

Reliability inside



#### Installation and commissioning kits

Suitable for industrial standby Ni-Cd batteries

# **Protective equipment kit** Personal protective equipment (PPE), always put safety first P/N 08-00132-02

Apron for electrolyte protection (80x100cm)

Storage box for protective kit

Eye wash with pH neutral solution (200ml)

Protective gloves, pair

Protective goggles

Protective shoe cover, pair

1 pc

2 pcs

5 pcs

7 pcs



# Electrolyte testing kit P/N 08-00171-01 Testing tube for electrolyte level Electrolyte hydrometer, range 1,08 - 1,30 g/l Plastic bottle 1 litre (electrolyte) Plastic zip-lock bag 1 litre Suitable to test specific gravity 1 pc 1 pc 1 pc 1 pc

Anti-corrosion oil kit Suitabl	e when instal	ling connectors
P/N 08-10035-01		
Brush	1 pc	
Anti-corrosion oil (0,5 litre), protective agent	1 pc	
Plastic zip-lock bag (1 litre)	1 pc	ALL CONTROL AND

#### Complete installation & commissioning kit

08-00174-1x

Protective equipment kit (08-00132-01)

Electrolyte testing kit (08-00171-01)

Anti-corrosion oil kit (08-10035-01)

Digital multimeter (01-01925-01)

Spanner ring (01-60653-0x)

1 kit

1 kit

1 pc

Complete electrolyte preparation kit



<b>Electrolyte filling kit</b> S P/N 08-00175-01	uitable for cell	s delivered empty and discharged (ED)
Plastic funnel φ140 (large) Plastic funnel φ80 (small) Plastic jug with lid and plug (2 litres) Glass thermometer, temperature range -20 to +110°C	1 pc 1 pc 1 pc 1 pc	

Electrolyte mixing kit P/N 08-00176-01	Suitable for cells delivered empty and discharged (ED)	
Mixing tank (50 liters) Tank lid Stirring paddle	1 pc 1 pc 1 pc	

# P/N 08-00177-01 Electrolyte filling kit (08-00175-01) Electrolyte mixing kit (08-00176-01) 1 kit 1 kit

#### Additional accessories

Suitable for industrial standby Ni-Cd cells

#### Carbonate testing kit

Suitable for electrolyte testing for carbonates

P/N 08-00009-02

Accessory box 1 pc Plastic bottle (200ml) 1 pc Plastic graduated cylinder (25ml) 1 pc Plastic funnel \$80 1 pc Erlenmeyer flask (100ml) with rubber plug 2 pc 20 pcs Filter V100 Plastic bags with 8g Soda (BaCl<sub>2</sub>) powder 10 pcs 1 pc Hydrometer



#### **Digital multimeter**

Fluke 113 Utility meter with VCHEK™

P/N 01-60651-01

TL75 Test leads

Voltage AC/DC 0.001 - 600V

Diode testing (2V)

Resistance  $0,1\Omega - 60k\Omega$ 

Capacitance 1 - 9999µF

Category CAT III 600V and category IV 300V standards.

Size 167.1x85.1x46mm (6.58x3.35x1.81in)

Weight 404g (13oz)



#### Infrared thermometer

Fluke 62 Max mini Infrared thermometer

P/N 01-60652-01

Infrared thermometer for measuring temperatures from -30 to 500°C (-22 to 932°F).

Provides a 10:1 distance to spot ratio.

IP 54 (IEC 60529)

Size 175x85x75mm (6.88x3.34x2.95in)

Weight 255g (8.99oz)



### **Torque wrench set** P/N 08-00178-01

High quality adjustable Knipex torque wrench with sockets Insulated 1000V EN/IEC 60900

Torque wrench 5-50 Nm (1/2")

Socket SW10 (1/2")

Socket SW13 (1/2")

Socket SW16 (1/2")

1 pc 1 pc 1 pc 1 pc



Spanner rings	High quality Knipex spanner ring Insulated 1000V EN/IEC 60900
Spanner ring SW 10mm Spanner ring SW 13mm Spanner ring SW 16mm	01-60653-02 01-60653-03

Cell numbering	Adhesive set for marking cells, black digits on white background. Label size 14x14mm, letter size 7mm delivered on coil.
Numbering kit #1 – 50 Numbering kit #1 – 100 Numbering kit #1 – 200 Numbering kit #1 – 350 Numbering kit #1 – 500	01-01978-31 01-01978-32 01-01979-32 01-01979-33

<b>Topping-up equipment</b> Complete P/N 08-00195-04	te kit to top-up cells with distilled/de-ionized water
Water cart, 37.5 liters Charger 120V/230V (exchangeable AC plug) Filling pistol (with spacer tube kit, fits all our cells)	1 pc 1 pc 1 pc

Cell replacement kit P/N 31-11204-01	Suitable for replacing cells in a compact rack, where the rows are not in stepped layout.
Sliding plate 800x195x2mm	1 pc
Filling plates 195x195x8mm	3 pcs
Sling 2m	1 pc

Rap	Solution is an emergency rinsing solution for splashes of chemicals.  Rapid use in case of contact with electrolyte (KOH) quickly eliminates secondary treatment of burn injuries.		
SIEW 50ml, eye treatment Clipped leather holster for SIEW 50ml Mini DAP 200ml, for smaller body parts	01-52009-75 01-52009-76 01-52009-78	Common Co	

#### **Terminal plate**

P/N 31-10736-xx

Collecting bar to be installed on the top of the cells to change the number of outgoing cables and/or change cable cross section (up to 120mm<sup>2</sup>).

Terminal plates (+/-)

Available in various dimensions to fit our cells with Ni-plated copper.

Thickness: 4mm

2 pcs



#### **Terminal plate cover**

P/N 31-10129-xx

End lugs (35 – 120mm²) Washers, DIN137b Bolts, SIS 2343 Nuts, SIS 2343 Insulated post screws Cover and cover gabels Terminal plate cover and bolts for assembling. Cover is fulfilling IP2X protection



#### **Connection box**

P/N 08-10010-02

Solution for connecting external cables of 95 to 400 mm<sup>2</sup>.

Designed for 6 cables (max 120mm<sup>2</sup>) from cells and up 3 outgoing cables.

All cables between the cells and the connection box are supplied when specified.

Size: 380x280x120mm (LxWxD)

P/N for these cables are 31-10116-01-31-10128-61 Length between 110-10000mm are available.

End lugs for outgoing connection, between 95 – 400mm<sup>2</sup>.



#### **Junction box**

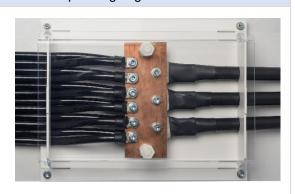
31-10874-01

Solution for connecting external cables of 120mm<sup>2</sup> to 500mm<sup>2</sup>. Designed for 12 cables from cells and up 3 outgoing cables.

All cables between the cells and the Busbar are supplied when specified.

Length between 110 – 10000mm are available.

End lugs (M12) for outgoing connection are available between 100 – 500mm<sup>2</sup>.



#### **Electrolyte hydrometer**

Glass hydrometer for measuring electrolyte specific gravity during mixing.

P/N 01-01980-01

Range 1,08 - 1,30 g/l



#### **Central water filling system**

For usage when one single connection is needed to top-up the complete cells in the battery with water.

Vent

Flame Arrestor

Hose (m)

Hose nipple

Bracket

L-joint

I-joint

Coupling (male/female).



#### Symmetry monitoring

Insulated kit for midpoint measurements within your battery system.

Symmetry monitoring kit M6	31-05422-01
Symmetry monitoring kit M8	31-05422-02
Symmetry monitoring kit M10	31-05422-03

All kits are delivered with protection cover, end lug, thin nut, & post screw SIS 2343.



#### **Cabinet for accessories**

Wall or floor-mounted painted steel cabinet for accessories.

P/N 01-02013-10

Size 900x500x450mm (HxWxD)

Weight 30kg



# Lifting device P/N 01-02014-01

Gigant lifter is used for lifting heavy cells during installation and replacement.

Capacity: 400kg Lifting height: 1500mm

Table dimension: 650 x 576mm



# Lifting device P/N 01-02014-10

Genie GL-8 portable and compact design which is used for lifting heavy cells during installation and replacement.

Capacity: 181kg Lifting height: 3006mm

Table dimension: 580 x 560mm



CleverWatch Battery Monitoring System	BMS to measure current (A), voltage (V) and temperature, then State of Charge and State of Health is calculated, complete battery history is stored.
BMD LOW voltage 19-90V BMD MID voltage 55-265V BMD HIGH voltage 160-750V Current sensor Temperature sensor Electrolyte sensor Hydrogen sensor Satellite kit	08-10021-40 08-10021-50 08-10021-60 08-10023-xx 08-10027-01 08-10028-01 01-60550-01 08-10032-01

Electrolyte monitoring P/N 08-10039-01	Safe low electrolyte to 20 sensors to one	level detection with an external monitoring tool.	al sensor, can connect up
Electrolyte monitoring tool Electrolyte sensor kit (1) Electrolyte sensor calibration tool	01-60892-01 08-10028-01 08-10031-01		Electrolyte monitoring tool  POWER  ALARM  Down Bush Bush Bush Bush Bush Bush Bush Bush

Warning sign kit P/N 01-02054-01	Complete warning sign label kit for battery room. Symbols and colors according to ISO 3864.
No smoking allowed Use protective goggles Warning - caution battery room Manual/information Warning - electrical shock Caution - corrosive substance	1 pc 1 pc 1 pc 1 pc 1 pc 1 pc

Thermometer P/N 01-02016-01	Wall mounted thermometer.
Temperature range -50 to +50°C	

Solid Electrolyte	Electrolyte to be used when mixing for block batteries, LCE, MC & He	ng on-site with distilled or de-ionized water C.
Solid electrolyte E22 1kg Solid electrolyte E22 5kg Solid electrolyte E22 20kg Solid electrolyte E13 1kg Solid electrolyte E13 5kg Solid electrolyte E13 20kg	11-85002-58 11-85002-59 11-85002-64 11-85002-54 11-85002-55 11-85002-62	Potassium Choride  Anne Land Cho

Liquid Electrolyte	Separate electrolyte to be used	for block batteries, LCE, MC & HC.
Liquid electrolyte E22 5 litre Liquid electrolyte E22 10 litre Liquid electrolyte E22 25 litre	11-85001-06 11-85001-07 11-85001-08	
Liquid electrolyte E13 5 litre Liquid electrolyte E13 10 litre Liquid electrolyte E13 25 litre	11-85001-26 11-85001-27 11-85001-28	
Plastic bottle 25 litre with tap  Tap for 25 litre electrolyte bottles	08-00179-01 01-01727-02	

#### Spare parts for your batteries

# Accessory box P/N 08-10020-04

Suitable for HC, MC and LCE cells with M6 terminals with a range of all used components needed for replacement of lost parts.

Accessory box 1 pc Flip top vent small blue 5 pcs Flip top vent tool small 1 pc Bolt M6, ISO4017, A2-70, SW10 10 pcs Washer M6 DIN137b, stainless spring steel 10 pcs Insulated screw M6, A2-70, SW10 10 pcs



#### **Accessory box**

P/N 08-10020-05

Suitable for HC/HB, MC/MB and LCE/LBE cells with M8 terminals with a range of all used components needed for replacement of lost parts.

Accessory box	1 pc
Flip top vent small blue	5 pcs
Flip top vent large blue	5 pcs
Flip top vent tool small	1 pc
Flip top vent tool large	1 pc
Bolt M8, ISO4017, A2-70, SW13	10 pcs
Washer M8 DIN137b, stainless spring steel	10 pcs
Insulated screw M8, A2-70, SW13	10 pcs



#### **Accessory box**

Suitable for HB, MB and LBE cells with M10 terminals with a range of all P/N 08-10020-06 used components needed for replacement of lost parts.

Accessory box	1 pc
Flip top vent large blue	5 pcs
Flip top vent tool large	1 pc
Bolt M10, ISO4017, A2-70, SW16	10 pcs
Washer M10 DIN137b, stainless spring steel	10 pcs
Insulated screw M10, A2-70, SW16	10 pcs



# Accessory box P/N 08-10020-13

Suitable for Vantex with M6 terminals with a range of all used components needed for replacement of lost parts.

Accessory box	1 pc
XLP vent small	5 pcs
XLP vent tool small	1 pc
Bolt M6, ISO4017, A2-70, SW10	10 pcs
Washer M6 DIN137b, stainless spring steel	10 pcs
Insulated screw M6, A2-70, SW10	10 pcs



# Accessory box P/N 08-10020-14

Suitable for Vantex with M8 terminals with a range of all used components needed for replacement of lost parts.

Accessory box	1 pc
XLP vent small	5 pcs
XLP vent tool small	1 pc
XLP vent large	5 pcs
XLP vent tool large	1 pc
Bolt M8, ISO4017, A2-70, SW13	10 pcs
Washer M8 DIN137b, stainless spring steel	10 pcs
Insulated screw M8, A2-70, SW13	10 pcs



# Accessory box P/N 08-10020-15

Suitable for Vantex with M10 terminals with a range of all used components needed for replacement of lost parts.

Accessory box	1 pc
XLP vent large	5 pcs
XLP vent tool large	1 pc
Bolt M10, ISO4017, A2-70, SW16	10 pcs
Washer M10 DIN137b, stainless spring steel	10 pcs
Insulated screw M10, A2-70, SW16	10 pcs



#### **Connector cover** To be used on block batteries (large) Connector cover block battery (normal) 31-00349-31 Gable 31-05339-01 Width 30mm Length 374mm Connector cover block battery (crosswise) 31-01347-47 Gable 31-05340-01 Width 107mm Length 405mm

#### Connector cover

P/N 31-00347-31

To be used on block batteries (small) 31-05338-01 gable

Connector cover block battery Width 15mm Length 374mm



#### **Connector Cover**

P/N 31-05378-31

To be used on Vantex (large) 31-05379-01 gable

Connector cover Vantex product Width 190mm Length 374mm



#### **Connector Cover**

P/N 31-05376-31

To be used on Vantex (small) 31-05377-01 gable

Connector cover Vantex product Width 128mm Length 374mm

