

ADELSYSTEM Parameters\_R6\_CB12245AJ

		J1939															
		PGN	SPN	Byte position	Data Length (BYTE)	Transmission Rate	Resolution	Value	Parameter Details	Parameter Details description	Factory Setting	Range	Scale factor	Unit	Notes	Read/Write	
Monitoring	Battery	65293	520306	0	1	at powerup and on change	2 states/1bit	Power supply function enabled at the battery terminals	0 = Disabled / 1 = Power supply function enabled at the battery terminals	Its value is 1 when the power supply function at the battery terminals is enabled by means of the ENABLE POWER SUPPLY dipswitch or jumper on the front panel of the device, otherwise it is 0		0-1				Read only	
		65292	520305	0	1	at powerup and on change	8 states/3bit	Charging status	Current charging status: 0=None / 1=Recovery / 2=Bulk / 3=Absorption / 4=Trickle	Notifies the current phase of the charging algorithm.		0-4				Read only	
		65290	520300	0-1	2	1s	1mV/bit	Battery voltage	Voltage measured at the battery terminals	Value measured by the device		0-65535		mV		Read only	
		65290	520301	2-3	2	1s	1mA/bit	Battery charge current	Measured value of the battery charge current	Value measured by the device		0-65535		mA		Read only	
		65293	520307	1	1	at powerup and on change	8 states/3bit	Battery type currently selected	The battery type currently selected (0 = Open lead, 1 = AGM lead, 2 = GEL lead, 3 = NiCd, 4 = Unexpected configuration)	Mirrors the value selected by the Lead/AGM/NiCd parameter or by the Battery Type dipswitches or jumpers on the device front panel. Its value is 4 in the case an unexpected dipswitch or jumper configuration has been set by the user on the device front panel.		0-4				Read only	
	Device	65294	520308	0	1	at powerup and on change	2 states/1bit	Nominal output voltage	12 = 12 Vdc output setting ; 24 = 24 Vdc output setting	Nominal output voltage of the device according to its configuration which is set by means of the SELECTION OUT VOLTAGE jumper on the device front panel. No Jumper= 12 Vdc configuration Jumper present = 24 Vdc configuration		12/24		V		Read only	
		65294	520309	1-2	2	at powerup and on change	16 states/4bit	Hardware configuration at powerup	Displays the dipswitch and jumper configuration detected at powerup: bit0=AGM Lead, bit1=GEL Lead, bit2=NiCd; bit3 = unused, bit4 = unused, bit5 = Power supply function enable at the battery terminals, bit6 = Fast charge enable, bit7 = unused, bit8 = Selection out voltage	Bit mask: a number ranging from 0 to 65535 evaluated according to its base-2 representation. In a base-2 representation, a number ranging from 0 to 65535 is a sequence of 16 digits that can assume only two values: 0 and 1. Each of such digits is called a bit. In such a representation, the 16 bits are arranged in this sequence: bit 15 bit 14 ... bit 1 bit 0. In a bit mask each bit describes a condition that can be either true (bit value = 1) or false (bit value = 0). For example if the value of bit 5 in this bit mask is 1, the ENABLE POWER SUPPLY dipswitch or jumper was found engaged at powerup.					bit=1->jumper inserted / dipswitch on	Read only	
		65295	520310	0-1	2	1s	1K/bit	On-board temperature inside the device	Temperature inside the device (in Kelvin units, conversion formula T(°C) = T(K)-273)			233 - 398 (-40°C ... +125°C)		K		Read only	
		65296	520311	0-1	2	at powerup and on change	1/bit	Device variant	Variant of the product							Read only	
		65296	520313	4	1	at powerup and on change	1/bit	DCUPS/CB function	Displays the function of the device: 2 = CB		2					Read only	
History	Battery	65296	520312	2-3	2	at powerup and on change	1/bit	Firmware ID	Identifier of the device firmware release			0-65535				Read only	
		65300	520318	0-1	2	at powerup and on change	1/bit	Number of charge cycles completed	Number of completed charge cycles	A charge cycle is considered to be completed when the device transitions to trickle charge.		0-65535			Cleared using PGN 65490	Read only	
		65300	520319	2-3	2	at powerup and on change	1/bit	Charge cycles not completed	Number of aborted charge cycles, not completed	A charge cycle is considered to be aborted if -during any charging phase except trickle- the battery is detached		0-65535			Cleared using PGN 65490	Read only	
		65300	520321	6-7	2	at powerup and on change	1min/bit	Total run time	Total run time in charging mode	Time, elapsed from power-up, during which the battery has been charging. The timer is halted when the battery is not wired		0-65535		min	Cleared using PGN 65490	Read only	
		65301	520322	0-1	2	at powerup and on change	1/bit	Number of low battery voltage events	Number of low-battery-voltage events	Battery low voltage threshold is 11V when the device is configured with a nominal voltage of 12V or 22V when the device is configured with a nominal voltage of 24V. Not active when power supply function is enabled at the battery terminals		0-65535			Cleared using PGN 65490	Read only	
		65301	520323	2-3	2	at powerup and on change	1/bit	Number of high DC voltage events at battery output	Number of high voltage events at the battery output terminals	High voltage threshold is defined as 17.5V/ 31.4V when the device is configured for a nominal voltage of 12V/24V respectively. Not active when the power supply function is enabled at the battery terminals		0-65535			Cleared using PGN 65490	Read only	
		65301	520324	4-5	2	at powerup and on change	1mV/bit	Highest battery voltage	Highest voltage acquired at the battery terminals			0-65535		mV	Cleared using PGN 65490	Read only	
	65301	520325	6-7	2	at powerup and on change	1mV/bit	Lowest battery voltage	Lowest voltage acquired at the battery terminals			0-65535		mV	Cleared using PGN 65490	Read only		
	Device	65303	520327	0-1	2	at powerup and on change	1/bit	Number of overtemperature inside events	Number of internal overtemperature events			0-65535			Cleared using PGN 65490	Read only	
	Configuration	Battery	65312	520357	0-1	2	at powerup and on change	1mA/bit	Maximum charge current	Sets the maximum allowed charging current	This parameter sets the maximum value of the charging current.	5000	1200-6000 (12V) / 1000-5000 (24V)		mA	Written using PGN 65491	Read only
65307			520335	0-1	2	at powerup and on change	1mV/bit	Bulk voltage	Bulk voltage setting per cell	Target voltage to be reached by the battery during the constant-current bulk charge phase	2400 (Lead) / 1510 (NiCd)	2200-2500 (Lead) / 1400-1550 (NiCd)		mV/cell	Written using PGN 65491	Read only	
65307			520336	2	1	at powerup and on change	1h/bit	Max bulk timer	Maximum bulk duration timer	Maximum duration of the bulk charge phase. If this timeout expires, the device transitions to trickle charge	15	1-24		h	Written using PGN 65491	Read only	
65307			520337	3	1	at powerup and on change	1min/bit	Min bulk timer	Minimum bulk duration timer	Minimum duration of the bulk charge phase	2	1-5		min	Written using PGN 65491	Read only	
65308			520340	0-1	2	at powerup and on change	1mV/bit	Absorption	Absorption voltage setting per cell	Sets the battery voltage per cell during absorption charge	2375 (Lead) / 1510 (NiCd)	2200-2500 (Lead) / 1300-1550 (NiCd)		mV/cell	Written using PGN 65491	Read only	
65308			520341	2	1	at powerup and on change	1h/bit	Max absorption timer	Maximum absorption duration timer	Maximum duration of the absorption phase, after which the device transitions to trickle charge	4 (Lead) / 8 (NiCd)	1-24		h	Written using PGN 65491	Read only	
65308			520342	3	1	at powerup and on change	1min/bit	Min absorption timer	Minimum absorption duration timer	Minimum duration of the absorption phase	15	1-240		min	Written using PGN 65491	Read only	
65308			520343	4	1	at powerup and on change	1%/bit	Threshold for return amps to trickle	Return current value (% of maximum charge current) to go to trickle	Magnitude of the battery charge current below which the transition to trickle charge occurs. Value expressed as a percentage of the maximum charge current (set by the "Maximum charge current" parameter)	6	1-100		%	Written using PGN 65491	Read only	
65308			520344	5	1	at powerup and on change	1s/bit	Return amps timer	Return current timer to go to trickle	Time interval during which the charge current magnitude must remain below the value expressed by the "Threshold for return amps to trickle" parameter in order to transition to trickle charge	30	1-240		sec	Written using PGN 65491	Read only	
65309			520345	0-1	2	at powerup and on change	1mV/bit	Trickle voltage	Trickle voltage setting per cell	Sets the value (per cell) of the voltage at which the battery is kept after it has been fully charged.	2250 (Open Lead) / 2250 (AGM Lead) / 2300 (GEL Lead) / 1400 (NiCd)	2210-2450 (Lead) / 1300-1550 (NiCd)		mV/cell	Written using PGN 65491	Read only	
65309			520346	2	1	at powerup and on change	2 states/1bit	Force boost charge	If set to 1 during trickle charge, it forces a transition to bulk charge	If set to 1 during trickle charge, it forces a manual transition to bulk charge.	0	0-1			Written using PGN 65491	Read only	
65309			520347	3-4	2	at powerup and on change	1mV/bit	Return to bulk voltage from trickle	Voltage (per cell) below which the device transitions from trickle to bulk charge	If during trickle charge the battery voltage becomes lower than this voltage threshold (e.g. due to load wired in parallel to the battery) and it remains so for a time interval expressed by the "Return to bulk delay" parameter, the device transitions to bulk charge to charge the battery	2130 (Lead) / 1200 (NiCd)	0-2200		mV/cell	Written using PGN 65491	Read only	
65309			520348	5	1	at powerup and on change	1s/bit	Return to bulk delay	Trickle to bulk transition delay after the battery voltage has got below the "Return to bulk voltage" voltage level	Time delay to confirm that the battery has discharged significantly during trickle charge, so that a bulk charge must be undertaken	30	1-240		sec	Written using PGN 65491	Read only	
65307			520339	6-7	2	at powerup and on change	1mV/bit	Traction bulk	Traction of the bulk voltage per cell. In terms of timing consider the parameter "Min bulk timer"	Additional voltage (per cell) to ensure the bulk voltage can be reached at full charging current	40 (Lead) / 24 (NiCd)			mV/cell	Written using PGN 65491	Read only	
65311			520356	2-3	2	at powerup and on change	1mV/bit	Switchoff voltage without mains	Device turnoff voltage when mains is not available.	Battery voltage below which the device turns off when mains is not available.	2183 (Lead) / 1310 (NiCd)	2000-2208 (Lead) / 1200-1325 (NiCd)		mV/cell	Written using PGN 65491	Read only	
65310		520349	0	1	at powerup and on change	8 states/3bit	Lead/AGM/NiCd	Set the battery type and its respective charging algorithm: 0 = Open lead (trickle voltage 2.23V per cell) / 1 = AGM Lead (trickle voltage 2.25V per cell) / 2 = GEL Lead (trickle voltage 2.30V per cell) / 3 = NiCd	Sets the battery type. Writing this parameter is only possible when the battery is not connected.		0	0-3			Written using PGN 65491	Read only	
Device		65313	520358	0	1	at powerup and on change	2 states/1bit	Factory settings	Set all the device parameters to their default value	Writing 1 restores the device to its factory settings, any user setting including histories are lost.	0	0-1			Write only 1 using PGN 65491	Read only	
Device		65313	520359	1	1	at powerup and on change	8 states/3bit	Product name	Device type (1=SFP126-245A, 2=CB CYCLIC, 3=CBI NAUTIC, 4 = CB12801224, 7 = CB1480W, 8 = CB12245AJ, 9 = CB480W)	This parameter identifies the product type.		0-255				Read only	
Load		65314	520363	0	1	at powerup and on change	1s/bit	Device switchoff delay	Delay of the device power off in the absence of mains after the battery voltage has been found lower than the parameter "Switchoff voltage without mains"	Device switch off delay setting	10	1-240		sec	Written using PGN 65491	Read only	
Alarm		Battery	65316	520367	0	1	at powerup and on change	256 states/8bit	Battery connection alarm	bit0=Reversed polarity, bit1=battery not connected, bit2=internal cell shorted	Bit mask: bit 0 value is 1 in the case a battery has been connected to the device with reverse polarity; the value of bit 1 is 1 in the case no battery is connected to the device or the previously connected one has been disconnected. The value of bit 2 is 1 if one or more than one of the cells inside the battery is shorted.					bit=1->-alarm	Read only
	65316		520368	1	1	at powerup and on change	256 states/8bit	Battery voltage alarm	bit0=High battery voltage; alarm in case of battery connected with nominal voltage higher than the nominal voltage setting.	Bit mask: The value of bit 0 is equal to 1 when a battery voltage with a voltage higher than the overvoltage threshold (refer to the "Number of high DC voltage events at battery output" parameter description) is connected.					bit=1->-alarm	Read only	
	Device	65317	520371	1	1	at powerup and on change	2 states/1bit	On board temperature alarm	1=Temperature inside the device is too high	If the value of the parameter is 1, the temperature inside the device has been detected to be too high. In this case the battery charge current limit is reduced to 1/10 of the value set by the "Maximum charge current" parameter or set by means of the "Battery Charging Level" trimmer located on the device front panel		0-1			1=alarm	Read only	
	Load	65319	520374	0	1	at powerup and on change	2 states/1bit	Load alarm	Short circuit at the battery terminals. Can only occur when the power supply function is enabled at the battery terminals.	In the case the power supply function at the battery terminals is enabled, its value is 1 if a short circuit or an overload at the Battery Output terminals.		0-1			1=alarm	Read only	
Clear history	65490	523000	0	1	N/A		Target source address history clearing	Target source address for history clearing	The source address of the device the history-clearing message is addressed to							Write only	
	65490	523001	1-4	4	N/A		History SPN to clear	History SPN number to clear	The SPN of the specific history to be cleared		520318-520334					Write only	
	65490	523002	5	1	N/A		History value to write	History clearing command	Write 0 to clear the history							Write only	
Parameter set	65491	523003	0	1	N/A		Target source parameter setting	Target source address for parameter setting	The source address of the device the configuration parameter setting message is addressed to							Write only	
	65491	523004	1-4	4	N/A		Parameter SPN to write	Configuration parameter SPN number	The SPN of the specific configuration parameter to be set		520335-520363					Write only	
	65491	523005	5-6	2	N/A		Parameter value to write	Value to set	The value to be set to the specified configuration parameter		0-65535					Write only	
Transmit map	65492	523006	0	1	N/A		Target source address map transmit	Target source address for map transmission	The source address of the device the map transmission request message is addressed to							Write only	
J1939-71 Vehicle Application Layer	64789	4990	0	4 bits	1s		Battery Charger 1 State	A state of the battery charger connected to the main battery.	Admissible values are: 1 - battery is charging (recovery / bulk / absorption charge) 2 - battery has been completely charged and is being maintained charged (trickle charge) 13 - battery fault (battery not connected, battery connected with reversed polarity, battery with shorted cells or short circuit at battery output terminals in the case the power supply function at battery terminals is enabled) 14 - battery charging is not possible (due to mains not available or battery charger failure)		0-15					Read only	
	64789	4993	3-4	2	1s		Battery Charger 1 Output Current	The charging current of the battery charger connected to the battery.	Value measured by the device		0 - 1600A		offset: 32000 scale factor: 50			Read only	

		PGN	BYTE 0	BYTE 1	BYTE 2	BYTE 3	BYTE 4	BYTE 5	BYTE 6	BYTE 7
Monitoring	Battery	65290	Battery voltage (SPN 520300)		Battery charge current (SPN 520301)					
		65291								
		65292	Charging status (SPN 520305)							
	Device	65293	Power supply function enabled at the battery terminals (SPN 520306)		Battery type currently selected (SPN 520307)					
		65294	Nominal output voltage (SPN 520308)		Hardware configuration at powerup (SPN 520309)					
		65295	On-board temperature inside the device (SPN 520310)							
	Input	65296	Device variant (SPN 520311)		Firmware ID (SPN 520312)		DCUPS function (SPN 520313)			
		65297								
		65298								
		65299								
History	Battery	65300	Number of charge cycles completed (SPN 520318)		Charge cycles not completed (SPN 520319)				Total run time (SPN 520321)	
		65301	Number of low battery voltage events (SPN 520322)		Number of high DC voltage events at battery output (SPN 520323)		Highest battery voltage (SPN 520324)		Lowest battery voltage (SPN 520325)	
	65302									
	Device	65303	Number of overtemperature inside events (SPN 520327)							
	Input	65304								
		65305								
Load	65306									
Configuration	Battery	65307	Bulk voltage (SPN 520335)		Max bulk timer (SPN 520336)		Min bulk timer (SPN 520337)		Traction bulk (SPN 520339)	
		65308	Absorption voltage (SPN 520340)		Max absorption timer (SPN 520341)		Min absorption timer (SPN 520342)		Return amps to trickle (SPN 520343)	
		65309	Trickle voltage (SPN 520345)		Force boost charge (SPN 520346)		Return to bulk voltage from trickle (SPN 520347)		Return to bulk delay (SPN 520348)	
		65310	Lead/AGM/NiCd (SPN 520349)							
		65311			Switchoff voltage without mains (SPN 520356)					
		65312	Maximum charge current (SPN 520357)							
	Device	65313	Factory settings (SPN 520358)		Product name (SPN 520359)					
	Load	65314	Device switchoff delay (SPN 520363)							
	System	65315								
	Alarm	Battery	65316	Battery connection alarm (SPN 520367)		Battery voltage (SPN 520368)				
Device		65317	Device Failure (SPN 520370)		On board temperature alarm (SPN 520371)					
Input		65318								
Load		65319	Load alarm (SPN 520374)							

History clearing	65490	Target node ID (SPN 523000)	History SPN to clear (SPN 523001)	History value to write (SPN 523002)	
Configuration ma	65491	Target node ID (SPN 523003)	Parameter SPN to write (SPN 523004)	Parameter value to write (SPN 523005)	
Send all onchange	65492	Target node ID (SPN 523006)			

J1939-71 Vehicle application layer

Battery charger 1	64789	(SPN 4990)		(SPN 4993)	
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