Quicklub®
Printed-Circuit Board 236-10697-1 & 236-10697-2
for Pump 203

T-PCB-000e10

This User Manual was compiled on behalf of the manufacturer
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Subject to modifications

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For further information refer to:

·   Technical Description Progressive Metering Devices for Grease and Oil, model SSV, SSVM and SSVD

·   Planning and Layout of Quicklub Progressive Systems with SSV and SSV D Metering Devices

·   Technical Description for "Electronic Control Units" of pump 203:

   - Printed circuit board 236-13857-1 - Model H

   - Printed circuit board 236-13870-3 - Model M 08-M 15

   - Printed circuit board 236-13870-3 - Model M 16-M 23

   - External Control Unit 236-13894-1

·   Installation Instructions

·   Parts Catalogue

·   Parts Catalogue Pump 203

·   Technical Description P203 DC

·   Technical Description P203 AC

·   Technical Description P203 with 15 L reservoir

·   Technical Description P203 with Follower Plate

·   List of Lubricants

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2.6EN-28006-E11

Printed Circuit Board V10-V13 [1] (V20-V23)

[1] This designation shows the version of the PCB installed in the pump. It forms part of the pump designation on the nameplate on each pump.
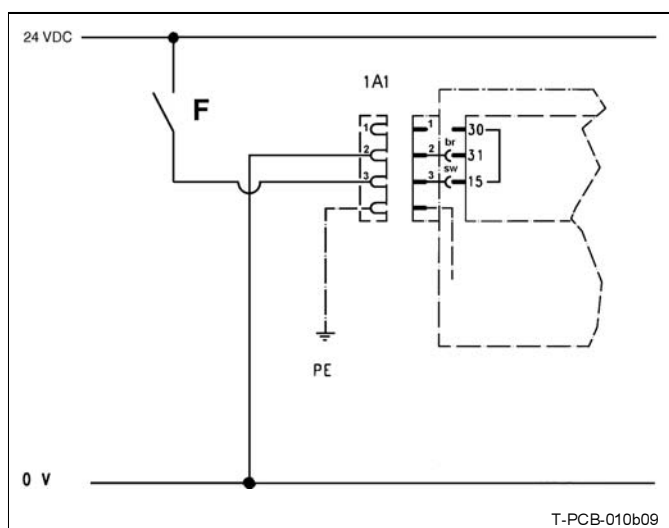
Applications
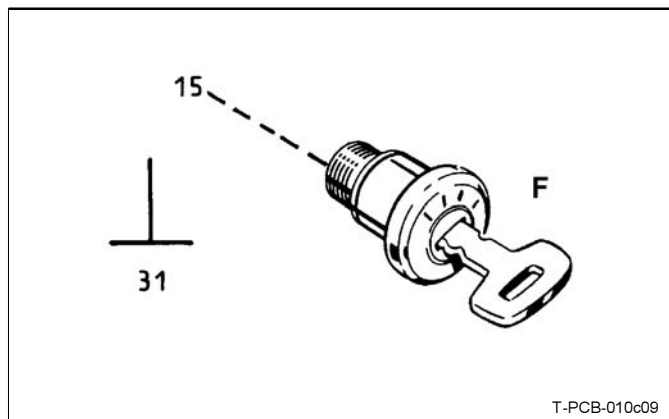
Driving switch F (mobile application)

The printed circuit boards can be used for the following applications:

1. Lubrication cycles **only** as a function of the machine working hours.
   When the machine contact F (see connection diagrams) is switched on, the centralized lubrication system is ready for operation.

2. Lubrication cycles **only** as a function of the running hours of the commercial vehicle.
   When the driving switch F (see connection diagrams) is switched on, the centralized lubrication system is ready for operation

Machine contact F, printed circuit board 236-10697-1 (V10-V13) (industrial application)

Printed circuit board V10-V13:

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IMPORTANT

On the PCB 236-10697-1 (V10-V13) do not connect the red core of the connecting cable to connection 1 (terminal 30) since terminal 30 is connected internally with terminal 15.
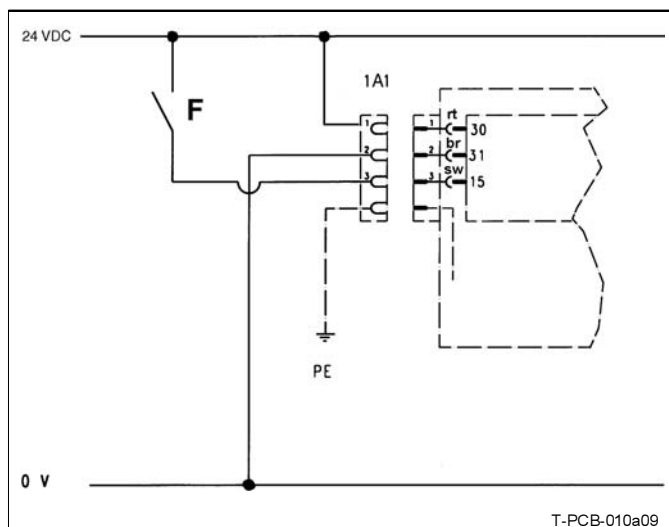
Machine contact F, printed circuit board 236-10697-2 (V20-V23) (industrial application)

Printed circuit board V20-V23:
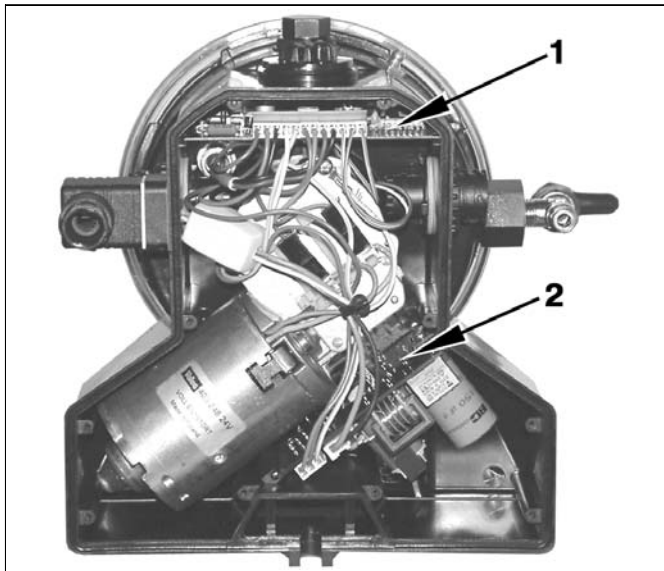

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IMPORTANT

The PCB's 236-10697-1 and 236-10697-2 (V20 - V23) differ only as regards their connection of the terminals. In the case of PCB 236-10697-2 the terminals 30 and 15 are not connected..

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Installation position of the printed circuit boards

PCB 1   Control and power supply board inside the housing

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- The **printed circuit board** 1 (for VDC & VAC pumps) and the **power supply board** 2 (only for VAC pumps) are integrated in the pump housing.

IMPORTANT

Whenever the pump housing has been opened (e. g. for replacing of the p.c.b.), the housing cover (including the foamed seal) must be replaced.

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| 1 | - control printed circuit board | (input VDC) |
| 2 | - power supply board | (input VAC, output VDC) |

Mode of Operation
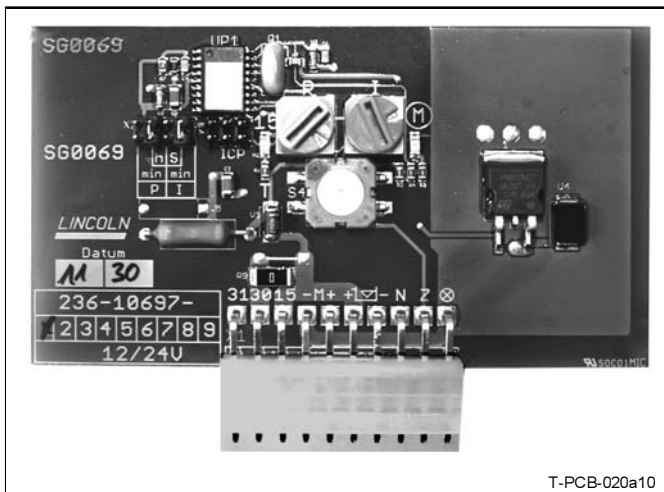
PCB 2   Printed circuit board 236-10697-1

- The printed circuit board automatically controls the sequence of the pause and lubricating times of the central lubrication pump.
- The sequence of the pause and lubricating times is activated when the power supply is switched on:
  - via machine contact …………….. for VDC or VAC pumps …………………………………….. industrial application
  - via driving switch …………………. only for VDC pumps ……………………………………………. mobile applicaiton
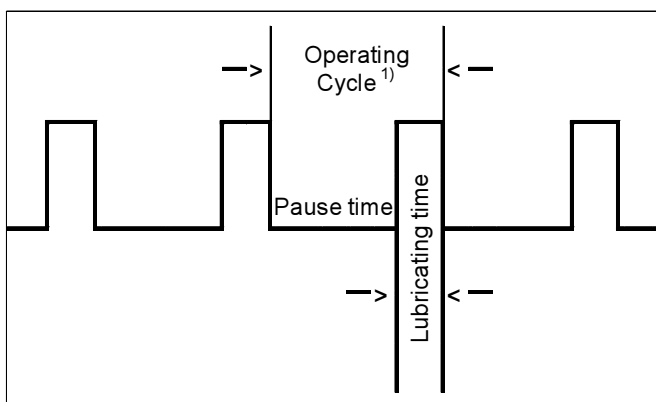
PCB 3   Time sequence diagram

[1] Operating cycle = Pause time + Lubricating time

- A operating cycle consists of one pause time and one lubricating time. Once the pause time has elapsed, the lubricating time starts to run. This operating cycle is repeated permanently after the machine or the vehicle has been put into operation.
- During the lubricating time, the pump element dispenses the lubricant to the lubrication points via downstream progressive metering devices.

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Pause time

·   determines the frequency of the lubricating times (lubrication cycles) as long as the machine/ vehicle is in operation.

·   is started and stopped via the machine contact or driving switch.

·   is adjustable.

Data backup:
The present operating status and the part of the pause time already lapsed are stored when the machine contact/ignition switch is disconnected/switched off.

Reconnection:
When reconnecting the machine contact/ignition switch, the remaining pause time will continue lapsing from where it had been interrupted. It will continue lapsing until the pause time set on the blue rotary switch (see fig. PCB 6) will be reached.

Pause time settings should be adapted to the operating cycles required for the respective application (see chapter "Pause time setting", PCB 6).

Lubricating time

·   depends on the system's lubricant requirement.

·   is started and stopped via the machine contact or driving switch.

·   is adjustable.

Data backup:
The present operating status and the part of the lubricating time already lapsed are stored when the machine contact/ ignition switch is disconnected/switched off.

Reconnection:
When reconnecting the machine contact/ignition switch, the remaining lubricating time will continue lapsing from where it had been interrupted. It will continue lapsing until the lubricating time set on the red rotary switch (see fig. PCB 7) will be reached.

Lubricating time settings should be adapted to the lubricant requirement of the respective application (see chapter "Lubricating time setting", PCB 7).

Time storage

Data backup:
Even if the operating voltage is switched off, the times lapsed will be stored indefinitely (in the EEPROM).

Reconnection:
When the power supply is switched on again the control unit continues to operate from the point where it had been interrupted.

Time Setting

PCB 4   Cover lid to the control PCB

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⮫ To set the pause or lubricating time, remove the cover on the pump housing.

IMPORTANT

Upon completion of the time setting, make sure to firmly close the cover lid again.

NOTE

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To reset a jumper (see fig. PCB 5) remove the printed circuit board.
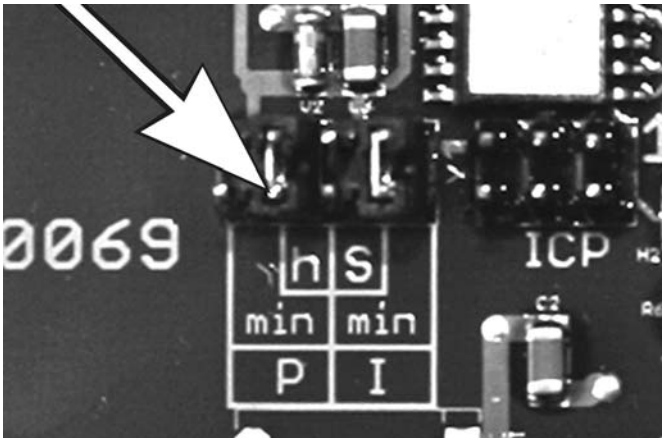*Whenever the pump housing has been opened (e. g. for replacing of the p.c.b.), the housing cover (including the foamed seal) must be replaced.*

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PCB 5   Jumper position:
          Preselection of the time ranges   T-PCBv-020d10

Factory Setting

Control PCP	Pause time			Lubricating time		
	Factory setting	Rotary switch position	Jumper position (time range)	Factory setting	Rotary switch position	Jumper position (time range)
V10	6 h	6	H (1-15)	6 min.	3	min (2-30)
V11	6 h	6	h (1-15)	24 sec.	3	S (8-120)
V12	24 min.	6	min (4-60)	6 min.	3	min (2-30)
V13	24 min.	6	min (4-60)	24 sec.	3	S (8-120)

IMPORTANT

*If the operating voltage is **< 120 VAC** the pause time **must not fall below 16 minutes**.*

*If the operating voltage is **< 120 VAC** the lubricating time **must not exceed 8 min**.*

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IMPORTANT

Adjacent ICP plug-in positions are used exclusively by the manufacturer.

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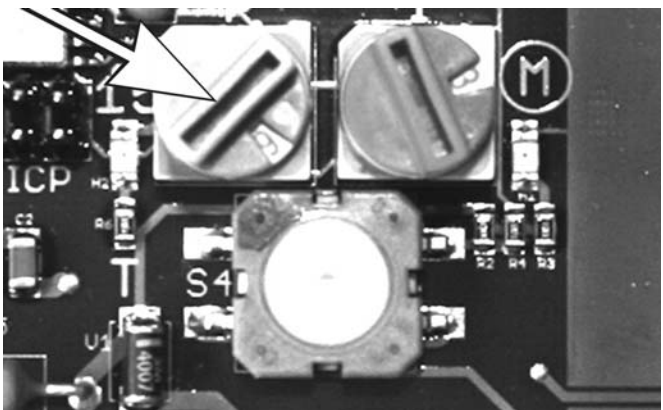
PCB 6   Rotary switch for pause time, blue   T-PCBv-020c10

Pause time setting

· The pause time can be set to 15 different settings by means of the **blue rotary switch**.
Depending on the position of the jumper (see fig. PCB 5) the necessary time interval is adjustable (4-60 minutes or 1-15 hours).

NOTE

During switching position 0 a failure report at the light emitting diode takes place on the right LED 3 (see fig. PCB 8).
At the same time the factory-set pause time is accepted.

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Switch position	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Minutes	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
Hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

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PCB 7   Rotary switch for lubricating time, red   T-PCBv-020e10

Lubricating time setting

· The lubricating time can be set to 15 different settings by mans of the **red rotary switch**.
Depending on the position of the jumper (see fig. PCB 5 the necessary time interval is adjustable (8-120 seconds or 2-30 minutes).

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NOTE

During switching position 0 a failure report at the light emitting diode takes place on the right LED 3 (see fig. PCB 8).
At the same time the factory-set lubricating time is accepted.
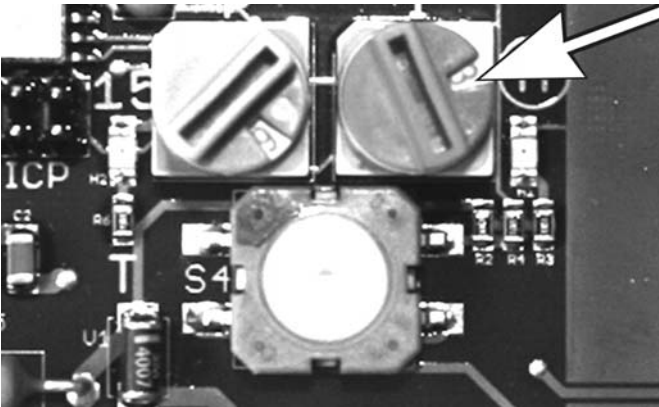
Switch position	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Seconds	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
Minutes	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30

Operational Test / To Trigger an Additional Lubrication
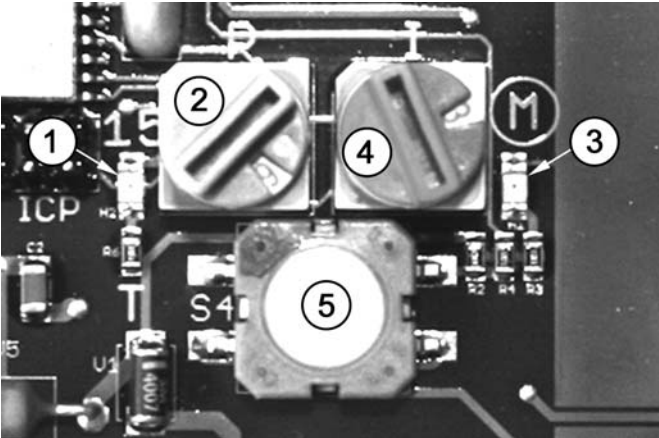
PCB 8   Components of the control p.c.b.   T-PCBv-020f10

1   - LED, left-side
2   - Rotary switch to set pause time
3   - LED, right-side
4   - Rotary switch to set lubricating time
5   - Pushbutton to trigger additional lubrication

➲ Switch on the power supply (machine contact / driving switch).

· To check whether power is applied to the printed circuit board, observe whether the LED 1 is lit.

➲ To check the pump operation it is possible to perform an operational test.
Press illuminated pushbutton 5 on p.c.b. **> 2 sec**. until the right-side LED 3 is lit.

· Then the pause time lapses shorter and is followed by a normal operating cycle.

· Additional lubrications are possible at any time by triggering the illuminated pushbutton.

External triggering of an additional lubrication cycle

PCB 9   Pushbutton for external triggering of an additional lubrication cycle

⮕ Press pushbutton > 2 seconds.

Fault indication

The signal output takes place with the right-side LED (pos. 3)[1] and is implemented as follows:

4 times flashing signal

System	Rotary switch (pos. 2 or 4) LED, right-side (pos. 3)
Fault:	Rotary switch on switching position 0
Signal output	4 times flashing signal, motor runs along with flashing frequency
Change to the factory setting if signal is ignored	

3 times flashing signal

System	Pushbutton (pos. 5) LED, right-side (pos. 3)
Fault:	Short-circuit at the pushbutton or at the connection to the external illuminated pushbutton.
Signal output	3 times flashing signal, motor runs along with flashing frequency

1) see fig. PCB 8
2)

To remedy a fault

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IMPORTANT

The pump must be checked by triggering an additional lubrication cycle.

⮕ In the case of a fault, check whether the centralized lubrication pump and the connected system are malfunctioning.

⮕ Eliminate the cause of the fault (see chapter "Troubleshooting").

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Troubleshooting

NOTE

The pump operation can be stated from the outside by:
- the rotating stirring paddle (e.g. by triggering an additional lubrication cycle)
- the LEDs of the control p.c.b. (see chapter "Fault indication")
- the signal lamp of the illuminated pushbutton (option)

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Fault: The pump motor does not run

Cause:	Remedy …	by service personnel

· Power supply to the pump interrupted

➲ *Check the power supply and fuses.*

➲ *If necessary rectify the fault and/or replace the fuses.*

➲ *Check the line leading from the fuses to the pump plug.*

· Power supply to the control p.c.b. interrupted

➲ *Check the line leading from the pump plug and the control p.c.b.*
If the power supply is connected, the left-side LED is lit (see fig. "PCB 8").

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· Control p.c.b. defective   ➲ Check the function of the p.c.b. (*see fig. "PCB 8"*). If necessary replace the p.c.b.

· Electric motor defective   ➲ Check the power supply to the motor. If necessary, replace the motor.

Fault: Right-hand LED 3 (see fig. 9) flashes

Cause:	Remedy: …	by service personnel

· One of the two rotary switches 2, 4 is on „0".
Signal: 4 flashes

➲ Set rotary switch to a number or a letter.

· Short circuit at pushbutton of the control p.c.b. or, if present, at the external illuminated pushbutton or at their connecting parts.
Signal: 3 flashes

➲ Check whether the short circuit is at the PCB or, if present, at the illuminated pushbutton. If necessary, exchange the PCB or the illuminated pushbutton.

Maintenance and Repair

Electrical Connection
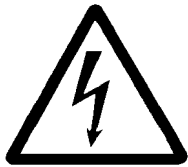
WARNING!

Before maintenance or repair of pumps switch off their power supply.

Consider the safety instructions (page 5 and 6)!

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CAUTION!

Before starting, make sure that the general power supply is off. The device must never be connected or disconnected when the power is on. The protective conductor must always be connected. Take care that this line section is undamaged and conforms to standards and the contacts are safe.

NOTE

The protection IP6K9K is guaranteed when the socket (X1:, X2: & X3:) is tightened on the housing cover with flat packing.

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NOTE

Consider the contact protection measures for connecting the high- or low-level control (see chapter "Mode of Operation" / paragraph „Low- or High-level Control").

➲ Make sure of the connection and the type of construction of your pump.
  - type of connection (VDC / VAC)
  - low-level indication
  - type of connection plug
➲ Connect the electrical wires according to the following electrical connecting diagrams (see chapter „Technical Data").

Operation with bayonet plug
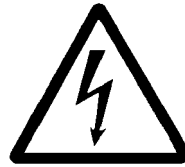
CAUTION!

If the protective-conductor terminal is not connected or interrupted, dangerous touch voltages may occur on the equipment!

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Protective measures to be applied for appropriate operation with bayonet plugs:
"Functional extra-low voltage with safe isolation" / "Protective Extra-Low Voltage" (PELV)
Standards:
DIN EN 60204 Part 1: 2007-07 / IEC 204-1 /
DIN VDE 0100 Part 410: 2007-06 / IEC 364-4-41
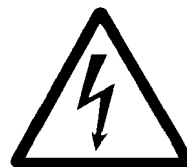
ATTENTION!

Control p.c.b. and motor always work with 24 VDC even if the pump is connected to alternating current.

Consider residual ripple of max. ±5 % when connecting motor and control p.c.b. (in relation to the operating voltage acc. to DIN 41755).

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Printed Circuit Boards

IMPORTANT

Whenever the pump housing has been opened (e. g. for replacing of the p.c.b.), the housing cover (including the foamed seal) must be replaced.

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➲ Disassemble defective control p.c.b.
➲ Note down the jumper positions of the defective control p.c.b. To do so, follow instructions given in paragraph „Jumper Configuration".
➲ Pack the defective control p.c.b. properly so that it will reach the factory without any further damages.
· In the case of a replacement of the control p.c.b., there will always be supplied a standard version (V10) of the p.c.b.
➲ Set the jumper configuration on the new control p.c.b. according to the one noted down from the old control p.c.b.
➲ Connect the new control p.c.b. and install it properly.

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Technical Data

Electrical Data

Rated voltage .... 24 VDC
Operating voltage at 12/24 VDC .... 9 … 30 V
Residual ripple in relation to the operating voltage [1]
.... DIN 41755: ± 5%
Output motor .... Transistor 7A / short-circuit proof
Reverse polarity protection of the operating voltage inlets yes
Adm. operating temperature .... −25 °C ... +70 °C
Lamp electricity (design 2A) .... max. 2A
Output fault / readiness for service
.... Transistor 10A / short-circuit proof
Protection:
Control p.c.b. installed in housing IP6K 9K

EMC [1]

EMC 2009/19/EC (vehicles)
EMC 2004/108/EC
a) for industrial environment:
- Emitted interference acc. to .... [2] DIN EN 61000-6-4
- Noise immunity acc. to .... DIN EN 61000-6-2
b) for residential, commercial and light industry:
- Emitted interference acc. to .... [2] DIN EN 61000-6-3
- Noise immunity acc. to .... DIN EN 61000-6-1

Time Setting

Range of pause time .... 4, 8, 12, …, 60 minutes
- or .... 1, 2, 3, …, 15 hours
Range of lubricating time .... 2, 4, 6, …, 30 minutes
- or .... 8, 16, 24, …, 120 seconds
Timer memory
.... indefinite over EEPROM

Factory setting

- Pause Time .... 6 hours
- Lubricating time .... 6 minutes

NOTE
In order to protect the printed circuit board against condensation, it has been covered with a protective varnish.

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[1] **NOTE**
The pumps correspond to the following EMC directives:
- for vehicles [A] ………. EMC 2009/19/EC
- for industry ……….... EMC 2004/108/EC

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[A] *marked with the EC approval symbol (e-icon) on the type identification plate.*
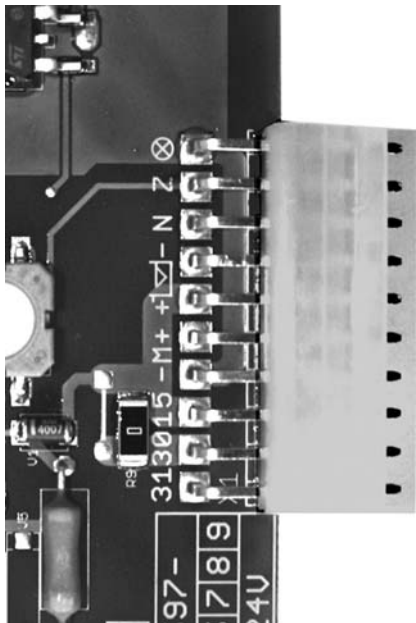
[2] **NOTE**
The emitted interference meets the requirements for the industrial sector, if used in the residential sector this may possibly lead to interference.

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Terminals of the printed circuit board

	Signal lamp [1]
	Additional lubrication [1]
	Level control [1]
	– Low-level control [1]
	+ Low-level control [1]
	+ Motor
	– Motor
	Machine contact or driving switch (+ VDC)
	Contact 30 (Example: bridged with contact 15)
	Earth (– 0 VDC)

[1] Option

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Terminals of the printed circuit board V10-V13 (contact 15/30 bridged)

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Technical Data, continuation

VAC Connection diagram for industrial application
Type of connection 2A7.16: Square-type plug (3/3-pole) with socket, without cable (X2) &
Bayonet plug with socket (7/6-pole) and 10 m cable, 6-core (X1)

Control unit V10-V13   (15/30 bridged)

Connection diagram

Quicklub P203 with control unit V10-V13

T-PCBvb7-050e08

Connection X1: Bayonet plug DIN 72585-1, 7/6-pole (left) 2A7.16   Connection X2: Square-type plug DIN 43650, 3/3-pole (left) 1A1
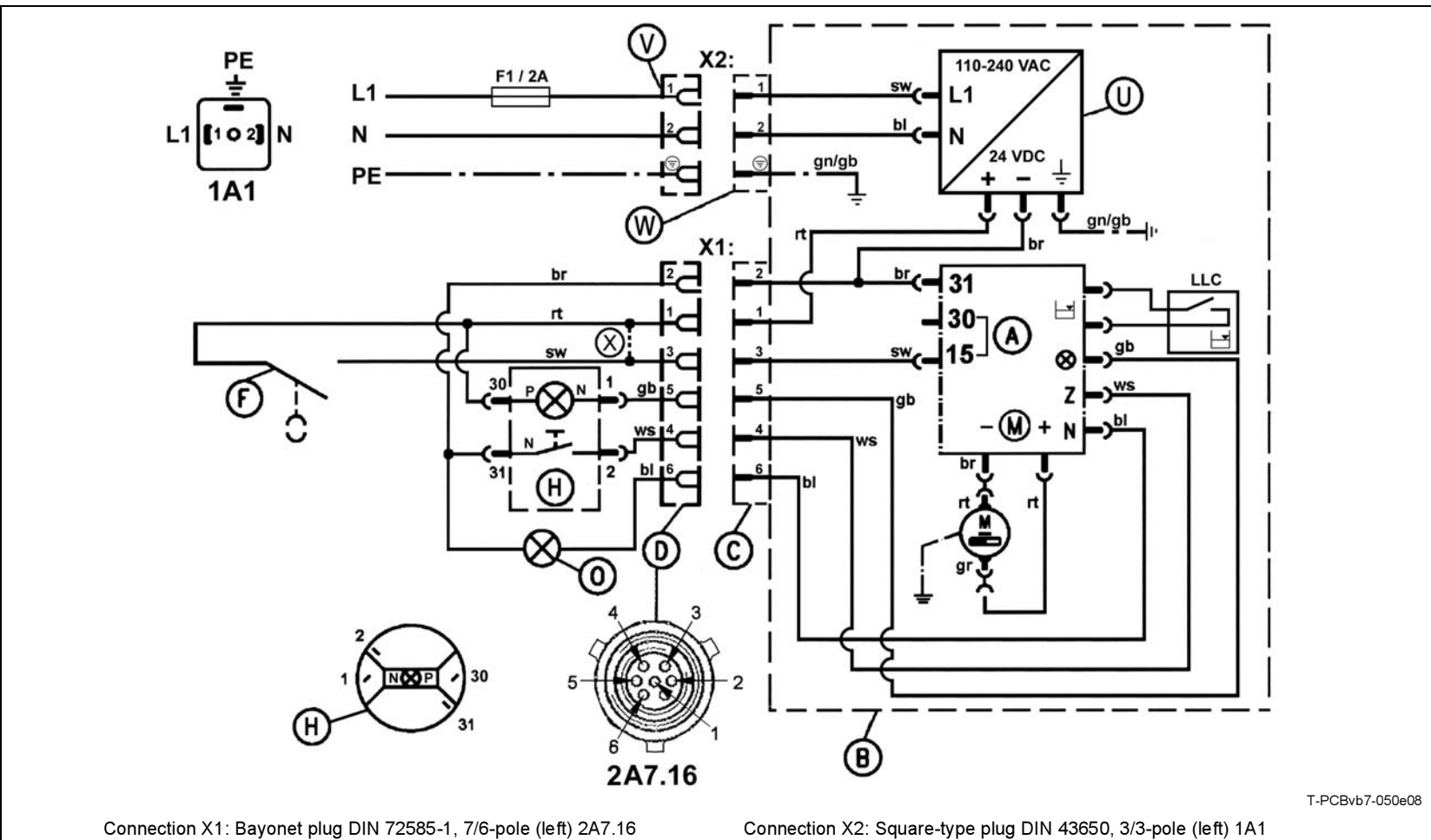
1A1:   Socket (without cable) for power supply 110-240 VAC ±10%, 50/60 Hz ±5%

2A7.16: Socket to connect the illuminated pushbutton (for additional lubrication and functional test) and the machine contact

     as well as the control light for the low level indication

15	- Power Supply + 24 VDC via machine contact	br	- brown	gb - yellow
30	- bridged with 15	sw	- black	ws - white
31	- – 0 VDC	rt	- red	bl - blue
		gn/gb	- green/yellow	gr - grey

A   - Control p.c.b. V10-V13
B   - Pump housing
C   - Connection plug 2A7.16 at pump housing   G   - Fuse 10 A
D   - Socket X1   H   - External illuminated pushbutton   U   - Power supply board
F   - Machine contact   M   - Electric motor   V   - Socket X2
X   - Bypass as an option to machine contact F   N   - Level control   W   - Connection plug 1A1 at the pump housing
    O   - external signal lamp in case of low-level indication   Z   - Operational test / additional lubrication

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VAC-Connection Diagram for industrial application
Type of connection 2A7.16: Square-type plug (3/3-pole) with socket, without cable (X2) &
Bayonet plug with socket (7/6-pole) and 10 m cable, 6-core (X1)
(15/30 not bridged)

Control unit V20-V23

Connection X1: Bayonet plug DIN 72585-1, 7/6-pole (left) 2A7.16   Connection X2: Square-type plug DIN 43650, 3/3-pole (left) 1A1

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1A1:   Socket (without cable) for power supply 110-240 VAC ±10%, 50/60 Hz ±5%

2A7.16: Socket to connect the illuminated pushbutton (for additional lubrication and functional test), the machine contact and the signal lamp in case of low-level indication

				br - brown	gb - yellow
15	- Power supply + 24 VDC via machine contact			sw - black	ws - white
30	- + 24 VDC			rt - red	bl - blue
31	- – 0 VDC			gn/gb - green/yellow	gr - grey
A	- Control p.c.b. V20-V23				
B	- Pump housing	G	- Fuse 10 A		
C	- Connection plug 2A7.16 at pump housing	H	- External illuminated pushbutton	U	- Power supply board
D	- Socket X1	M	- Electric motor	V	- Socket X2
F	- Machine contact	N	- Level control	W	- Connection plug 1A1 at pump housing
X	- Bypass as an option to machine contact F	O	- external signal lamp in case of low-level indication	Z	- Operational test / additional lubrication

VDC Connection diagram for industrial application
Type of connection 2A1.01: Square-type plug (3/2-pole) with socket, without cable (X1 & X3)
Control unit V10-V13 (15/30 bridged)

+ 24 VDC

X1:   X3:

31
30
15

1A1.01

2A1.01

- 0 V

T-PCBvw-050a08

Connection X1: Square-type plug DIN 43650 (left) 1A1.01   Connection X3: Square-type plug DIN 43650 (right) 2A1.01

1A1.01: Socket with cable, 3-core for power supply 24 VDC

2A1.01: Socket to connect the illuminated pushbutton (for additional lubrication and functional test) and the signal lamp in case of low-level indication

br	- brown	gb	- yellow
sw	- black	ws	- white
rt	- red	bl	- blue
		gr	- grey

15	- Power supply + 24 VDC via machine contact		
30	- bridged with 15		
31	- – 0 VDC	I	- external key for operational test and additional lubrication
A	- Control p.c.b. V10-V13	K	- Connection plug 2A1.01 at pump housing
B	- Pump housing	L	- Socket X3
C	- Connection plug 1A1.01 at pump housing	M	- Electric motor
D	- Socket X1	N	- Level control
F	- Machine contact	O	- external signal lamp in case of low-level indication
H	- external lamp for functional test	Z	- Operational test / additional lubrication

IMPORTANT
Do not connect the socket D with contact 30, since the control p.c.b. is connected internally between 15 and 30.

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VDC Connection diagram for mobile application
Type of connection 2A1.01: Square-type plugs (3/2-pole) with socket, without cable (X1 & X3)
Control unit V10-V13   (15/30 bridged)

T-PCBvw-050b08

Connection X1: Square-type plug DIN 43650 (left) 1A1.01   Connection X3: Square-type plug DIN 43650 (right) 2A1.01

1A1.01: Socket with cable, 3-core for power supply 24 VDC

2A1.01: Socket to connect the illuminated pushbutton (for additional lubrication and functional test) and the signal lamp in case of low-level indication
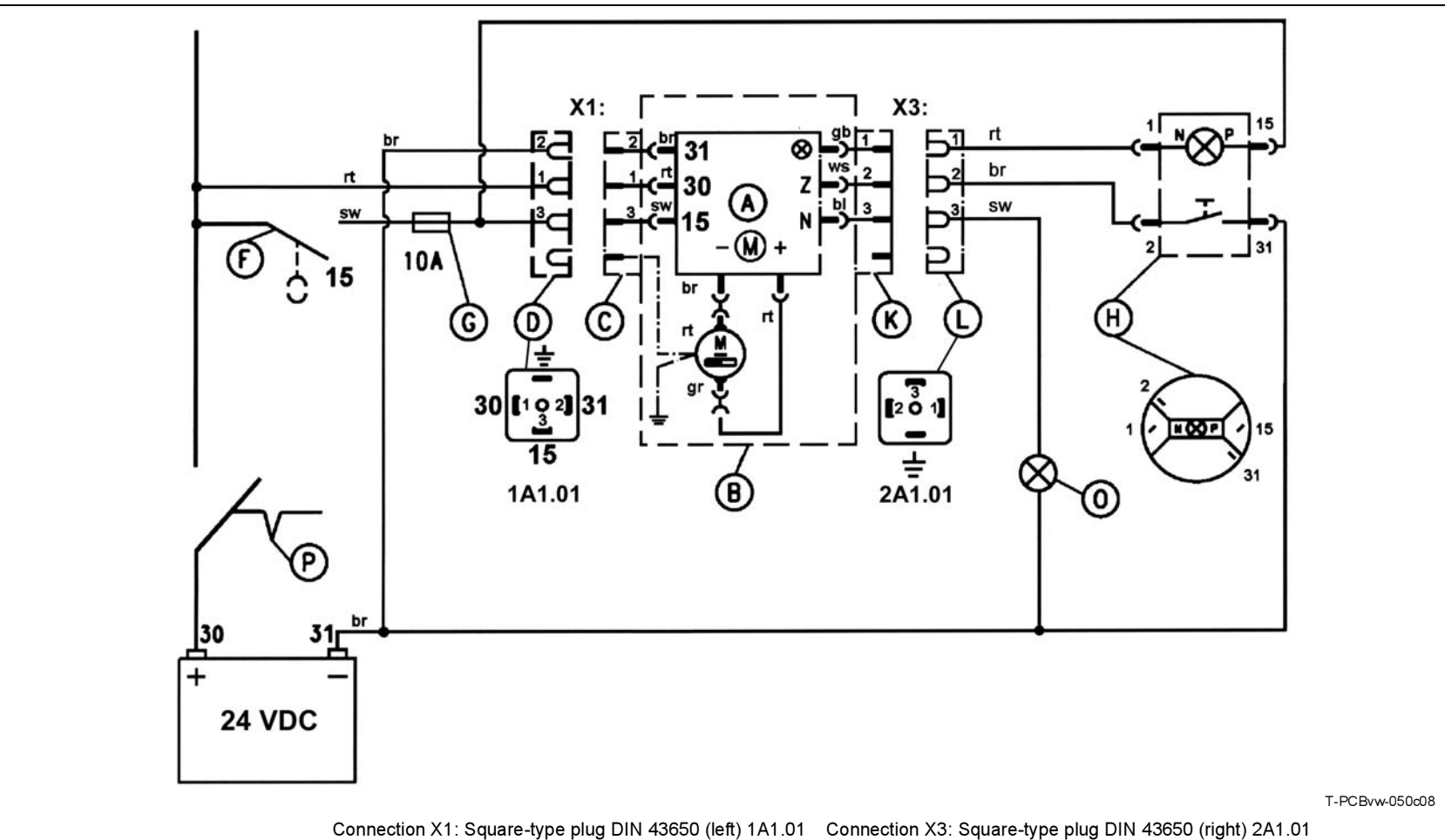
15	- Battery + 24 VDC via driving switch		br - brown gb - yellow
30	- bridged with 15	G - Fuse 10 A	sw - black ws - white
31	- Battery – 0 VDC	H - External illuminated pushbutton	rt - red bl - blue
M	- Electric motor	K - Connection plug 2A1.01 at the pump housing	gr - grey
A	- Control p.c.b. V10-V13	L - Socket X3	
B	- Pump housing	N - Level control	**IMPORTANT**
C	- Connection plug 1A1.01 at pump housing	O - external signal lamp in case of low-level indication	*Do not connect the socket D with contact 30, since the control p.c.b. is connected internally between 15 and 30.*
D	- Socket X1	P - Battery cut-off	
F	- Driving switch	Z - Operational test / additional lubrication	

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VDC-Connection Diagram for mobile application
Type of connection 2A1.01: Square-type plugs (3/3-pole) with socket, without cable (X1 & X3)
Control unit V20-V23
(15/30 not bridged)

Connection diagram

Quicklub P203 with control unit V20-V23

X1:   X3:

31
30
15

1A1.01

2A1.01

10A

24 VDC

T-PCBvw-050c08

Connection X1: Square-type plug DIN 43650 (left) 1A1.01   Connection X3: Square-type plug DIN 43650 (right) 2A1.01

1A1.01: Socket with cable, 3-core for power supply 24 VDC

2A1.01: Socket to connect the illuminated pushbutton (for additional lubrication and functional test) and the signal lamp in case of low-level indication

		br	- brown	gb	- yellow
15	- Battery 24 VDC + via driving switch	sw	- black	ws	- white
30	- Battery 24 VDC +	rt	- red	bl	- blue
31	- Battery 0 VDC –			gr	- grey
M	- Electric motor				

15	- Battery 24 VDC + via driving switch		
30	- Battery 24 VDC +	G	- Fuse 10 A
31	- Battery 0 VDC –	H	- External illuminated pushbutton
M	- Electric motor	K	- Connection plug 2A1.01 at the pump housing
A	- Control p.c.b. V20-V23	L	- Socket X3
B	- Pump housing	N	- Level control
C	- Connection plug 1A1.01 at pump housing	O	- external signal lamp in case of low-level indication
D	- Socket X1	P	- Battery cut-off
F	- Driving switch	Z	- Operational test / additional lubrication

2.6EN-28006-E11

LINCOLN

VDC Connection diagram for industrial application
Type of connection 1A7.16: Bayonet plug (7/5-pole) with socket and 10 m cable, 6-core (X1)
Control unit V10-V13 (15/30 bridged)

Connection X1: Bayonet plug DIN 72585-1 (left) 1A7.16

1A7.16: Socket with 10 m cable, 6-core for power supply 24 VDC,
& to connect the illuminated pushbutton (for additional lubrication and functional test), the machine contact and the signal lamp in case of low-level indication
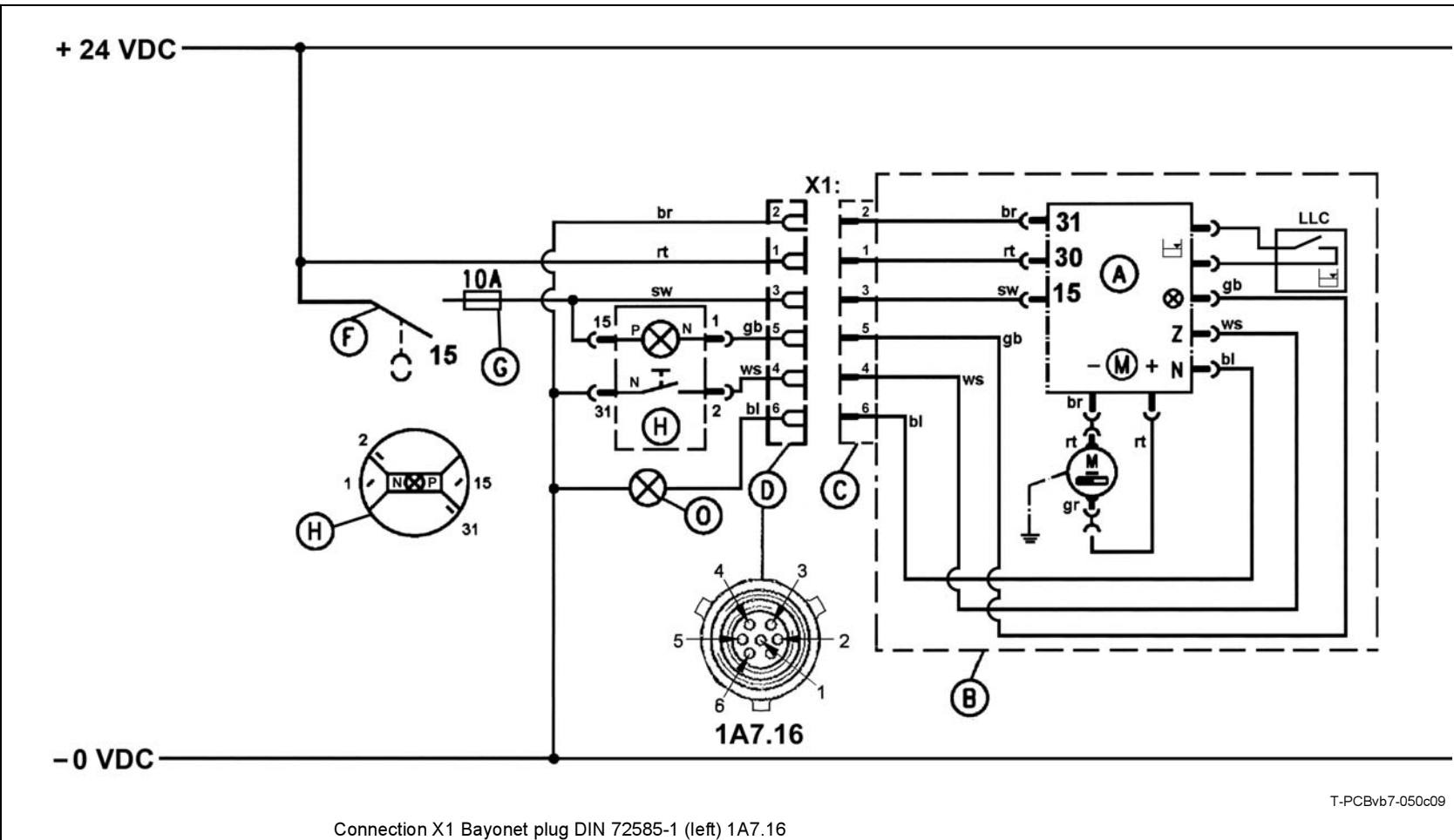
15	- Power supply + 24 VDC		br	- brown
30	- bridged with 15		sw	- black
31	- – 0 VDC		rt	- red
M	- Electric motor	G - Fuse 10 A		
A	- Control p.c.b. V20-V23	H - External illuminated pushbutton	gb	- yellow
B	- Pump housing	N - Level control	ws	- white
C	- Connection plug 1A7.16 at pump housing	O - external signal lamp in case of low-level indication	bl	- blue
D	- Socket X1	Z - Operational test / additional lubrication	gr	- grey
F	- Machine contact			

T-PCBvb7-050b09

Subject to modifications

VDC Connection diagram for industrial application
Type of connection 1A7.16: Bayonet plug (7/6-pole) with socket and 10 m cable, 6-core (X1)
Control unit V20-V23 (15/30 not bridged)

+ 24 VDC

− 0 VDC

Connection X1 Bayonet plug DIN 72585-1 (left) 1A7.16

1A7.16: Socket with 10 m cable, 6-core for power supply 24 VDC,
& to connect the illuminated pushbutton (for additional lubrication and functional test), the machine contact and the signal lamp in case of low-level indication
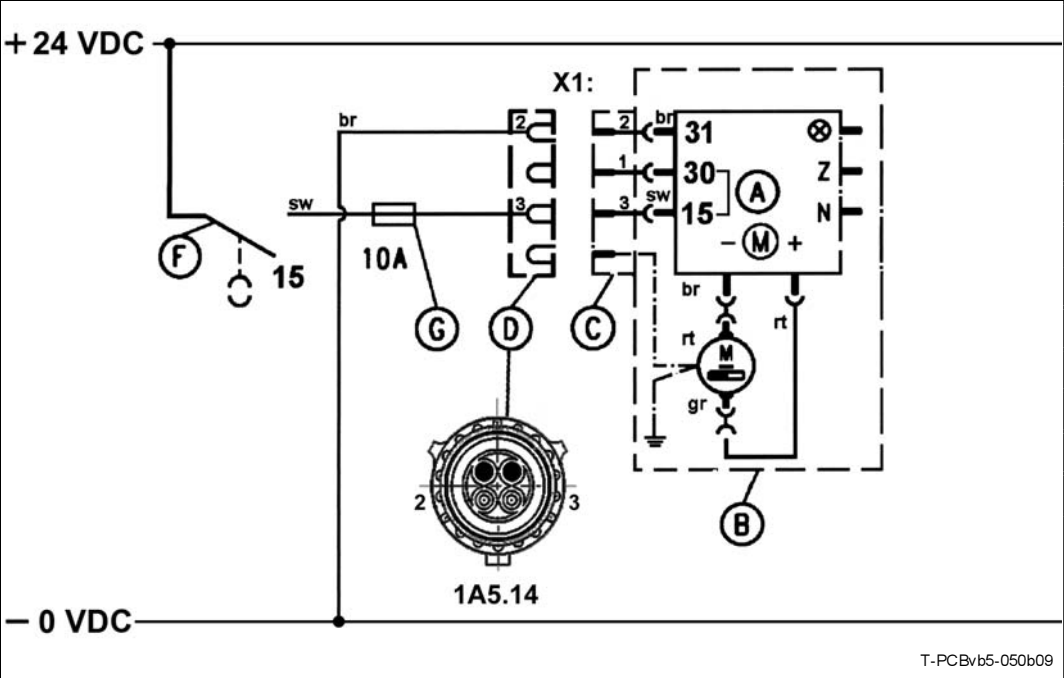
15	- Power supply + 24 VDC via machine contact			br	- brown	gb	- yellow

15	- Power supply + 24 VDC via machine contact		br	- brown
30	- + 24 VDC		sw	- black
31	- − 0 VDC		rt	- red
M	- Electric motor	G	- Fuse 10 A	gb - yellow
A	- Control p.c.b. V20-V23	H	- External illuminated pushbutton	ws - white
B	- Pump housing	N	- Level control	bl - blue
C	- Connection plug 1A7.16 at pump housing	O	- external signal lamp in case of low-level indication	gr - grey
D	- Socket X1	Z	- Operational test / additional lubrication	
F	- Machine contact			

T-PCBvb7-050c09

Connection diagram   Quicklub P203 with control unit V20-V23

Technical Data, continuation

VDC Connection diagram for industrial application

Type of connection 1A5.14: Bayonet plug (4-pole) with10 m cable, 3-core (X1)
(without low-level control, without external key for additional lubrication, without external signal lamp)
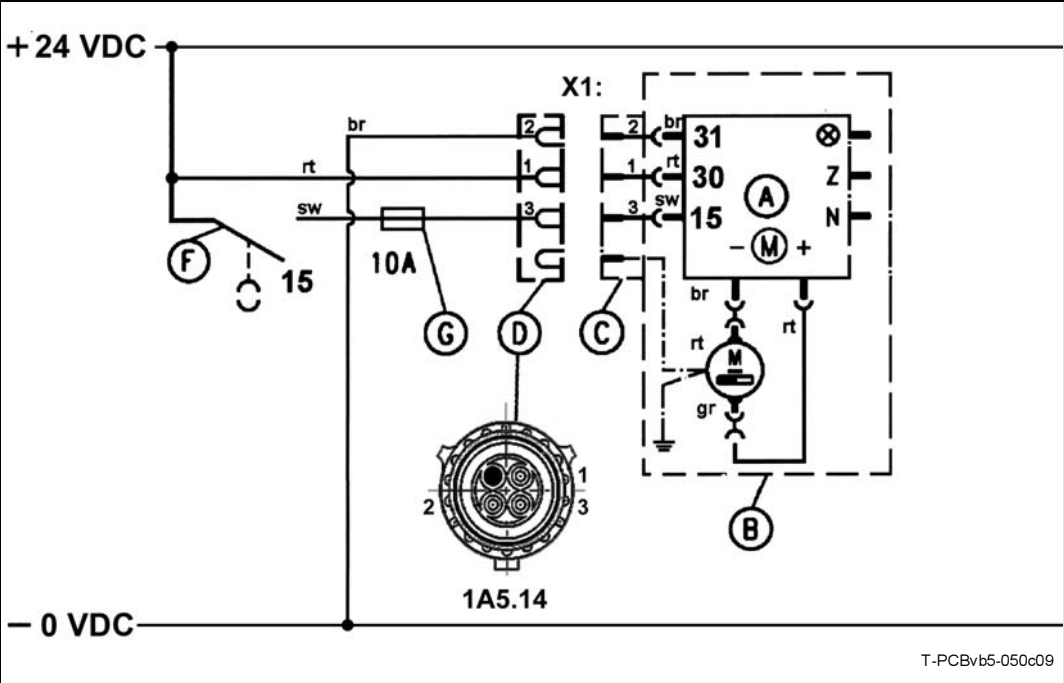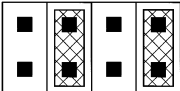
Control unit V10-V13 (15/30 bridged)

A - Control p.c.b. V10-V13

B - Pump housing

C - Plug 1A5.14
    at PCB housing

D - Socket X1

F - Machine contact

G - Fuse, 10 A

M - Electric motor

sw - black

br - brown

rt - red

gr - grey

IMPORTANT

Do not connect the socket D with contact 30, since the control p.c.b. is connected internally between 15 and 30.

T-PCBvb5-050b09

| Connection diagram: | Quicklub P203 (VDC) |
| Connection X1: | Bayonet plug DIN 72585-1 (left) 1A5.14, 4/2-pole |

| 15 | Power supply + (24 VDC) via machine contact | 30 | bridged with 15 | 31 | – 0 VDC |

Control unit V20-V23 (15/30 not bridged)
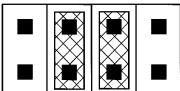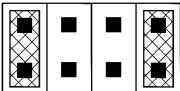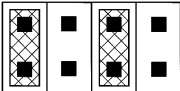

A - Control p.c.b. V20-V23

B - Pump housing

C - Plug 1A5.14
    at PCB housing

D - Socket X1

F - Machine contact

G - Fuse, 10 A

M - Electric motor

sw - black

br - brown

rt - red

T-PCBvb5-050c09

| Connection diagram: | Quicklub P203 (VDC) |
| Connection X1: | Bayonet plug DIN 72585-1 (left) 1A5.14, 4/3-pole |

| 15 | Power supply + (24 VDC) via machine contact | 30 | + 24 VDC | 31 | – 0 VDC |

Subject to modifications

Technical Data, continuation

JUMPER Position Combinations - Survey

Possibilities of preselection		Range of pause time P		Range of lubricating time l		Jumper position
		4 to 60 min	1 to 15 h	8 to 120 sec.	2 to 30 min	(see fig. PCB 5)
Conbination no.	V10 Standard		X		X	6290b04
	V11		X	X		6291b04
	V12	X			X	6292b04
	V13	X		X		6293b04

Subject to modifications

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