Charger RS232 communication Protocol

Charger RS232 communication Protocol.....1

1 Communication format..... 4

2 Inquiry Command..... 4

2.1 QSPV<cr>: Device Rating Information inquiry.....4

2.2 QRTV<cr>: Device general status parameters inquiry..... 5

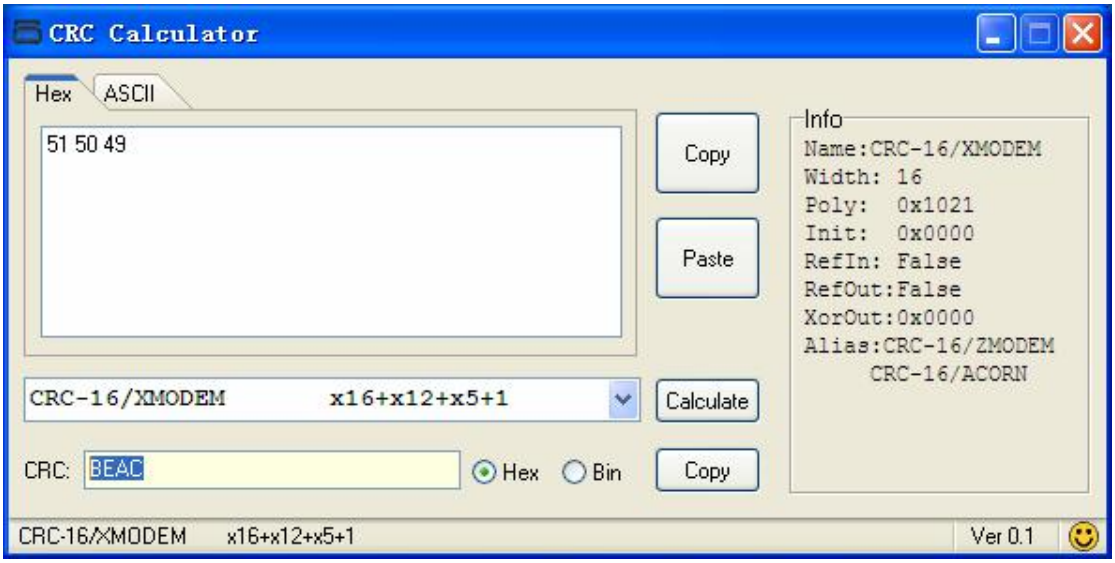
3 Setting parameters Command..... 6

3.1 SCC<nn><cr>: Setting max charging current.....6

3.2 SLS<n><cr>: Setting Load Switch..... 6

3.3 SBT<n><cr>: Setting Battery type.....6

3.4 SBCP<M><NN.N><cr>: Setting User Battery parameter..... 6


CRC Calculator
Hex
ASCII
51 50 49
Copy
Paste
Info
Name:CRC-16/XMODEM
Width: 16
Poly: 0x1021
Init: 0x0000
RefIn: False
RefOut:False
XorOut:0x0000
Alias:CRC-16/ZMODEM
CRC-16/ACORN
CRC-16/XMODEM x16+x12+x5+1
Calculate
CRC: BEAC
Hex
Bin
Copy
CRC-16/XMODEM x16+x12+x5+1
Ver 0.1

1 Communication format

Baud rate	Start bit	Data bit	Parity bit	Stop bit
2400	1	8	N	1

2 Inquiry Command

2.1 QSPV<cr>: Device Rating Information inquiry

Computer: QSPV<cr>: (51 53 50 56 0d)

Device: (BBX C D E FF.FF GG.G HH.H II.I JJ.J KK.K LL.L MM.M NN.N OO.O<CRC><cr>

	Date	Description	Notes
A	(	Start byte	
B	BB	Max charge current	B is an integer ranging from 0 to 9. The units is A.
X	X	charge current level	X is an integer ranging from 0 to 9. 3 represents the rated charge of 30A
C	C	Battery type	0: SLD 1: GEL 2: FLD 3: LI 4: User
D	D	Battery Piece	1: 12v 2: 24v 3: 36v 4: 48v
E	E	Load switch	0: off 1: on
F	FF.FF	SoftwaveVersion	F is an Integer ranging from 0 to 9.
G	GG.G	User Battery high voltage	H is an Integer ranging from 0 to 9. The unit is V.
H	HH.H	User Battery high back voltage	I is an Integer ranging from 0 to 9. The unit is V.
I	II.I	User Battery Const Charge voltage	J is an Integer ranging from 0 to 9. The units is V.
J	JJ.J	User Battery Float Charge voltage	K is an Integer ranging from 0 to 9. The units is V.
K	KK.K	User Battery Back Speed Charge voltage	J is an Integer ranging from 0 to 9. The units is V.
L	LL.L	User Load Low Back voltage	K is an Integer ranging from 0 to 9. The units is V.
M	MM.M	User Load Low voltage	L is an Integer ranging from 0 to 9. The units is V.

N	NN.N	User Battery Low Back voltage	L is an Integer ranging from 0 to 9. The units is V.
O	OO.O	User Battery Low voltage	L is an Integer ranging from 0 to 9. The units is V.

2.2 QRTV<cr>: Device general status parameters inquiry

Computer: QRTV<cr>

Device: (BBB.B CC.C DD.DD EE.E FF.F GGGG HHHH IIII JJJJ KK.KK.KK

L MM NNN O<CRC><cr>

	Data	Description	Notes
A	(	Start byte	
B	BBB.B	PV voltage	B is an Integer number 0 to 9. The units is V.
C	CC.C	PV current	C is an Integer number 0 to 9. The units is A.
D	DD.DD	Battery voltage	D is an Integer number 0 to 9. The units is V.
E	EE.E	Battery charge current	E is an Integer number 0 to 9. The units is A.
F	FF.F	Load current	F is an Integer number 0 to 9. The units is A.
G	GGGG	Daily electricity generation	G is an Integer ranging from 0 to 9. The units is 0.1KWH.
H	HHHH	Monthly electricity generation	H is an Integer ranging from 0 to 9. The units is 0.1KWH.
I	IIII	Annual electricity generation	I is an Integer ranging from 0 to 9. The units is 0.1KWH.
J	JJJJ	Total electricity generation	J is an Integer ranging from 0 to 9. The units is 0.1KWH.
K	KK.KK.KK	Initial start time of equipment	Year.month.day
L	L	Charging state	0: Nocharging 1: CCMode 2: CVMode 3: FloatMode
M	MM	Fault code	
N	NNN	Heat sink temperature	N is an Integer ranging from 0 to 9. The units is ° C.
O	O	Calibrated state	0: Normal 1: Calibrated

Fault Code	Fault Event
03	PV voltage Low
04	PV voltage High
05	Battery voltage is too low
06	Battery voltage is too high
07	Battery Over Charge
08	Over load time out
10	Over temperature
12	Fan error
14	Battery System Fault

3 Setting parameters Command

3.1 SCC<nn><cr>: Setting max charging current

Computer: SCC <nn><cr>

Device:(ACK<cr>if device accepts this command,otherwise,responds (NAK<cr>

3.2 SLS<n><cr>: Setting Load Switch

Computer: SLS <n><cr>

Device:(ACK<cr>if device accepts this command,otherwise,responds (NAK<cr>

Set Load Switch, 0 for Load off, 01 for Load on

3.3 SBT<n><cr>: Setting Battery type

Computer: SBT<n><cr>

Device:(ACK<cr>if device accepts this command,otherwise,responds (NAK<cr>

Set Battery type, 0 for SLD, 1 for GEL, 2 for FLD,3 for LI,4 for User

3.4 SBCP<M><NN.N><cr>: Setting User Battery parameter

Computer: SBCP <M><NN.N><cr>

Device:(ACK<cr>if device accepts this command,otherwise,responds (NAK<cr>

Set User Battery parameter(Based on 12V battery)

M	Description	NN.N	Description
0	User Battery high voltage		
1	User Battery high back voltage		
2	User Battery Const Charge voltage		
3	User Battery Float Charge voltage		
4	User Battery Back Speed Charge voltage		
5	User Load Low Back voltage		
6	User Load Low voltage		
7	User Battery Low Back voltage		
8	User Battery Low voltage		