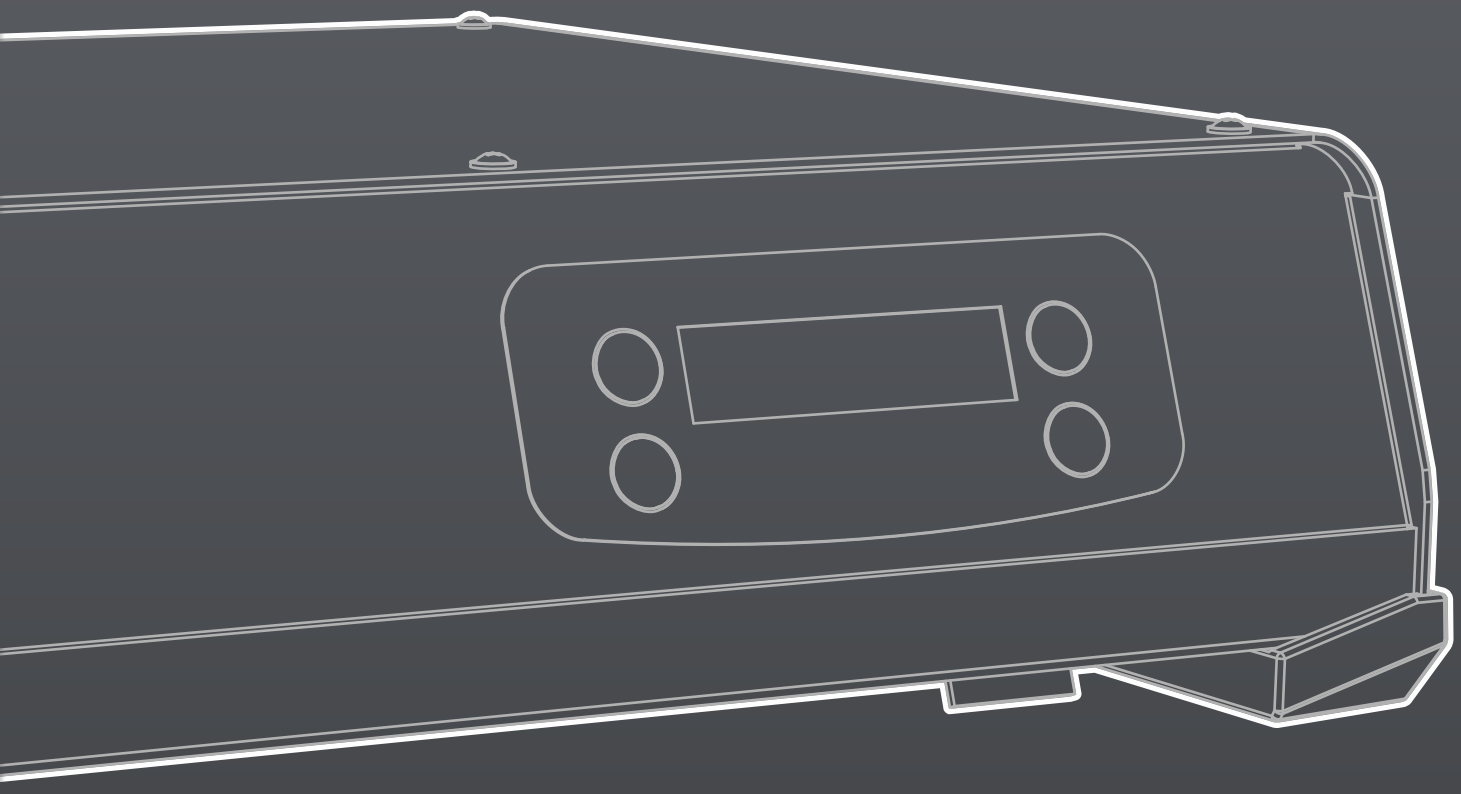
LAB
CHARGING

Battery chargers
Power supplies
SD 30 120



deca®


SD 120
deca
SD 120
CHARGER
NO BATTERY
OFF
MICROPROCESSOR
INSIDE



At the service of professionals

For over 50 years, it has been supporting auto repair professionals with high-quality products which are in-house made, thus ensuring full control of the production process.

The phases of research and development, testing, production, distribution, and after-sales service are managed by highly qualified internal staff.

In particular, training sessions related to the use of more advanced products are essential for the successful completion of work and the satisfaction of the end user.

Sensitive to the needs of a professional clientele, Deca's future challenge is the development of ambitious projects aimed at creating increasingly modern and functional products.

Operations are also carried out with scrupulous attention to compliance with current product regulations and major environmental standards.

LAB CHARGING

Quality and **Reliability**
are fundamental requirements for working in complete safety, both in car dealerships and in workshops.

The new **LAB** division product range represents the best of technological development in the **automotive** and industrial aftermarket sector.

Charging, maintenance, stabilized power supply, starting, and diagnostics are the main technical functions supporting the vehicle's electrical system and battery.

LAB represents DECA's premium line of the most professional products. Created to meet this specific demand, LAB is distinguished by its **quality** and **reliability**, targeting demanding and specialized customers.

SD line
HIGH-EFFICIENCY PERFORMANCE

BATTERY CHARGERS AND POWER SUPPLIES

The SD line models are professional inverter battery chargers and power supplies controlled by a latest generation microprocessor.

Thanks to their switching technology and active PFC system, **SD 30** and **SD 120** are high energy performance products, achieving an **efficiency rate** above 90%.

Efficiency is a fundamental aspect given the particularly high **performance** of this type of product, especially for the SD 120 model, which delivers a maximum continuous current of 120 Amps.

You can perform prolonged charging in total safety, vehicle maintenance in showrooms, supply of stabilized power at maximum capacity for ECU reprogramming and ADAS calibration, as well as equalization charging for recovering deeply discharged and sulfated batteries.



Advanced battery charger: suitable for the most modern lead-acid batteries: WET, AGM, AGM Power, GEL, Start&Stop, and LFP (LiFePO4) traction batteries.

- "I-U0" charging curve with floating maintenance.
- Multi-phase customizable charging curve.
- Equalization and desulfation of batteries.

Battery support: it supports vehicle batteries during diagnostics and control units remapping with constant, perfectly stabilized charging voltage without any spikes.

Showroom function: it keeps showroom car batteries charged. It features a lockup function to prevent improper use and automatic restart.

Battery change function: it ensures current supply to protect vehicle memory settings.

Multi-purpose power supply:

both current and voltage output can be adjusted.

Custom function: fully customizable charging program.

SD 30 12V - 30A



2Ah ◢ **600Ah**

30A CONTINUOUS duty at 100%

SD 120 12V - 120A



20Ah ◢ **2400Ah** (230Volt)

20Ah ◢ **1200Ah** (115Volt)

120A CONTINUOUS duty at 100%

115v 230v
Input voltage Auto setting

Smart cooling System

Heavy duty connector

LAB

In battery charger mode

SD 30 and **SD 120** are the perfect choice for charging, equalization and desulfation of lead-acid batteries such as WET, AGM, AGM Power, GEL, Start&Stop, and lithium technology batteries (LiFePO4), for both starting and electric traction.

Through specific charging cycles, it is also possible to recharge deeply discharged 12V batteries, with deep discharge recovery starting from 2 Volts.

Outstanding performance, customizable multi-phase charging curves (CUSTOM function), possibility of software update via SD card reader, Heavy Duty battery cable connectors (SD 120 model), and automatic calibration function for cables of different lengths make SD models ideal for **professional** use.

BATTERY CHARGING MODE

Automatic multi-phase charging cycle with voltage and current parameter analysis. “I-U0” charging curve with floating maintenance and pulse charging.

EQUALIZATION MODE

Specific charging program at a higher voltage enabling battery voltage equalization through electrolyte mixing cycle caused by internal gassing. Program used for 12V free electrolyte wet batteries with maintenance for electric traction vehicles, such as golf carts, pallet trucks, forklifts, etc.

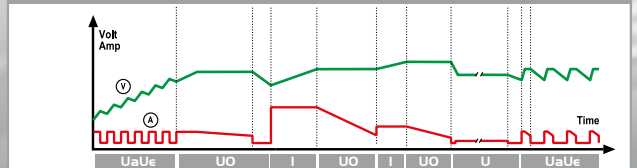
DESULFATION MODE

This specific program allows recharging of sulfated WET batteries even at 0 Volts.

CUSTOM CHARGING MODE

Fully customizable charging program by the user. One or more phases can be included: charging, desulfation, equalization, maintenance. Voltage thresholds, currents, and times can be customized for each phase.

SD 30 - 120



UaUε	UO	I	UO	I	UO	U	UaUε
CHARGE			CHARGE			FLOATING	PULSE
EQUALIZE				EQUALIZE		FLOATING	PULSE
DESULPHATION	DESULPHATION					FLOATING	PULSE
CUSTOM	DESULPHATION		CHARGE	EQUALIZE		FLOATING	PULSE

PROTECTIONS AND "SMART" FUNCTIONS

Special attention has been paid to general safety and, in particular, to the protection of people and equipment. These devices are designed to be protected against:

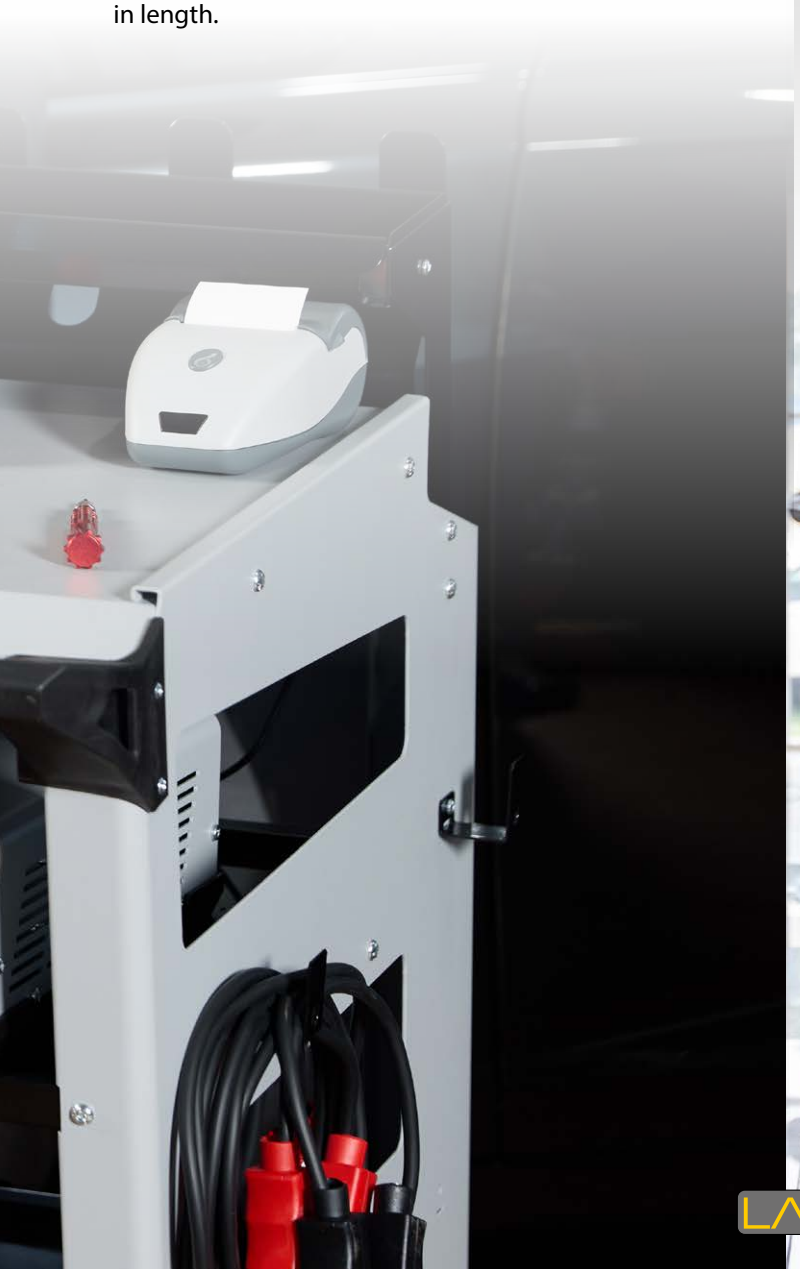
- Short circuit
- Reverse polarity
- Accidental contact between R/N charging clamps
- Overvoltage
- Overload
- Overtemperature with forced ventilation regulation

SMART COOLING SYSTEM

Intelligent regulation of forced ventilation: as the output current and internal temperature of the battery charger decrease, fan speed is gradually reduced to minimize noise.

CALIBRATION FUNCTION

In the advanced configuration menu, it is possible to calibrate non-standard R/N output cables up to 8 meters in length.



In the showroom

Modern vehicles on display need to be permanently powered by an external energy source to compensate for electrical loads absorption connected to the battery that activate during the vehicle's demonstration phases while the engine is off or to keep certain functions (e.g., headlights) active during dealership closures.
SD models, with a height of only 10 cm and detachable cables, can be placed under any type of vehicle.

For showroom use, the SD 30 model is by far the ideal choice.

SHOWROOM MODE

The battery charger becomes a power supply capable of delivering the necessary current for the electronic's operation of the vehicle in display. Output voltage is adjustable from 12V to 15V.
The "Lock showroom" function locks the display menu to prevent improper use.
In case of power failure, SD are equipped with automatic restart when mains power is restored.



Electric vehicles – EV

All electric vehicles, whether fully electric or hybrid, fall under the general category known as **EV** (Electric Vehicle).

EV-type vehicles include fully electric (**BEV**), plug-in hybrids (**PHEV**) with external recharging capability, and hybrids (**HEV**) without charging capability.

These vehicles, in addition to the traction battery, also have a low-voltage "12V" battery powering the electrical system.

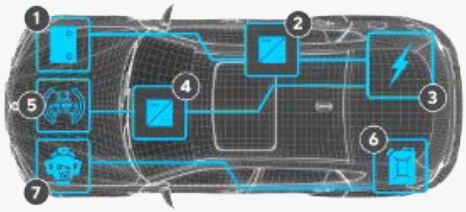
This is because while the high-voltage traction battery powers the drivetrain, the low-voltage one starts the car, supports comfort and safety functions, door locking/unlocking, makes the alarm system work and allows software updates.

It also ensures proper operation of safety systems like ABS and ESP, and ensures that lights, brakes, and steering function correctly when the vehicle is moving.

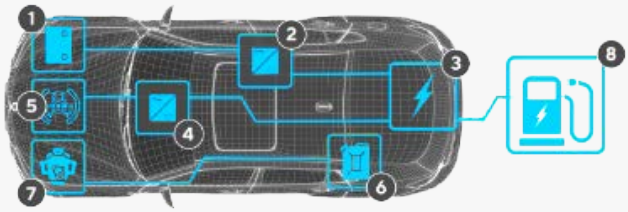
Fully electric and hybrid vehicles with mixed combustion/electric propulsion use a 12V Pb AGM battery.

With **SD 30** and **SD 120** chargers, 12V batteries can be charged by selecting the Pb AGM charging type.

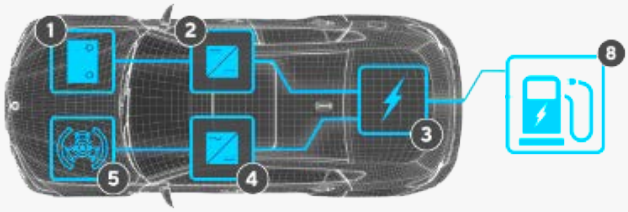




HEV – Hybrid electric vehicle



PHEV – Plug-in hybrid electric vehicle



BEV – Battery electric vehicle
(Full Electric)

1. 12V Battery
2. DC/DC Converter
3. High-Voltage Battery
4. AC/DC Converter
5. High-Voltage Traction Motor
6. Gasoline or Diesel Tank
7. Internal Combustion Engine
8. Electric Power Supply
(Charging Station/Wall Box)

Workshop

During diagnostics for fault detection, in ECU reprogramming or updating stages, the vehicle's system voltage must never drop below certain thresholds. For workshops, the **SD120 model is the perfect product.**

DIAGNOSTIC MODE

SD 120 provides a perfectly stabilized voltage adjustable from 13V to 15V with a constant maximum current supply of 120A throughout the reprogramming cycle.
It has a COM1 serial port that allows connection to a printer for generating service reports.

POWER SUPPLY MODE

On assembly lines as well as in workshops, SD 120 can be used as a power source to supply the vehicle during programming and testing phases.
The charger becomes a stabilized power supply at constant voltage with selectable output voltage and maximum current limit.
Output voltage is adjustable between 6V and 16V.
Current is linearly adjustable from a minimum of 1A to a maximum of 120A.

BATTERY CHANGE MODE

The battery change function is essential to avoid losing vehicle memory. It supplies the onboard electronics during the sensitive battery replacement phases. Output voltage is set to 13V, and current is automatically regulated.



Work Station CRSD 120

Utility and operational flexibility

The practical CRSD trolley is a mobile station specially designed to make the repair technician's job easier. It is particularly useful for managing various diagnostic devices in a functional and integrated way.

The top shelf can hold a diagnostic tablet or laptop for all phases of analysis and reprogramming.

The practical rear rack can organize all connection cables for various tools in use, while the lower shelf can house the SD 120 battery charger and power supply.

The middle shelf and especially the sturdy underlying base are spacious enough to store various equipment, testing tools and bulky cases.

The practical cable reels can store long charging cables, especially the 5-meter ones.



330760
Work Station CRSD 120
Dimensions 50 x 61 x 104 cm

Work Station CRSD 120 comprende:

- Battery charger power supply SD 120 with 5m cables
- Trolley complete with brackets and supports



011096
CRSD Trolley

Technical specifications





	SD 30	SD 120	
Input voltage (Autosetting)	1 Ph - 230V 50/60 Hz	1 Ph - 230V / 115V 50/60 Hz Autosetting	
Absorbed power	600W	2100W	1100W
Battery nominal voltage	**12V**	**12V**	**12V**
Battery capacity	**2 - 600Ah**	**20 - 2400Ah**	**20 - 1200Ah**
Compatible batteries	Pb: WET, MF, EFB, AGM, GEL, Ca/Ca, Start&Stop, Lithium (LiFePO4), Deep Cycle	Pb: WET, MF, EFB, AGM, GEL, Ca/Ca, Start&Stop, Lithium (LiFePO4), Deep Cycle	
Battery charger			
	(230 Volt)	(230 Volt)	(115 Volt)
Average charging current	0.2 - 30A	2 - 120A	2 - 60A
Charging programs	WET, AGM, GEL, LITHIUM, "CUSTOM"	WET, AGM, GEL, LITHIUM, "CUSTOM"	
Charging voltages	13 ◢ 15V	13 ◢ 15V	
Equalize	13 ◢ 15.8V	13 ◢ 15.8V	
Desulphation	13 ◢ 15.8V	13 ◢ 15.8V	
Customized charge	▪	▪	
Maintenance	U (Floating) + UaUe (Pulse)	U (Floating) + UaUe (Pulse)	
Stabilized power supply			
Battery support supply	30A @100% - 12 ◢ 15.0V	120A @100% - 12 ◢ 15.0V	60A @100% - 12 ◢ 15.0V
Battery change supply	13.0V	13.0V	13.0V
Showroom supply	30A @100% - 12 ◢ 15.0V	120A @100% - 12 ◢ 15.0V	60A @100% - 12 ◢ 15.0V
Stabilized power supply	1 ◢ 30A @100% - 6.0 ◢ 16.0V	1 ◢ 120A @100% - 12 ◢ 16.0V	1 ◢ 60A @100% - 12 ◢ 16.0V
Voltmeter / Ammeter	▪	▪	
Cable length calibration	▪	▪	
SD Card reader	▪	▪	
Serial port for printer	-	COM1	
Dimensions	265 x 263 x 100 mm	351 x 352 x 103 mm	
Weight	3.2 kg	5.2 kg	
Versions			
Battery charger + 2m cables	**330800**	**330700**	
Battery charger + 5m cables	- - - - -	**330791**	
Battery charger + 5m cables + Trolley	- - - - -	**330760**	

Optional Accessories



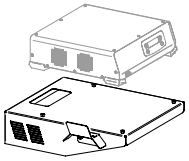
011234
5m Cable



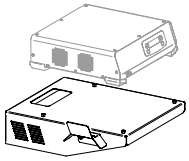
011263
5m Cable



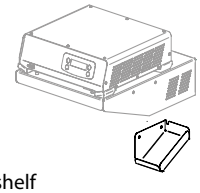
011037
Printer



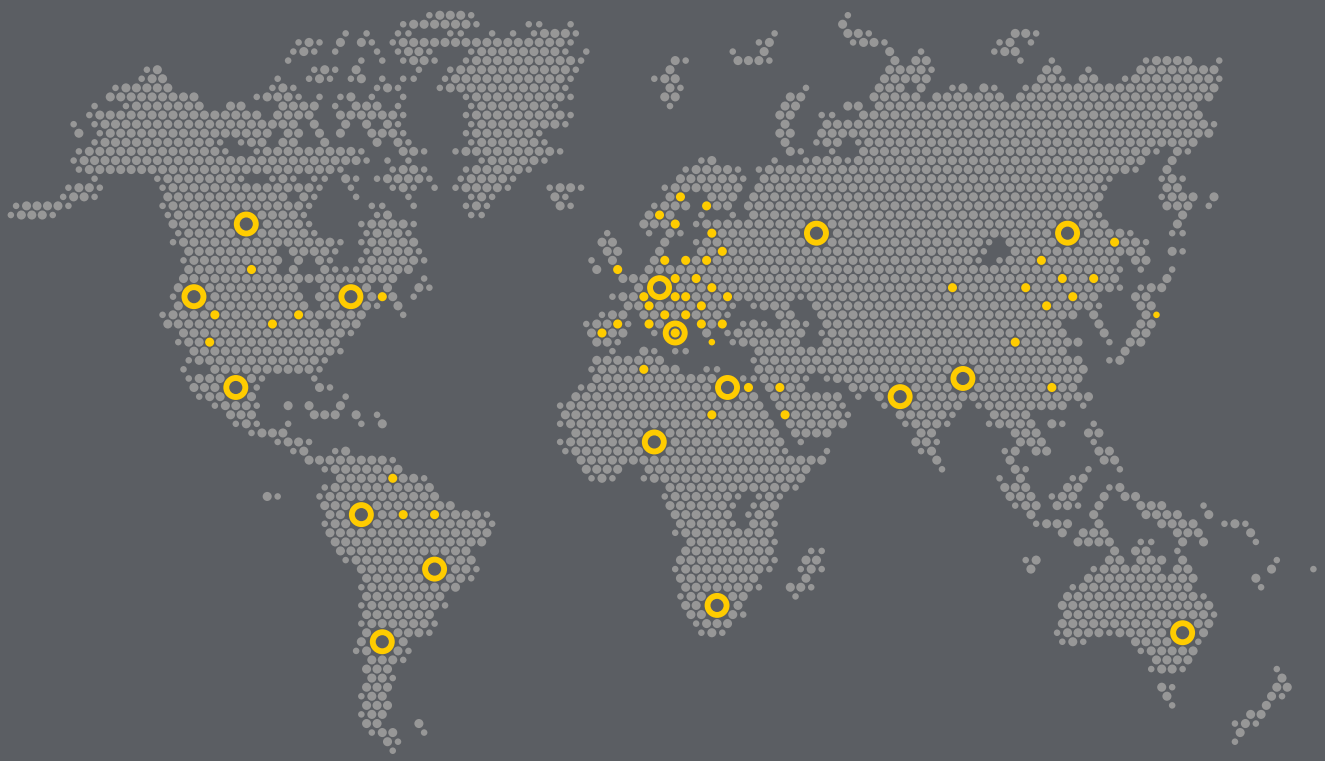
011160
Wall shelf



011160
Wall shelf



011161
Printer shelf



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