9 Optional equipment

9.1 TXL830/850/865/870/890 (Extra Loads)

The TXL830, TXL850, TXL865, TXL870, and TXL890 Extra Loads comprise resistive loads. They can be used together with TORKEL Load Units to increase loading capability. The TXL Extra Loads can not provide regulation by themselves but TORKEL measures total current from the battery and regulates the load characteristic. When TORKEL is stopped it sends a stop signal to the TXL Extra Load.

- TXL830 28 V
- TXL850 56 V
- TXL865 260 V
- TXL870 280 V
- TXL890 480 V

Panel

The panels for the TXL models differ somewhat but the functionality is the same.

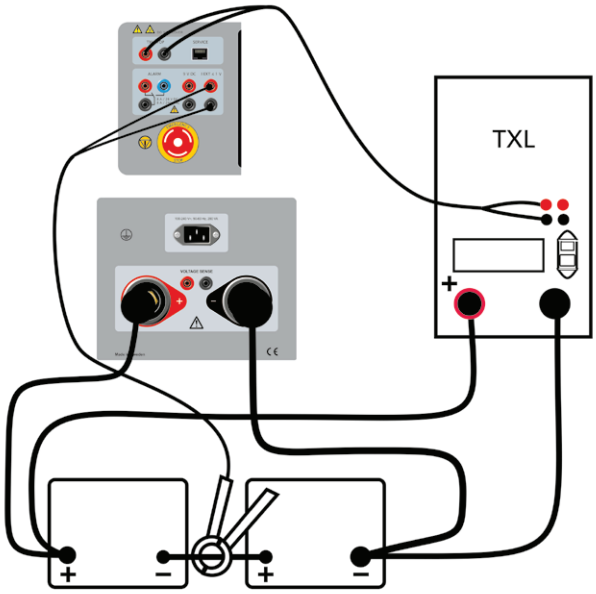
1.	Selector switch Switch used to set the desired voltage range and/or resistance value. **WARNING** **Do not exceed maximum voltage.**
2.	Control **CONTROL IN** Input for control signal from TORKEL-unit. Galvanically isolated. **CONTROL OUT** Output used for the control signal sent from TORKEL to the adjacent TXL-unit. Galvanically isolated.
3.	Circuit breaker **F1** Voltage-controlled circuit breaker that connects the resistors in the TXL Extra Load to the battery. **Note** F1 will not latch or remain at upper (ON) position unless the mains switch is turned on and a control signal from TORKEL is present at the "CONTROL IN" input.. **WARNING** **The circuit breaker F1 is an important component in the safety system. If the temperature will be too high and/or the cooling fans malfunction, the F1 will trip. It is important to never operate the unit if there is any damage or malfunction to the circuit breaker or if any damage or malfunction is suspected.**
4.	Mains inlet **MAINS** Connector used for mains supply, equipped with ON/OFF switch.
5.	Connection terminals for the battery **+ (Terminal)** Positive (+) current connection for battery or other DC source, being tested. **– (Terminal)** Negative (-) current connection for battery or other DC source, being tested. Insulation voltage to ground: 2200 V

Using the TXL

When an extra load is to be used, you must use the external current measurement function (see the chapter headed "6.2 Setting up external current measurement" on page 33).

1] Set the range selector switch to the desired position.

2] Connect as shown below.



3] Connect the control leads between the **TXL CTRL** output on TORKEL and the **CONTROL IN** input on the TXL.
If two or more TXLs are to be used, provide a connection between the **CONTROL OUT** output on the first TXL and the **CONTROL IN** input on the second TXL, etc.

4] Connect the TXL to the mains voltage

5] Switch on the TXL.

Testing

WARNING
See the chapter "2.2 Safety instructions" on page 8. for safety precautions.

1] Proceed in the same way as set forth in the chapter headed "5.1 Preparations for testing" on page 24 but before you start TORKEL you must set switch F1 to upper (ON) position on the TXL. (You must do this manually.)

2] Start TORKEL by pressing 

3] When TORKEL is stopped, manually or by any stop condition, the TXL will also shut off the discharge current.