

TRAFFIC MANAGEMENT POWER SOLUTIONS



www.shieldbatteries.co.uk

ABOUT SHIELD BATTERIES

Traffic Management (TM) Power Solutions



- This bespoke product range has been developed specifically to match the expectations of the market and is underpinned with the same exacting customer focused approach adopted by Shield Batteries since 1910. We pride ourselves on being more than simply a supplier, working with our customers to move industry forward and assisting in developments and solutions.
- Optimised for the industry, TM Power Solutions have been developed to offer the very latest batteries and associated technologies to the Traffic Management sector.

TM Power Battery Solutions

A range of batteries specially selected for peak performance in the TM sector. The range includes; Severe Duty-Sealed Maintenance Free (SMF) batteries, Flooded Deep-Cycle batteries, Lithium Batteries as well as AGM batteries from Shield, Crown & Sterling.

Tried, tested and trusted by OEM manufacturers.

Our Full Programme - The 'Green Light' For You

The Shield TM Power Solution looks at your whole application strategy to improve your overall run time by maximising battery life, advising you not only on the best batteries, but the optimum charger and accessory options.

We have partnered with experienced Traffic Management professionals in order to better improve the technology and knowledge available to the industry, which consists of not only our product range but a professional team who are able to offer on-site training and advice on how to best support your business in maintaining and maximising the performance and life of your batteries and chargers.

Service - Our Commitment To You

Focused on servicing the Traffic Management sector; we provide a comprehensive in-field sales and support team. Every customer is assigned an experienced and dedicated Account Manager, ensuring a single point of contact for clarity and efficiency.

Full 'free of charge' on-location assessment service available. We can advise on all areas associated with the products offered and how these can add value and provide visible benefits to your business.

SHIELD TM SERIES - Severe Duty TM Battery Range



- Enhanced safety features
- Vibrolock construction provides enhanced vibration resistance
- Dual terminal
- Supplied charged and ready to fit
- Leak proof double lid
- Optimised for repeated charging and discharging
- Original equipment quality and specification.

Type	Group Size	V	Rated Capacity		Storage		Length	Dimensions (mm)			Approx Weight KG	Layout	Terminal
			C100 (AH)	C20 (AH)	kWh ¹ 100-Hr	kWh ¹ 20-Hr		Width	Height	Total Height			
TM Severe Duty - 12 Volt													
TM27-90	27	12	100	90	1.20	1.08	304	173	214	220	20.9	1	DT
TM27-100	27	12	110	100	1.32	1.20	304	173	214	220	21.2	1	DT
TM31-100	31	12	110	100	1.32	1.20	336	173	220	235	21.8	1	DT
TM31-110	31	12	120	110	1.44	1.32	336	173	220	235	23.5	1	DT

SHIELD DCB SERIES - Professional Flooded Deep Cycle Range

- Enhanced Deep Cycle Performance
- Resistant to vibration
- Special case & lid designed to prevent short circuit.
- Glass mat / porous rubber separator construction to resist corrosion & reduce electrical resistance

Type	Group Size	V	Rated Capacity		Storage		Length	Dimensions (mm)			Approx Weight KG	Layout	Terminal
			C100 (AH)	C20 (AH)	kWh ¹ 100-Hr	kWh ¹ 20-Hr		Width	Height	Total Height			
DCB Deep Cycle - 12 Volt													
DCB27-12	27	12	105	75	1.26	0.90	304	173	214	220	21.8	1	DT
DCB31-12	31	12	120	90	1.44	1.08	336	173	220	235	23.5	1	DT
DCB1275-12	GC12	12	190	150	2.28	1.80	304	173	214	220	37.5	1	DT
DCB Deep Cycle - 6 Volt													
DCB605-6	GC2	6	230	210	1.38	1.26	259	179	245	276	27.0	0	TH/ET*
DCB105-6	GC2	6	250	225	1.50	1.35	259	179	245	276	28.6	0	TH/ET*
DCB125-6	GC2	6	265	240	1.59	1.44	259	179	245	276	30.7	0	TH/ET*
DCB145-6	GC2H	6	290	260	1.74	1.56	259	179	264	295	33.0	0	TH/ET*

CROWN DEEP CYCLE SERIES - Flooded Deep Cycle Batteries

- Rugged, SolidCast™ Plates that result in longer battery life
- Range of 6 & 12 Volt Deep Cycle Batteries
- Exclusive C-Force™ Active Mass for increased charge acceptance and discharge times
- PosiWrap™ plate separators and other proprietary Crown components, cut maintenance, add peace of mind.

Type	Group Size	V	Rated Capacity		Storage		Length	Dimensions (mm)			Approx Weight KG	Layout	Terminal
			C100 (AH)	C20 (AH)	kWh' 100-Hr	kWh' 20-Hr		Width	Height	Total Height			
12 Volt Commercial Deep Cycle Batteries													
27HDC	27	12	130	115	1.56	1.38	329	173	210	238	26	1	DT
31HDC	31	12	145	130	1.74	1.56	330	171	215	238	29.9	1	DT
CR-GC150	GC12	12	170	150	2.04	1.80	328	179	235	267	36.7	1	DT
6 Volt Commercial Deep Cycle Batteries													
CR-205	GC2	6	225	205	1.35	1.23	260	179	245	278	25.4	0	DT
CR-220	GC2	6	245	220	1.47	1.32	260	179	245	278	27.2	0	DT
CR-235	GC2	6	260	235	1.56	1.41	260	179	245	278	28.6	0	DT
CR-260	GC2H	6	290	260	1.74	1.56	260	179	265	295	34.0	0	DT

* ET available on request

STERLING HPC SERIES

AGM Deep-Cycle, Plus Carbon



- Double cycle life when compared to standard AGM batteries, Durability for deep discharge, Advanced carbon helps increase charge acceptance and optimises fast charging capability.
- Sterling's unique construction and sealing techniques, ensures no electrolyte leakage from case or terminals allowing batteries to be positioned on their side.

Type	Group Size	V	Rated Capacity		Storage		Length	Dimensions (mm)			Approx Weight KG	Layout	Terminal
			C100 (AH)	C20 (AH)	kWh' 100-Hr	kWh' 20-Hr		Width	Height	Total Height			
AGM Deep-Cycle Plus Carbon 12 Volt													
HPC25-12	-	12	-	25	-	0.3	181.5	77	170	170	6.4	1	M5
HPC100-12	27	12	115	108	1.38	1.29	306	168	208	233	27.8	0	M8
HPC115-12	31	12	130	118	1.56	1.42	330	173	212	237	31.7	0	M8
HPC150-12	GC12	12	172	160	2.06	1.92	335	172	275	278	42.4	0	M8
AGM Deep-Cycle Plus Carbon 6 Volt													
HPC200-6	GC2	6	215	208	1.29	1.25	306	168	222	228	28.0	0	M8
HPC225-6	GC2	6	246	224	1.48	1.34	260	180	247	253/274*	30.5	0	M8
HPC265-6	GC2H	6	285	268	1.71	1.61	262	180	263	268	32.9	0	M8

STERLING HP SERIES RANGE

AGM Batteries

- Lead calcium grids, high gas recombination efficiency
- Suitable for Cyclic use
- Maintenance free, 98% recyclable

Type	Group Size	V	Rated Capacity		Storage		Length	Dimensions (mm)			Approx Weight KG	Layout	Terminal
			C100 (AH)	C20 (AH)	kWh ¹ 100-Hr	kWh ¹ 20-Hr		Width	Height	Total Height			
AGM 12 Volt													
HP95-12	27	12	100	95	1.20	1.14	306	168	208	214	26.8	1	M6
HP110-12	31	12	116	104	1.38	1.30	330	173	212	220	30.6	0	M8
HP200-12	31	12	232	208	2.78	2.50	522	240	218	224	59.8	3	M8

STERLING LITHIUM

LiFePO4 Batteries

Sterling Lithium Iron Phosphate batteries (LiFePO4) are developed and manufactured in VRLA footprints to replace lead-acid batteries on the road, on the water, in industrial applications or off-the-grid. Sterling Lithium batteries offer a tremendous amount of energy in a small, lightweight and maintenance-free box that's robust, safe and reliable. Our wide variety of standard and high performance batteries ensure we have what you need, when you need it. LiFePO4 batteries provide more power with less weight.

Type	V	Energy kWh ¹	Rated Capacity C20 (AH)	Dimensions (mm)			Total Height	Weight (kgs)	Layout	Terminal
				Length	Width	Height				
HLP22-12	12.8	0.28	22	175	74	165	165	2.9	1	M6
HLP100-12	12.8	1.28	100	325	165	208	211	12.8	1	M8
HLX210-12T	12.8	2.68	210	335	175	230	240	25	1	M8
HLX210-12SB	12.8	2.68	210	330	270	190	190	23.8	-	M8

Discharging batteries below 80% depth of discharge is not recommended.



TM POWER CHARGING SOLUTIONS



Optimised for the industry, TM Power Solutions have been developed to offer optimised charging solutions to the Traffic Management sector. Protecting, properly maintaining and charging batteries can only be achieved by using a correctly matched charger and charge profile to the battery type and technology used.



Multibank solutions are available for charging 4, 6, 8 and 10 batteries at a time (12 Volt batteries only).



High Frequency Battery Chargers suitable for charging the full range of 6 Volt and 12 Volt batteries.

Bespoke charging options available; we will work with you to find the perfect bespoke solution to prolong your battery's life.

TM BATTERY TESTING SOLUTIONS

The S-TEK m69 Battery Tester is an easy to use, microcontroller-based battery testing system designed to provide a reliable discharge test of Lead Acid & Lithium batteries from 12V- 30V in the range 2.5Ah – 200Ah.

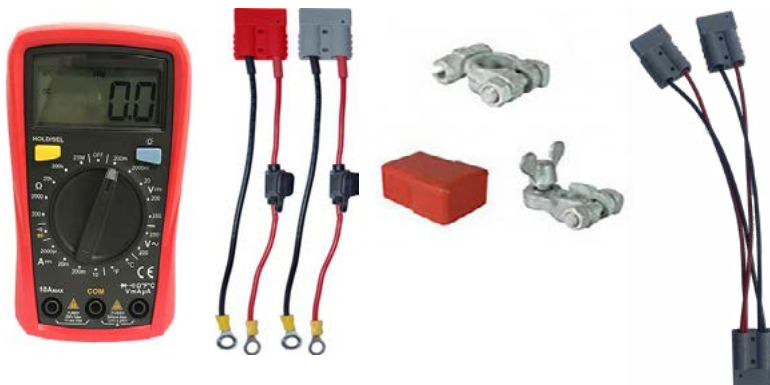


Testing a battery could not be easier, simply connect the tester to the battery, SELECT the battery to be tested from the LCD menu and press the ENTER button to begin the test. The test finishes automatically and displays the results on the screen and can also be exported to a PC.

TM POWER ACCESSORIES

A range of accessories available which includes:

- Fuse link connectors
- Easy plug Wiring looms for easy charging connection
- Insulated terminal covers
- Voltmeters / Multi-meter



Keep Batteries Charged

All batteries must be kept charged especially when not in frequent use



BATTERY RECYCLING



- Shield Batteries are dedicated to caring for the environment and believe that scrap batteries should be recycled and disposed of responsibly.
- We offer a comprehensive, easy-to-use scrap collection service provided by our recycling partner

Why recycle?

98% of a lead acid battery can be reclaimed through recycling. The lead, plastic and acid components are re-processed and manufactured into an array of other products including guide posts, cabling and detergents.

1. **Sulphuric acid** - Sulfuric acid is converted to sodium sulfate to be used in the manufacture of glass, textiles, laundry detergents and fertilisers.
2. **Lead** - Battery plates, intercell connections and posts made from lead are melted down in a smelter furnace. The molten lead is then formed into ingots for re-use.
3. **Polypropylene** - Battery containers and lids are chipped and sent for recycling into rubbish bins, plant pots etc.

Benefits of recycling

Help build a cleaner world for future generations, prevent harm to humans and wildlife, protect the environment, conserve natural resources, reduce the amount of waste going to landfill.

The Shield Batteries scrap collection service



Profit opportunities

Our service provides businesses with additional revenue from the collection and recycling of waste batteries.

By encouraging your customers to return their waste batteries to you and then disposing of them via our service, your business can receive additional revenue whilst also being legally and environmentally compliant.

Legal compliance

Our legally compliant solution meets the requirements of all environmental regulations surrounding collection, processing and recycling. It also provides full hazardous waste disposal documentation for your business.

The disposal of waste batteries is regulated by strict European legislation, so it is a legal requirement for companies to handle disposal competently. Every stage of the process needs to be recorded and companies that fail to do so face prosecution with the prospect of large fines and even imprisonment.

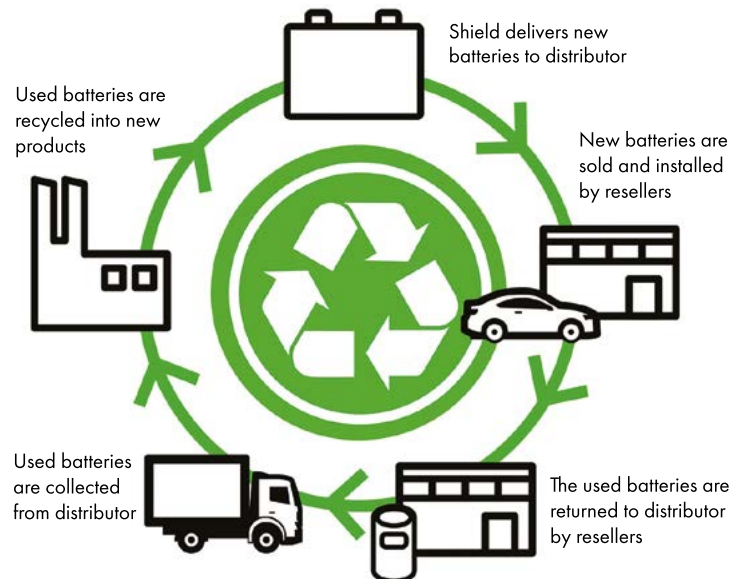
The Shield scrap collection service provides:

- UN approved, sealed containers for safe storage
- Regular collections
- Full sorting, processing and recycling of all scrap batteries regardless of manufacturer
- Legally compliant documentation for the business
- Quick payment of the scrap value of the batteries collected

Battery types collected

We can collect and recycle any kind of waste battery chemistry, from small button cells used in watches to large industrial batteries used in fork lift trucks. We are also able to handle spent lithium-ion batteries which must be stored separately to lead acid types due to the extra fire risk if not handled responsibly. **There may be an additional cost for disposal of Non-Lead Acid chemistries.**

Our recycling process



To discuss your waste battery requirements call us on 01279 652067 Email: info@shieldbatteries.co.uk

USEFUL INFORMATION



• Batteries are rated according to a range of specifications and standards. Understanding these ratings and their relevance to the battery's application and operating conditions is key to selecting the right battery.

• Every battery in the range has undergone extensive testing to determine its performance. Having passed the requirements of several stringent tests, each battery has earned a classification number for the following criteria:

- 1200** **Watt Hours-** The amount of power the battery can supply when fully charged. You can calculate your requirements by working out the consumption of the accessories the battery will power, and how long you usually use them for.
- 65** **Ampere-Hour @ 20hr (Ah) -** Ah refers to the battery's storage capacity. At 25°C, the battery must achieve greater than 20 hours of discharge time at a given load, down to a cut-off voltage of 10.5V. For example, at 60Ah battery will deliver a current of 3A for 20 hours.

TERMINALS & LAYOUTS



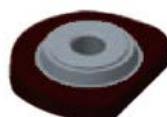
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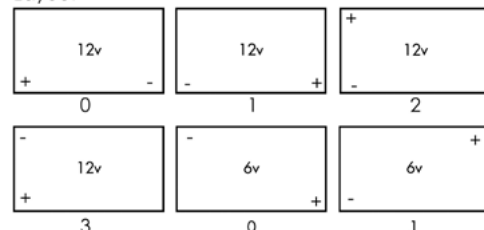


TH



M5/M6/M8

Layout



BATTERY HEALTH & SAFETY

Common battery symbols



Shield eyes - Eye protection must be worn



Note operating instructions



No smoking - No naked flames - no sparks



Keep away from children



Explosive gas - may be released



Battery acid is corrosive



Never dispose of as domestic waste - take to a designated waste reclamation site



Battery is recyclable - follow local recycling and reclaiming procedures.

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powering the future since 1910...



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