

## TLC511F

### TLC511F Twin Line Positioning Controller

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Berger Lahr TLC511F is a Twin Line TLC511 positioning controller for stepper-motor applications. The TLC511 family provides a 0.35 kW power class, 3 Arms rated motor current and configurable positioning interfaces.

| INSTALLATION IDENTITY | REQUIRED VALUE                             |
|-----------------------|--------------------------------------------|
| Complete model        | TLC511F                                    |
| Manufacturer          | Berger Lahr                                |
| System family         | Berger Lahr Twin Line Controller 51x       |
| Record scope          | Installation, application and verification |

1

PLAN

2

ISOLATE

3

CONNECT

4

CONFIGURE

5

TEST

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# 01 PRE-INSTALLATION PLAN

1

Confirm TLC511F, the TLC511 base execution and installed option modules.

2

Place the machine axis and power amplifier in the approved maintenance state.

3

Isolate mains, 24 V control and motor energy before disconnecting cables.

4

Record motor data, phase-current setting, encoder and fieldbus configuration.

5

Verify protective earth, mains fuse and 20 to 30 V DC control supply.

## MATCHED HARDWARE

- Berger Lahr TLC511F with exact visible identity
- Matched Berger Lahr Twin Line Controller 51x host
- Documented power, field and communication interfaces
- Approved configuration and acceptance record

## INSTALLATION CONTROL RECORD

| CONTROL ITEM       | REQUIRED RECORD                                                                       |
|--------------------|---------------------------------------------------------------------------------------|
| Identity           | TLC511F recorded                                                                      |
| Physical interface | Installed terminals, ports and signals matched to the as-found record                 |
| Configuration      | Approved host and channel configuration restored                                      |
| Functional proof   | Controlled test confirms stepper-motor positioning and controlled machine-axis motion |

## 02 WIRING & INTERFACE CHECKS

| CHECK ITEM            | REQUIRED VALUE                       |
|-----------------------|--------------------------------------|
| Product type          | Twin Line positioning controller     |
| Controller family     | TLC51x                               |
| Referenced base model | TLC511                               |
| Application           | Stepper-motor positioning            |
| Mains voltage         | 1 x 230 V AC, -20% / +15%            |
| Mains frequency       | 47 to 63 Hz                          |
| Current consumption   | 2 A at 230 V AC                      |
| Starting current      | Less than 60 A                       |
| Power factor          | Greater than 0.6                     |
| Power loss            | 40 W maximum                         |
| Mains buffering       | Less than 5 ms                       |
| External fuse         | 10 A, characteristic C, K or similar |
| Motor power class     | 0.35 kW                              |

### RELATED PRODUCT PAGES

1 Siemens A5E36228241

2 Siemens A5E03915589

3 ABB MM21

4 ABB MPRC-086349-002

5 ABB MZ03

6 ABB SDSC-PIN-H51

7 ABB SPA-ZC-400

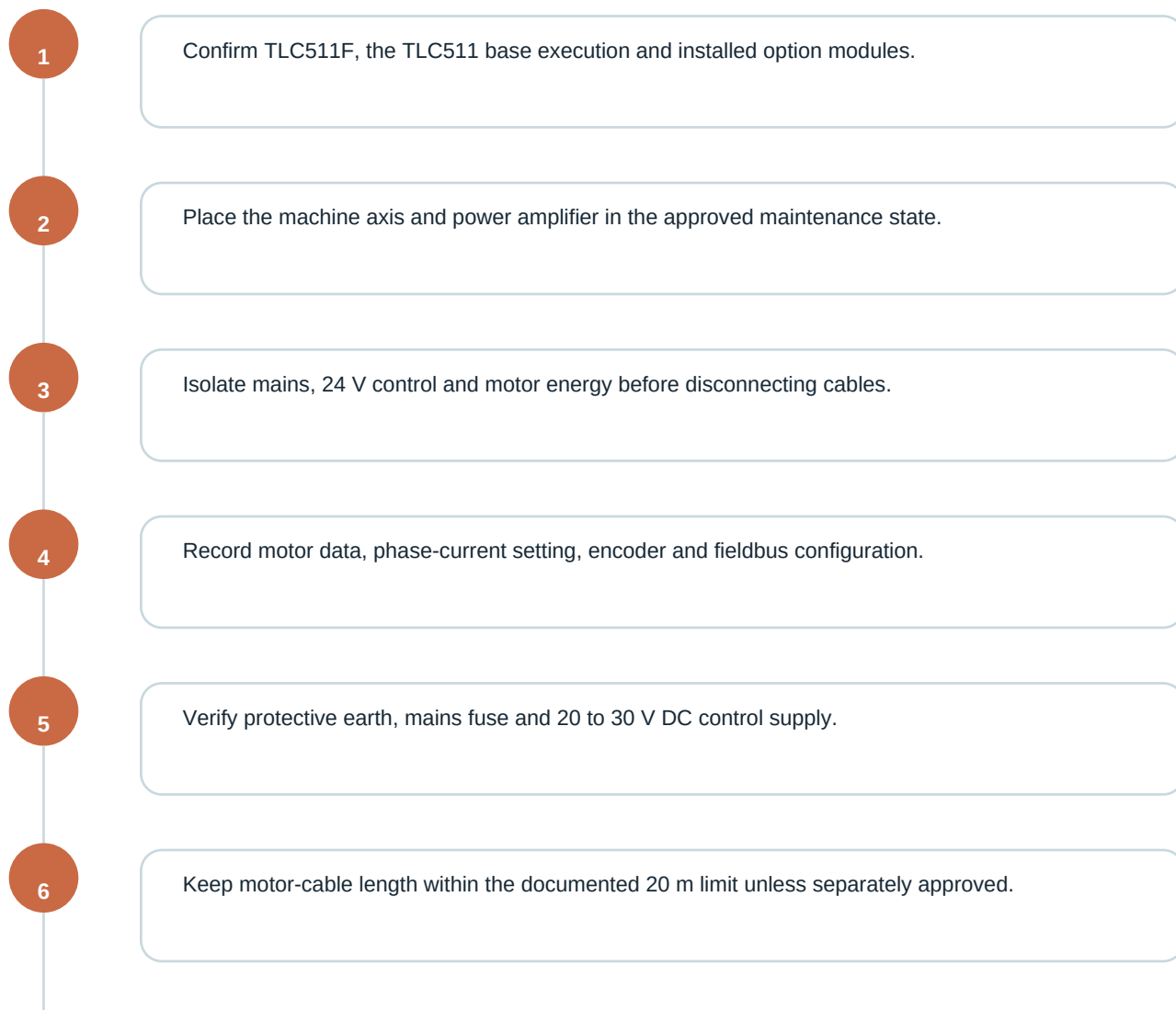
8 ABB SPA-ZC-402

9 ABB DSQC346G

### FIELD NOTE

Confirm TLC511F, its exact Berger Lahr Twin Line Controller 51x role, installed position, power, interfaces, configuration, diagnostics and controlled acceptance evidence before release.

## 03 COMMISSIONING WORKFLOW



### COMMISSIONING ACCEPTANCE EVIDENCE

| EVIDENCE ITEM      | ACCEPTANCE CONDITION                                                                  |
|--------------------|---------------------------------------------------------------------------------------|
| Identity           | TLC511F                                                                               |
| Physical interface | Installed terminals, ports and signals matched to the as-found record                 |
| Configuration      | Approved host and channel configuration restored                                      |
| Functional proof   | Controlled test confirms stepper-motor positioning and controlled machine-axis motion |

# 04 RETURN-TO-SERVICE RECORD

- ☐
- Verify protective earth, mains fuse and 20 to 30 V DC control supply.

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## VERIFICATION RECORD

|                     |                                                          |
|---------------------|----------------------------------------------------------|
| PRODUCT IDENTITY    | TLC511F                                                  |
| INSTALLED POSITION  | Documented Berger Lahr Twin Line Controller 51x position |
| VERIFICATION METHOD | Controlled inspection and functional test                |
| RELEASE RECORD      | Final diagnostic state retained before service           |

## FUNCTIONAL ACCEPTANCE CHECKLIST

- ☐
- Verify protective earth, mains fuse and 20 to 30 V DC control supply.

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## SOURCE IDENTIFIERS

Twin Line Controller 51x Manual 9844 1113 117, edition c325, 11.00 | User-authorized Scribd copy of Berger Lahr manual