



G575R Repair manual (Electronics)



1-1. Product -G575R



1-1-1

1-2. Display -G575R/U



1-3. Component placement - G575R Display

USB board

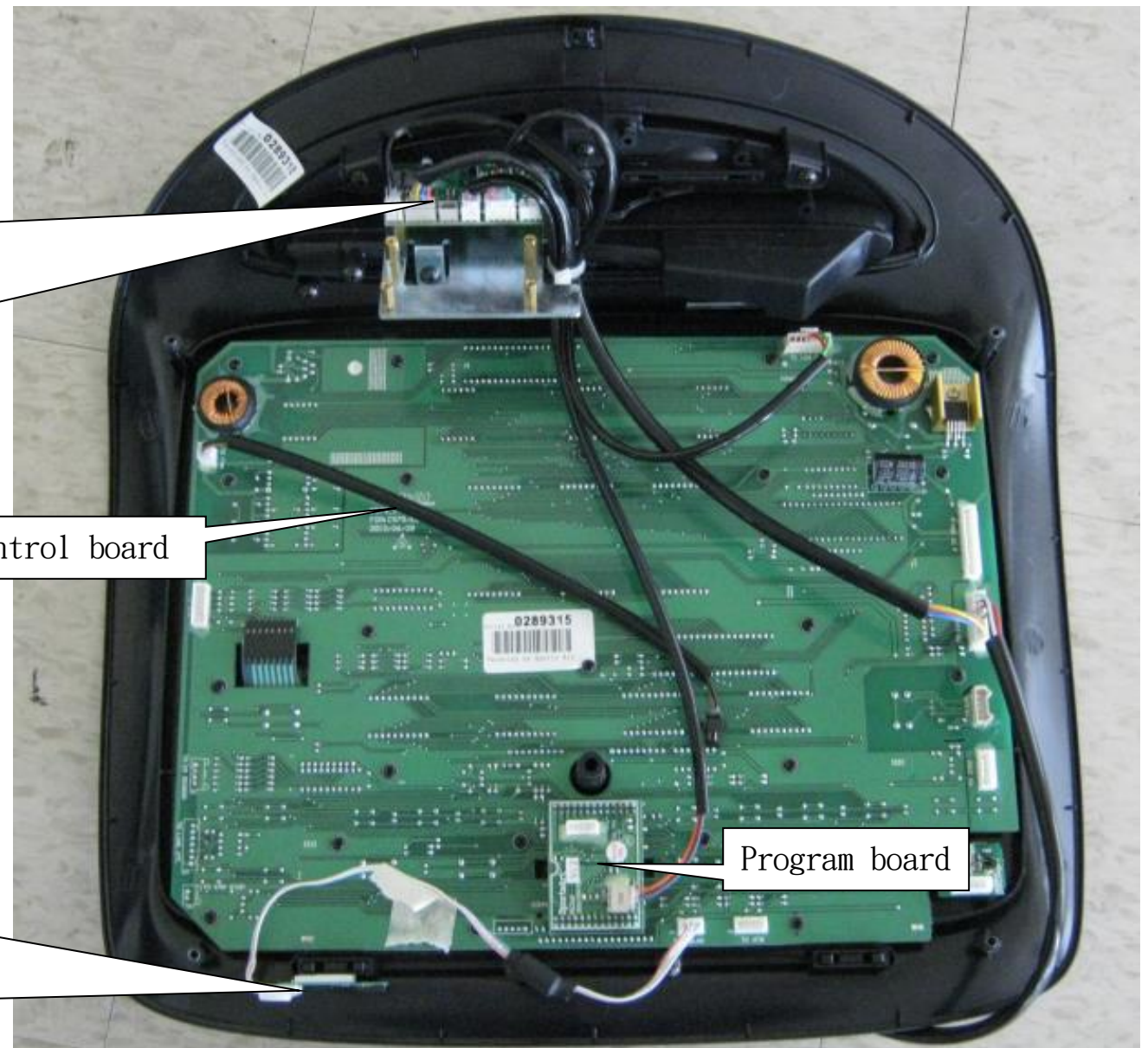


Control board

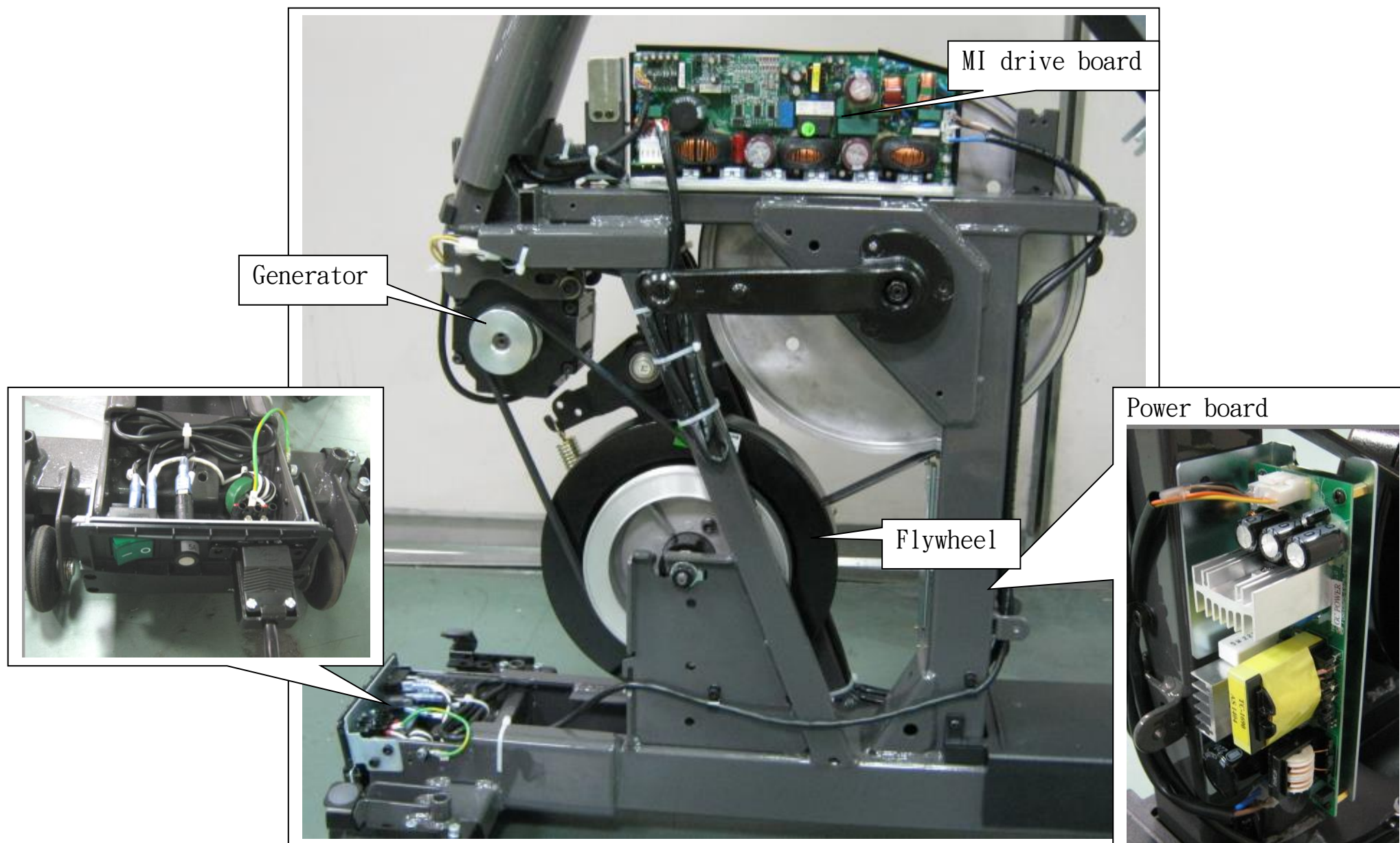
Wireless HR board



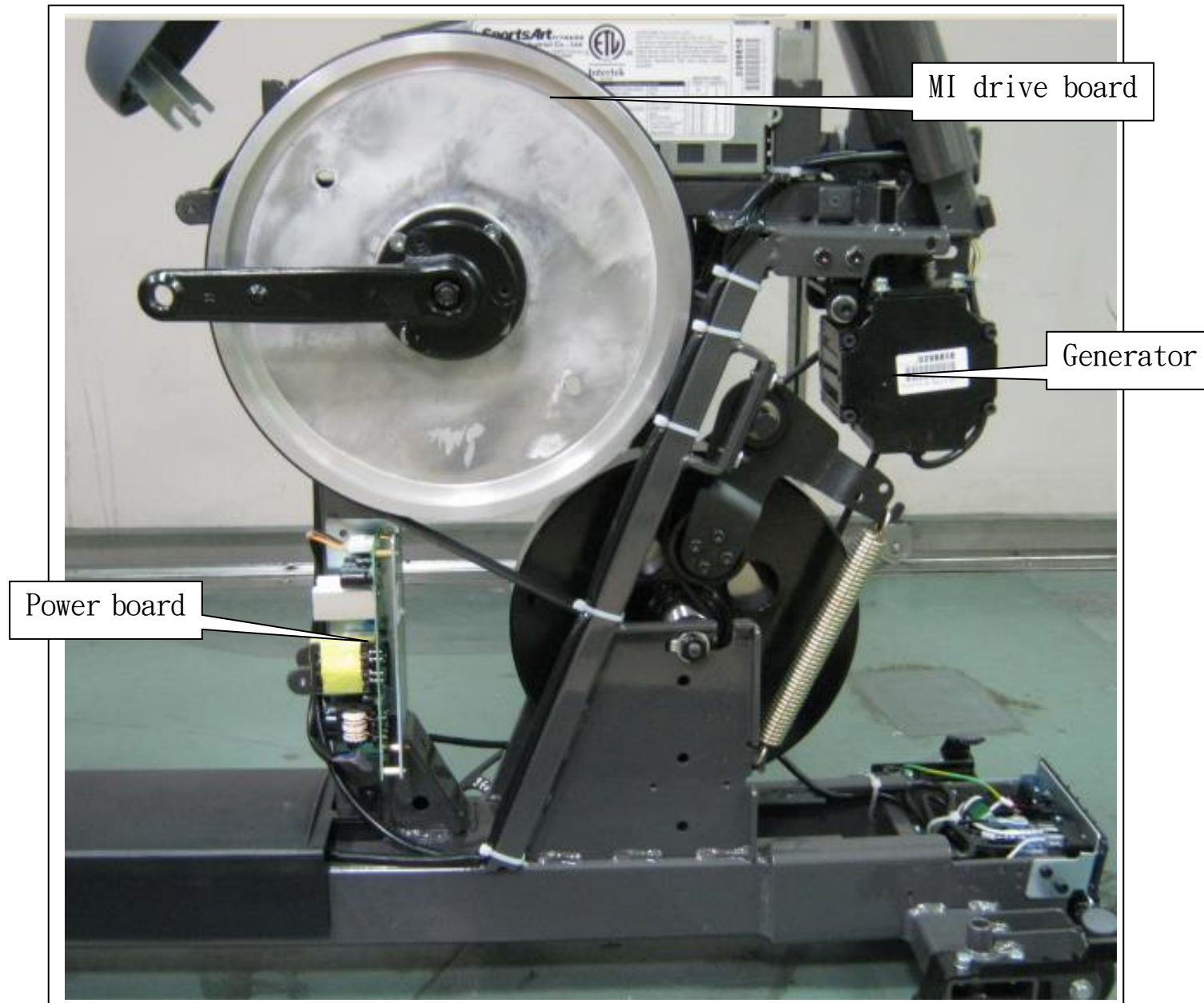
Program board



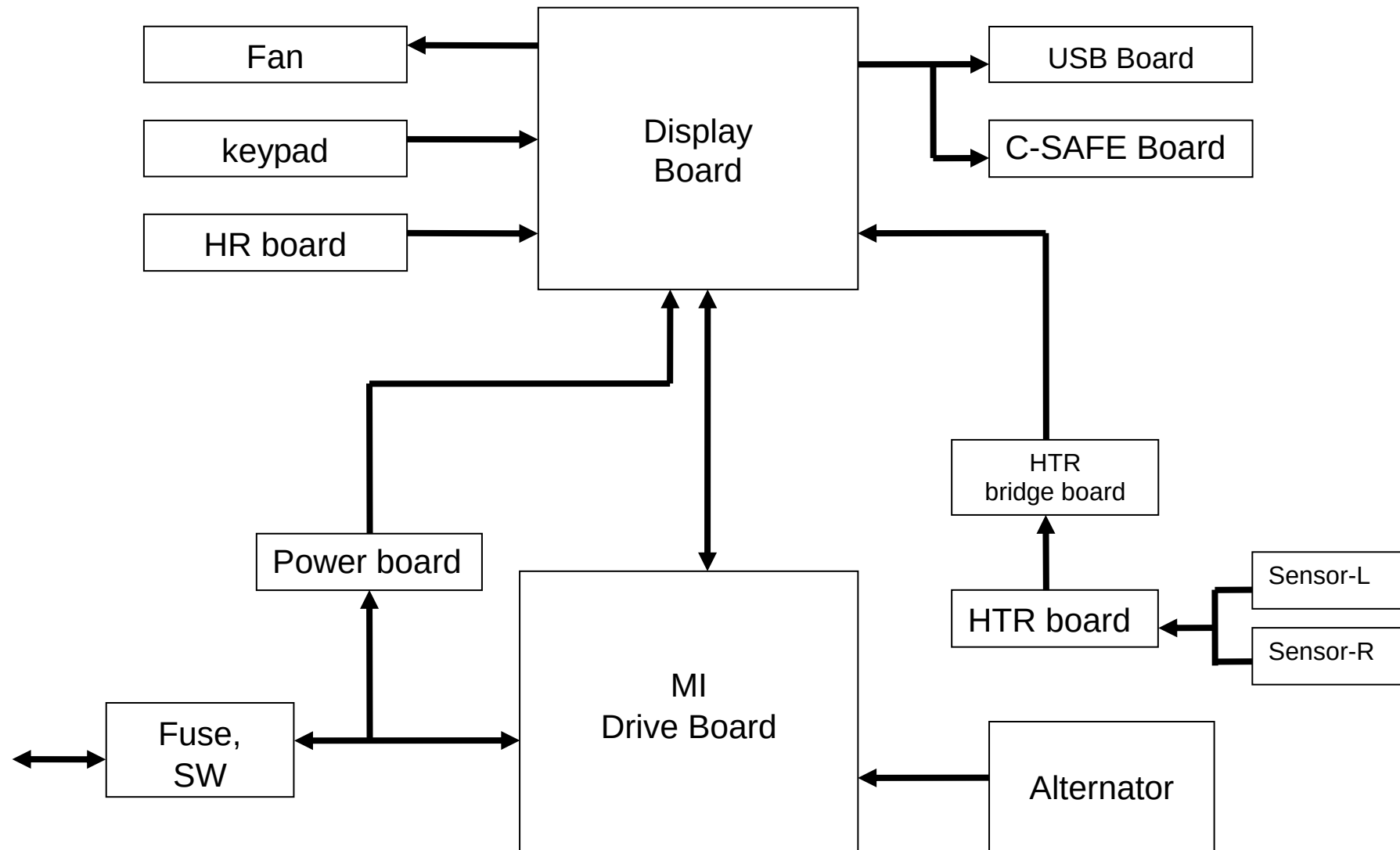
1-3.Component placement - G575R frame



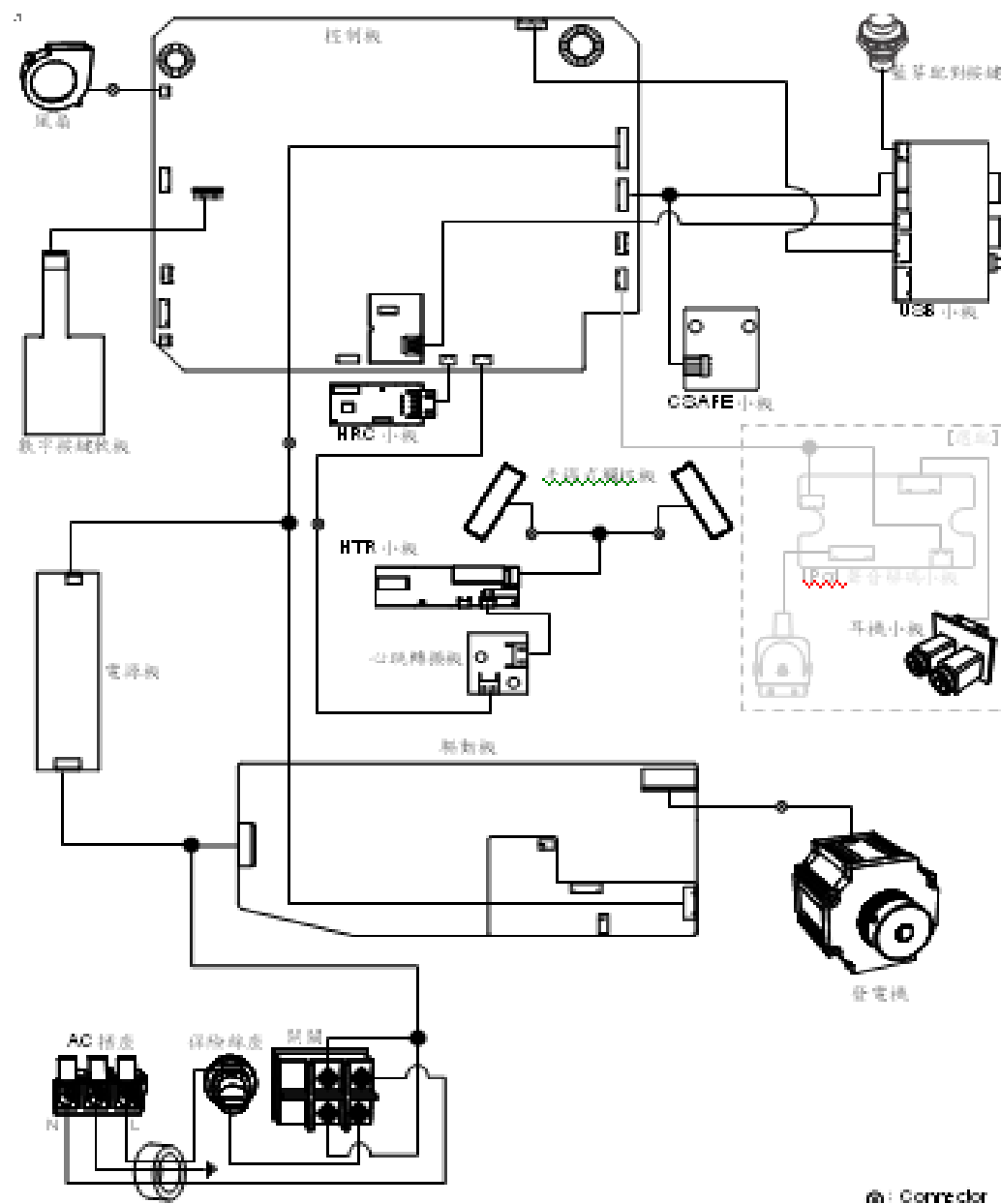
1-3.Component placement- G575R frame



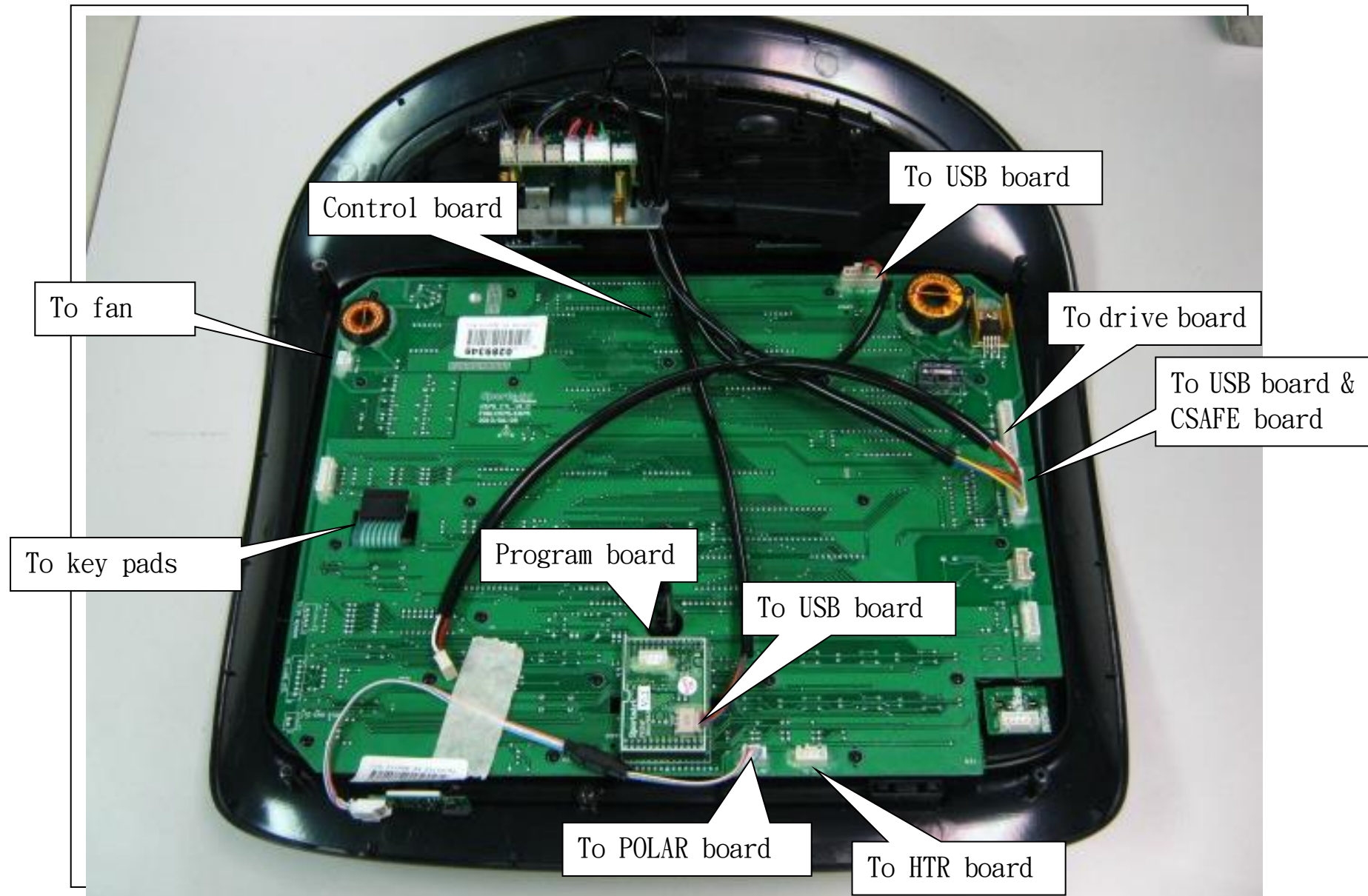
1-4. Black diagram -G575R



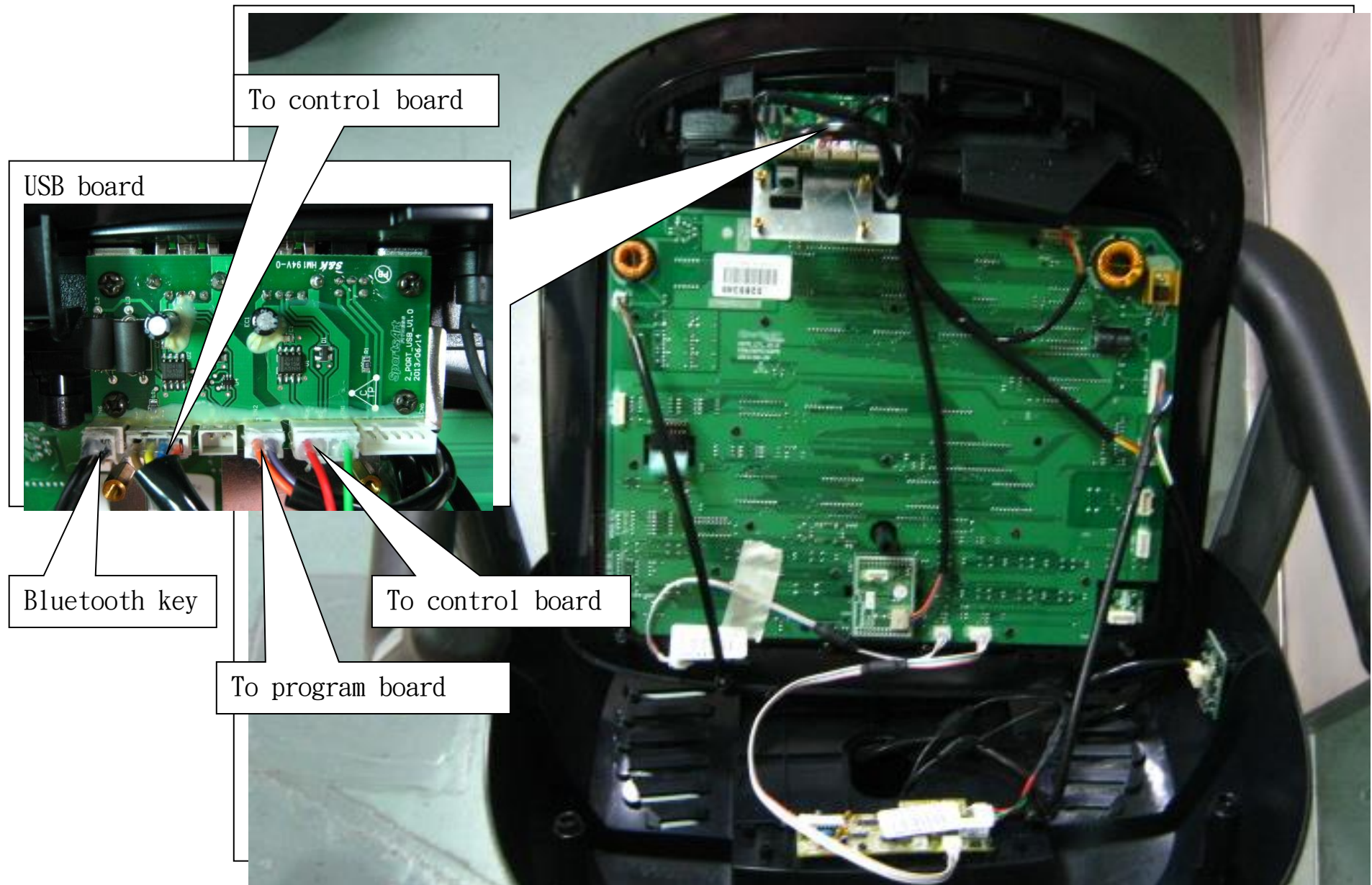
1-5.Wiring diagram-G575R



1-5.Wire connections -G575R Display



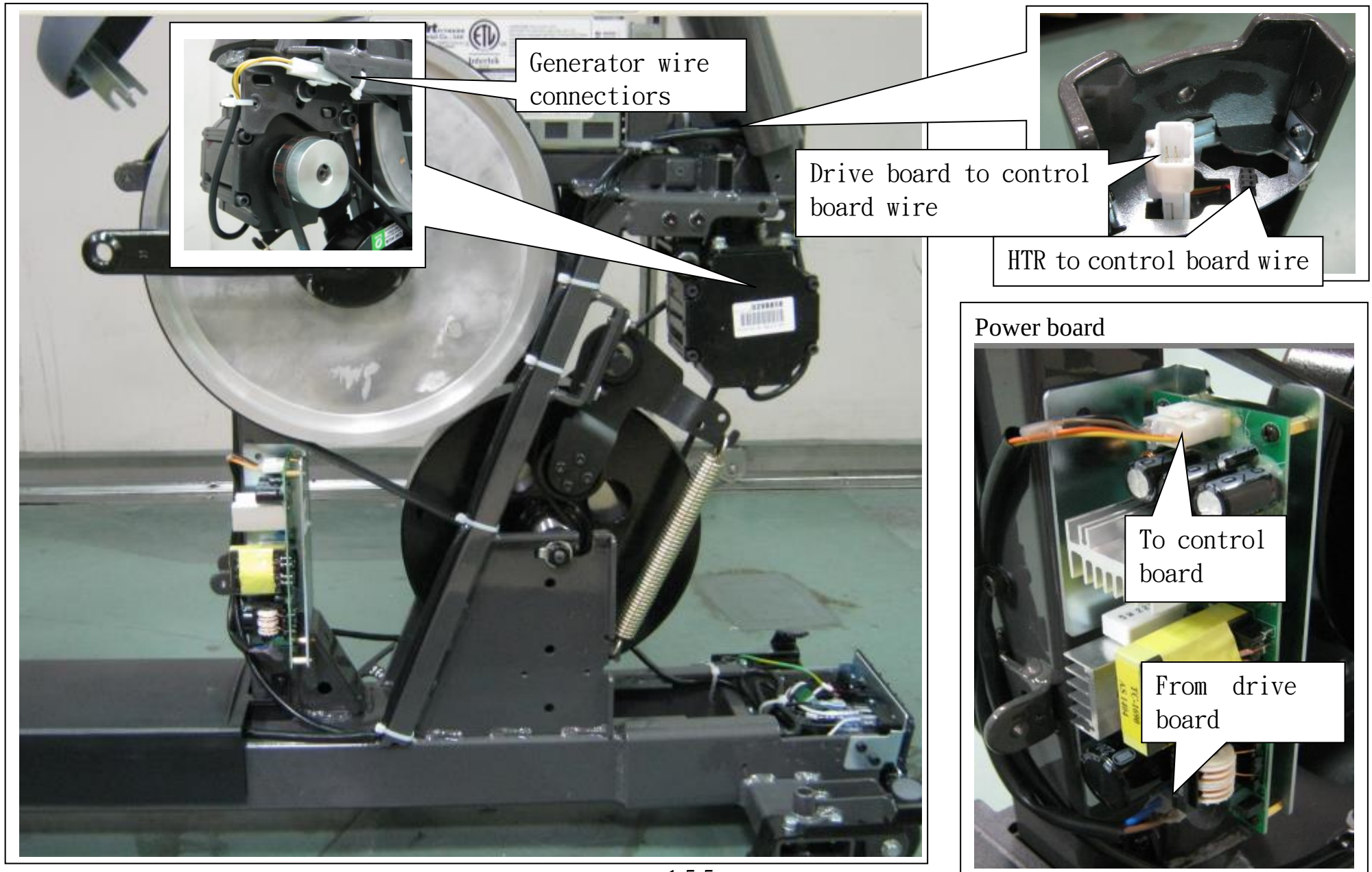
1-5. Wire connections -G575R Display



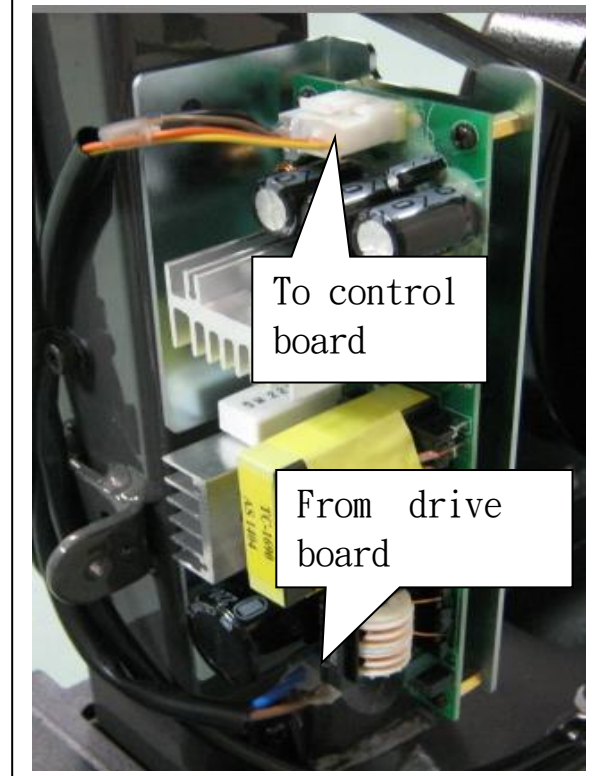
1-5. Wire connections -G575R MI Drive board



1-5. Wire connections -G575R Power board



Power board



1-6. LED indicator -G575R Display



1-6.LED indicator -G575R/U MI Drive board



1-7. Electronic component specification -G575R

Specification	Description	Note
Main power	Power source AC 110V / 220V	
Generator power source	AC generator Max output WATT =250 W	
Resistance control	Resistance circuit inside the MI drive board to control generator	
Resistance range	LEVEL 1 - LEVEL 40	
Speed sensor	Detecting circuit inside MI drive board to detect generator	
Main display	Dot matrix	
Data displays	CARDIO ADVISOR - Weight loss zone, Heart, CARDIO zone, CALORIES / LEVEL / TIME / DISTANCE RPM / METS / SPEED / HUMAN WATTS / WATTS TO THE GRID	
Programs	MANUAL, INTERVAL, PLATEAU, RANDOM, FAT BURN, FIT TEST, CUSTOM HR, WT LOSS/CARDIO	
Heart rate measurement	Wireless Polar T34 / HTR sensors	
Languages	German, French, Spanish, English (US), English (International), Japanese	
Fan	Fan, (LOW, MIDDLE, HIGH)	
Outside connections	USB → cell phone charging, software upgrade ; CSAFE Reserved functions → IPOD video, Bluetooth	

2-1.Troubleshooting -G575R

Faulty item	Description	Inspect and test procedures	Suggesting replacement parts
No power	Display is not lit up while pedaling the bike	1.Check all wire connections 2. Check product fuse 3.Check power board 4.Replace MI drive board	1. Product fuse 2. Power board 3. MI drive board
No RPM	RPM display 0 while pedaling the bike	1. Check the wire connection 2. Power on again to test. If display or MI drive board problem will also cause RPM=0 3. Check to see if generator is turning 4. Replace MI drive board	1. MI drive board
No resistance	1.No resistance while pedaling	1. Check to see if there is RPM signal on display while pedaling the bike 2. Power on again to test. If display or MI drive board problem will also cause no resistance. 3.Check drive belt or drive pulley 4.Replace MI drive board	1.Generator 2.MI drive board
No/bad telemetry heart rate reception	Wearing strap, however no/bad heart rate signal	1. Check the Polar board wiring or replace it 2. Check interference sources, such as light or speaker	1. Polar board 2. polar transmission
No/bad contact heart rate reception	No/bad HTR heart rate signal	1. Make sure palms are holding on the sensors. 2.Check the HTR board signal status 3.Check HTR wiring problem	1. HTR board 2. HTR sensor 3. HTR wiring
Key not function properly	Key is not responding or stuck	1. Check the location of the problem keys 2. Numeric key pad problem, check or replace the membrane keys 3. If it is other key area, check or replace control board. 4. Replace key switches	1. Soft key pad 2. Control board or control board key board switch

No fan	Pressing <FAN> button and fan is not functioning	1. Check fan wiring 2. Check fan voltage output on the control board 3. Replace control board 4. Replace fan	1. Control board 2. Fan
ERROR_1_1	Display showing "ERROR_1_1" when power on	1. System power on abnormal 2. Replace MI drive board or control board to test	1. MI drive board 2. Control board
ERROR_1_6	Display showing "ERROR_1_6" when power on	1. Power source voltage setting is not correct 2. Press Workout level<▲> & <▼> & <change display> to set power source voltage	
ERROR_2_1 ERROR_2_2	Display showing "ERROR_2_1, ERROR_2_2" when power on or exercising	1. ERROR_2_1 means IGBT on MI driver over current ERROR_2_1 means IGBT on MI driver too hot 2. Stop for ½ hour before use it again 3. Replace MR drive board if it occurs frequently	1. MI drive board
ERROR_3_1	Display showing ERROR_3_1, when power on	1. Islanding effect 2. Check product power cord installation 3. MI drive board protective function; turn the power on/off to use it again 4. Wait for a while before turn power back on 5. Replace MI drive board to test	1. MI drive board
ERROR_3_2	Display showing "ERROR_3_2" when power on	1. Voltage from power source is over the limit 110V ➔ 105 - 132 Vac 220v ➔ 184 - 264 Vac Stop using it until the voltage regulates	

ERROR_3_3	Display showing “ERROR_3_3” when power on	1. Abnormal frequency from outside power source 2. Check power source frequency 3. Or replace MI drive board to test	1. MI drive board
ERROR_3_4	Display showing “ERROR_3_4” when power on	1. AC power mid-point error; this is for MI drive board reference 2. Check to see if power source is abnormal 3. Replace MI drive board to test	1. MI drive board
ERROR_3_5	Display showing “ERROR_3_5” when power on	1. Power source grounding issue 2. Check power source grounding 3. Check grounding on the power cord	
ERROR_4_3 ERROR_4_4	Display showing “ERROR_4_3, 4_4” when power on	1. DC BUS abnormal on MI drive board 2. Check power source for issues 3. Or replace MI drive board to test	1. MI drive board
ERROR_5_1 ERROR_5_2	Display showing “ERROR_5_1, 5_2” when power on or exercising	1. ERROR_5_1 means MI drive board is forced to warm up 2. ERROR_5_2 means MI drive board is forced to shut down <emergency stop> 3. MI drive board self-protective function; turn power off/on to try again 4. Replace MI drive board if it occurs frequently.	1. MI drive board
ERROR_6_1, ERROR_6_2 ERROR_6_3	Display showing “ERROR_6_1, 6_2, 6_3” when power on	1. Abnormal generator 2. Check generator 3. Replace MI drive board to test	1. MI drive board
ERROR_8_1	Display showing “ERROR_8_1” when power on	1. Communication error 2. Check control board and program board	
ERROR_8_2	Display showing “ERROR_8_2” while exercising	1. Communication error 2. Check control board and program board 3. Product self-protection from interference; turn power off/on to test	

Total distance display	Kph/mph/total distance/total time/total energy generated/software version display	Press <CHANGE DISPLAY> for 3 seconds to enter kph/mph setting and total distance, total time and control board software version display	
Model no. and voltage setting		Press & hold “Workout level<▲> & <▼> & <change display> keys for 3 seconds	

Troubleshooting

Model: G575R

Malfunction item: Product will not turn on

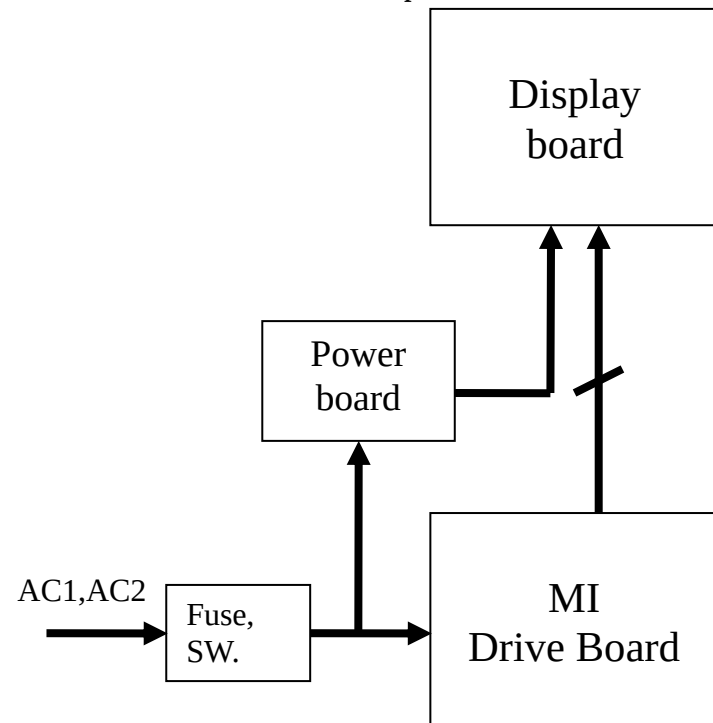
Circumstance: Start pedaling, display will not turn on

Possible causes: 1. Bad wire connections

2. Bad power board
3. Bad MI drive board
4. Bad control board

Troubleshooting: 1. Check product fuse

2. Check all wire connections
3. Check MI drive board LED indicator or replace drive board
4. Check power LED indicator on the control board or replace it



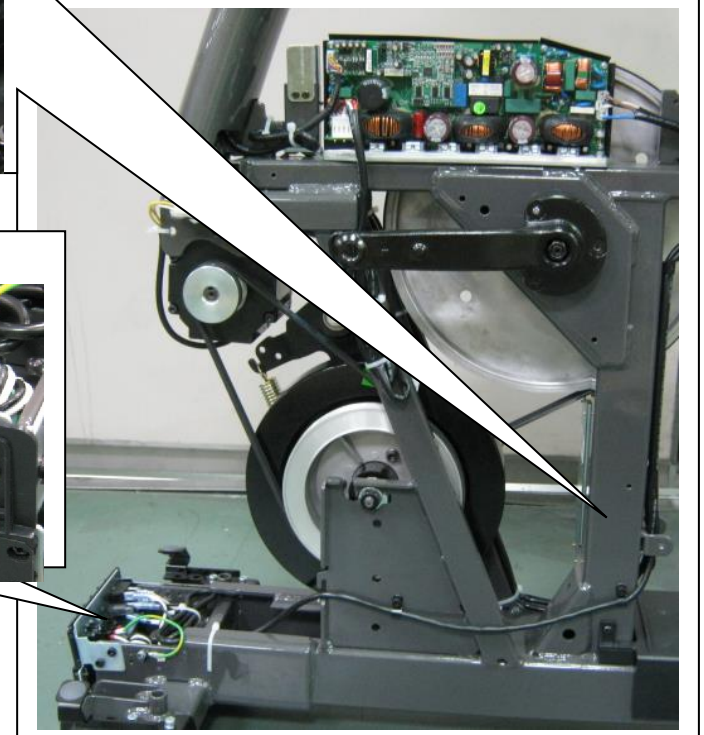
Power board



Fuse, Switch



Fuse



Troubleshooting

Model no.: G575R

Malfunction item: No RPM display

Circumstance: No RPM display while pedaling the bike

Possible causes: 1. Control board or drive board shut down

2. Bad wiring on generator

3. Bad MI drive board

Troubleshooting: 1. Turn power off/on to test

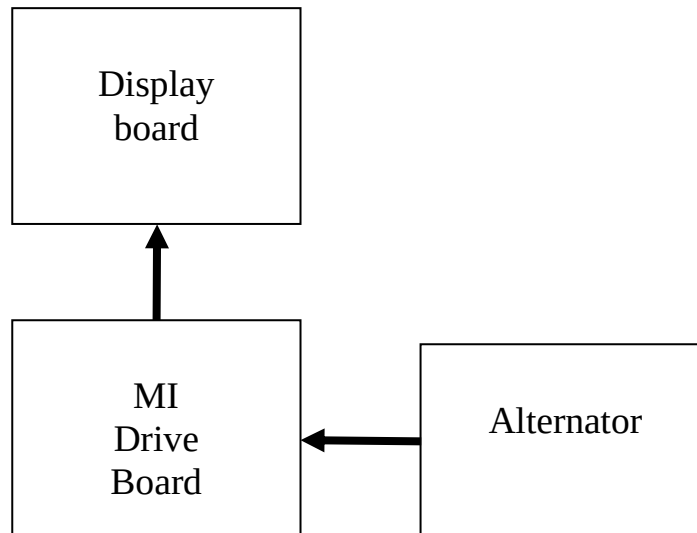
2. Check generator

A. Check wire connections

B. Generator drive belt

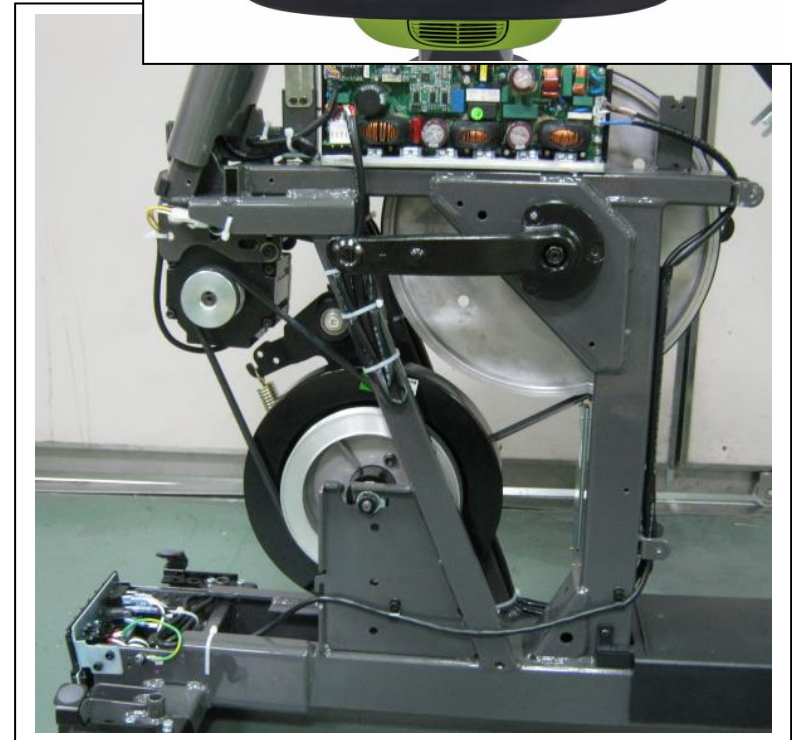
3. Pedal once per second, the RPM reading should be 60

4. Replace MI drive board to test



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Key pads



Troubleshooting

Model: G575R

Malfunction item: No resistance

Circumstance: No resistance while pedaling the bike

Possible causes: 1. Resistance is coming from MI drive board resistance control circuit controlling generator
2. Generator drive belt tension issue or bad generator
3. Bad MI drive board

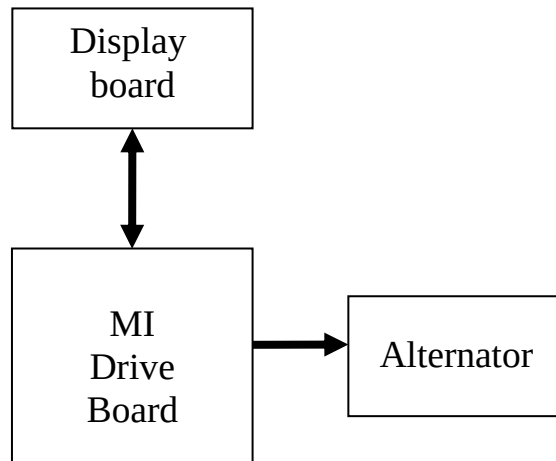
Troubleshooting: 1. Check generator

A. Check wiring

B. Check drive pulley and belt

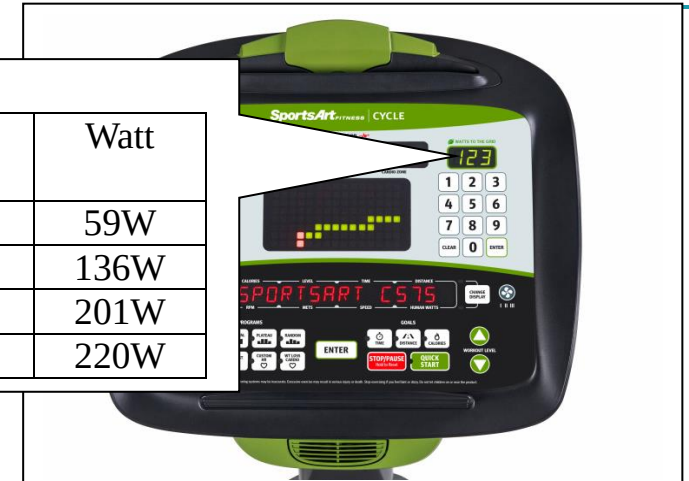
2. . Replace MI drive board

3. Check generator performance

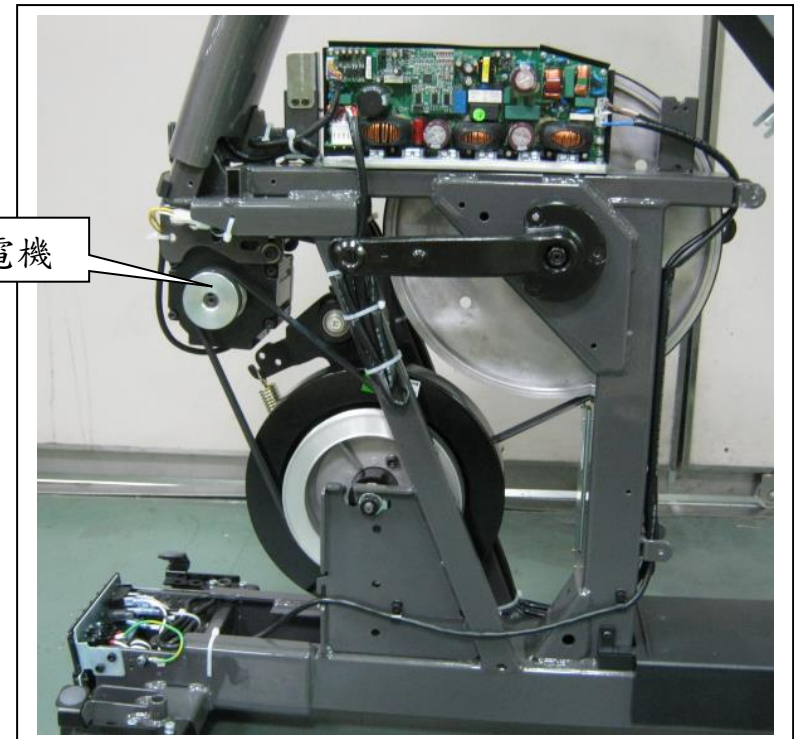


Energy reference

Workout level	RPM	Watt
10	60	59W
20	60	136W
30	60	201W
40	60	220W



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Troubleshooting

Model: G575R

Malfunction item: Bad telemetry heart rate reception

Circumstance: Bad telemetry heart rate reception

Possible causes: 1. Telemetry transmitter battery too low

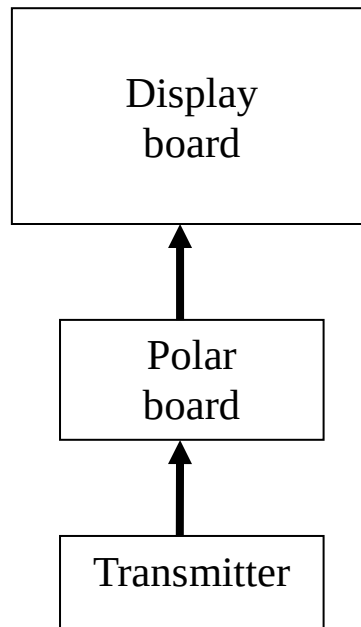
2. Bad HR receiver board

3. Interference issue, such as lights,

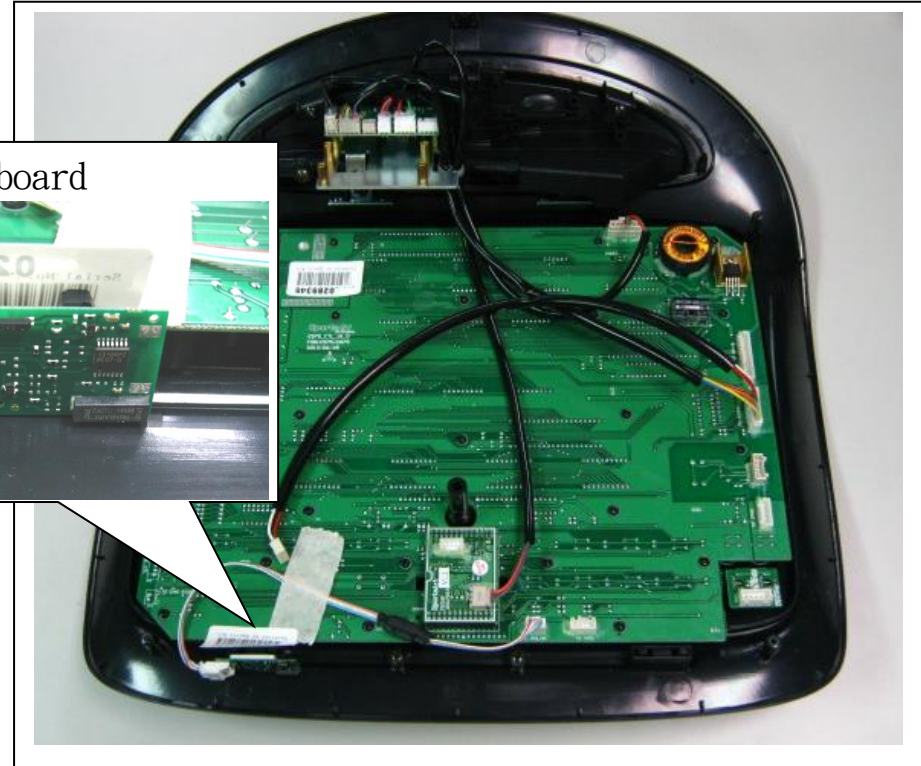
Troubleshooting: 1. Replace the transmitter battery

2. Check HR receiver board wiring

3. Replace the receiver board



Wireless HR board



Polar T34



Troubleshooting

Model no.: G575R

Malfunction item: Bad HTR signal

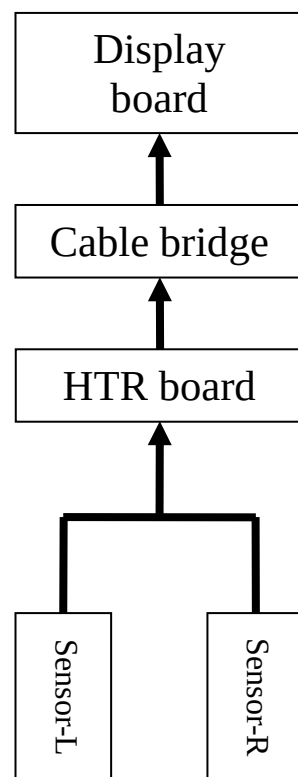
Circumstance: Holding to HTR and the reading is incorrect

Possible causes:

1. Bad HTR wire connection
2. Bad HTR board

Troubleshooting:

1. Check display wire connections
2. Check drive board HTR wire connection
3. Check HTR bridge board and LED indicator
4. Check HTR contact plates and wire connections



HTR sensors



HTR board

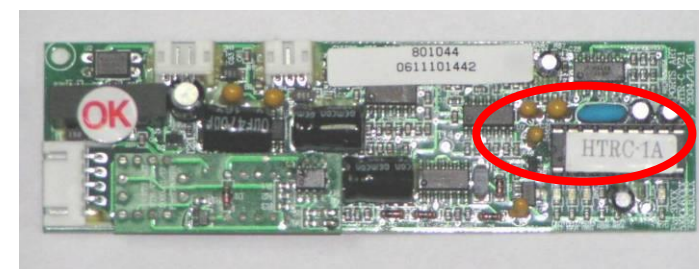
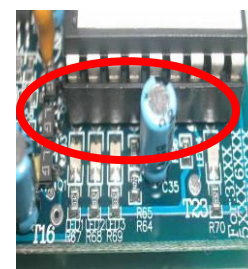


HTR sensor wires



HTR board LED indicator

Indicator	Name	Description
LED1	Telemetry	Flashes to indicate incoming telemetry signal
LED2	HTR contact	Lights to indicate hands on the contact plates
LED3	HTR output	Flashes to indicate incoming HTR signal
LED4	Heart rate signal output	Each flash indicates each heart rate output



Troubleshooting

Model: G575R

Malfunction item: bad keys - soft key pads

Circumstances: No response when pressing keys

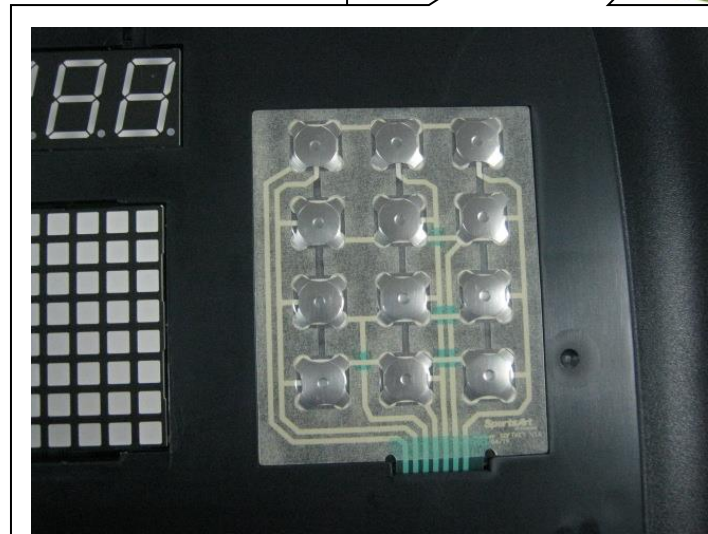
Possible causes: 1. Bad membrane key pads

Troubleshooting: 1. Replace membrane key pads

Display board

Soft key

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Troubleshooting

Model: G575R

Malfunction item: Bad key - display

Circumstance: No response while pressing the display keys

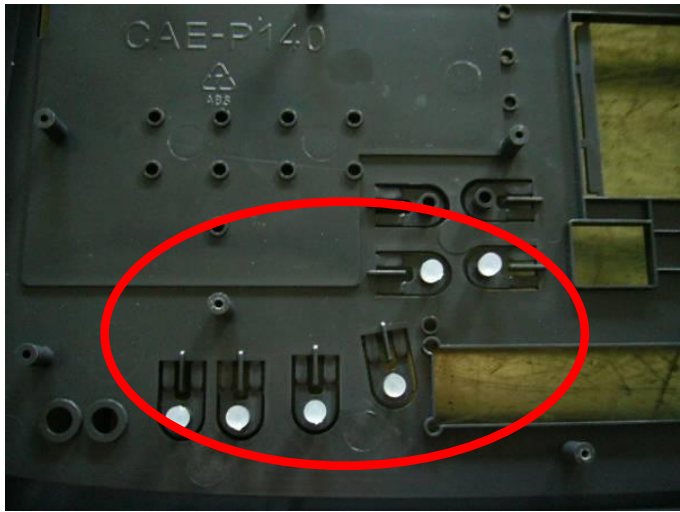
Possible causes: 1. Bad display tact switches

2. Bad switch sleeve placement

Troubleshooting: 1. Check switch sleeves

2. Replace display tact switches

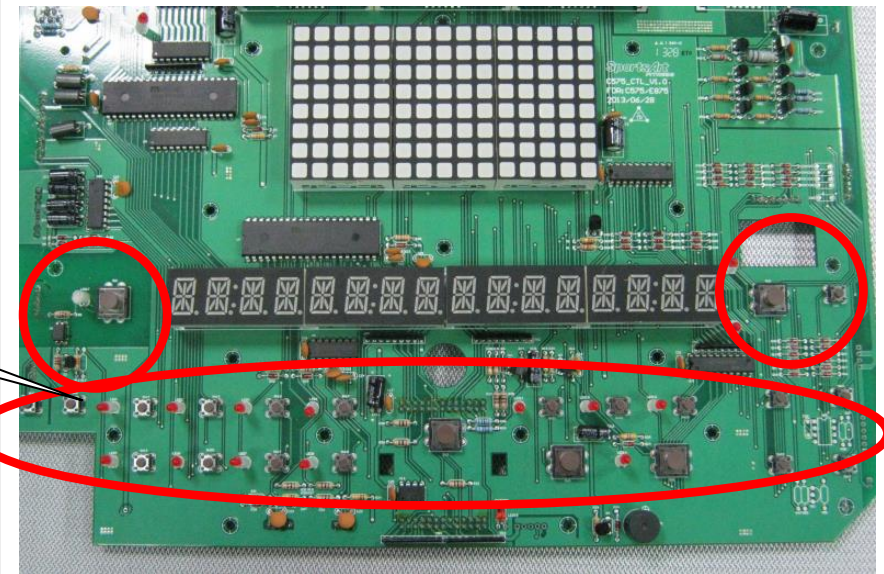
Switch sleeves



Tact switches



Tact switch



Tact switch

Troubleshooting

Model: G575R

Malfunction item: Fan does not operate correctly

Circumstance: 1. Press the fan key & fan is not responding

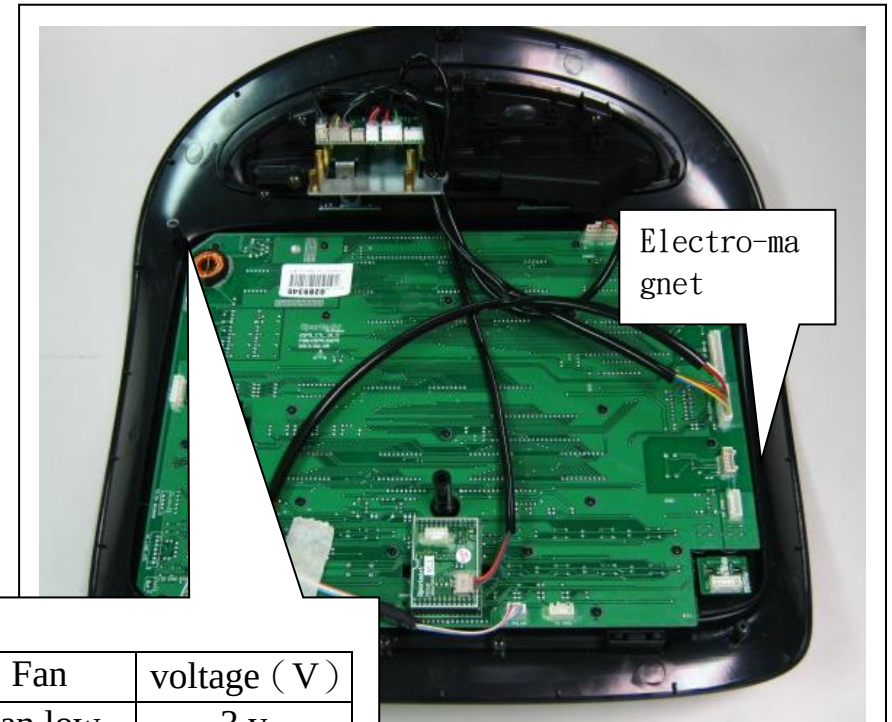
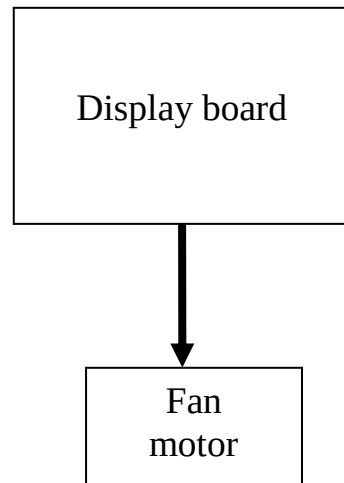
Possible causes: 1. Bad control board

2. Bad fan wire connections or bad fan motor

Troubleshooting: 1. Check the fan key and wire connections

2. Measure control board fan voltage

3. Replace control board or fan motor



Fan	voltage (V)
Fan low	3 v
Fan mid	6v
Fan high	9v

Troubleshooting

Model no.: G575R

Malfunction item ERROR_1_1

Circumstance: Display showing "ERROR_1_1" when power on

Possible causes: 1.Bad MI drive board

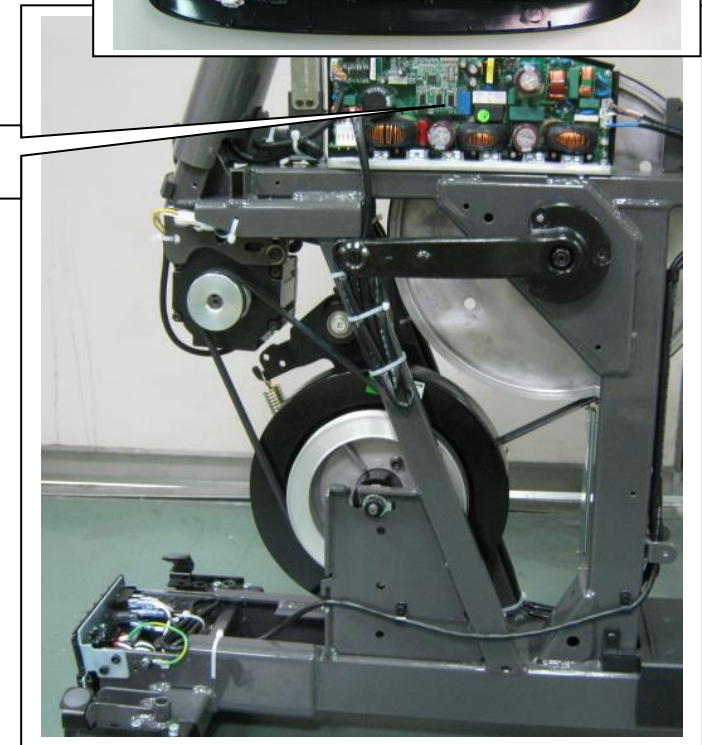
2.Bad Control board to MI drive board

Troubleshooting: 1.ERROR_1_1 means power on error

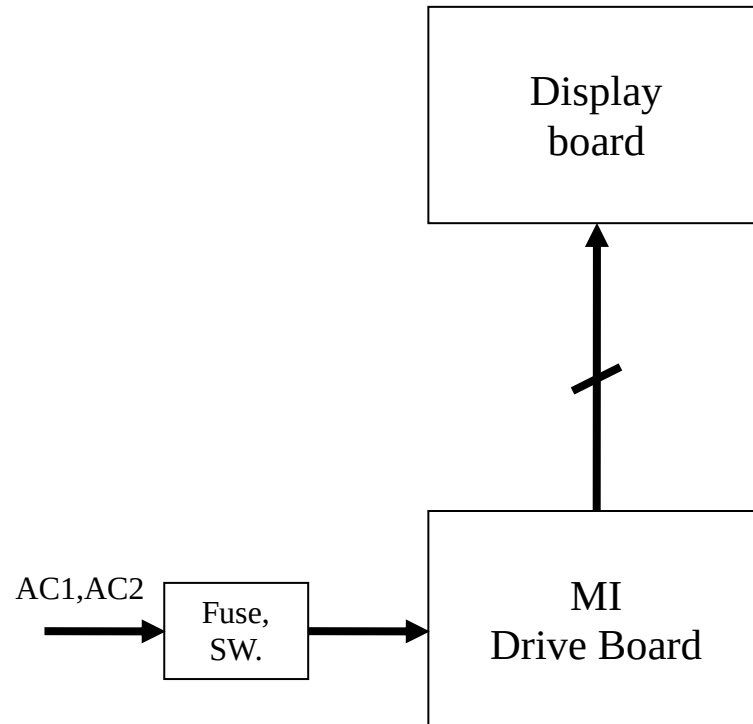
2.Check wiring from control board to MI drive board

3.Check DSP MI driver on the MI drive board

4.Replace MI drive board



MI drive board



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_1_6

Circumstance: Display showing "ERROR_1_6" when power on

Possible causes: 1. Product voltage setting incorrect

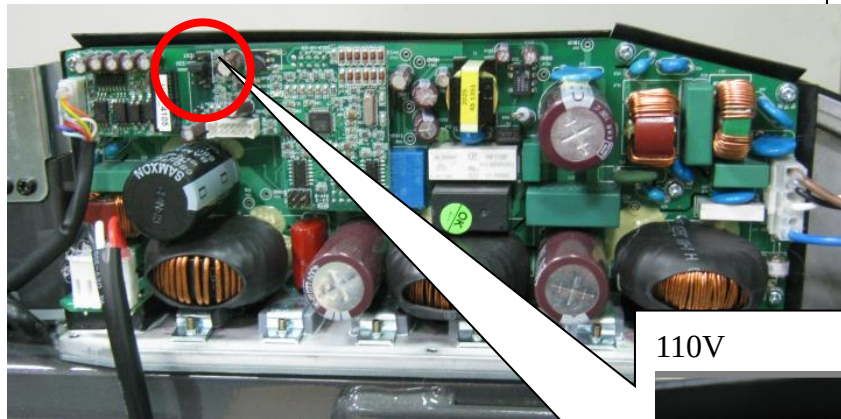
Troubleshooting: 1. Press & hold "workout level<▲> & <▼> & <change display> for 3 seconds to enter voltage setting
2. Set the voltage on MI drive board for 110V or 220V for those products produced before May 2014
3. This problem only occurs on first installation or repair MI drive board

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Press & hold "workout level<▲> & <▼> & <display change> to set model no. and AC VOLTAGE



MI drive board



110V



220V



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_2_1, ERROR_2_2

Circumstance: Display showing "ERROR_2_1 or 2_2" when power on

Possible causes: 1.Bad MI driver

2.Bad control board to MI drive board

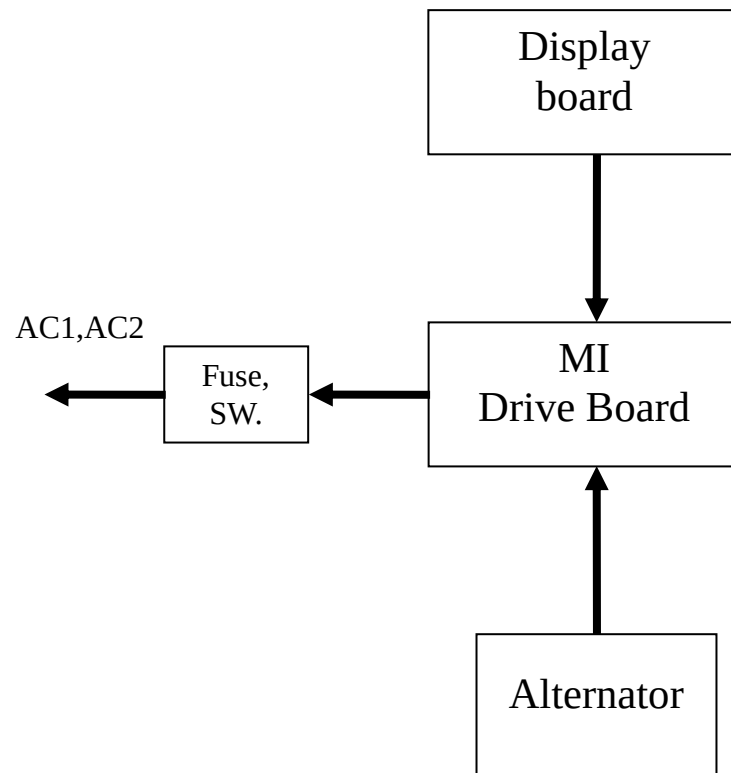
Troubleshooting: 1.ERROR_2_1 means MI driver IGBT over current

ERROR_2_2 means MI driver IGBRT too hot

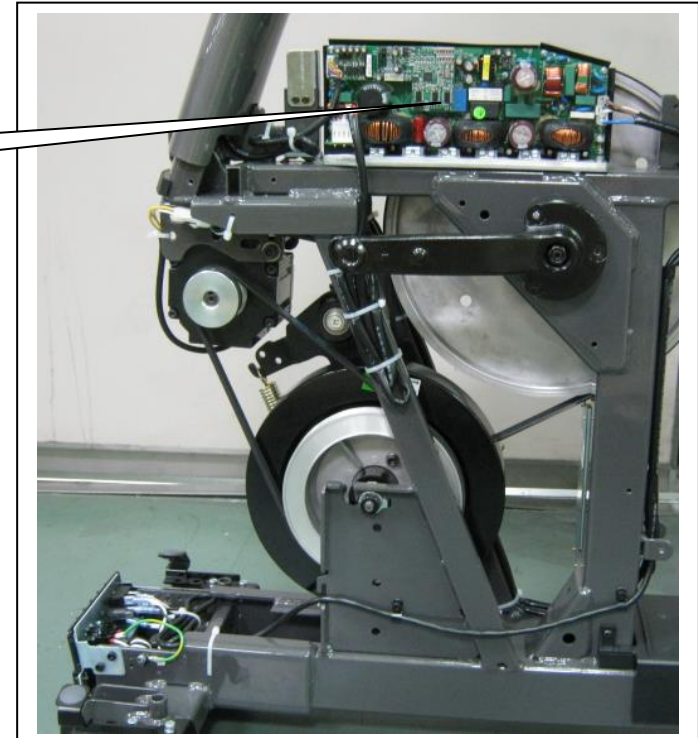
2. Above are the MI driver self-protective functions.

Stop for ½ hour before use it again

3.If message occurs frequently, then replace the MI drive board



MI drive board



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_3_1

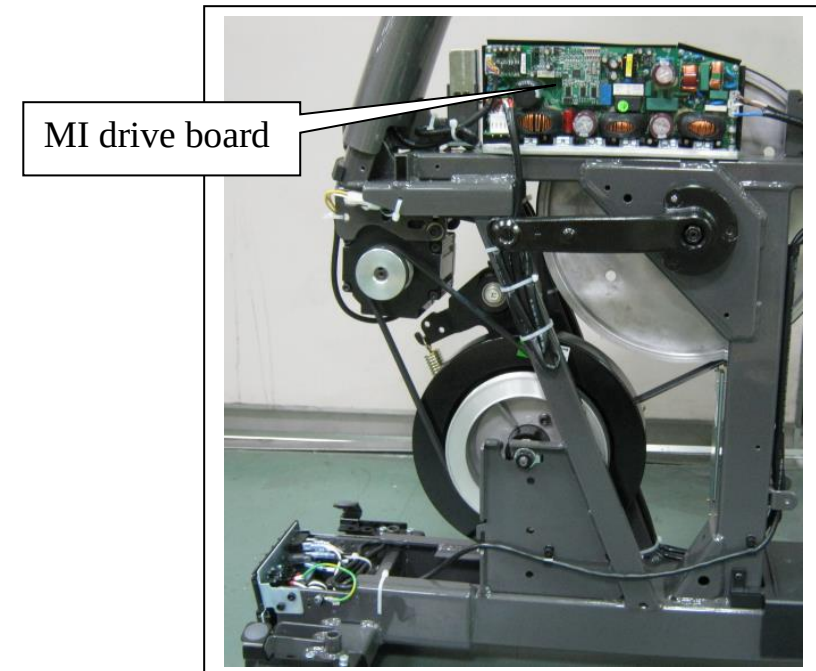
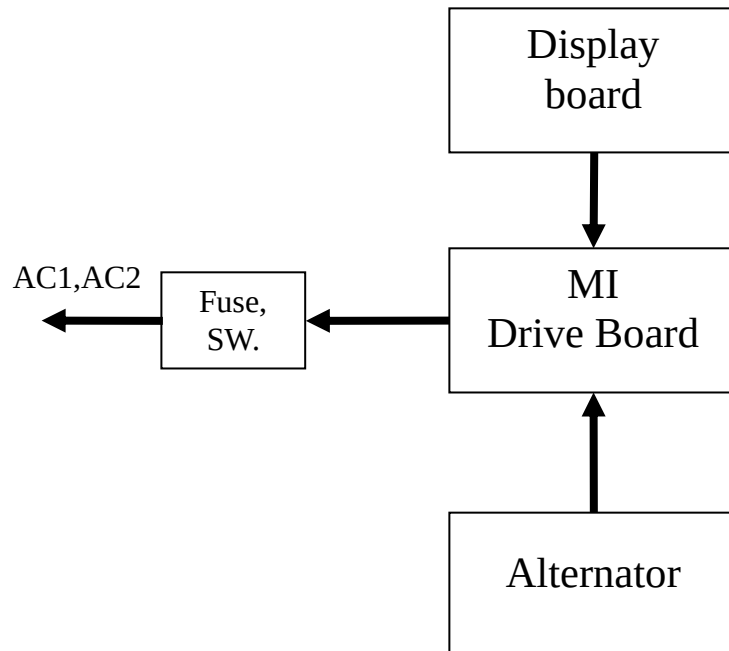
Circumstance: Display showing "ERROR_3_1" when power on

Possible causes:

1. Broken AC power cord
2. The time between Power off & on is too short
3. Bad MI driver

Troubleshooting:

1. ERROR_3_1 means Islanding
2. Check power cord
3. Make sure there is 5 seconds in between power off/on/
4. "ERROR_3_1" message occurring once in a while is a self-protective Function. Turn power off and on to use it again.
5. If message occurs frequently, then replace the MI drive board



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_3_2

Circumstance: Display showing "ERROR_3_2" when power on

Possible causes: 1. Power source voltage is over the limit

Troubleshooting: 1. Proper voltage range

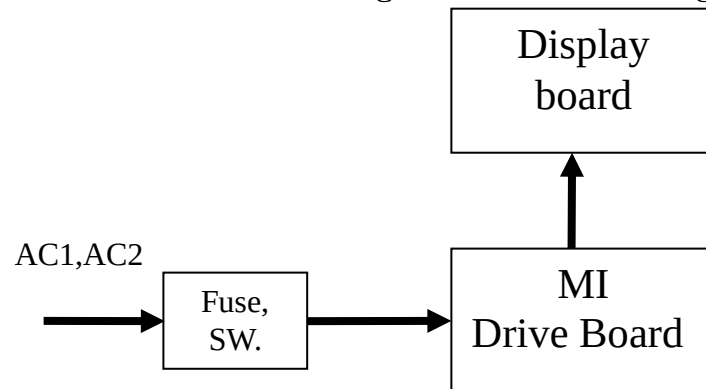
110V → 105 - 132 Vac

220V → 184 - 264 Vac

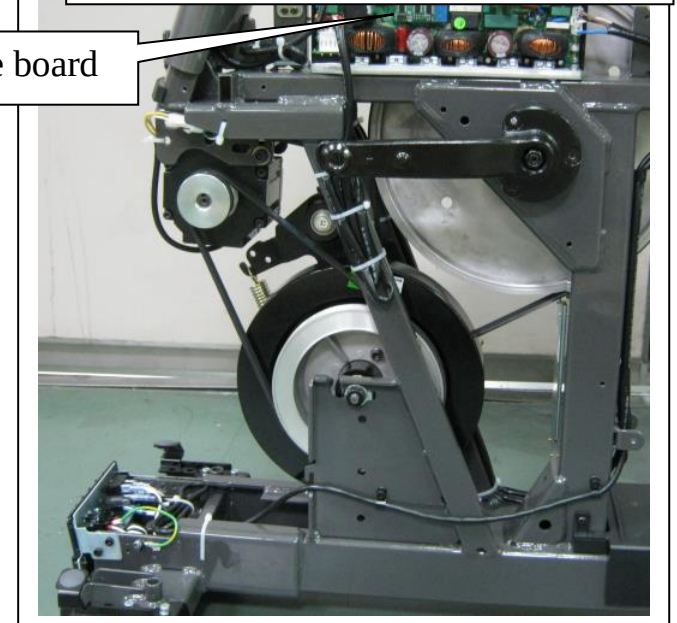
2. Check power source voltage range

3. This message is a self-protective function when voltage is over the limit. Stop using the product until the voltage regulates.

4. If the voltage is within the range, then replace the MI drive board



MI drive board



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_3_3

Circumstance: Display showing "ERROR_3_3" when power on

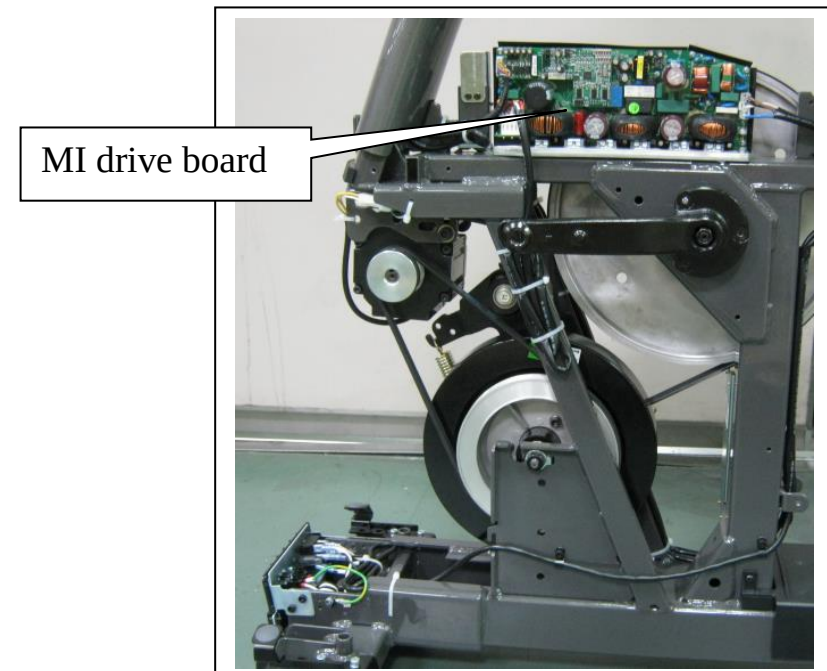
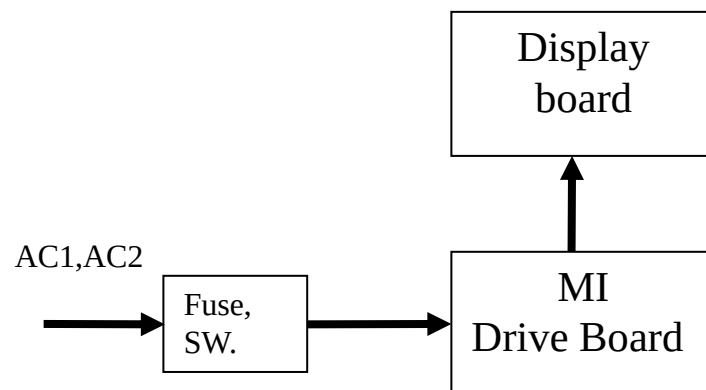
Possible causes: 1. Abnormal power source frequency

2. Bad MI drive board

Troubleshooting: 1. This message is a self-protective function. Usually it will Not occur.

2. Check power source frequency

3. Replace drive board to test



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_3_4

Circumstance: Display showing "ERROR_3_4" when power on or exercising

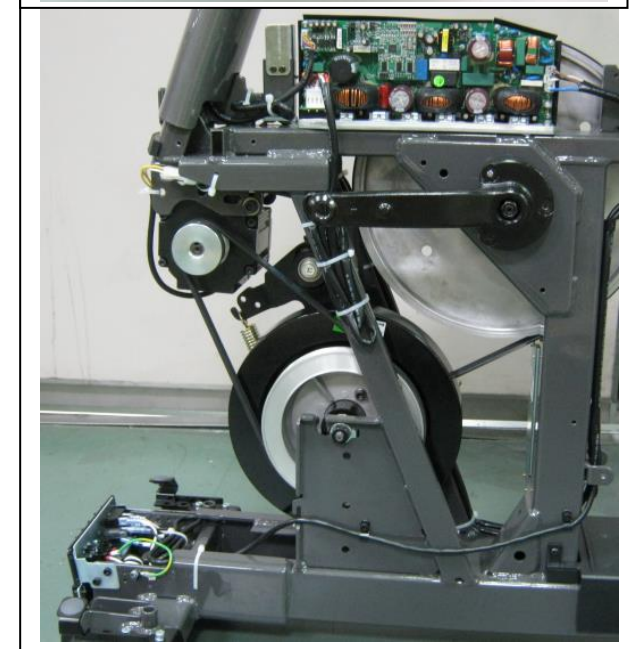
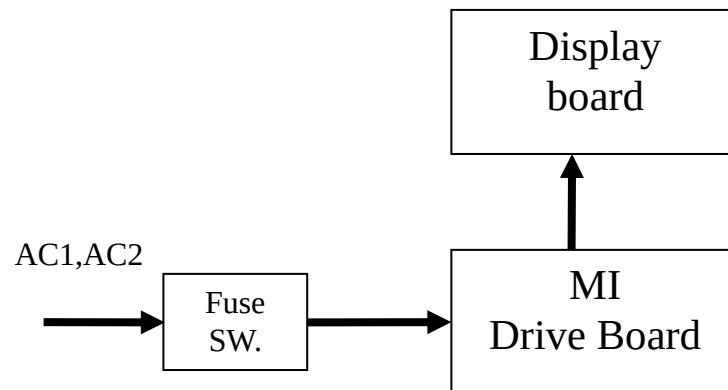
Possible causes: 1. Power source interference or irregular

2. Bad MI drive board

Troubleshooting: 1. ERROR_3_4_ means the AC voltage mid-point error

2. Check power source regularity

3. Replace MI drive board to test



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_3_5

Circumstance: Display showing "ERROR_3_5" when power on or exercising

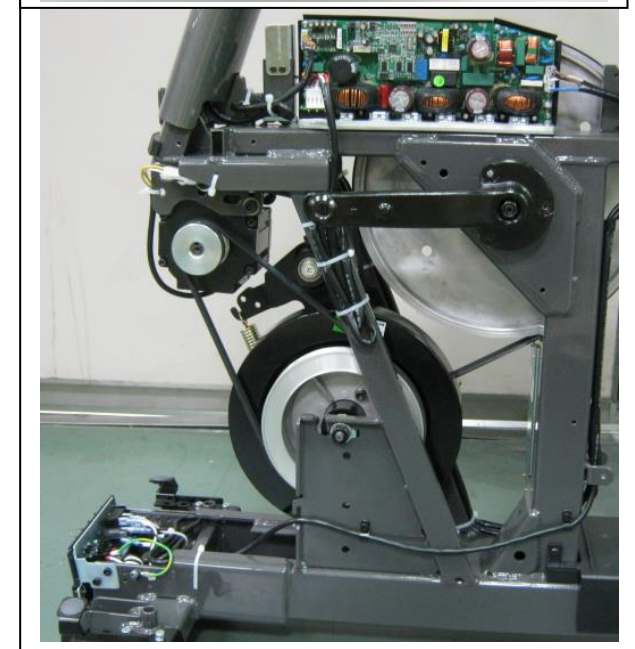
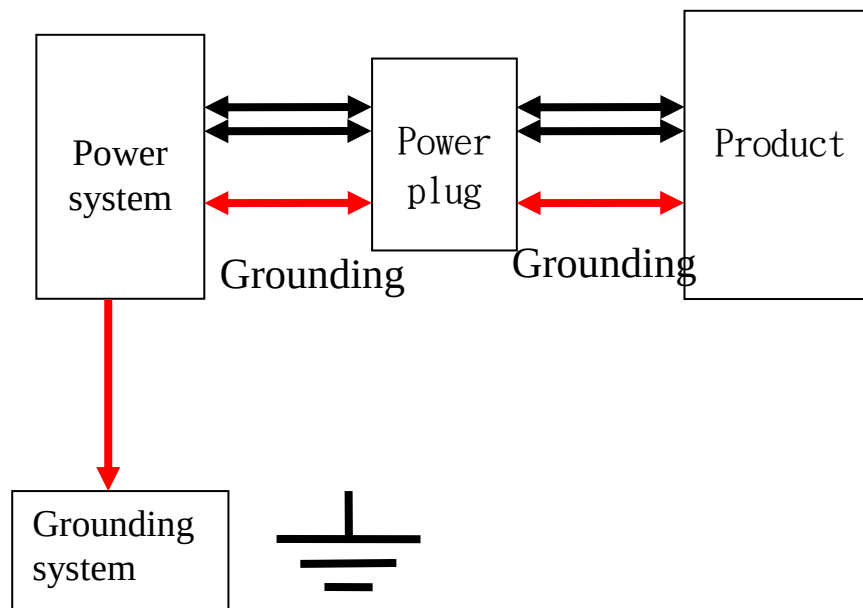
Possible causes: 1. Power cord grounding issue

2. Improper power source grounding

Troubleshooting: 1. ERROR_3_5 means AC power grounding failing

2. Check power cord installation

3. Check power system for proper grounding



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_4_3, ERROR_4_4

Circumstance: Display showing "ERROR_4_3, 4_4" when power on or exercising

Possible causes: 1. Power source interference

2. Bad MI drive board

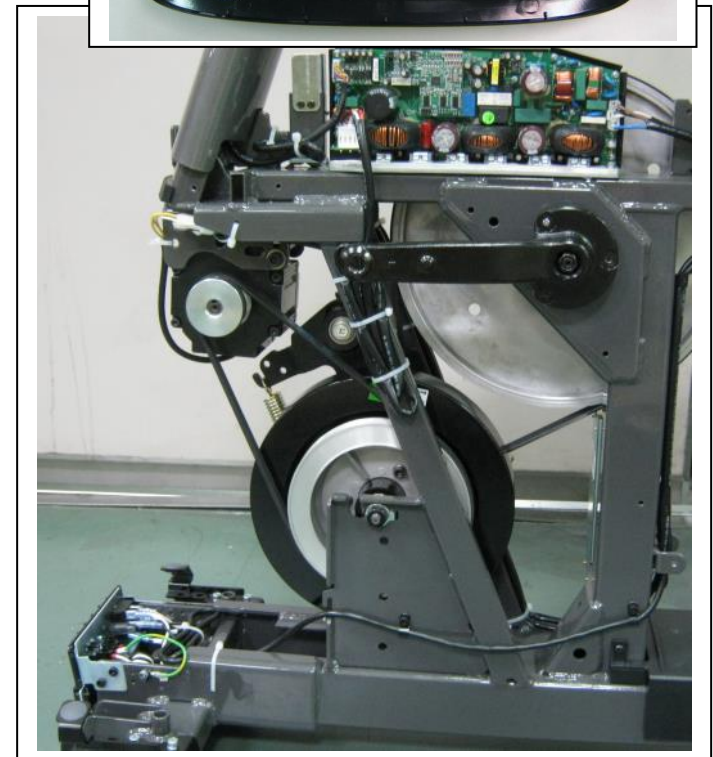
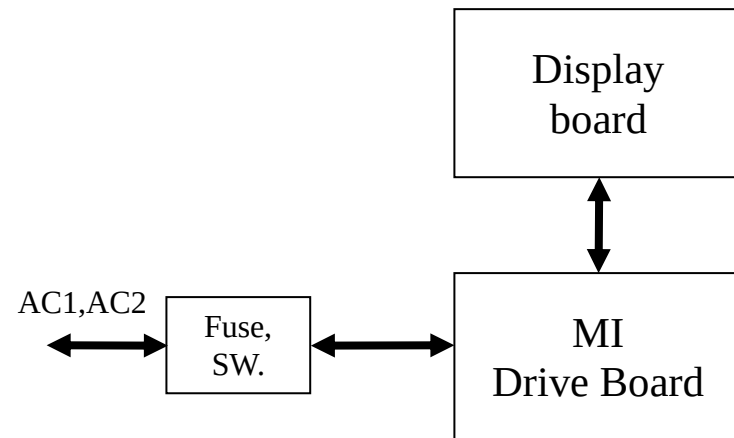
Troubleshooting: 1. "ERROR_4_3" means DC BUS voltage too high

"ERROR_4_4" means DC BUS error

2. Turn power off & on to test

3. Check power source voltage irregularity

4. If it occurs frequently, then replace MI drive board to test



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_5_1, ERROR_5_2

Circumstance: Display showing "ERROR_5_1,5_2" when power on or exercising

Possible causes: 1. MI drive board self-protective function

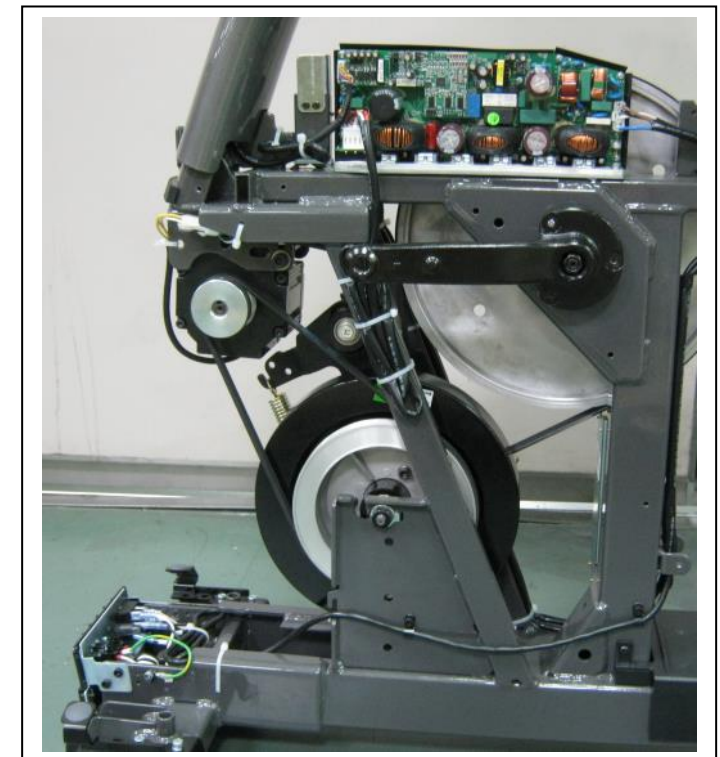
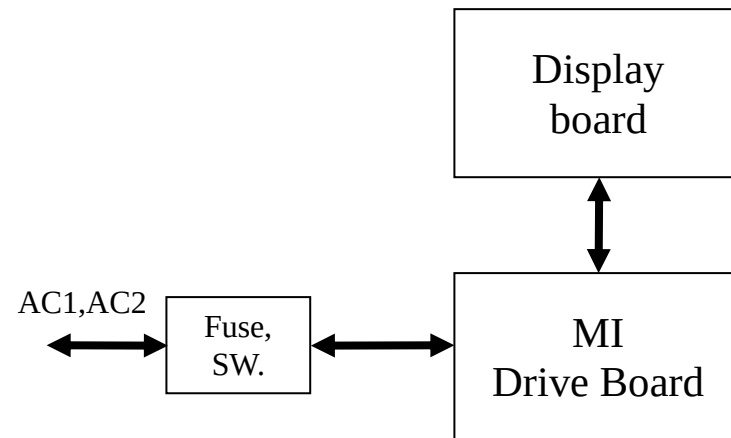
2. Bad MI drive board

Troubleshooting: 1. "ERROR_5_1" means MI drive board is forced to warm up

"ERROR_5_2" means MI drive board is forced to shut down (Emergency stop)

2. MI drive board self-protection. Turn power off & on to test

3. If it occurs frequently, then replace MI drive board to test



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_6_1, 6_2, 6_3

Circumstance: Display showing "ERROR_6_1, 6_2, 6_3" when exercising

Possible causes: 1. Abnormal generator

2. Bad MI drive board

Troubleshooting: 1. ERROR_6_1 means generator over current

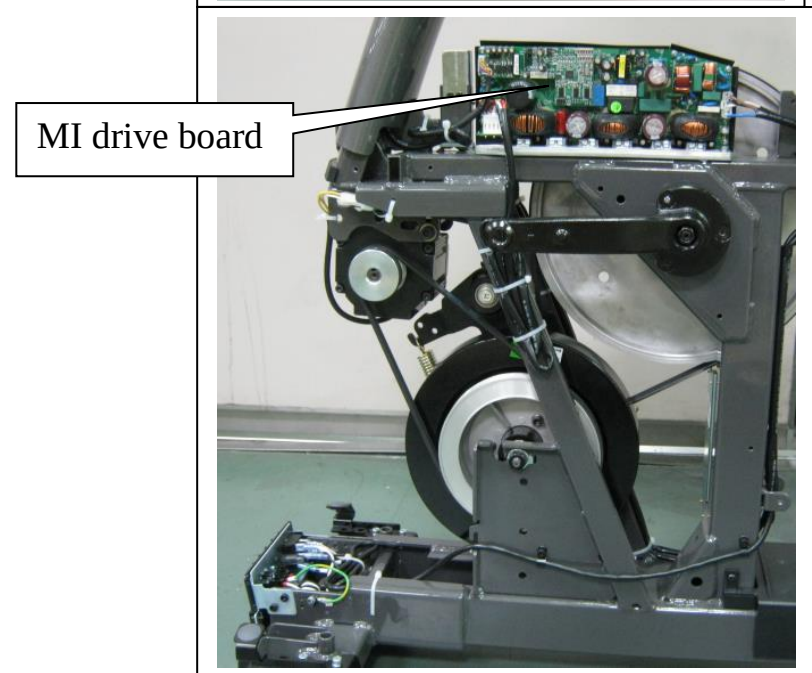
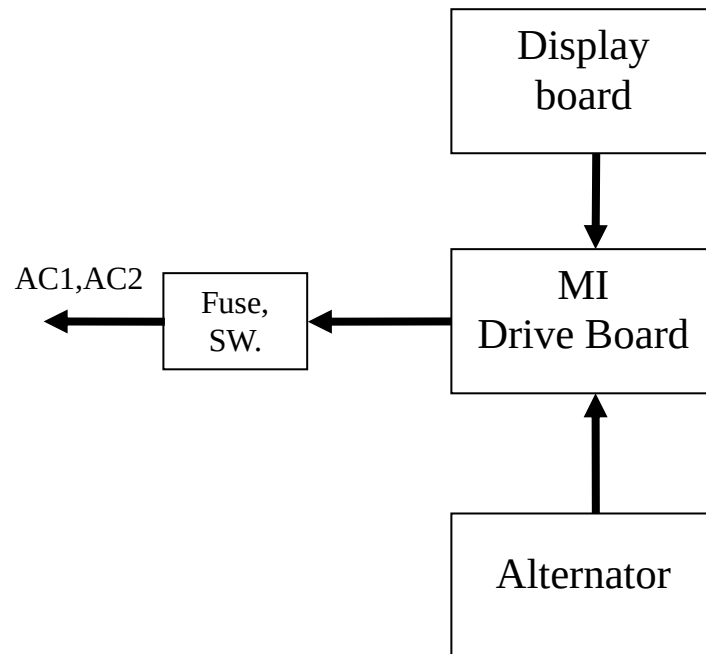
ERROR_6_2 means generator voltage error

ERROR_6_3 means generator too hot (reserved for this function)

2. Check generator wire connections; drive pulley and drive belt

3. Replace generator

4. Replace MI drive board



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_8_1

Circumstance: Display showing "ERROR_8_1" when power on

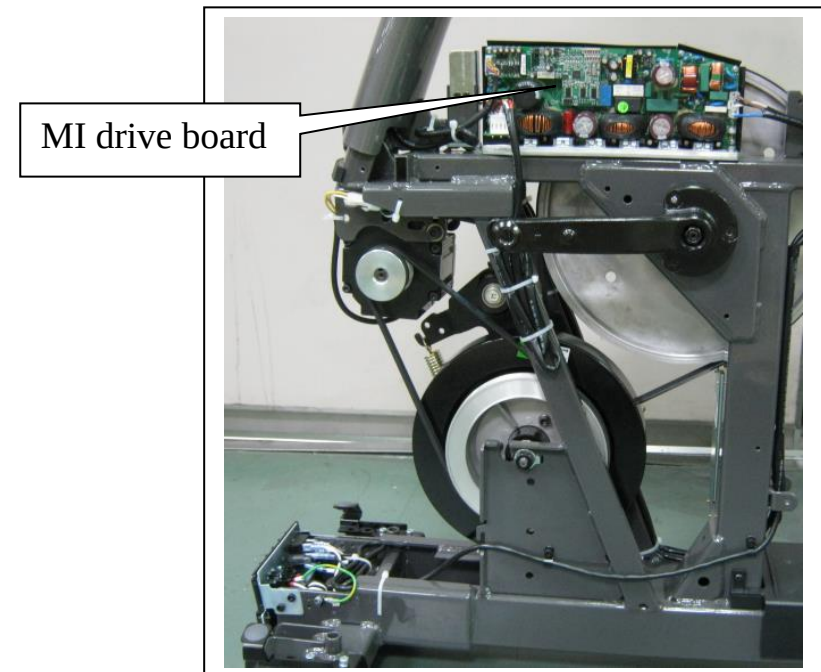
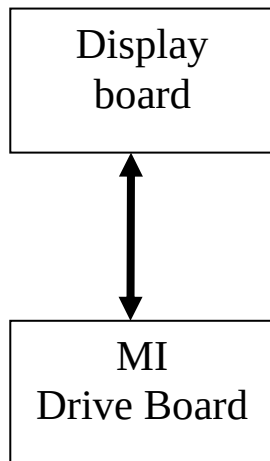
Possible causes: 1. Bad MI drive board

2. Bad control board

Troubleshooting: 1. Check control board & MI drive board wire connections

2. Check control board & MI drive board IC program board installation

3. Replace control board & MI drive board to test



Troubleshooting

Model no.: G575R

Malfunction item: ERROR_8_2

Circumstance: Display showing "ERROR_8_2" while exercising

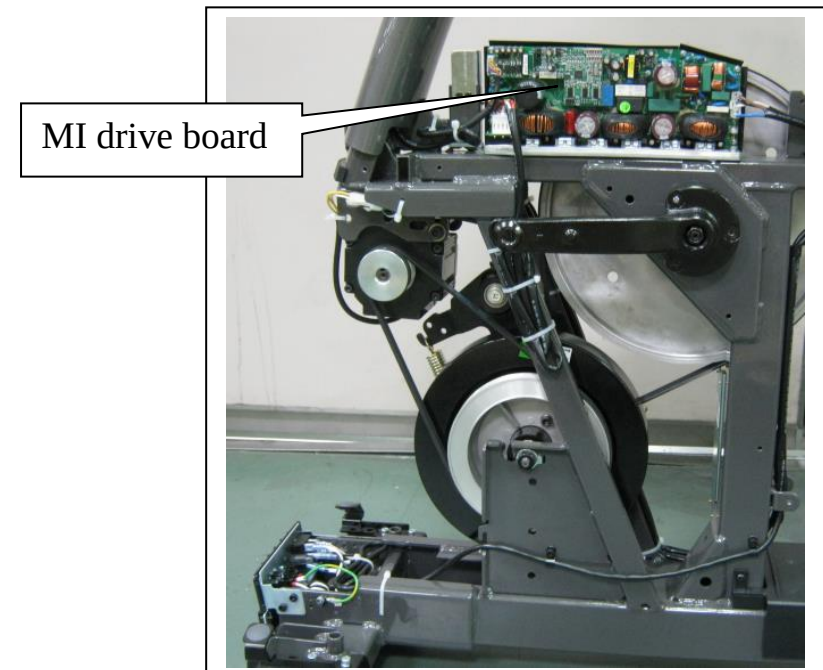
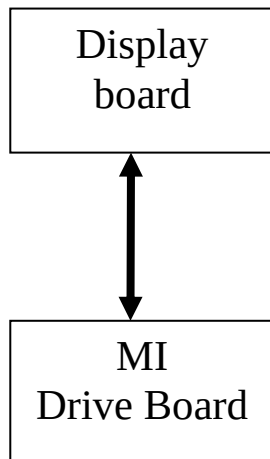
Possible causes: 1.Communication interference

2.Programm not installed correctly

Troubleshooting: 1.Check wiring (Between control board & MI drive board)

2.Product self-protective function. Turn power off/on to test

3.Replace control board and MI drive board to test



Other item

Model no. : G575R

Item : Other functions

Descriptions : 1. Idle mode

Display will get into idle mode when no pedaling for 2 minutes. There is no power to the display at this time, only MI drive board EUP circuit consumes power.

2. Power on

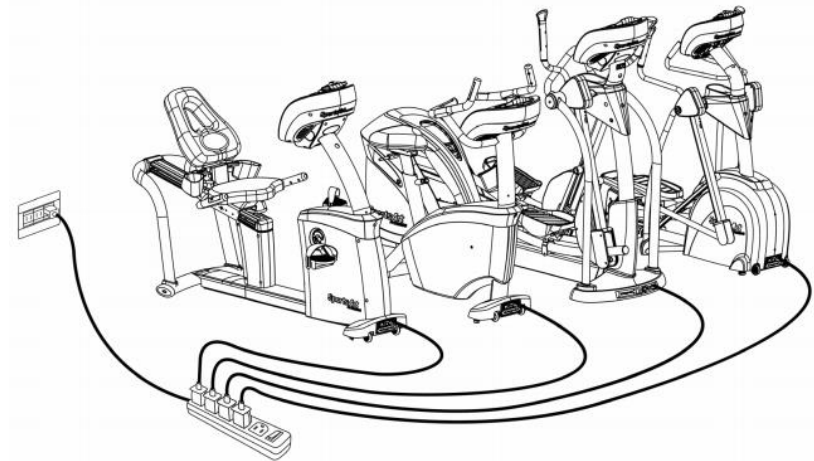
Pedal bike while in sleep mode to turn on power.

3. Product quantity per pod

New Green system products can be plugged into the same circuit breaker. The allowed product quantity will be depending on the circuit specification as below.

Follow the circuit specification and do not over loading the circuit with too many products

Power grid	Circuit breaker current	GREEN SYSTEM quantity allowed
230V	10A	9
220V	10A	8
120V	15A	7
110V	15A	6



Other item

Model no. : G575R

Item : Model no. & power source voltage setting

Description : 1. G575R/U, & G875 use the same control board and software version. There is no model no. board. You may set the model no. via software.

To use this function, the control board CTL version has to be 2B & MI drive board version- 4252

2. Setting procedures

A. Model no. setting

Press & hold "WORKOUT LEVEL<▲> & <▼> & <CHANGE DISPLAY>" keys until the display shows "MODEL NO-G875" or "G575R" or "G575U". Press WORKOUT LEVEL<▲>/<▼> key to select model no. and <ENTER> key to confirm.

B. Voltage setting

Press the above three keys until the display shows "AC VOLTAGE-110V" or "AC VOLTAGE-220V". Press WORKOUT LEVEL<▲>/<▼> key to select 110V or 220V; then press <ENTER> key to confirm.

After setting, turn off power and on again to double check the model no. setting

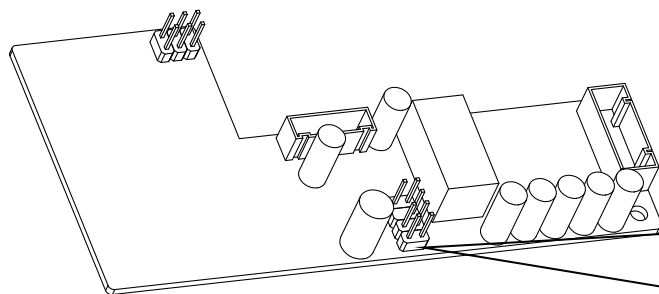
Other item

Model no. : G575R

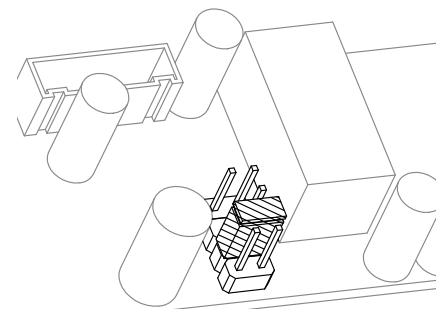
Item: MI Drive board voltage setting

Description: 1. MI drive board version is before 4252 (Before May, 2014)

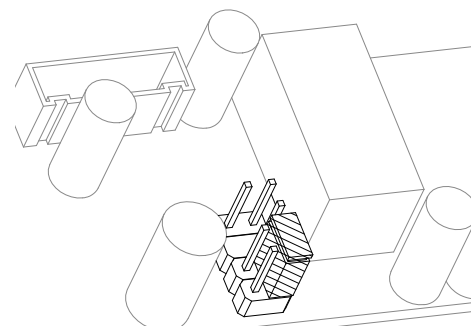
2. Set power source voltage



110V (105V-132V) → Short Cap



220V



Other item

Model no. : G575R

Item : Error messages

Description : ERROR_1_1→ System power on error

ERROR_1_6→ Power source voltage setting error

ERROR_2_1→ IGBT over current (DC bus over current)

ERROR_2_2→ IGBT too hot

ERROR_3_1→ AC power lost or time between power off/on is too short (Islanding) °

ERROR_3_2→ AC power source voltage error

ERROR_3_3→ AC power source frequency error

ERROR_3_4→ AC mid-point error(reference error)

ERROR_3_5→ AC grounding failed (ground fault)

ERROR_4_3→ DC_BUS voltage too high

ERROR_4_4→ DC_BUS error

ERROR_5_1→ Forced to warm up

ERROR_5_2→ Forced to shut down (EngStop)

ERROR_6_1→ Generator over current

ERROR_6_2→ Generator voltage error

ERROR_6_3→ Generator too hot

ERROR_8_1→ Micro Inverter communication error when power on

ERROR_8_2→ Micro Inverter communication error while exercising

Other item

Model no. G575R

Item: KPH/MPH switch, total distance, total time and software version display

Method: 1. Press <CHANGE DISPLAY> for 3 seconds to get into user reference and setting mode

A. English and Metric setting

The display will show "UNIT-MPH" for English setting or "UNIT-KPH" for metric setting. Press INCLINE <▲> <▼> key to switch the setting. After selection, press <ENTER> to confirm.

B. Program time limit setting

The display will show "TIME LIMIT- YES" or "TIME LIMIT- NO", press INCLINE <▲> <▼> key to change it. After selection, press ENTER to confirm. If the selection is YES, the display will show "TIME-XX:00" with default value of 30:00, press INCLINE <▲> <▼> key to adjust; the range of adjustment is 5-60 minutes. Afterwards, press ENTER to confirm.

C. Language setting

The display shows "GERMAN" ..., "XX MILE H>H" or "XX KM H_H", press WORKOUT LEVEL<▲>/<▼> to change the setting. Afterwards, press ENTER to confirm.

D. Total distance display

The display shows "DIST-XXXXXXXKM" or "DIST-XXXXXXMILE" for total distance display. Press <ENTER> to exit.

E. Total time display

The display shows "TIME-XXXXXXHOUR" for total time display. Press <ENTER> to exit.

F. Control board software version display

The display shows "CTL G575-XX" for software version display. Press <ENTER> to exit.

G. Drive board software version display

The display shows "DRV MI-4252" for software version display. Press <ENTER> to exit.
First digit: year; 2nd & 3rd digits: week; last digit: weekday

Other item

Model no. : G575R

Item: Language setting

Description: How to set up the language preference, such as German, French...

Method: 1. Press <CHANGE DISPLAY> for 3 seconds to enter user preference and setting mode. Continuing pressing <ENTER> key, the display will show "UNIT-KPH, MPH;TIME LITMIT;ZZZ TIME-XXMIN" ...until the display shows " GERMAN " or " 0 MILE H_H" for language setting.

0,1,2,3...represents country language code, see below. Press <WORKOUT LEVEL<▲>/<▼> to select the desired language, press <ENTER> to confirm.

2. Country language code

GERMAN	➔	0	KM	H_H
FRENCH	➔	1	KM	H_H
POLISH	➔	2	KM	H_H
SPAINLISH	➔	3	KM	H_H
JAPANESE	➔	5	KM	H_H
US. ENGLISH	➔	6	MILE	H_H
UK. ENGLISH	➔	10	KM	H_H
SWEDISH	➔	11	KM	H_H

Other item

Model no.: G575R

Item: Electronic component specification

Description



Input Data(3 Phase AC)	
Input power source	3 Phase permanent-magnet generator
Maximum input voltage	140V(line-to-line voltage)
Nominal operating voltage range	55-125V(line-to-line voltage)
Maximum input current	7A(line current)
Output Data(single phase AC)	
Maximum continuous output power	220W
Output power factor rating	>0.9
Nominal voltage(Operating range)	120VAC(105.6-132.0V) (for USA) 230VAC(184.1-264.4V) (for EU)
Maximum continuous output current	2.0A (fro 120V) (for USA) 1.3A(fro 230V) (for EU)
Normal output frequency (Operating frequency range)	60Hz(59.3~60.5Hz) (for USA) 50Hz(47.4~50.1Hz) (for EU)
Utility interconnection voltage and Frequency trip limits and trip times	0.16s (for USA) 0.2s(for EU)
Maximum units per branch	7 (for USA, 15A branch system) 9(for EU, 10A branch system)
Output controlling method	The LEVEL command of panel controller
Others	
Normal operation temperature range	+5°C~+35°C
Storage temperature range	+5°C~+40°C
Enclosure Rating	Type 1:"indoor use only"
Application	For SportsArt device only

Inspection & measurement

Item: Alternator/generator

Testing item: Power generated voltage inspection

Method: 1. Visually inspection

- A. Check generator wire connections
- B. Check generator belt tension
- C. Check generator pulley installation

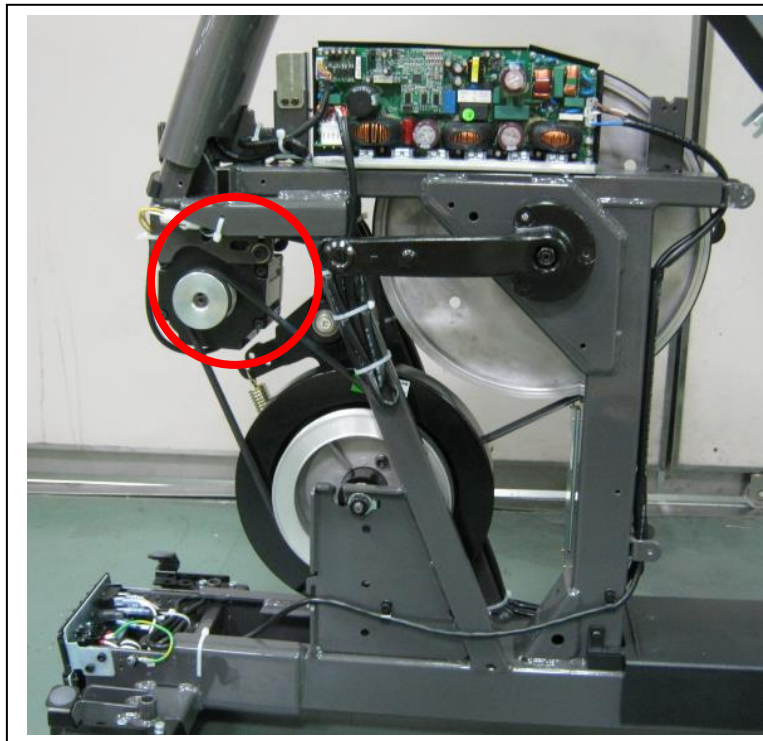
2. Measure voltage

- A. Pedal bike once per second, RPM reading should be 60
- B. When RPM is 60 at LEVEL 20, the "WATTS TO THE GRID" window should show 136W.

RPM=60, LEVEL 20

"WATTS to the Grid" = 136

Generator



Inspection & measurement

Item: power board inspection

Testing item: power source voltage inspection

Method: 1. Input voltage

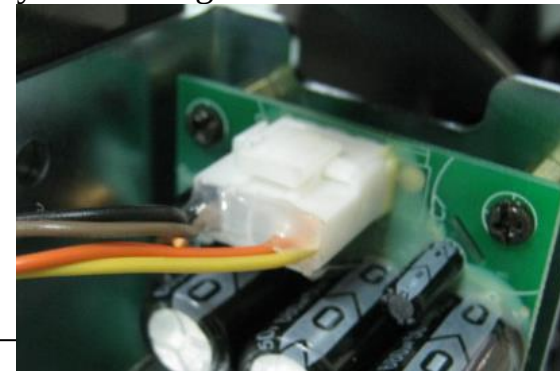
Blue - brown wires: AC 110V or 220V

2. Output voltage

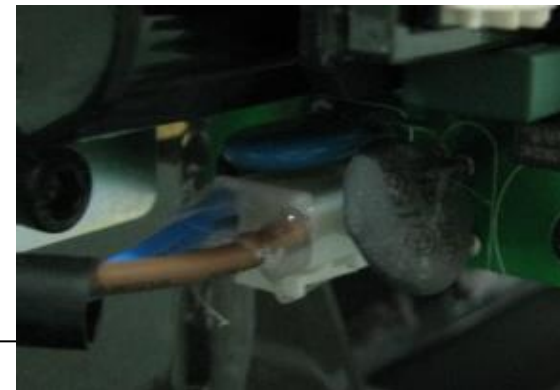
Black/brown to yellow & orange: DC 12V



Output voltage black/brown to
yellow/orange: DC 12 V



Input voltage black brown: AC 110
or 220V



Inspection & measurement

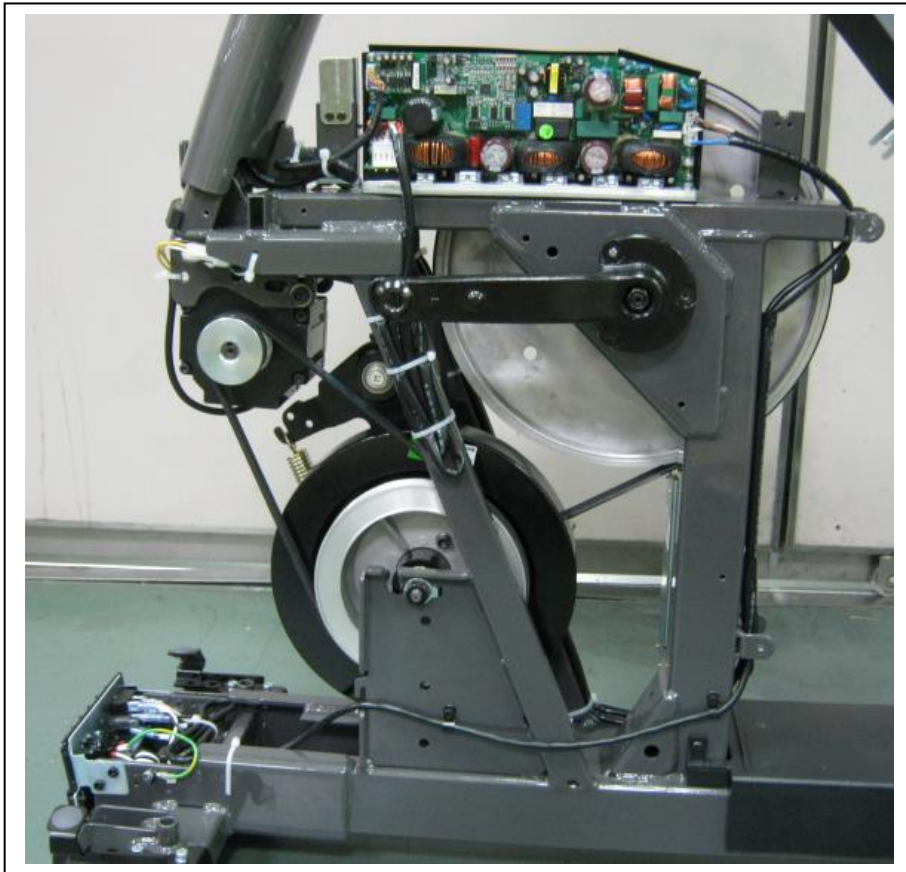
Item: MI drive board

Testing item: RPM measurement

Method: 1. There is RPM detecting circuit inside MI drive board. It will detect the AC voltage and figure out the RPM value.

2. Pedal once per second, the RPM reading should be about 60.

3. If the reading is off a lot, check generator pulley & belt or replace MI drive board.



Inspection & measurement

Item: MI drive board

Testing item: MI drive board communication

Method: 1. Turn on the power and visually inspect the LED3 indicator flashing status. Normally, it is flashing regularly. If irregular flashing occurs, it means there is a communication error; check wiring connections at this time.



Inspection & measurement

Item: MI drive board

Testing item: Power generated measurement

Method: 1. There is a circuit inside the MI drive board which will calculate the voltage generated. Pedaling & level setting, the "WATTS TO GRID" window display as below -

LEVEL	RPM	WATTS
10	60	59W
20	60	136W
30	60	201W
40	60	220W

