 × 145 × 38 mm) <sup>1)</sup>
Weight	0.66 lbs (300 g)
Protection	IP54
Temperature range	5 °F to 122 °F (-15 °C to +50 °C)

<sup>1)</sup> Includes mounting bracket.

Fig. 1

## Keypad layout



Item	Description
1	Enter button
2	Run/pause
3	Setup indicator
4	Mounting bracket
5	LED display
6	Cycle indicator
7	Second indicator
8	Minute indicator
9	Hour indicator
10	Select value down or silent buzzer
11	Blown fuse indicator
12	Fuse holder 8A
13	Power positive/negative
14	Ignition input/aux power output positive
15	Sensor 1 positive/negative
16	Sensor 2 positive/negative
17	External lamp
18	Reservoir sensor connection
19	Pump motor positive/negative
20	RS 232 connection
21	RS 232 connection
22	Reservoir low level status indicator
23	Sensor 2 status indicator
24	Sensor 1 status indicator
25	Pump status indicator

Table 2

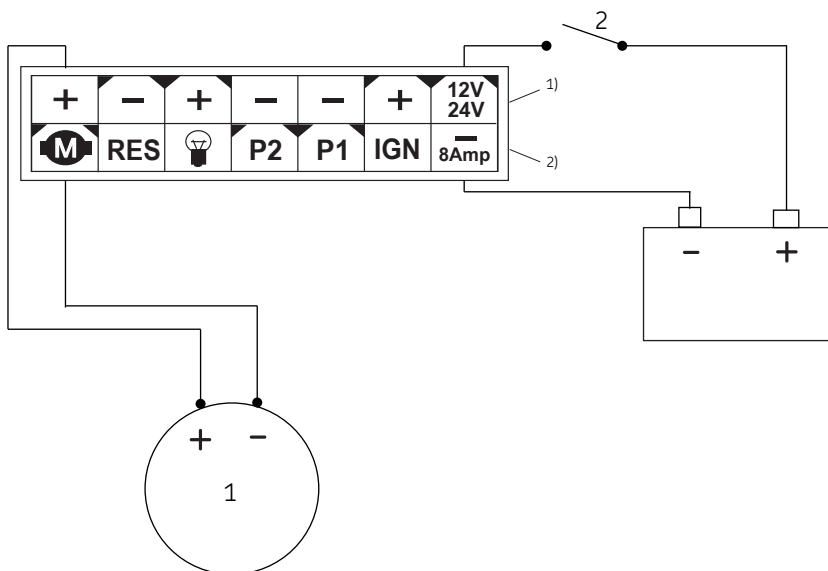
## Pump status indicator

Signal	Description
Steady green	Pump is not running.
Flashing green	Pump is running.
Steady red	Pump is faulty.

**Table 3****LED code descriptions**

<b>SLS</b>	Single-line system
<b>PLS</b>	Progressive-line system
<b>dLS</b>	Dual-line system
<b>n-O</b>	Normally open (sensors)
<b>n-C</b>	Normally closed (sensors)
<b>L-S</b>	External lamp steady (continuous supply)
<b>L-F</b>	External lamp flashing (pulsed supply)
<b>nFE</b>	Non fatal error (pump continues on low level fault)
<b>r</b>	Run time in cycles, seconds, minutes or hours
<b>P</b>	Pause time in seconds, minutes or hours
<b>F</b>	Fault time in seconds, minutes or hours
<b>U</b>	Vent time in seconds, minutes or hours
<b>rCC</b>	Run cycle counter
<b>YES</b>	Confirms program changes
<b>tSt</b>	Test mode for checking installed devices
<b>t</b>	Time out or dwell time for sensors
<b>FE</b>	Fatal errors (pump stops on low level fault)
<b>n0</b>	Do not accept program changes
<b>Stb</b>	Standby mode

## Wiring diagram of progressive-line system without proxy sensor



Item	Description
------	-------------

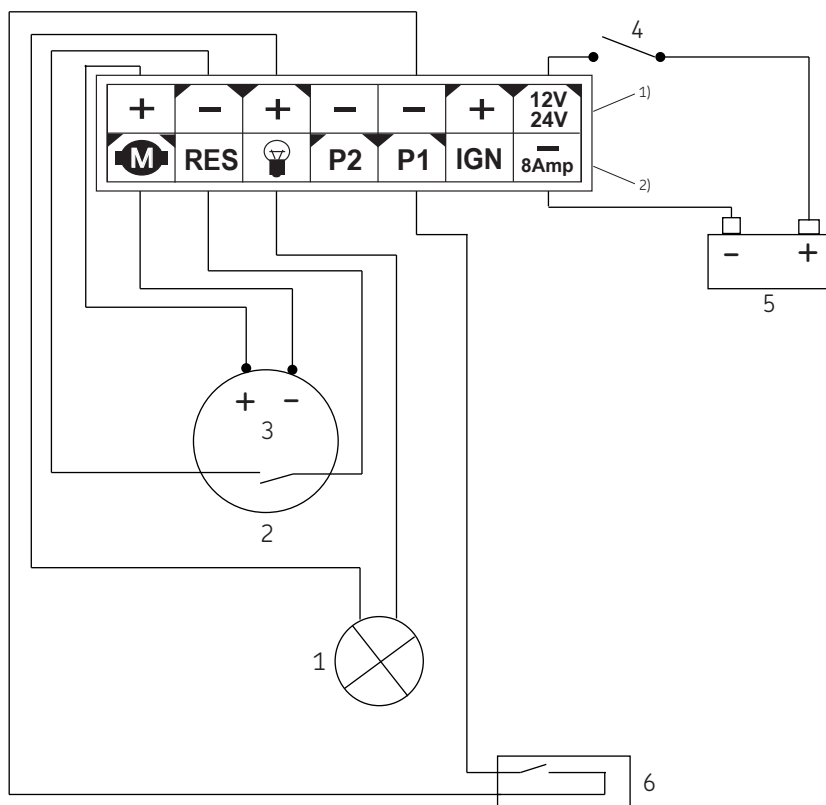
1	Motor
2	Ignition

<sup>1)</sup> Top row represents front of controller.

<sup>2)</sup> Bottom row represents back of controller.

NOTE: If motor amp draw exceeds the maximum specification (→ **Table 1, page 2**), solenoid relay switch (698975) must be used. Refer to (→ **Diagram 6, page 10**).

## Wiring diagram of progressive-line system with one proxy sensor and external warning lamp



Item	Description
1	External warning lamp
2	Low level sensor
3	Motor
4	Power switch
5	Power supply
6	Proxy 1

<sup>1)</sup> Top row represents front of controller.

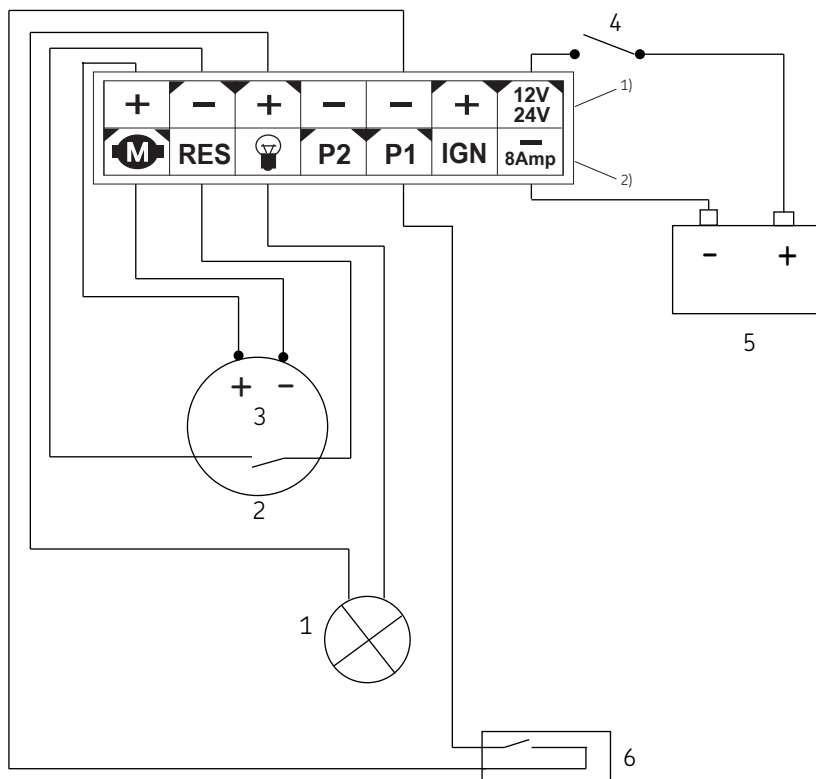
<sup>2)</sup> Bottom row represents back of controller.

\*NOTE: If motor amp draw exceeds the maximum specification (→ Table 1, page 2), solenoid relay switch (69897S) must be used.

Refer to (→ Diagram 6, page 10).

\* Indicates change

## Wiring diagram of single-line system with pressure switch



Item	Description
1	External warning lamp
2	Low level sensor
3	Motor
4	Power switch
5	Power supply
6	Pressure switch

<sup>1)</sup> Top row represents front of controller.

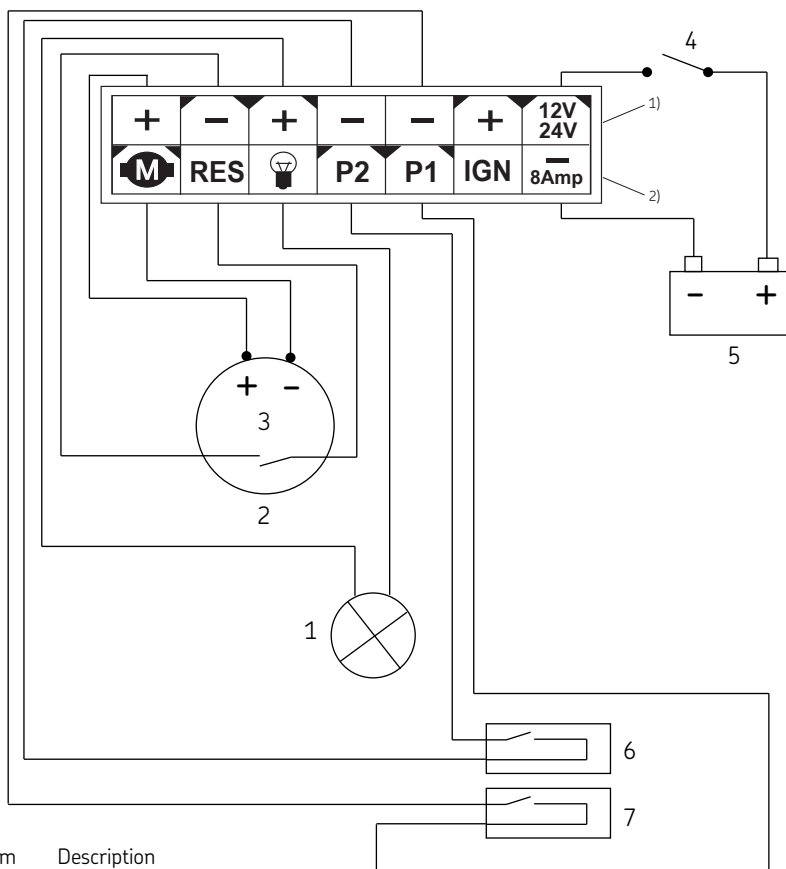
<sup>2)</sup> Bottom row represents back of controller.

\*NOTE: If motor amp draw exceeds the maximum specification (→ Table 1, page 2), solenoid relay switch (69897S) must be used.

Refer to (→ Diagram 6, page 10).

\* Indicates change

# Wiring diagram of dual-line system with two pressure switches and hydraulic change-over valve



Item	Description
1	External warning lamp
2	Low level sensor
3	Motor
4	Power switch
5	Power supply
6	Pressure switch 1
7	Pressure switch 2

<sup>1)</sup> Top row represents front of controller.

<sup>2)</sup> Bottom row represents back of controller.

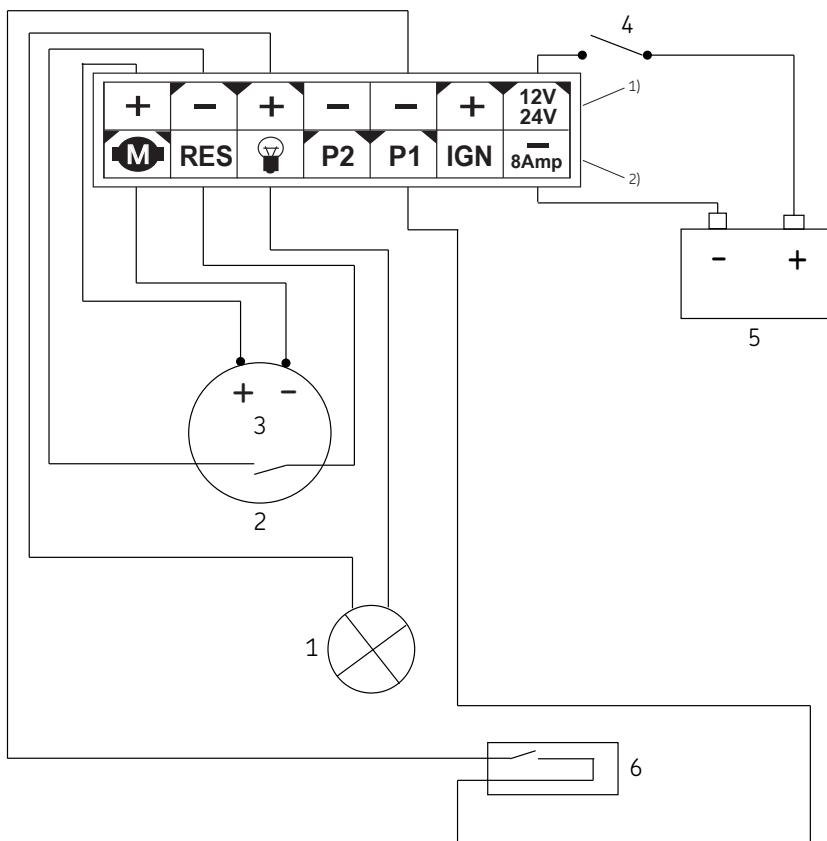
\*NOTE: If motor amp draw exceeds the maximum specification (→ **Table 1, page 2**), solenoid relay switch (69897S) must be used.

Refer to (→ **Diagram 6, page 10**).

\* Indicates change



## Wiring diagram of dual-line system with 1/2 cycles and hydraulic change-over valve



Item	Description
1	External warning lamp
2	Low level sensor
3	Motor
4	Power switch
5	Power supply
6	Micro switch

<sup>1)</sup> Top row represents front of controller.

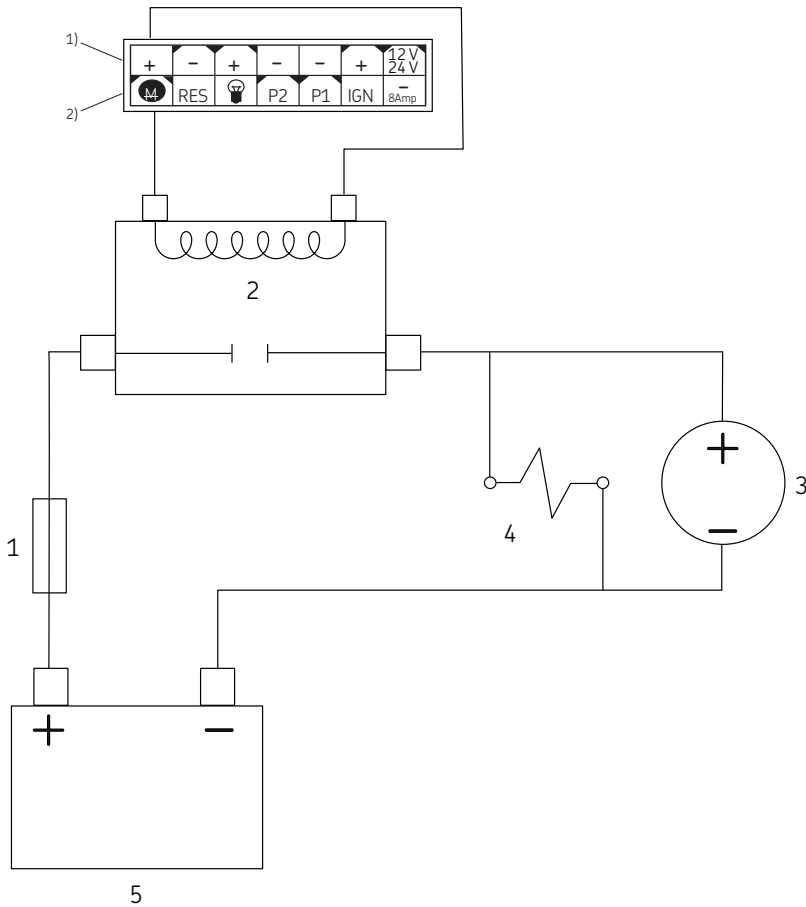
<sup>2)</sup> Bottom row represents back of controller.


\*NOTE: If motor amp draw exceeds the maximum specification (→ **Table 1, page 2**), solenoid relay switch (69897S) must be used.

Refer to (→ **Diagram 6, page 10**).

\* Indicates change

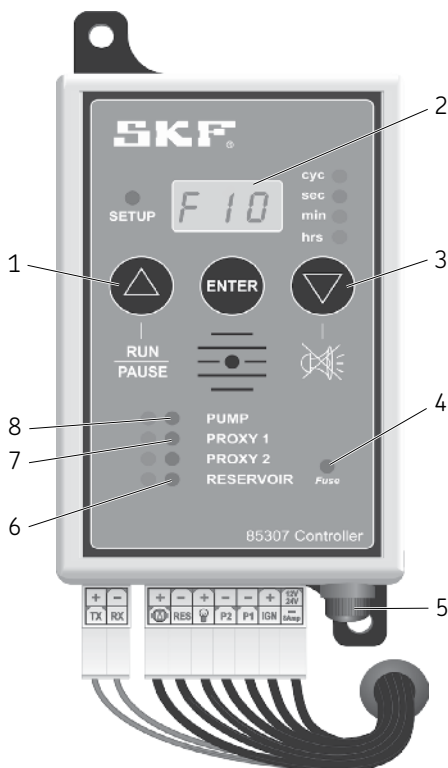
## Wiring diagram of dual-line system with relay switch\*



Item	Description
1	Fuse, 7.5 A
2	Solenoid relay switch
3	Motor
4	Vent valve solenoid (NO)
5	Power supply, 12 or 24 V 

1) Top row represents front of controller.  
 2) Bottom row represents back of controller.  
 \* Indicates change

## Keypad layout



Item	Description
1	Press <b>RUN/PAUSE</b> to reset faults.
2	Fault indication – counts up from seconds to minutes to hours indicating how long fault has been active.
3	Press <b>▽</b> button to silence buzzer.
4	Blown fuse indication – replace with 8A fuse.
5	Fuse holder – use 8A fuse.
6	Low level fault – possible cause, reservoir empty.
7	<b>Proxy 1</b> fault - either blockage in system or faulty sensor.
8	<b>Pump</b> fault - either short circuit or disconnected wires.

## Warranty

The instructions do not contain any information on the warranty. This can be found in the General Conditions of Sales, available at:

[www.lincolnindustrial.com/technicalservice](http://www.lincolnindustrial.com/technicalservice)  
or [www.skf.com/lubrication](http://www.skf.com/lubrication).

[skf.com](http://skf.com) | [lincolnindustrial.com](http://lincolnindustrial.com)

® SKF and Lincoln are registered trademarks of the SKF Group.

© SKF Group 2021

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

May 2021 • Form 404766 Version 2