



Troubleshooting





1. MENSAJE DE ERROR EN DISPLAY

■ Fault Message

Fault Message	Error Code	Fault Description
Utility Loss	23	Grid disconnect or Grid fault.
Isolation Failure	14	The insulation resistance is too low.
Ground I Failure	22/32	The residual current is too high.
Relay-Check Failure	07	Output relay check failure.
Vac Failure	09/15	Grid voltage out of range of specification.
Int Fan Failure	20	Internal fan fault.
Ext Fan Failure	16	External fan fault.
All Fans Failure	NA	All fans fault.
Ref 1.5V Failure	30	Internal 1.5V reference voltage is out of range.
Fac Failure	03/12	Grid frequency is out of range.
Device Failure	25	Internal device fault.
PV over voltage	17	DC input voltage is too high.
Over Temperature	19	Temperature inside the device is too high.

Please make a record of the status of the inverter before troubleshooting, the external condition of the inverter, if installation of the inverter is correct, if the inverter has been working for some time, status of the panels installation also included. Record the serial number of the inverter in order to make it check the status of the inverter in the factory. In case of damage, please get some necessary protection when doing trouble shooting.(All control board replaced cases involed in the manual need to notice that the serial number will need to be wrote into the control board through the professional software supplied by GoodWe.)

Fault Message	Error Code	Fault Description	
EEPROM R/W FAILURE	02	Storage chip read failure.	refer to page above
SPI/SCI Failure	01	Internal communication failure.	
DC Bus HIGH	21	DC Bus voltage is too high.	
AC HCT Failure	24	Input current sensor fault.	
DC Injection High	13	DC current is too high.	
GFCI Failure	26/32	Current leakage detecting device failure.	
Other Faults	Fault Description		If the problem still exist after following the manual, please contact GoodWe service team asap.
Display Fault	Letters too light, Information missing, messy code displayed, LED light Always on, No background LED light		
WiFi Inverter Offline	The solar station always offline.		
Button Fault	Button can not work or broken.		
No Check Code	Can not find the check code either on the label of the carton or the inverter.		
RJ 485 Inverter Monitoring Failed	No data in the monitoring software.		
Display Film Fault	LED lights do not work or the button can not work.		

■ Utility Loss

Utility Loss: Inverter detect no grid connected . Possibility: Grid is off, AC switch is tripped or damaged, bad AC connection.

- 1、 Check if the grid voltage is normal via multimeter, and check if the switch is broken. If all correct, please go to step two.
- 2、 Connect DC & AC, check if the voltage can be displayed on the LCD. If not, please check if the AC connector is all right.
- 3、 Remove the cover, prepare a multimeter, check if the wire connection of the AC side of the inverter is correct. If correct, please check the fuse is OK.
- 4、 If all above are all right, please replace the control board.

■ Isolation Failure

Isolation Failure: Inverter detects the insulation resistance of the DC side is too low. Possible cause: Bad connection of pannels、ISO relay inside the inverter failure、MOS tube of relay failure、Control board failure.

1. Measure the insulation resistance of the PV to ground, the value should be more than 500KOhm. Otherwise, the insulation resistance is too low. Please check the insulation of the PV to ground.
2. If the resistance of the PV to ground is more than 500KOhm, please measure the resistance of the PV+/PV- to the shell of the inverter (screws on the cover can be treated as the shell).
3. Check connection of Line N and Line PE of the AC connector is bad or not. Measure the resistance between Line N and Line PE, the value should be very close to Zero. Or the connection of Line N and Line PE is not correct. Please check the connection.
4. If all above are Ok, please check if the version of the inverter is the latest . Please try to upgrade the software (As the regulations are always changing, the threshold is also changing with the version updating) .
5. Try to modify the threshold via Calibrate tool.

■ Relay-check Failure

Relay-check Failure : Output relay failure. This problem happens rarely, if this fault comes out when inverter have been working for some time, then the relay inside should be damaged. If this fault comes out when first installed, the control board could be fault.

1. Switch on DC and AC power, please listen to the click of the the replay when inverter is checking.
2. Remove the cover, check if the connection of the control board is normal. If normal, check if the relay is short connected with multimeter. If short connected, the relay need to be changed (Please do not operate, contact GoodWe service and apply for replacement inverter).
3. Try to knock the relay, make sure the relay has no physical damage inside.

■ Vac Failure

Vac Failure : Grid voltage beyond limit. Unstable local grid will lead to this problem. As the factory setting is according to the sales order, so it is unable to adjust all conditions grid. Modifying the safety country or the AC voltage range through Calibrate tool can fix the problem.

1. Make sure DC and AC are both on, check the status of the inverter, if the inverter always try to reconnect or reconnect a few second after working normally, please disconnect AC and change the safety country.

2. Measure the value of AC voltage. If it is far beyond the safety country, please disconnect AC power, modify the voltage range through Calibrate tool to make sure the real value is within the range.

Notes: *Before the customer try to modify the voltage range, please read the <Disclaimer> and sign the disclaimer. Please fax one copy to GoodWe.*

■ Ground I Failure

Ground I Failure: Inverter detect residual current. Usually the problem should be the PV pannels. Focus on the connection of the pannels. If the connection of the pannels is Ok, then check the inverter, could try to change a control board.

Disconnect pannels, check if there is any damage on the wires of pannels.

If pannels are Ok, please try to replace a control board.

■ Fac Failure

Fac Failure: Grid frequency beyond limit. This problem is also related to local grid. The grid frequency fluctuation might lead to this sudden fault. If the inverter will not reconnect for a long time, please follow steps below to check one by one.

- 1、 First, make sure the grid is normal.
- 2、 Switch on DC and AC, check the value of frequency displayed on the LCD.
- 3、 Check the frequency regulation of local grid, try to modify the safety country to make sure it is within the regulation range.
- 4、 If problem still exist, please try to replace a control board.

■ Device Failure

Device Failure: Internal Device Failure

This problem happens very rarely, if the problem happens, please try to replace a control board to make sure it the problem of the control board or the PCB. Remove the cover, see if the is any abnormal inside the inverter, such as burnt or fire strike. If problem still exist, please contact with GoodWe service team.

■ PV Overvoltage

PV Overvoltage: Input voltage beyond limit. The problem could be because of too many pannels connected to the inverter, the voltage is beyond the inverters specification. Please refer to user manual and disconnect several pannels to see if the inverter can operate.

Measure real PV voltage but not checking the voltage displayed on LCD, if the values are not the same, this means the voltage is too high. Try to modify the PV voltage through Calibrate tool. If problem still exist, please replace a control board.

■ Over Temperature

Over Temperature: Inverter detect Over temperature.

Check if the NTC temperature sensor wire normal. If it is abnormal, please change a wire. If not, please reconnect or replace the control board. Updating software also could fix the problem.

■ DC Injection High

DC Injection High: Output current is too high. This problem happens rarely, if the problem happens to single phase inverters, the problem should be of the control board. If happens to three phase inverters, the problem should be of the drive board.

Try to change a control board and the cable connected to the control board to see if the problem is of the control board or the PCB. Check if the power transistor is damaged.

Check if the drive board is fastened normally.

If all above are Ok, please try to replace a control board.

■ EEPROM R/W FAILURE

EEPROM R/W FAILURE: Storage chip read failure. The problem usually caused by the control board.

Rewrite the control board, update the software. If failed, please replace a control board.

■ SPI/SCI Failure

SPI/SCI Failure : Internal communication failure. The problem usually caused by the control board.

Rewrite the control board, update the software. If failed, please replace a control board.

■ DC Bus High

DC Bus High: DC BUS voltage inside the inverter is too high.

Try to replace a control board and the cable connected to the control board to see if the problem is of the control board or the PCB.

Check if the components of the BOOST and converter circuit is damaged.

■ AC HCT Failure

AC HCT Failure: Output current sensor failure. If the inverter has been working for some time, the AC transformer must be faulty.

Try to replace a control board and the cable connected to the control board to see if the problem is of the control board or the PCB.

Check if the AC transformer is damaged, if yes, please change a AC transformer (Please just send it back to GoodWe and apply for replacement inverter).

■ GFCI Failure

GFCI Failure: Current leakage detecting device failure.

Try to replace a control board and the cable connected to the control board to see if the problem is of the control board or the PCB. Check if the connection of the pannels is normal.

■ Int Fan Failure

Int Fan Failure: Internal fan failure.

"When this fault happens, please check the internal fan if it is running when the inverter is working. If yes, please replace the control board. If not please contact with GoodWe service team.

Notices: *The fan will run when DC reconnect.*

■ Ext Fan Failure

Ext Fan Failure: External fan failure. Please check if anything stuck before troubleshooting.

Check if the external fan run when inverter checking. If not, please check the connection. If yes, please replace the fan.

■ All Fans Failure

All Fans Failure: All fan goes fault. Please check if anything stuck before troubleshooting.

Please refer to solution of Int fan failure and Ext fan failure. If problem still exist, please contact with GoodWe service team.

■ Ref 1.5V Failure

**Ref 1.5V Failure : Internal 1.5V reference voltage beyond limit.
Please follow steps below, if problem remain, please contact
GoodWe service team.**

Check if the connection of the control board is fastened. Restart the inverter or upgrade the software.

If fault remains after updating the software, please try to replace the control board.

■ Display fault

Display fault: Letters displayed too light, Information missing, Messy code, Background light solid, No background light.

If problems happen, please confirm if it is a single phase or three phase inverter. If it is a single phase inverter, please replace the control board. If it is a three phase inverter, please replace the LCD screen firstly, if failed, then replace the control board.

■ WIFI Inverter Offline

WIFI Inverter Offline: After building the station, it is always offline.

First please make sure the configuration is correct. Please refer to the instruction of WiFi configuration in the carton. Please the configuration is correct, please check the distance between the inverter and the router, if there is any blockage. Finally check the station, if the settings are correct. If everything is all right, please try to update the software and contact with GoodWe service team.

■ Button Fault

Button failure: Button not work, Button broken

When the problem happens, please unfold the label from the lower right corner, just unfold it to the button, then take the button out off the inverter and loose or fasten the white plastic screw. If the button is broken, please contact with GoodWe service team.

■ No Check Code

No Check Code: No check code found on the carton.

This problem will happen to inverter produced 2012. If the check code is needed, please contact with GoodWe service team. A software which can generate the check by inputting the serial number.

■ RS 485 Inverter Monitoring Failed

RS485 Inverter Monitoring Failed: No data shown on the monitoring software after installation.

This problem will happen when many inverters are connected in one string to one Ezlogger. Please first try to restart the inverter can not be monitored. If can not be monitored for a long time, please check the wires connection. Focus on the wires connecting with the inverters, to make sure the wires are normal. If all wires are normal, please check the configuration of the Ezlogger, if the IP address have been used by some other devices. If everything is normal, please disconnect all the inverter and connect the inverters one by one, untill all the inverter can be monitored.

■ Display Film Fault

Display Film fault: Buttons not work or LED light not work

When this problem happens, please contact GoodWe service team, we will send a new film and instructions to you. Please disconnect DC and AC power, in case of any damage.



2. ERROR POR ANÁLISIS

■ EN INSTALACIÓN

EL
INVERSOR
NO
ENCIENDE

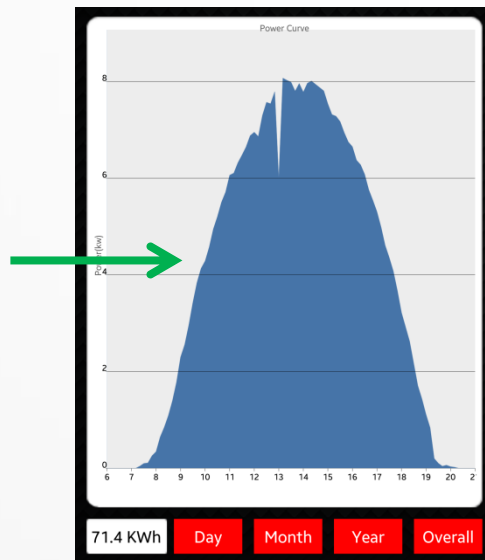
La polaridad de las entradas de CD del inversor no respeta la polaridad de los strings conectados.

Las puntas del conector de CA no respetan el orden de la simbología según el conector.

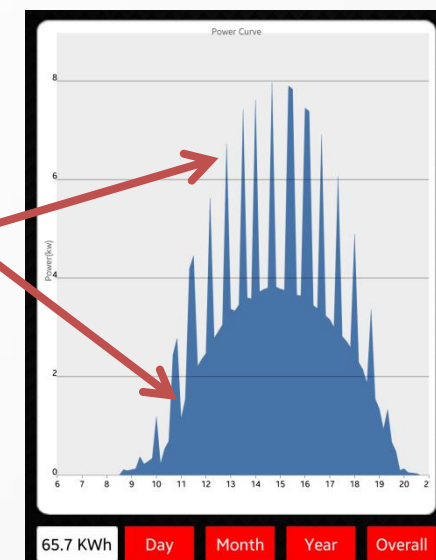
■ EN MONITOREO

Determinado por análisis en la forma de la curva de producción; observando una tendencia sin seguir el patrón de campana de Gauss o fuera de lo esperado en relación a la irradiación día por día.

**Uniformidad
(2 inversores)**

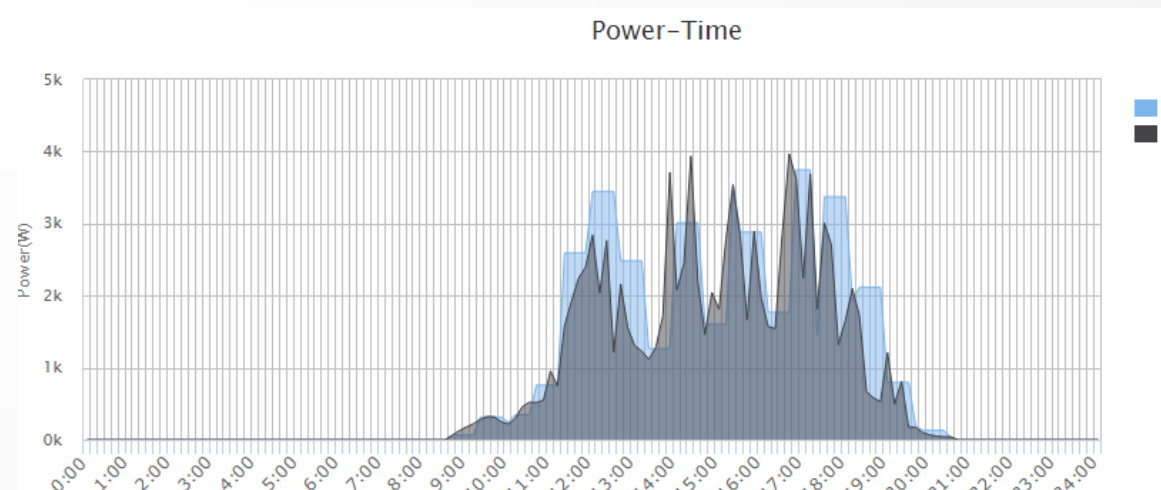
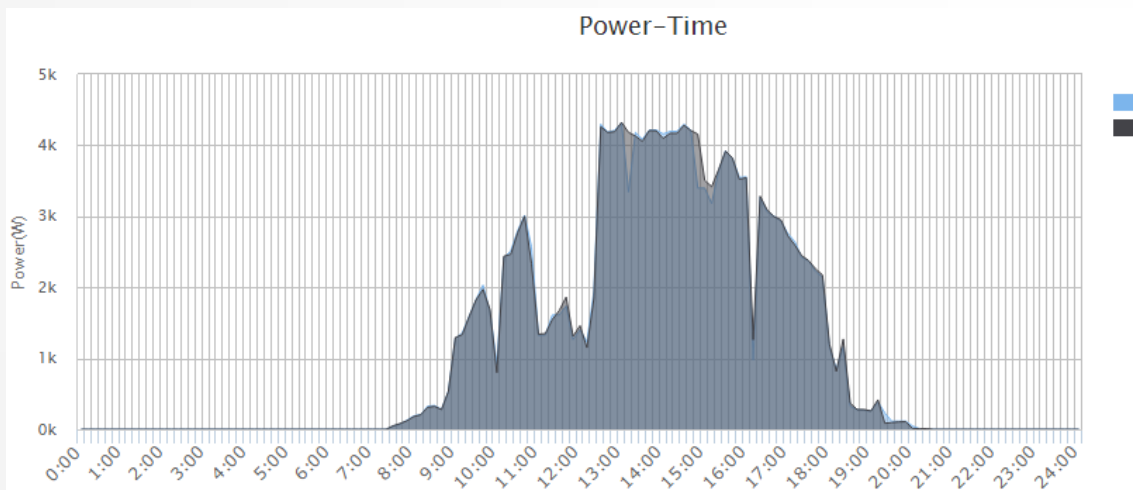
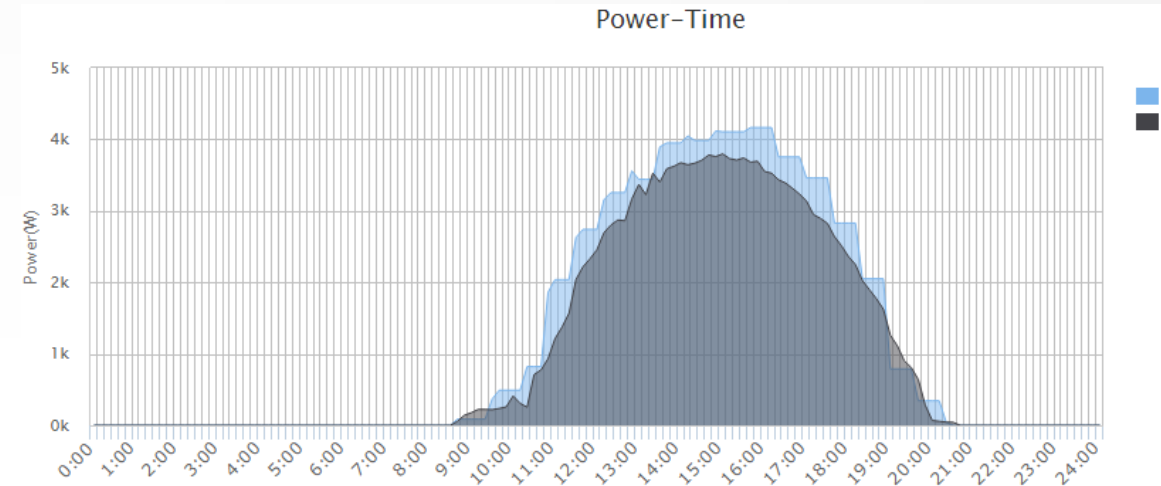
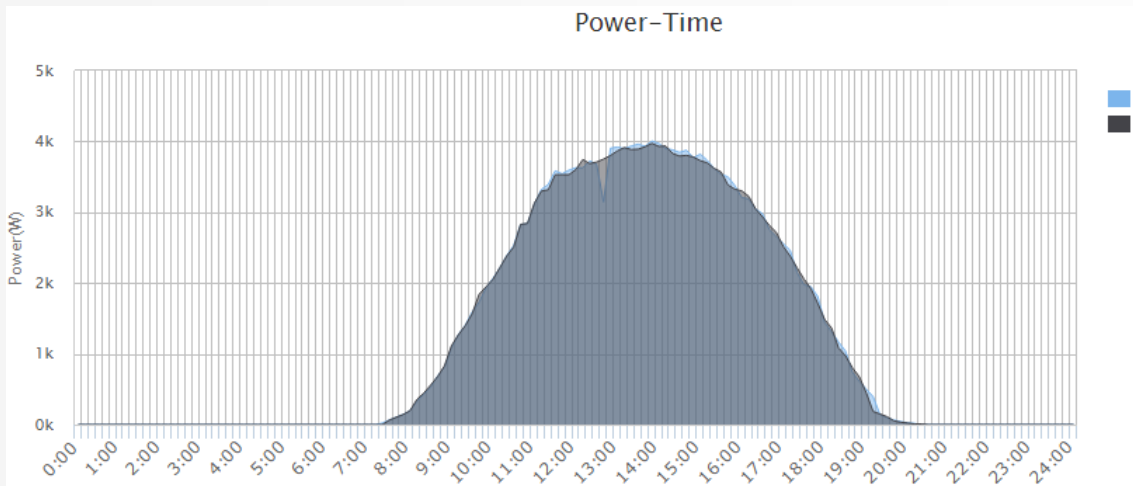


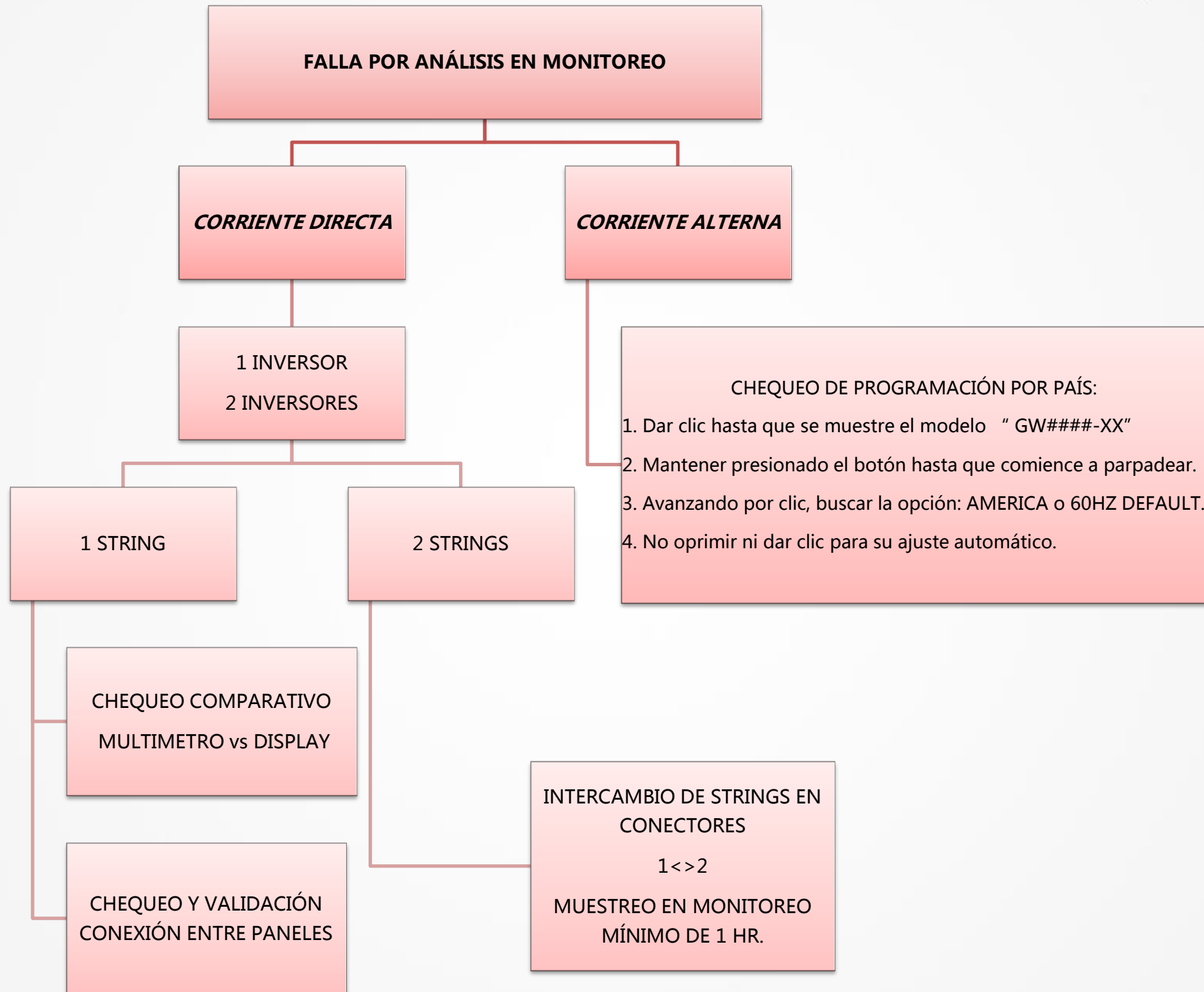
**Varianza
(2 inversores)**



- OK

- NO OK





**THANK YOU
FOR WATCHING**