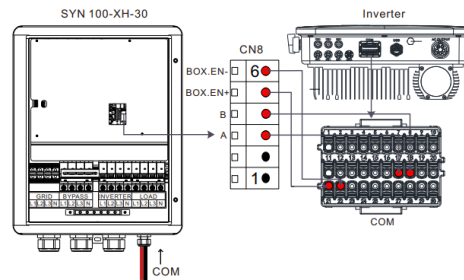# SOP Install/Troubleshoot SYN-50-30 or SYN-100-30 with MODXHBP

Install as indicated.

Connecting the communication cables to the XH Inverter

COM Port	XH Inverter COM	SYN 100-XH-30 COM	Control Board
RS485 A	PIN 17	PIN 3	CN8
RS485 B	PIN 18	PIN 4	
BOX.EN+	PIN 21	PIN 5	
BOX.EN-	PIN 22	PIN 6	

Debug with the following table

SYN 30 Light status	MODXHBP Light status	Definition	Action
Fixed Green	Fixed Green	On grid	If from this state the system does not go offgrid, turn off AC and factory reset inverter
Blinking Green	Fixed Green	Offgrid mode	
Fixed Green	Blinking Green	Inverter warning	Solve inverter issue first
Blinking Red		SYN comm error	Check A and B from SYN, check if inverter registers 3079 and 3082 are 1
	Blinking Red		Inverter error, if 609 check BOXEN- and BOXEN+ from SYN, unplug from comm port and check whether these are shorted.
Fixed Red		SYN error	
Yellow		SYN upgrade	

Updated 27/08/2023 Hongjia Xu