

结构

	US2000B	US2000 Plus
1		丝印、包装变更



Hardware Difference:

	US2000B	US2000 Plus
1		Silk-screen Printing, Pack modification



软件

	US2000B	US2000 Plus
DOD	80%	90%
休眠条件		新增休眠条件：放电时，8%延时10分钟关机，可电压或手动唤醒
事件记录		新增事件记录1：soc≤6%
拨码说明	功能未开放	485波特率：1拨到on为9600,1拨到off为115200
干接点说明	功能未开放	见表1

Software Difference:

	US2000B	US2000 Plus
DOD	80%	90%
Sleep Prerequisite		Discharge, 8% SOC, 10 minutes delay. Can be waked by charging or press soft-start button.
Event Record		Add 1 event when $\text{soc} \leq 6\%$.
ADD switches	N/A	Switch 1 turns to ON: 9600, switch 1 turns to OFF: 115200.
Dry Contact	N/A	Sees follow table.

干接点	断开	闭合
输出1	不允许充电	允许充电
输出2	不允许放电	允许放电
输出3	系统异常(包括充放电MOSFET失效,反接,输入过压,总线错误,温度探头异常,电池采样异常,地址分配错误,内部通讯错误),要求逆变器停止工作	系统正常工作
输入1	不响应	电池系统关机
注: 所有干接点在关机时无效(均为断开状态), 开机后才能正常工作		

表1

Dry Contact Definition of US2000 Plus:

Dry Contact	OPEN	CLOSE
Output 1	Charge not allow.	Allow to charge.
Output 2	Discharge not allow.	Allow to discharge.
Output 3	System Error (Send commando let inverter stop.)	Normal
Input 1	No response.	Battery turn OFF

Error: including MOSFET Fail, inversed, Power Input Over Voltage, MainBus Error, Temperature Error, Cells Sampling Error, Address Error, Internal Communication Error.

Note: All Dry Contact are invalid (in OPEN status) when the battery is OFF. After the battery is ON then they can start to work.

新旧混用说明

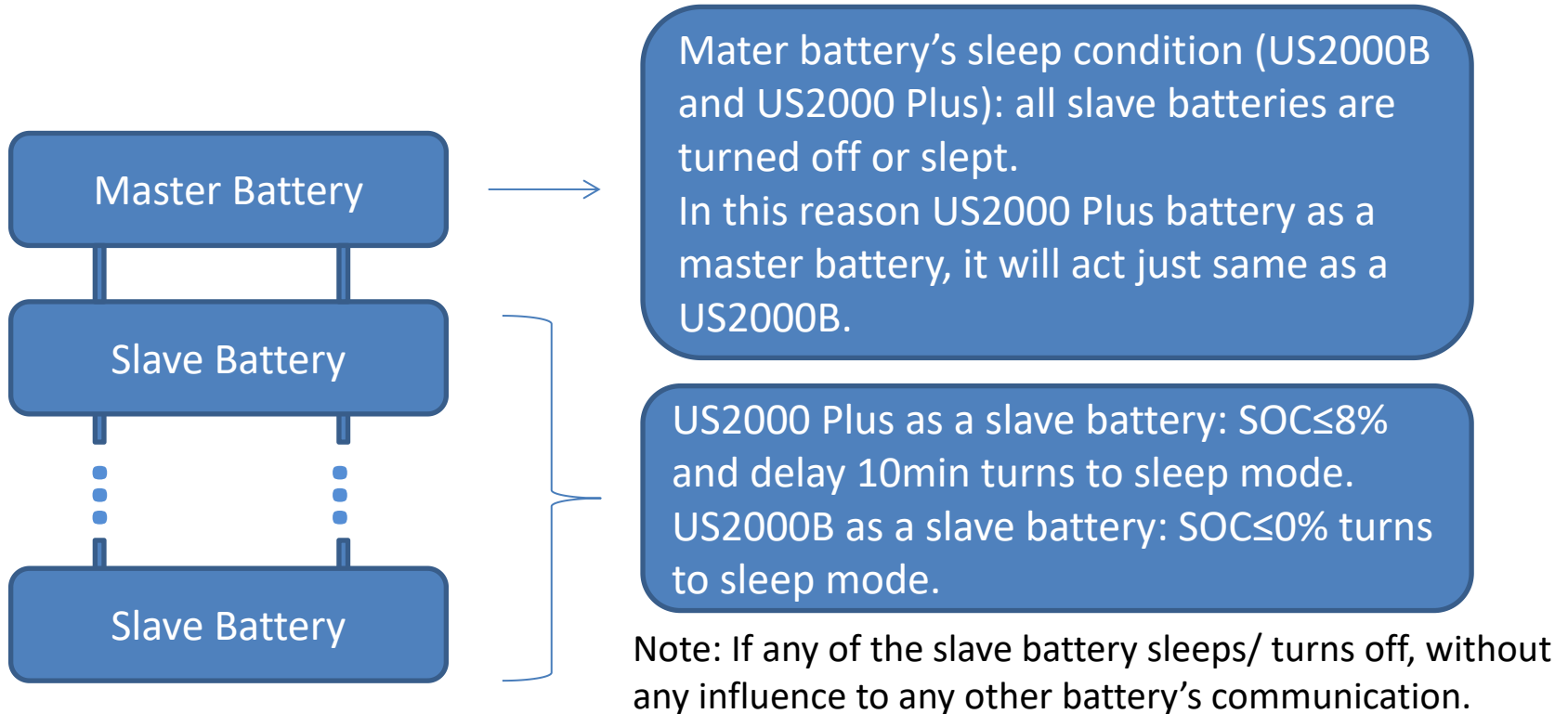
(旧机: B63及之前版本; 新机: B65版本)

一、混用关机条件说明



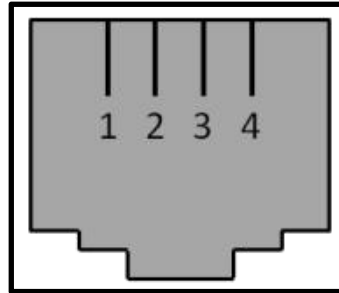
Mixture Installation of US2000B and US2000 Plus

(US2000B: B63 and previous versions ; US2000 Plus: B65 version)

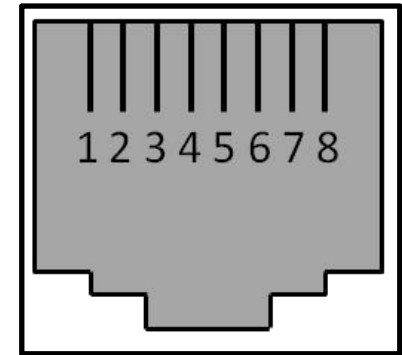


Conclusion:

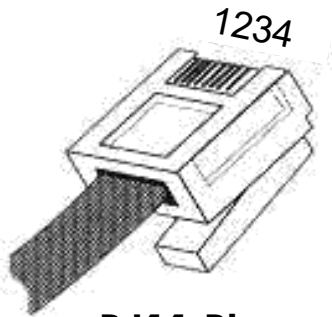
- It is no problem for install a US2000 Plus in any position of the battery pile, if the US2000 Plus is set the same baud rate with other US2000B.
- For easier installation we parallel connect the US2000 Plus battery just after the US2000B batteries.



RJ11 Port



RJ45 Port



RJ11 Plug

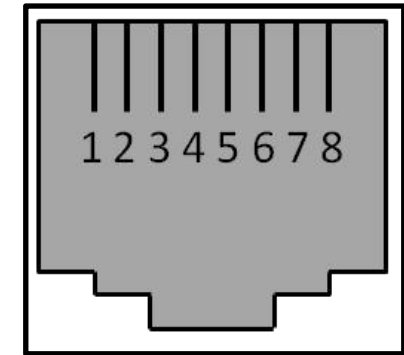


RJ45 Plug

US2000 Plus & Sungrow, Dowell

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



RJ45 Port

Sungrow and Dowell use special terminal for CAN and RS485 communication.

- 直通线: Studer、GoodWe、Solis锦浪、KStar、Redback、LUX, 宁波德业、Canadiansolar;
- Imeon、SolaX用一样的交叉线;
- Sofar、Victron、GMDE、Voltronic、Sungrow、Dowell线序与别的不同, 所以不配线, 由逆变器配线;

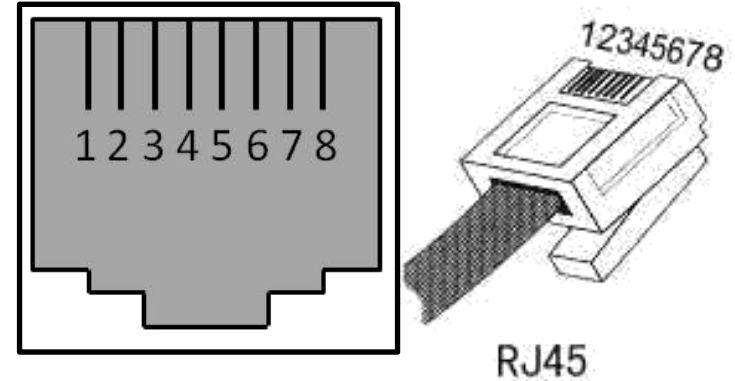


RJ45 Plug

US2000 Plus & Voltronic

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



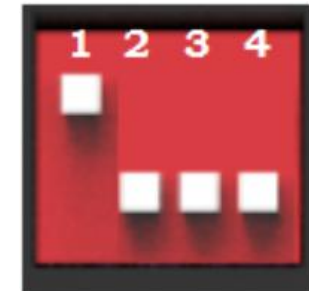
RS485 RJ45 Port Pin of US2000 Plus

US2000 Plus CAN Pin	No.
RS485B	1
RS485A	2
GND	3
	4
	5
GND	6
RS485A	7
RS485B	8

RS485 RJ45 Port Pin of Voltronic

No.	Voltronic CAN Pin
1	--
2	--
3	--
4	B
5	A
6	--
7	--
8	GND

Boud Rate: 9600

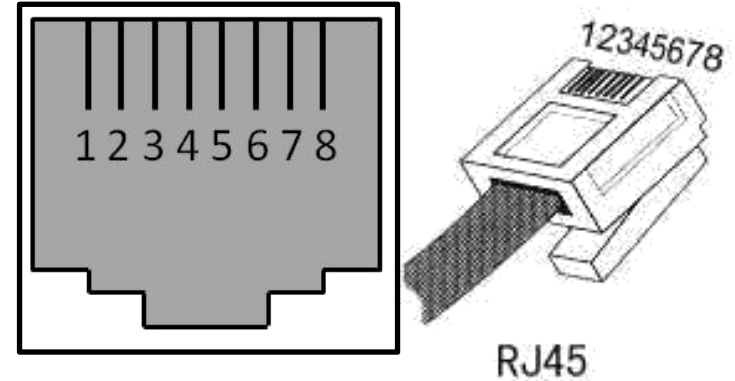


Use special cross cable.

US2000 Plus & Studer

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--

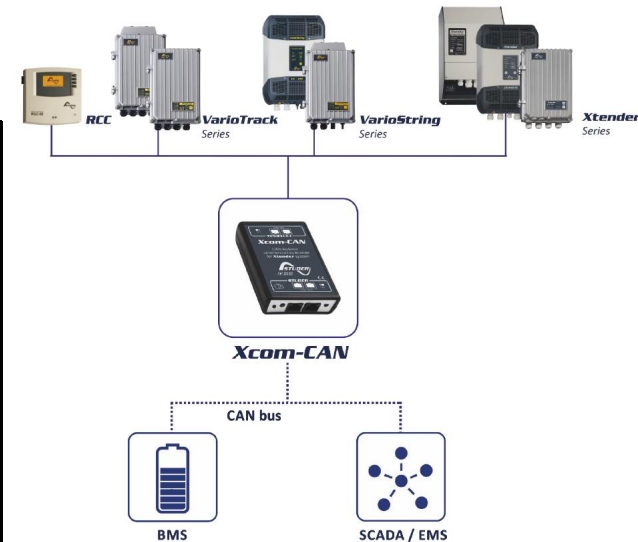


CAN RJ45 Port Pin of US2000 Plus

US2000 Plus CAN Pin	No.
--	1
GND	2
--	3
CANH	4
CANL	5
--	6
--	7
--	8

CAN RJ45 Port Pin of Studer Xcom-CAN

No.	Studer CAN Pin
1	--
2	GND
3	--
4	CANH
5	CANL
6	--
7	--
8	--

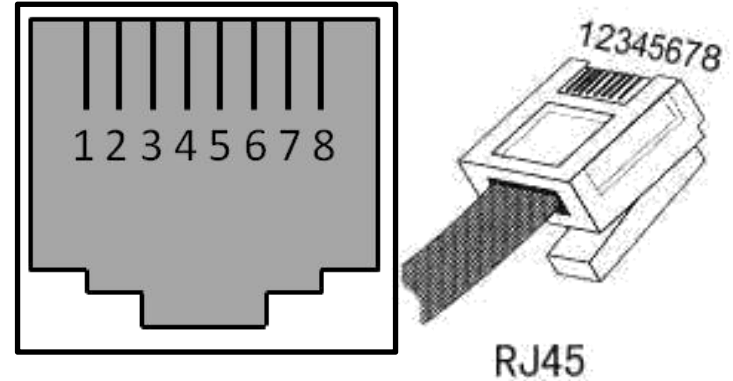


US2000 Plus CAN port is same with Studer Xcom-CAN port.

US2000 Plus & GOODWE

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



CAN RJ45 Port Pin of US2000 Plus

US2000 Plus CAN Pin	No.
--	1
GND	2
--	3
CANH	4
CANL	5
--	6
--	7
--	8

CAN RJ45 Port Pin of GOODWE

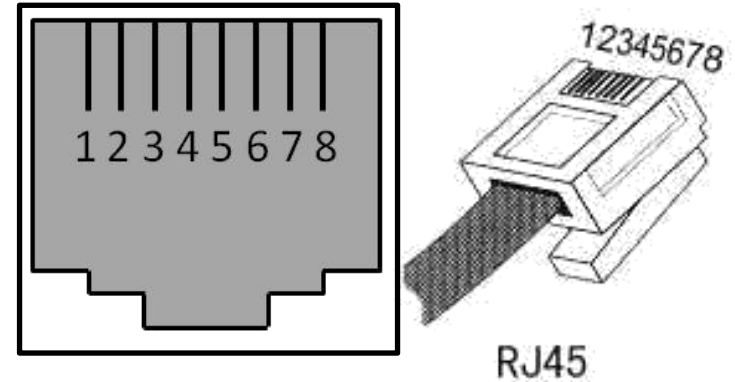
No.	GOODWE CAN Pin
1	--
2	GND
3	--
4	CANH
5	CANL
6	--
7	--
8	--

US2000 Plus CAN port is same with GoodWe CAN port.

US2000 Plus & 宁波德业

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



CAN RJ45 Port Pin of US2000 Plus

US2000 Plus CAN Pin	No.
--	1
GND	2
--	3
CANH	4
CANL	5
--	6
--	7
--	8

CAN RJ45 Port Pin of 宁波德业

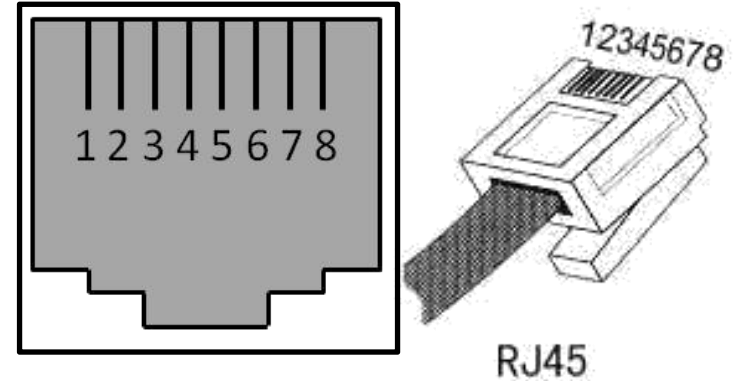
No.	GOODWE CAN Pin
1	--
2	GND
3	--
4	CANH
5	CANL
6	--
7	--
8	--

US2000 Plus CAN port is same with 宁波德业 CAN port.

US2000 Plus & Ginlong

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



CAN RJ45 Port Pin of US2000 Plus

US2000 Plus CAN Pin	No.
--	1
GND	2
--	3
CANH	4
CANL	5
--	6
--	7
--	8

CAN RJ45 Port Pin of Ginlong

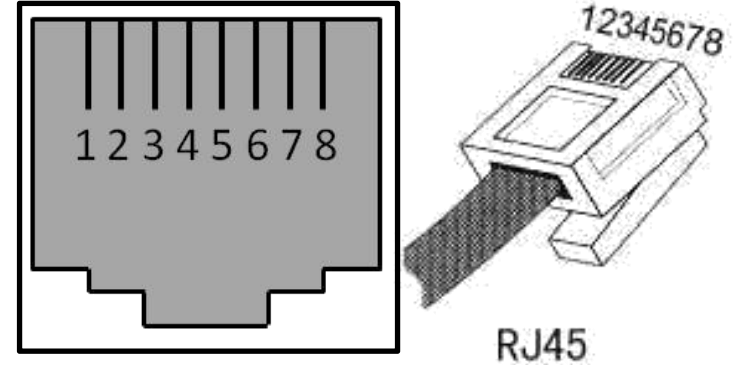
No.	Ginlong CAN Pin
1	--
2	--
3	--
4	CANH
5	CANL
6	GND
7	--
8	--

US2000 Plus CAN port is different with Ginlong CAN port only in GND terminal. So normal situation Ginlong inverter can use direct CAN cable, only the anti-interference ability is weakened.

US2000 Plus & Kstar

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



CAN RJ45 Port Pin of US2000 Plus

US2000 Plus CAN Pin	No.
--	1
GND	2
--	3
CANH	4
CANL	5
--	6
--	7
--	8

CAN RJ45 Port Pin of Kstar

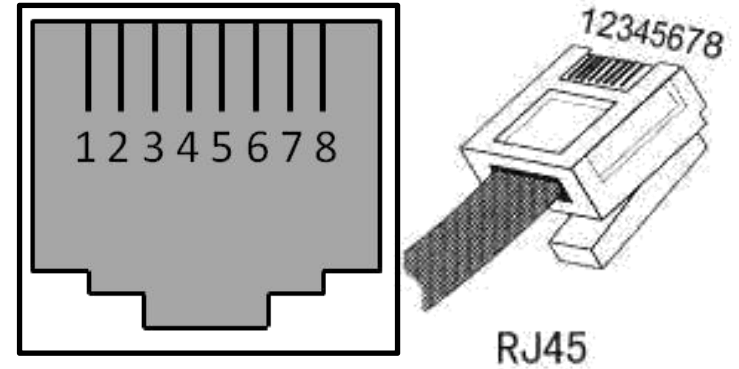
No.	Kstar CAN Pin
1	--
2	--
3	--
4	CANH
5	CANL
6	GND
7	--
8	--

US2000 Plus CAN port is different with Kstar CAN port only in GND terminal. So normal situation Kstar inverter can use direct CAN cable, only the anti-interference ability is weakened.

US2000 Plus & Sofar

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--

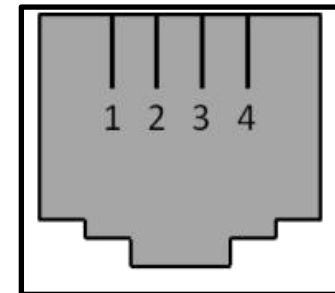


CAN RJ45 Port Pin of US2000 Plus

US2000 Plus CAN Pin	No.
--	1
GND	2
--	3
CANH	4
CANL	5
--	6
--	7
--	8

CAN RJ11 Port Pin of Sofar

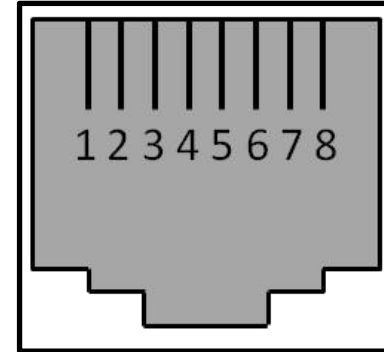
No.	Sofar CAN Pin
1	CANH
2	CANL
3	--
4	--



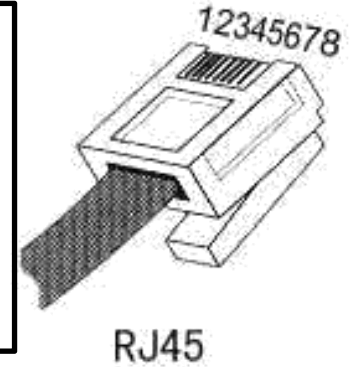
US2000 Plus & Sofar

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



Baud Rate: 115200

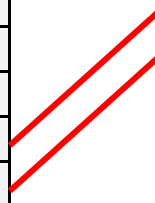


RS485 RJ45 Port Pin of US2000 Plus

US2000 Plus RS485 Pin	No.
RS485B	1
RS485A	2
GND	3
	4
	5
GND	6
RS485A	7
RS485B	8

RS485 RJ45 Port Pin of Sofar

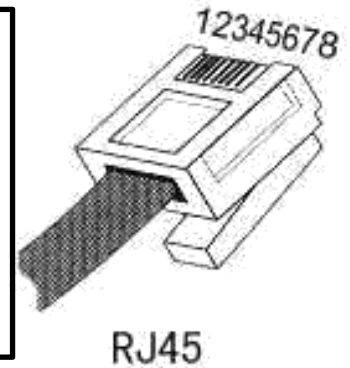
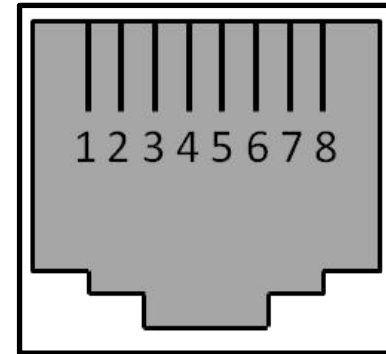
No.	Sofar RS485 Pin
1	--
2	--
3	--
4	RS485A
5	RS485B
6	--
7	--
8	--



US2000 Plus & Victron

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--

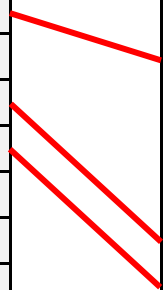


CAN RJ45 Port Pin of US2000 Plus

US2000 Plus CAN Pin	No.
--	1
GND	2
--	3
CANH	4
CANL	5
--	6
--	7
--	8

CAN RJ45 Port Pin of Victron CCGX

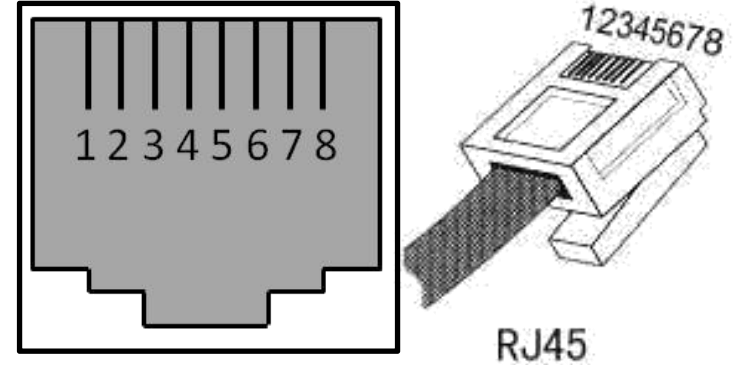
No.	Victron CAN Pin
1	--
2	--
3	GND
4	--
5	--
6	--
7	CANH
8	CANL



US2000 plus & SolaX

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



CAN RJ45 Port Pin of US2000 Plus

US2000 Plus CAN Pin	No.
--	1
GND	2
--	3
CANH	4
CANL	5
--	6
--	7
--	8

CAN RJ45 Port Pin of SolaX

No.	SolaX CAN Pin
1	CANH
2	CANL
3	GND
4	--
5	--
6	--
7	--
8	--

CAN RJ45 Port Pin of Imeon

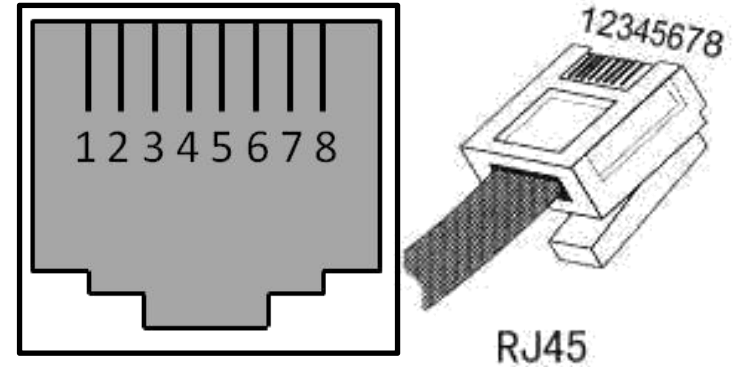
No.	Imeon CAN Pin
1	CANH
2	CANL
3	--
4	--
5	--
6	--
7	--
8	GND

Imeon CAN port is different with Imeon CAN port only in GND terminal.
So normal situation SolaX inverter can use Imeon CAN cable, only the anti-interference ability is weakened.

US2000 plus & Imeon

Definition of RJ45 Port Pin of US2000 Plus

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



CAN RJ45 Port Pin of US2000 Plus

US2000 Plus CAN Pin	No.
--	1
GND	2
--	3
CANH	4
CANL	5
--	6
--	7
--	8

CAN RJ45 Port Pin of Imeon

No.	Imeon CAN Pin
1	CANH
2	CANL
3	--
4	--
5	--
6	--
7	--
8	GND

CAN RJ45 Port Pin of SolaX

No.	SolaX CAN Pin
1	CANH
2	CANL
3	GND
4	--
5	--
6	--
7	--
8	--

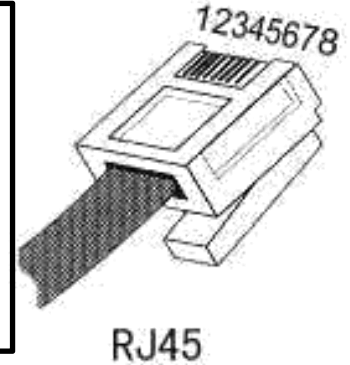
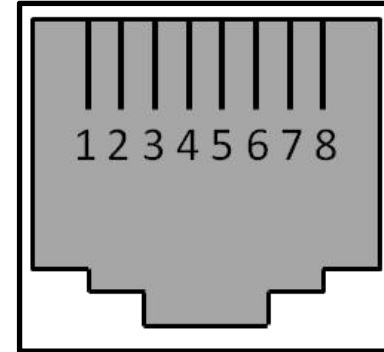
Imeon CAN port is different with SolaX CAN port only in GND terminal.
So normal situation Imeon inverter can use SolaX CAN cable, only the anti-interference ability is weakened.

US2000 plus & Canadiansolar

Definition of RJ45 Port Pin of US2000 Plus

Baud Rate: 115200

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



RJ45

RS485 RJ45 Port Pin of US2000 Plus

US2000 Plus RS485 Pin	No.
RS485B	1
RS485A	2
GND	3
	4
	5
GND	6
RS485A	7
RS485B	8

RS485 RJ45 Port Pin of Canadiansolar

No.	Canadiansolar RS485 Pin
1	RS485B
2	RS485A
3	--
4	--
5	--
6	--
7	--
8	--

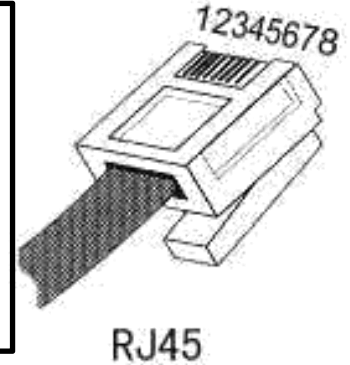
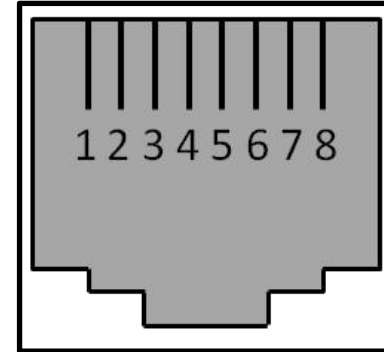
Direct RJ45 cable

US2000 plus & REDBACK

Definition of RJ45 Port Pin of US2000 Plus

Baud Rate: 115200

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



RS485 RJ45 Port Pin of US2000 Plus

US2000 Plus RS485 Pin	No.
RS485B	1
RS485A	2
GND	3
	4
	5
GND	6
RS485A	7
RS485B	8

RS485 RJ45 Port Pin of REDBACK

No.	REDBACK RS485 Pin
1	--
2	--
3	--
4	--
5	--
6	--
7	RS485A
8	RS485B

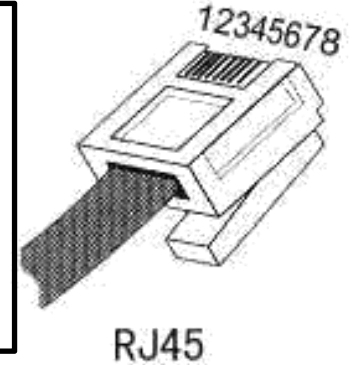
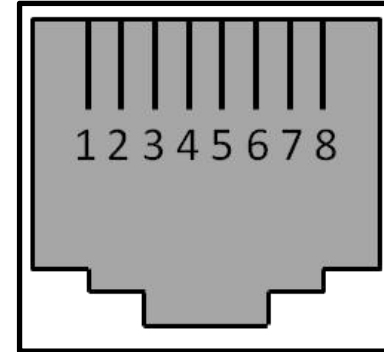
Direct RJ45 cable

US2000 plus & GMDE

Definition of RJ45 Port Pin of US2000 Plus

Baud Rate: 9600

No.	RS485 Pin	CAN Pin
1	RS485B	--
2	RS485A	GND
3	GND	--
4		CANH
5		CANL
6	GND	--
7	RS485A	--
8	RS485B	--



RS485 RJ45 Port Pin of US2000 Plus

US2000 Plus RS485 Pin	No.
RS485B	1
RS485A	2
GND	3
	4
	5
GND	6
RS485A	7
RS485B	8

RS485 RJ45 Port Pin of GMDE

No.	GMDE RS485 Pin
1	--
2	--
3	RS485A
4	--
5	--
6	RS485B
7	--
8	--