



Advancing  
Battery Management

EMEA

New vehicles.  
New batteries.  
New challenges.

# PRODUCT CATALOG 2021-2022

Released June 2021

## Battery and Electrical System Testers

MDX-335P	CPX-900
MDX-545P	EXP-1000
MDX-665P Start-stop	DSS-5000

## Charging Solutions

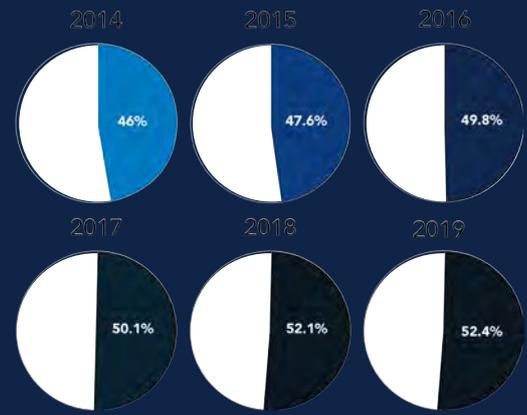
ChargeXpress Pro	GRX-3000
MCC-070	DCA-8000
MSP-070	

## Hybrid and Electrical

GRX-5100	xMB-9640
xRC-3363	

## Accessories and Replacement Parts

# Why is battery management important?



Battery related problems are by far the number one and growing breakdown statistic. ADAC breakdown statistics (2015) show that 35.7% are battery problems and another 11.9% are problems related to the electrical system. Looking at our European roadside assistance field data we see that from the average of 35% battery

problems, 50% becomes an actual replace decision. Although this is in fact roadside assistance data, this does give us a great insight on the impact we can have performing preventive maintenance in our workshops.

## EUROPE

# 53%

of breakdowns could have been prevented with a 1 minute\* test

\*If a test finds the need for charge or replace, more actions are required before a breakdown can truly be prevented.

## BATTERY MANAGEMENT OPPORTUNITY

**21 million vehicle breakdowns a year**  
**over half are battery and electrical system related**





Advancing  
Battery Management

## WHY

+ Customer satisfaction and retention

+ Battery service for extra profit margin

+ Time saving

## RETURN ON INVESTMENT



Check our online ROI calculator!



**1 MIN BATTERY TEST**



**100 TESTED**



**21 NEED REPLACE**



**16 SOLD**

Field test results show that it pays off to test every vehicle entering your workshop. 21 of every 100 vehicles tested need replacement and 16 clients will actually purchase. With profit margins per battery averaging around 35 Euros per battery you can earn back our more advanced testers back in mere months. And more importantly: you

can increase your customer satisfaction and retention, include proper battery testing as part of your service program for extra profit and save precious time lost on testing batteries with your old tester.

## STATE OF CHARGE

A battery can be charged or discharged. It is considered charged at a voltage value above 12.5, partially charged at values from 12 to 12.5, and discharged below 12. This state of charge says something about the charge only and nothing about the container of that can be charged. This means that if the battery has lost capacity. It can still be 100% charged. Temperature is an important factor that can be of influence in measuring state of charge.

State of Charge is separated from Charge Acceptance. Charge Acceptance rates how well the battery is still accepting charge from either battery charger or alternator. A bad Charge Acceptance may indicate the battery requires replacing, or that there's an issue with the internal electrical system of the vehicle.

## STATE OF HEALTH

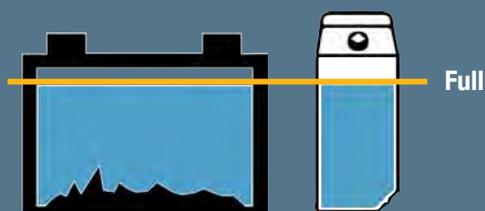
Can the battery support the car as needed?

- CCA
- AH (Reserve Capacity)

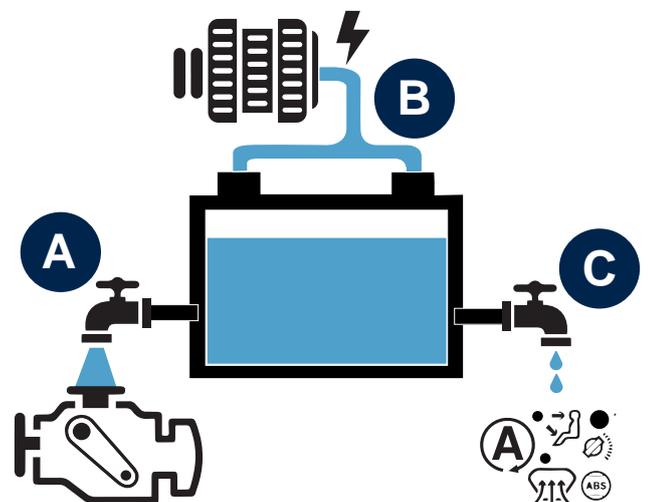
We like to refer to it as the battery's capacity or its health condition. It speaks to the ability of the battery to perform compared to the battery's rating (CCA). When a battery is damaged and has lost capacity, the condition, the state of health has deteriorated.

You can compare the State of Health of a battery to a milk carton; if there's a dent in the carton it can still be filled up to maximum capacity, and yet retain less actual content. In a battery's case this lessened State of Health is often caused by internal sulfation.

Within state of health, besides CCA, we also take up reserve capacity. The traditional use of a battery, starting the car, requires a large amount of current at once. Today's vehicles consume a battery with car electronics, like start-stop systems, at a low amount of current for a long period of time.



## STATE OF CHARGE STATE OF HEALTH



A. Cold Cranking Amps (CCA)

B. Charge Acceptance (CA)

C. Reserve Capacity (Ah)

## BATTERY LIFE CYCLE

The way your battery management system is structured today has its implications for the application, whether it is service diagnostics and warranty, preventive maintenance, or vehicle delivery quality. This goes per the location of the battery in its life cycle, from OEM dealer or service location to Aftermarket Service Chain, Retailer and Independent Service Installer.

SHIPPED  
BY BOAT

DELIVERY TO  
CAR FACTORY

MANUFACTURING  
BATTERY



Battery to delivery of the car with battery management, diagnostic and charging solutions.

DOCKING  
EUROPE



PARKED



TRANSPORT  
TO COUNTRY



Manage and control your customer satisfaction, warranty or service system and costs by completing the battery management program with an information system making the relevant data accessible and actionable.



WARRANTY  
WEAR BATTERY



SENT TO  
CLIENT



ARRIVED AT  
DEALERSHIP



Perform the required services: 1. Diagnose battery and system; 2. Charge according diagnosis for actual and proper maintenance; 3. Supply power during service and flashing; 4. communicate and record data.



MAINTENANCE



DEMOLITION



RECYCLING



Communicate recommendations and record customer and vehicle data with a complete battery management system for an increased customer satisfaction and improved service.

## BATTERY LIFECYCLE

“Without data you’re just another person with an opinion.”

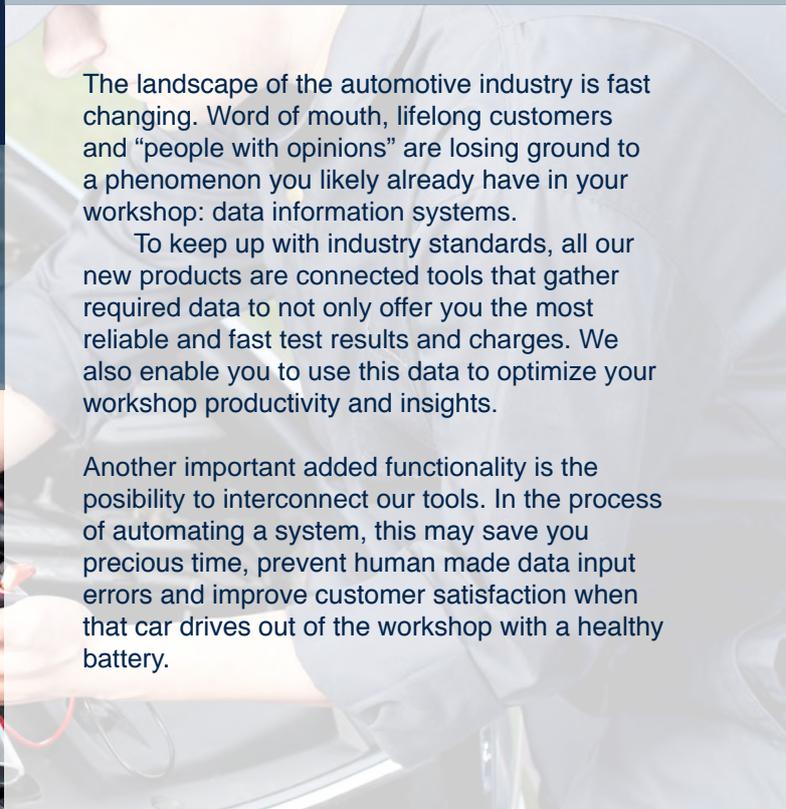
- W. Edwards Demming

## CLOSE THE DATA LOOP

The landscape of the automotive industry is fast changing. Word of mouth, lifelong customers and “people with opinions” are losing ground to a phenomenon you likely already have in your workshop: data information systems.

To keep up with industry standards, all our new products are connected tools that gather required data to not only offer you the most reliable and fast test results and charges. We also enable you to use this data to optimize your workshop productivity and insights.

Another important added functionality is the possibility to interconnect our tools. In the process of automating a system, this may save you precious time, prevent human made data input errors and improve customer satisfaction when that car drives out of the workshop with a healthy battery.



# NEW BATTERIES

As primed on the title page, people and their needs change. Consequently, the use of products and technology change. With vehicles demanding an awful lot from their batteries today, especially when the engine has stopped, new battery technologies have emerged.

The use of the ordinary SLI battery by car manufacturers has decreased by 50% from 2013 to 2016 and is continuing to drop as the years progress. This new technology comes in many forms from Enhanced, Improved and Advanced Flooded to Extended Cycle Life. It comes in even more types with different battery standards and ratings. Each battery technology needs its characterizing so we can diagnose it with a fitting algorithm for providing a reliable result and a proper advise for the car owner.

*So, can you diagnose it with any of the available battery testing equipment of today, whether it is Midtronics or not?*

Yes you can, but the result is as good as the information you put in the tester. It works according the concept:

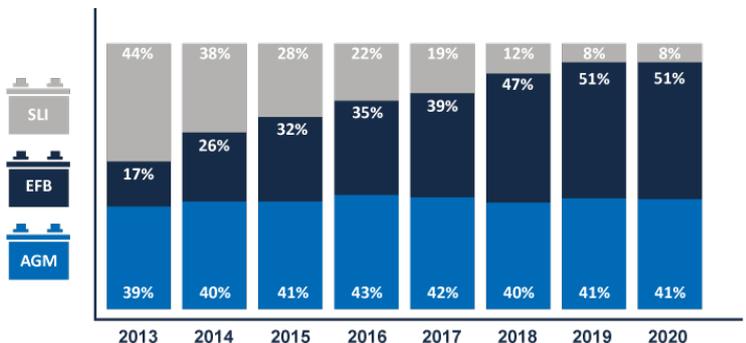
## GARBAGE IN, GARBAGE OUT.

Also, as vehicles are becoming more dependent on the Reserve Capacity of the battery, it's essential you do not only test CCA (Cold Cranking Amps), but also Ah (Ampere hour). We have developed **Conductance Profiling™** to test the Reserve Capacity of a battery, thereby making sure the battery can support newer functionalities such as Brake Energy Regeneration and Start-Stop functionality.

To conclude. With products other than the Midtronics with Start-Stop support, you cannot be entirely sure on the trustworthiness of the test result. Therefore, the result is per definition unreliable and cannot be properly used to advise car owners. You risk both sending customers away with bad batteries as well as replacing batteries that are still ok.

**Invest in a tool with Reserve Capacity to make sure you get reliable test results and keep happy customers.**

## THE UPRISE OF EFB AND AGM BATTERIES





The electrification trend

## NEW CHALLENGES

More comfort in modern vehicles, also means more challenges for the battery. It has become common practise that cars are heavily equipped with electronics. Some of those have a memory function, whereas others don't. This reliance on electronics, means that car batteries have become increasingly important, and must offer optimal performance in the most challenging conditions. To prevent unwanted downtime and unsatisfied customers, it is necessary to regularly test and maintain the battery

### **Safety at risk**

Due to the amount and importance of the electronic systems, modern cars have a battery management system that warns and takes necessary actions if they recognize a problem. This is done to prevent safety risks; weak batteries can cause strange ABS, ESP and engine failures. A bad battery does not immediately make a conventional vehicle with a good alternator unmanageable, yet auxiliary systems are prone to failure - thereby causing indirect safety risks.

### **12V battery crucial for EV**

In hybrid and full electric vehicles there's an even heavier focus on the battery, and safety. Managing the 12V battery is crucial to ensure not only a starting event (which is very different from the good old cranking you find in ICE's), and also to maintain control of the vehicle when the high voltage battery pack starts to fail.

### **Servicing fully electric vehicles**

As more hybrid and full electric vehicles hit the road, we have developed a series of new products that enable you to service both 12V battery, as well as the high voltage battery packs. This way we can move into the future and face new challenges head on.

# NEW CHALLENGES, NEW TOOLS



Advancing  
Battery Management

With over 35 years of expertise in battery management solutions, we lead the way into your battery management success. Be it when you need something small and handheld, or require deep-diving full diagnostics.

Before you select the right tool for the job, it's important to decide on the main benefits that are important to you.

## TOOL SELECTOR

SERVICE SOLUTIONS FOR EVERY WORKSHOP

### REGULAR ICE VEHICLES

### HYBRID AND ELECTRICAL VEHICLES

**A**

Testing both the battery and electrical system

**B**

Testing AGM + EFB + GEL

**C**

Testing Start-Stop

**D**

Measure Reserve Capacity

**E**

Heavy Duty / Truck battery testing

**F**

Testing all (ICE) batteries\*  
\*Rating 100 - 3000

**G**

Regular charging capability

**H**

Diagnostic charging capability  
(test and charger in one tool)

**A**

12V Lead-acid Auxiliary test  
for electric vehicle

**B**

EV Pack discharge

**C**

EV Module balancing

**D**

EV Rescue charging

## Battery and Electrical System Testers

 <p><b>MDX-335P</b> A Pg. 10</p>	 <p><b>CPX-900 series</b> A B C D E F Pg. 12</p>
 <p><b>MDX-545P</b> A B C Pg. 10</p>	 <p><b>EXP-1000 series</b> A B C E F Pg. 13</p>
 <p><b>MDX-665P Start-stop</b> A B C E Pg. 10</p>	 <p><b>DSS-5000 series</b> A B E F Pg. 14</p>

## Charging Solutions

 <p><b>ChargeXpress Pro series</b> G Pg. 16</p>	 <p><b>GRX-3000 EU</b> H Pg. 20</p>
 <p><b>MCC-070 series</b> G Pg. 18</p>	 <p><b>DCA-8000</b> H Pg. 21</p>
 <p><b>MSP-070 series</b> G Pg. 18</p>	

## Hybrid and Electrical

 <p><b>GRX-5100</b> B C D Pg. 23</p>	 <p><b>xMB-9640</b> C Pg. 25</p>
 <p><b>xRC-3363</b> D Pg. 24</p>	

## Accessories & Replacement parts

# BATTERY AND ELECTRICAL SYSTEM TESTERS

+ Easy to handle,  
easy to store

+ User friendly  
design

+ Ready for the  
workshop environment

## MDX SERIES



MDX-300



MDX-545P  
EU



MDX-655P  
start-stop



	MDX-335P	MDX-545P EU	MDX-655P start-stop
<b>BATTERY TYPES</b>	Battery test, and starting and charging system voltage test, with integrated printer. Lead-Acid, Gel and AGM	Battery test, and starting and charging system voltage test, with integrated printer. Lead-Acid, Gel, AGM and EFB	Battery test, and advanced starting and charging system voltage test, with integrated printer. Lead-Acid, Gel, AGM, AGM Spiral and EFB
<b>START-STOP TESTING TECHNOLOGY</b>	NO	YES	YES
<b>NEW BATTERY TEST</b>	NO	YES	YES
<b>RATING</b>	100 - 900	100 - 1200	100 - 2000
<b>CABLE</b>	0,45M	1,20M	3M
<b>USER DEFINED PRINTOUT HEADER</b>	YES	YES	YES

**Note:** Printer option must be selected at time of purchase and cannot be added later.



The MDX series introduces our entry level testers, which allow you to service cars, trucks and motorcycle batteries that come into your workshop. Perform a quick, simple and accurate battery test in seconds and review the printout with your customers.

### MDX-335P

Complete with an integrated printer, the Midtronics MDX-300P series makes it easy and more affordable to determine and present the current state of a battery and electrical system.

The MDX-300P performs a quick, simple, and accurate battery or system test in seconds without heat, sparks, or user interpretation. The results can then be printed and reviewed immediately with customers to add impact to preventative maintenance routines and customer service.

### MDX-545P EU

The MDX-500 Series is the first tester at entry level that allows you to service every 12 volt vehicle battery that comes into your workshop and give a reliable result that allows you to advise your customers. With its EFB testing capability it has become our best selling product within the MDX series, offering a perfect balance between service abilities and price offering.

### MDX-665P START-STOP

The MDX-600 series combines industry standard conductance technology for battery testing with more than 25 years of experience and innovation gained from selling essential tools to nearly every car and truck OEM in the world. Unique to the tester are the wide range of apps that are included, such as:

- Automotive
- Motorcycle
- Marine Cranking
- Lawn and Garden
- Group 31
- Commercial 4D/8D

**MDX series:** Includes tester with cables

<p><b>MDX-335P</b></p> <p><b>MDX-545P EU</b></p> <p><b>MDX-655P Start-Stop</b></p>	}	<p><b>P</b></p> <p>Includes Optional Integrated printer</p>
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# BATTERY AND ELECTRICAL SYSTEM TESTERS

## CPX-900 SERIES



The CPX series is our best-selling handheld battery and system analyzer.

## CPX-900 SERIES

CPX-900 Battery & Electrical System Analyzer offers advanced diagnostics in a handheld one-piece diagnostic tool. CPX-900 features Conductance Profiling™, a patented Midtronics technology that identifies batteries with low reserve capacity, a key capability to accurately diagnose the increasing electrical demands placed on modern vehicles.

- Quickly and accurately diagnose a battery's cranking and reserve capacity health
- Reduced charge and retest results
- Proven Midtronics quality – durable design features for heavy daily use
- Support automated over-the-air software updates and data analytics

**CPX-900:** Includes tester and 1,2 or 3 meter battery cables

	CPX-900 series
CONDUCTANCE PROFILING™	YES
WI-FI AND BLUETOOTH	B/G/N WI-FI, BLUETOOTH
CAMERA (1D and 2D)	OPTIONAL BARCODE
STOP-START BATTERY TEST	YES
SYSTEM TEST	LOADED AND UNLOADED VOLTAGE
FIELD-REPLACEABLE TEST LEADS	YES
TEMPERATURE SENSOR	YES
INTEGRATED PRINTER	OPTIONAL
BATTERY TYPES	REGULAR, EFB, AGM (FLATPLATE AND SPIRAL), GEL
CABLE LENGTH IN METERS	1,2M or 3M

**CPX-900P**  
**CPX-900L**  
**CPX-900PL**  
**CPX-900 BAR**  
**CPX-900P BAR**  
**CPX-900L BAR**  
**CPX-900PL BAR**

**P** Includes Optional Integrated printer  
**L** Includes Optional 3M cables  
**BAR** Includes Optional 1D/2D barcode scanner

**CPX-901:** Optional dock (for automated overnight software updates)

**Note:** Printer and Barcode Scanner options must be selected at time of purchase and cannot be added later.



EXP-1000 SERIES



The EXP-1000 is a complete and expandable diagnostic tool for performing more comprehensive diagnostics that allow you to identify battery related problem causes. Test batteries, electrical systems, and batteries under charge.

EXP-1000 SERIES

Old and trusted, our EXP-1000 series gives you the testing capabilities you'll need on a daily basis. For testing 6 and 12-volt automotive batteries, as well as 12- and 24-volt\* charging systems. (\*HD version only)



EXP-1000



EXP-1000 HD



	EXP-1000 series	EXP-1000HD series	<b>EST kit</b> <ul style="list-style-type: none"> <li>Multimeter leads (for diagnosing board-level component)</li> <li>Voltage drop leads</li> <li>Board-level component diagnostic software</li> <li>Voltage drop software</li> </ul>
<b>BATTERY TYPES</b>	Battery and electrical system test 6 and 12 volt Lead-Acid, Gel and AGM	Battery and electrical system test 6 and 12 volt Lead-Acid, Gel and AGM	
<b>RATING</b>	100-3000	100-3000	
<b>CABLE</b>	3M	4,25M	
		Heavy duty/truck application	
<b>NEW BATTERY TEST</b>	X	24 volt system balance testing V	

**EXP-1000:** Includes tester, tester case and cables

**EXP-1000 KIT EU**

**EXP-1000 HD EU**

**Note:** Printer can be ordered separately (A088 and A089 - cigarette lighter type)

# BATTERY AND ELECTRICAL SYSTEM TESTERS

## DSS-5000 SERIES



The DSS-5000 Battery Diagnostic Service System answers the challenges posed by contemporary and future vehicles. Including capabilities for new battery and system types, new business procedures and a generation of service technicians familiar with app based technology.

## DSS-5000P



DSS-5000P



The DSS-5000 Battery & Electrical System Analyzer offers advanced battery testing diagnostics with Conductance Profiling™, a patented Midtronics technology that identifies batteries with low reserve capacity, a key diagnostic feature with the number of computer and accessory systems requiring battery support in today's vehicles.

- Pre-programmed service apps promote quick error-free testing
- Supports automated over-the-air software updates and data analytics
- Detachable controller for sharing on-screen battery diagnostic results with customers
- Vehicle database-driven testing automatically sets correct battery parameters increasing technician confidence and customer satisfaction

	DSS-5000P
CONDUCTANCE PROFILING™	YES
WI-FI AND BLUETOOTH	B/G/N Wi-Fi, Bluetooth
DETACHABLE TABLET CONTROLLER	YES
CAMERA (1D and 2D)	YES
START-STOP BATTERY TEST	YES
SYSTEM TEST	Optional
TEMPERATURE SENSOR	YES
BUILT IN PRINTER	Optional
AMP CLAMP SUPPORT	Optional
DOCK	YES
CHARGE STATION	YES
DISPLAY SIZE & TYPE	5" TOUCH SCREEN, FULL COLOUR

**DSS-5000:** Includes tester, integrated printer and cables

**DSS-5000P EU**

**DSS-5000P A EU**

A

Includes amp clamp

## SYSTEM TEST?

Looking for a tool with the capability to not only check the battery, but also the electrical system of the vehicle? The following products also include a System Test, ranging from simplified to a full system test with amp clamp)

**MDX-335P**

Simple system test

**MDX-545P EU**

**MDX-655P Start-stop**

Advanced system test  
(+ RPM increase)

**CPX-900 series**

**EXP-1000 series**

Full system test (with  
amp clamp)

**DSS-5000 series**



# CHARGING SOLUTIONS

+ Controlled power supply

+ Manual and automatic charging

+ Safely charge every battery

## CHARGEXPRESS PRO SERIES



PRO 25



PRO 50-2

	CHARGEXPRESS PRO 25	CHARGEXPRESS PRO 50-2
	Battery charger and power supply	Battery charger and power supply
CHARGE ACCEPTANCE	V	V
CABLE	5M	5M
BATTERY TYPE	12-volt Lead-Acid, Gel and AGM	2x 12-volt Lead-Acid, Gel and AGM; 24 volt system
	25 charging amps	50a single channel; 2x 25A dual channel
BALANCED CHARGING	X	V
	SPECS	SPECS
POWER REQUIREMENTS	230 volt AC – 50 Hz / 16A	230 volt AC – 50 Hz / 16A
POWER OUTPUT	300W	600W
DIMENSIONS	205 x 165 x 100 mm	300 x 165 x 100 mm
WEIGHT	2.5 k	4 k
PROTECTION INDEX	IP 23	IP 23
TEMPERATURE RANGE	-20 °C to 45 °C (-4 °F to 113 °F)	-20 °C to 45 °C (-4 °F to 113 °F)

The ChargeXpress Pro is our starter level charger series.

## CHARGEEXPRESS PRO 25

The ChargeXpress PRO 25 is the low entry specialty charger and power supply. Charges all 12 volt batteries. It is smart as it recognizes charge acceptance, and allows you to support the battery of cars during service, maintenance routines and demonstrations. It is portable, safe, and easy to use.

## CHARGEEXPRESS PRO 50-2

The ChargeXpress PRO 50-2 is the only charger in the market offering balanced charging. This means you can charge two batteries in a 24 volt system independently at the same time using the two channels. When battery pairs of a 24 volt system are out of balance you don't want to charge them the same. Under or overcharging a battery likely causes damage.

**CHARGEEXPRES PRO:** Includes charger with 5 meter length charging cables

**CX PRO 25**

**CX PRO 50-2**



# CHARGING SOLUTIONS

## MCC / MSP-070 SERIES



**MCC-070**  
(wallmount)



**MSP-070**



	<b>MCC-070</b>	<b>MSP-070</b>
<b>PRODUCT</b>	70A CHARGER	70A POWER SUPPLY
<b>WI-FI AND BLUETOOTH</b>	B/G/N WI-FI, BLUETOOTH	WITH OPTIONAL ACCESSORY
<b>OVER-THE-AIR SOFTWARE UPDATES</b>	OPTIONAL WITH BMIS	N/A
<b>CAN INTERFACE</b>	YES	YES
<b>MANUAL AND AUTOMATIC CHARGE MODE SELECTION</b>	YES	N/A
<b>TOP OFF MODE</b>	YES	N/A
<b>FLOAT CHARGE CAPABILITY</b>	YES	N/A
<b>BATTERY CHEMISTRIES</b>	LEAD-ACID, GEL, AGM, EFB	LEAD-ACID, GEL, AGM, EFB
<b>CHARGING AMPS</b>	70A CHARGING AND POWER SUPPLY	70A POWER SUPPLY
<b>SELECTABLE VOLTAGE OUTPUT</b>	ON-SCREEN: 12 - 14.4 VDC IN 0.1 V INCREMENTS	3-POSITION SWITCH: 14.2, 13.7, 13.1 VDC
<b>REVERSE POLARITY</b>	YES	YES
<b>CLAMP HIGH TEMPERATURE DETECTION</b>	YES	YES
<b>CIRCUIT BREAKER FOR DC OUTPUT PROTECTION</b>	YES	YES
<b>INPUT SURGE PROTECTION</b>	YES	YES
<b>POWER FACTOR CORRECTION</b>	YES	YES
<b>BATTERY DEFECT RECOGNITION</b>	YES	N/A
<b>CABLE LENGTH IN METERS</b>	2, 3 OR 5M	2, 3 OR 5M



## MCC-070 SERIES

The MCC series offers benefits that address the unique needs of any service application.

- Different accessory options such as a handle, base and wall-mount
- Charges batteries - including new AGM & EFB models quickly and easily
- Automatic and efficient charge recovery for deeply discharged batteries
- Provides on demand current and constant clean voltage to the vehicle battery for the extended period of time required to update the vehicle computer software. Selectable voltage levels from 13.5 - 14.5 VDC (.1 VDC)
- Clearly indicates charger status: charging, charge complete, charging error/fault
- Quick charging at 14.5VDC / 40A
- Controlled charging: EFB 15.5 VDC / 70A and AGM 14.5 VDC / 40A

**MCC:** Includes controlled charger with 5 meter charge cables and 2 meter power cord.

<b>MCC-070-CM-5-EU</b>	With base
<b>MCC-070-CH-5-EU</b>	With base and handle
<b>MCC-070-CW-5-EU</b>	With wall mount

Our next generation chargers offer 70A of continuous, clean power and all the safety one desires when working with battery chargers.



## MSP-070 SERIES

The Midtronics MSP-070 Power Supply Charger provides clean, reliable power for charging and maintaining battery state-of-charge during service reflash, complex maintenance and in the showroom.

- Integrated carry handle
- Avoid potential battery damage from drain during vehicle service
- Maintain vehicle electronic and accessory settings
- Return battery in optimum condition to prevent potential no-starts and ensure customer satisfaction
- Selectable voltages of 13.2, 13.8, and 14.4 VDC via 3-position switch for showroom battery maintenance, reflash, and extended maintenance events.

**MSP:** Includes controlled power supply charger

<b>MSP-070-32-EU</b>	3 m leads, 2m power cord
<b>MSP-070-35-EU</b>	3m leads, 5m power cord
<b>MSP-070-52-EU</b>	5m leads, 2m power cord
<b>MSP-070-55-EU</b>	5m leads, 5m power cord

# CHARGING SOLUTIONS

## GRX-3000 SERIES



This battery diagnostic station charges the battery based on its condition. The GRX continuously monitors the charging progress and how the battery responds. In this way it recognizes if the battery can be brought back to service in the last possible time.

### GRX-3000 EU

One unit for battery management: testing and charging. With this one unit you can diagnose and charge based upon the measured battery condition. In most cases, this unit advises whether the battery can be recovered or not in no more than five minutes.

Defective batteries are identified rapidly and recoverable batteries are quickly and safely charged. The added value over a handheld tester lies with this station's capability to charge and with that repeatedly monitor the battery response. It is one of little ways to know about a battery's condition more accurately over time.



GRX-3000 EU



**GRX-3000:** Includes battery diagnostic station and 3 meter charge leads.

**GRX-3000 KIT EU**

With cart

**GRX-3000 KIT/P EU**

With cart and printer

	GRX-3000 EU
<b>DIMENSIONS</b>	- Charger: 60 x 53 x 31 cm; 24 x 21 x 12 in - Cart: 63 x 94 x 40 cm; 25 x 15 x 16 in
<b>WEIGHT</b>	- Charger: 18 kg - Cart: 19 kg
<b>TEMPERATURE RANGE</b>	-20 °C to 45 °C (-4 °F to 113 °F)
<b>RATING</b>	CCA 100-1700, IEC 100-1000, DIN 100-1000, EN 100-1700, SAE 100-1700, JIS BY PART NUMBER
<b>POWER SUPPLY</b>	70A/600W
<b>POWER REQUIREMENTS</b>	220 - 240 volt AC – 50 Hz / 16A
<b>EXPORT PORTS</b>	SD and USB
<b>LANGUAGE</b>	24 software and quick manual
<b>OPTIONAL</b>	Printer and communication modules

## DCA-8000 SERIES



Combining Conductance Profiling and Dynamic Charge Acceptance, our Advanced diagnostic charging system features breakthrough core technology. The tool offers more user friendliness, the fastest possible charges and the most reliable results.

## DCA-8000

Advanced diagnostic charging system featuring breakthrough core technology

- Diagnoses most batteries in 2 minutes or less
- Charges as fast as possible through continuous battery monitoring
- Delivers the most accurate battery diagnostic technology
- Detects battery failures due to advanced vehicle electronics
- Supports automated over-the-air software updates and data analytics
- Enhances productivity via intuitive touchscreen user interface



DCA-8000



	GRX-3000 EU
<b>DIMENSIONS</b>	- Charger: 24 x 44 x 45 cm; 9.4 x 17.3 x 17.8 in
<b>WEIGHT</b>	- Charger: 21.55kg
<b>TEMPERATURE RANGE</b>	0 °C to 60 °C (32 °F to 140 °F)
<b>RATING</b>	CCA, CA, MCA, DIN, SAE, IEC, EN, EN2, JIS BY PART NUMBER
<b>POWER SUPPLY</b>	70A
<b>POWER REQUIREMENTS</b>	100 - 240 volt AC – 50-60 Hz / 12A maximum
<b>EXPORT PORTS</b>	USB 2.0
<b>OPTIONAL</b>	Cart



MIDTRONICS WORKS CLOSELY WITH INDIVIDUAL CUSTOMERS TO DEVELOP CUSTOM DCA-8000 SOLUTIONS. PLEASE CONTACT YOUR MIDTRONICS ACCOUNT MANAGER FOR MORE INFORMATION.

# HYBRID AND ELECTRICAL

+ Get EV service ready

+ Safe high voltage servicing

+ Depower, balance, rescue

## THE PATH TO EV SUCCESS

Over the next 10 years the vehicle population will undergo a massive shift from internal combustion engines to primarily electric vehicles (EV).

This transition to electric vehicles represents one of the single greatest challenges global automotive service providers will ever face.

Midtronics is here to help. As the leading global supplier of EV dealer service equipment for high-voltage batteries, our products, technology, and expertise can help you along this journey.

We know the path. We paved it.

# GRX-5100



This battery service tool offers the possibility to depower, balance, and charge hybrid and electric vehicle battery packs.

## GRX-5100

With this unit we offer the industry's first high voltage hybrid and electric vehicle battery service tool. Perform battery pack service with simple controlled and automated processes, including:

1. Safely discharge the battery pack or sections in or out of vehicle to ready them for transportation.
2. Balance sections, charging and discharging them individually, for ensuring optimal battery pack operation.
3. Capture the VIN and generate detailed status reports of the vehicle's battery pack including information on cell level.



	<b>GRX-5100</b>
<b>INPUTS</b>	<b>AC Main Power</b> - 100-240 VAC 50/60 Hz, 12A maximum - Continuously monitored for maximum charge rate
<b>INPUT/OUTPUT</b>	- Independent CAN BUS (2) - LIN (1) - Digital I/O (8)
<b>COMMUNICATIONS</b>	- Wi-Fi - USB-A - RS-232

This xEV battery service stations offers you the possibility to reduce time and expense for your customers. Furthermore, it helps you to reduce warranty costs.

Working with hybrid and electric vehicles requires safety measures. Please contact us to discuss possibilities for the GRX-5100 xEV Battery Service Tool.

<b>DISCHARGER</b>	<b>CHARGER</b>
0 – 7.5 amperes DC	0 – 5.0 amperes DC
Continuously variable	Continuously variable - Develops maximum current based on AC input power available (100 – 240 VDC)
0 – 384 VDC compliant	
Reverse polarity protected	
Hard safety disconnect	
Monitors battery section temperature and high-voltage leakage to chassis	
- Throttles back current for excessive temperature rise - Terminates session for temperature limit - Terminates session for excessive leakage	

# HYBRID AND ELECTRICAL

## XMB-9640



Our xMB-9640 Module Balancer is ready to give you faster, more cost-effective service on module-level.

## XMB-9640

xMB-9640 High-Voltage Module Balancer represents the third generation of Midtronics xEV battery service tools, enabling technicians to quickly, efficiently and safely perform module-level balancing of EV and HEV batteries.

- Balances battery pack modules to ensure optimal pack operation, safely and efficiently charging or discharging individual modules to bring the pack into alignment and enable a better customer experience
- Easy user interface and on-screen prompts guide accurate service
- Compact footprint for more mobility within the shop



XMB-9640



### xMB-9640

Up to 96Vdc; 40 amps max

5-inch color touchscreen and easy-to-use icon-based user menu

Automatic cable and module detection

Option to operate using either touch-screen or keypad

Cell voltage and temperature monitoring

CAN communication

Wi-Fi and Bluetooth communication



**MIDTRONICS WORKS CLOSELY WITH INDIVIDUAL CUSTOMERS TO DEVELOP CUSTOM XMB-9640 SOLUTIONS. PLEASE CONTACT YOUR MIDTRONICS ACCOUNT MANAGER FOR MORE INFORMATION.**

## XRC-3363



The xRC-3363 provides a jump start to recharge the battery pack to a point where it can crank the engine, enabling the true vehicle issue to be diagnosed and repaired faster and more accurately.

## XRC-3363

xRC-3363 Rescue Charger represents the third generation of Midtronics xEV battery service tools, enabling technicians to quickly, efficiently and safely jumpstart hybrid vehicle high voltage batteries.

- Charges hybrid vehicle high voltage batteries to a state of charge capable of turning over vehicle engine
- Easy user interface and on-screen prompts guide accurate service
- Compact footprint for more mobility within the shop



XRC-3363



### xRC-3363

**Max Voltage: 336 Volts**

**Charging Current: 3 Amps**

**5" color touchscreen with navigational pad**

**Ability for on screen guided cable connections**

**Consistent user interface across xEV platforms**

**Cell voltage/Pack temp monitoring during charge**

**Finger safe connections for all cables**

**WiFi/Bluetooth connected**

**Ability to send date regarding service with BMIS**



**MIDTRONICS WORKS CLOSELY WITH INDIVIDUAL CUSTOMERS TO DEVELOP CUSTOM XRC-3363 SOLUTIONS. PLEASE CONTACT YOUR MIDTRONICS ACCOUNT MANAGER FOR MORE INFORMATION.**

# ACCESSORIES & REPLACEMENTS

+ CABLES

+ CASES

+ PRINTERS

+ MISCELLANEOUS

## NEED SOME HELP?

At Midtronics we're proud of not only our products, but also our services. Are you having trouble with one of our products? We have a team of specialists who are there to help you out - even when your product is past its warranty period.

For general inquiries:  
[info-europe@midtronics.com](mailto:info-europe@midtronics.com)

For service inquiries:  
<https://www.midtronics.com/customer-support/>



**MIDTRONICS** • VALUES

## CABLES & REPLACEMENT CABLES

Part Number	Description
A018	Inductive Amp Clamp
A028	10-ft DMM Cable Assembly with Clamps
130-078J	10-ft Replaceable Cable
130-072Q	4-ft Replaceable Cable
A126	DMM Adapter & Probe Kit
130-000195	10-ft Replaceable Cable with Heavy-Duty Clamps
130-569	4-ft Replaceable Cable
130-568	10-ft Replaceable Cable
130-000289	4-ft Replaceable Cable with Heavy-Duty Clamps (Piranha)
130-000320	Replaceable Charge Cable / Clamp Set
130-000592	4-ft Replaceable Cable (1,2m)
130-000593	10-ft Replaceable Cable (3m)
130-000471	2 meter lead cable
130-000472	3 meter lead cable
130-000475	5 meter lead cable

Product(s)
EXP-1000, EXP-1000 HD
MDX Series
MDX Series
EXP-800
GRX-3000
CPX-900
CPX-900
MCC-070, MSP-070
MCC-070, MSP-070
MCC-070, MSP-070



A018

## CARRYING CASES & BAGS

Part Number	Description
A106	Hard Carrying Case
115-911	EU Carrying Case

Product(s)
EXP-1000, EXP-1000 HD
MDX-600, EXP-1000

## MISCELLANEOUS ACCESSORIES

Part Number	Description
A033	Lead Stud Adapter Set (2 Female; 2 Male)
A125	Protective Rubber Boot
CPX-901 EU	CPX-900 EU Dock
299-000293	MCC HANDLE
299-000294	MCC BASE
299-000300	MCC WALL MOUNT

Product(s)
All
EXP-800
CPX-900
MCC-070
MCC-070
MCC-070

## PRINTERS & PRINT ACCESSORIES

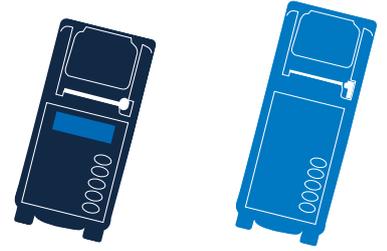
Part Number	Description
A025	In-Vehicle Charge Cable for A088 Infrared Printer (for cigarette lighter / accessory outlet)
A088	Infrared Printer
157-002	Charger Adapter for A088 Infrared Printer
MJ10	Rechargeable Batteries for A088 Infrared Printer
856607-10	10-Pack Thermal Printer Paper (2.25-in w x 1.875-in d) (Also available at most office supply stores)
A401	Paper roll (10 pack)
A224	Plastic Printer Roller Replacement
A256	Printer Module

Product(s)
EXP-1000, EXP-1000 HD, HYB-1000
EXP-1000, EXP-1000 HD, HYB-1000, MDX Series
EXP-1000, EXP-1000 HD, HYB-1000
EXP-1000, EXP-1000 HD, HYB-1000
EXP-800, EXP-1000, EXP-1000 HD, GR1-120, HYB-1000, MDX Series
CPX-900, DSS-5000
MDX Series
GRX-3000

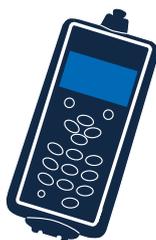
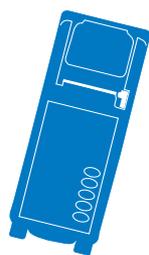


A088

# COMPARING OUR TESTERS



FEATURE	MDX-335P	MDX-545P
<b>CONDUCTANCE PROFILING™</b> Diagnose reserve capacity issues and achieve ±50% reduction in CHARGE&RETEST decisions	NO	NO
<b>WI-FI AND BLUETOOTH</b> Supports connectivity to Midtronics Battery Management Information System (BMIS) and our Next-Gen tools. It supports over-the-air updates and data transfer.	NO	NO
<b>CAMERA</b> Used for barcode VIN capture. Camera can capture 1D and 2D.	NO	NO
<b>STOP-START BATTERY TEST</b>	NO	YES
<b>SYSTEM TEST</b>	Voltage only	Voltage only
<b>HEAVY DUTY TESTING</b>	NO	NO
<b>FIELD-REPLACEABLE TEST LEADS</b>	NO	YES
<b>TEMPERATURE SENSOR</b>	NO	NO
<b>INTEGRATED PRINTER</b>	YES	YES
<b>AMP CLAMP SUPPORT</b>	NO	NO
<b>RECHARGEABLE BATTERIES</b>	NO	NO
<b>BATTERY TYPES</b> What battery types can be tested with the standard tool.	Regular (flooded), AGM, GEL	Regular (flooded), EFB, AGM (flatplate and spiral), GEL
<b>CABLE LENGTH IN METERS</b>	0,5m	1,2m



MDX-655P start-stop	CPX-900 Series	EXP-1000 (HD)	DSS-5000 Series	GRX-3000 EU
NO	YES	NO	YES	NO
NO	B/G/N Wi-Fi, Bluetooth	NO	B/G/N Wi-Fi, Bluetooth	Optional Wi-Fi, Bluetooth
NO	Optional barcode	NO	YES	NO
YES	YES	NO	YES	Optional
Advanced system test (+ RPM increase)	Advanced system test (+ RPM increase)	Full system test (with amp clamp)	Full system test (with amp clamp)	Optional
NO	NO	Optional	YES	NO
YES	YES	YES	YES	YES
NO	YES	YES	YES	YES
Optional	Optional	NO	Optional	Optional
NO	NO	YES	Optional	Optional
NO	NO	NO	YES	Not applicable
Regular (flooded), EFB, AGM (flatplate and spiral), GEL	Regular (flooded), EFB, AGM (flatplate and spiral), GEL	Regular, AGM, Spiral, GEL,	Regular (flooded), EFB, AGM (flatplate and spiral), GEL	Regular (flooded), EFB, AGM (flatplate and spiral), GEL and optional LITHIUM-IRON- PHOSPHATE
3m	1,2m or 3M	4,5m	0,9m	3m

# COMPARING OUR CHARGERS



FEATURE	ChargeXpress PRO 25
<b>PRODUCT</b>	25A CHARGER & POWER SUPPLY
<b>WI-FI AND BLUETOOTH</b> Supports connectivity to battery management information system (BMIS) and next generation tools.	N/A
<b>FUTURE READINESS</b> Remote over-the-air software updates	N/A
<b>CLOSED LOOP BATTERY MANAGEMENT</b> Communication with next generation platforms and tools (see visual on the second page)	N/A
<b>CAN INTERFACE</b>	N/A
<b>MANUAL AND AUTOMATIC CHARGE MODE SELECTION</b>	N/A
<b>TOP OFF MODE</b>	YES
<b>FLOAT CHARGE CAPABILITY</b>	YES
<b>BATTERY CHEMISTRIES</b>	LEAD-ACID, GEL, AGM
<b>CHARGING AMPS</b>	25A CHARGER AND POWER SUPPLY
<b>FIELD-REPLACEABLE TEST LEADS</b>	YES
<b>ENHANCED USER INTERFACE / EASE-OF-USE</b> Application interface, color screen	N/A
<b>SELECTABLE VOLTAGE OUTPUT</b>	STATIC VOLTAGE 13.1 VDC
<b>REVERSE POLARITY</b>	YES
<b>CLAMP CONNECTION DETECTION</b>	YES
<b>CLAMP HIGH TEMPERATURE DETECTION</b>	N/A
<b>CIRCUIT BREAKER FOR DC OUTPUT PROTECTION</b>	N/A
<b>INPUT SURGE PROTECTION</b>	YES
<b>POWER FACTOR CORRECTION</b>	YES
<b>DYNAMIC INTERNAL FAN CONTROL</b>	N/A
<b>BATTERY DEFECT RECOGNITION</b>	N/A
<b>CHARGE PROGRESSION ISSUE DETECTION</b>	N/A
<b>CABLE LENGTH IN METERS</b>	5M



ChargeXpress PRO 50	MCC-070 series	MSP-070 series
50A CHARGER & POWER SUPPLY, OPTION TO SERVICE 2 CARS	70A CHARGER	70A POWER SUPPLY
N/A	B/G/N WI-FI, BLUETOOTH	WITH OPTIONAL ACCESSORY
N/A	OPTIONAL WITH BMIS	N/A
N/A	YES	WITH OPTIONAL ACCESSORY
N/A	YES	YES
N/A	YES	N/A
YES	YES	N/A
YES	YES	N/A
LEAD-ACID, GEL, AGM	LEAD-ACID, GEL, AGM, EFB	LEAD-ACID, GEL, AGM, EFB
50A SINGLE CHANNEL / 2X 25A DUAL CHANNEL CHARGER AND POWER SUPPLY	70A CHARGING AND POWER SUPPLY	70A POWER SUPPLY
YES	YES	YES
N/A	YES	N/A
STATIC VOLTAGE 13.1 VDC	ON-SCREEN: 12 - 14.4 VDC IN 0.1 V INCREMENTS	3-POSITION SWITCH: 14.2, 13.7, 13.1 VDC
YES	YES	YES
YES	YES	YES
N/A	YES	YES
N/A	YES	YES
YES	YES	YES
YES	YES	YES
N/A	YES	YES
N/A	YES	N/A
N/A	YES	N/A
2X 5M	2, 3 OR 5M	2, 3 OR 5M



**Advancing  
Battery Management**

# PRODUCTCATALOG 2021-2022

Should you have a question about the use of your Midtronics product, or a need for service, please contact us.

**Midtronics, Inc. -  
World Headquarters**  
7000 Monroe Street  
Willowbrook, IL 60527 USA

Toll-Free in U.S.:  
(800) 776-1995  
Toll-Free in Canada: (866) 592-8053  
Phone: +1 (630) 323-2800  
Email: [net2@midtronics.com](mailto:net2@midtronics.com)

**Midtronics b.v. -  
EMEA Headquarters**  
3990 GB Houten  
Hoofdveste 6-8  
3992 DG Houten  
The Netherlands

Phone: +31 30 68 68 150  
Email: [info-europe@midtronics.com](mailto:info-europe@midtronics.com)

**Midtronics -  
Asia Pacific Headquarters**  
14E Noble Center  
No. 1006 Fuzhong 3rd Road,  
Shenzhen (518026) China

Phone: +86 755 8202 2036  
Email: [chinainfo@midtronics.com](mailto:chinainfo@midtronics.com)

