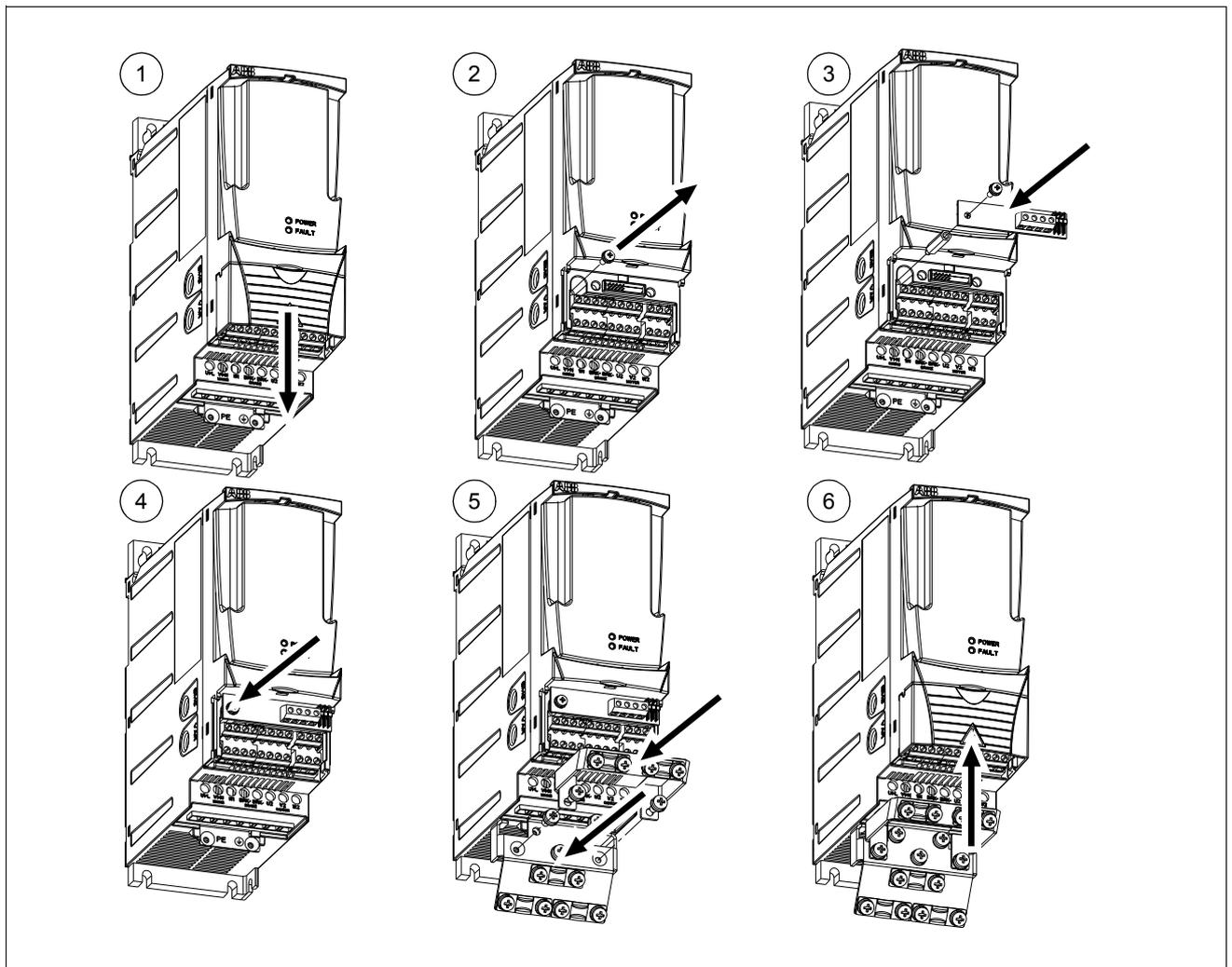


# FRSA-00 RS-485 Adapter Board User's Manual

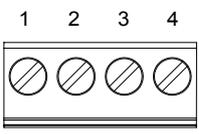
## Mechanical installation

1. Remove the terminal cover of the drive.
2. Remove the option board fastening screw from the drive.
3. Fit the FRSA board on its' place. Use the spacer delivered with the FRSA and the screw removed at step 2.
4. Tighten the FRSA fastening screw.
5. Install the clamping plates of the drive.
6. Replace the terminal cover of the drive.



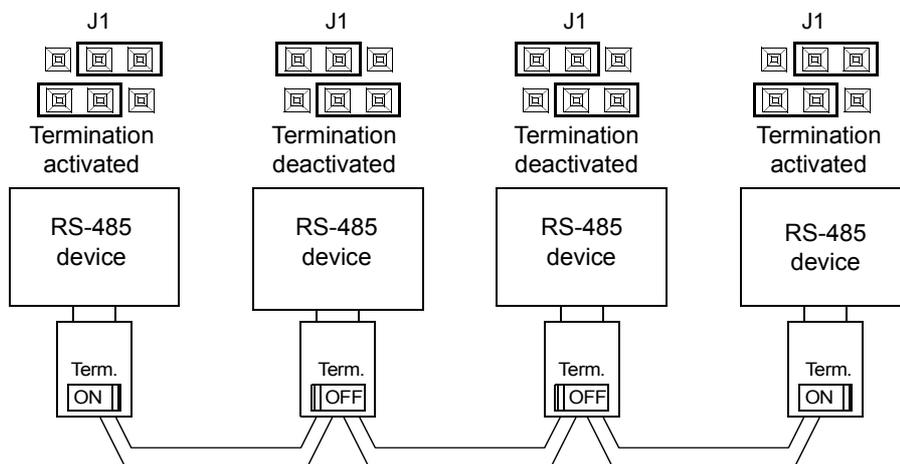
## Electrical installation

### RS-485 connection

X1		Description	
	1	SHLD	Bus cable shield. Connected directly to chassis.
	2	DATA_B	Data positive
	3	DATA_A	Data negative
	4	GND_B	Signal ground

### Bus termination

Bus termination is required to prevent signal reflections from the bus cable ends. The FRSA board is equipped with internal bus termination, which is configurable with jumper J1 pins. Termination should be activated on devices located at bus ends and deactivated on other devices. See the figure below.



## Drive parameter settings

See the drive manual for the serial communication set-up settings.

## Technical data of RS-485 link

**Medium:** Shielded twisted pair cable, impedance 100 to 150 ohm

**Termination:** 120 ohms (built in)

**Topology:** Trunk line, drop lines allowed

**Transfer rate:** 250 kb/s max.

**Serial communication type:** Asynchronous, half-duplex RS-485

**Protocol:** Depends on the used application. Typically Modbus.