

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

5 pcs



## Electrolyte testing kit Suitable to test specific gravity

P/N 08-00171-01

Testing tube for electrolyte level 1 pc
Electrolyte hydrometer, range 1,08 - 1,30 g/l 1 pc
Plastic bottle 1 litre (electrolyte) 1 pc
Plastic zip-lock bag 1 litre 1 pc



Anti-corrosion oil kit Suitable	when installing connectors
P/N 08-10035-01	
Brush Anti-corrosion oil (0,5 litre), protective agent Plastic zip-lock bag (1 litre)	1 pc 1 pc 1 pc

# **Complete installation & commissioning kit** 08-00174-1x

Protective equipment kit (08-00132-01)	
Electrolyte testing kit (08-00171-01)	1 kit
Anti-corrosion oil kit (08-10035-01)	1 kit
Digital multimeter (01-01925-01)	1 pc
Spanner ring (01-60653-0x)	1 pc



Electrolyte filling kit Sui P/N 08-00175-01	Suitable for cells 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 en	npty and discharged (ED)
Mixing tank (50 liters) Tank lid Stirring paddle	1 pc 1 pc 1 pc	

# **Complete electrolyte preparation kit** 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  $^{\circ}\text{C}$  (-22 to 932  $^{\circ}\text{F}$ ).

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	01-60653-01 01-60653-02 01-60653-03

Cell numbering	Adhesive set for marking cells, black digits or Label size 14x14mm, letter size 7mm delivered	<u> </u>
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 01-01979-31 01-01979-32 01-01979-33	493 494 495 496 497 498

<b>Topping-up equipment</b> Complete P/N 08-00195-04	e 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 stepped layout.	g cells in a compact rack, where the rows are not in
Sliding plate 800x195x2mm Filling plates 195x195x8mm Sling 2m	1 pc 3 pcs 1 pc	

R	_	ency rinsing solution for splashes contact with electrolyte (KOH) quare 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	Enveronment of the control of the co	WHOTE PART  WHAT DAY OF

#### **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





#### **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

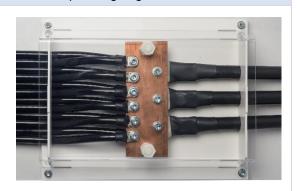
31-10874-01

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 store	d.
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 Electrolyte monitoring tool Electrolyte sensor kit (1) Electrolyte sensor calibration tool Safe low electrolyte level detection with an external sensor, can connect up to 20 sensors to one monitoring tool. 01-60892-01 08-10028-01 08-10031-01

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

<b>Thermometer</b> P/N 01-02016-01	Wall mounted therm	ometer.
Temperature range -50 to +50°C		1

Solid Electrolyte	•	Electrolyte to be used when mixing on-site with distilled or de-ionized water for block batteries, LCE, MC & HC.	
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  Winter Land Committee  Win	

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

## Spare parts for your batteries

## Accessory box

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

P/N 08-10020-04 Accessory box

Flip top vent small blue

1 pc 5 pcs 1 pc

Flip top vent tool small Bolt M6, ISO4017, A2-70, SW10 Washer M6 DIN137b, stainless spring steel

Insulated screw M6, A2-70, SW10

10 pcs 10 pcs 10 pcs

#### Accessory box

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.

P/N 08-10020-05 Accessory box 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 P/N 08-10020-06

Suitable for HB, MB and LBE cells with M10 terminals with a range of all 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.

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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 ste	eel	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 b	e used on block ba	atteries (large)
Connector cover block battery (normal) Gable Width 30mm Length 374mm	31-00349-31 31-05339-01	
Connector cover block battery (crosswise) Gable Width 107mm Length 405mm	31-01347-47 31-05340-01	

#### **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

Connector cover Vantex product Width 190mm Length 374mm

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



#### **Connector Cover**

P/N 31-05376-31

Connector cover Vantex product Width 128mm Length 374mm

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

