

KIA xMB-9640 Module Balancer

Cable instructions

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1 Overview cables kits

1.1. KIT A (Q4 2023 Release date)

	Vehicle	Type	Platform	Cable No.	HV Cable No	Module Type	Capacity	
KIT A (A958)	Niro (MY -18)	DE	EV	A963	430-000589	2P15S (A)	120Ah	
				A964	430-000589	2P15S (B)	120Ah	
				A971	430-000590	3P9S	180Ah	
					430-000590	3P10S	180Ah	
				A965	430-000589	3P19S	180Ah	
				A966	430-000589	3P20S	180Ah	
	Niro (MY 19-)	DE	EV	A967		430-000590	3P9S	180Ah
						430-000590	3P10S	180Ah
						430-000589	2P15S A)	120Ah
						430-000589	3P19S	180Ah
					A968	430-000589	2P15S (B)	120Ah
					A968	430-000589	3P20S	180Ah
	Soul	SK3	EV	A967		430-000590	3P9S	180Ah
						430-000590	3P10S	180Ah
						430-000589	2P15S A)	120Ah
						430-000589	3P19S	180Ah
					A968	430-000589	2P15S (B)	120Ah
					A968	430-000589	3P20S	180Ah
	Sorento	MQ4	HEV	A969	430-000589	1P8S	5.5 Ah	
	Sportage	NQ5	HEV	A969	430-000589	1P8S	5.5 Ah	
Niro	SG2	HEV	A969	430-000589	1P8S	5.5 Ah		
EV6	CV	EV	A970	430-000590	2P6S	111.2Ah		
Niro	SG2	EV	A986	430-000590	1P4S	110Ah		

2 Overview standard hardware

2.1. Safety precaution



Please make sure to read the safety manual!

2.2. Standard hardware

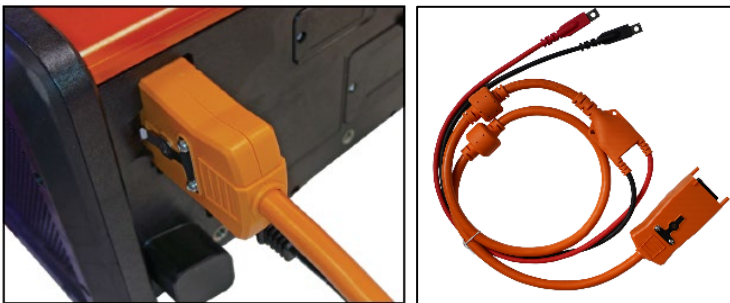
2.2.1. Power cord

Pull back on the red tab on the side of the connector to release/remove the power cord from the Balancer power socket.



2.2.2. Charging cables (430-000589 and 430-000590)

- Based on cable instruction on the screen, insert high voltage charge cable until it locks into the socket.
- To remove the cable, press and hold the metal retaining clip to unlock and pull.



2.2.3. Communication cable

- Connect one side on back of xMB as shown below
- Connect other side on the IMI-2404. It does not matter what side you connect it.

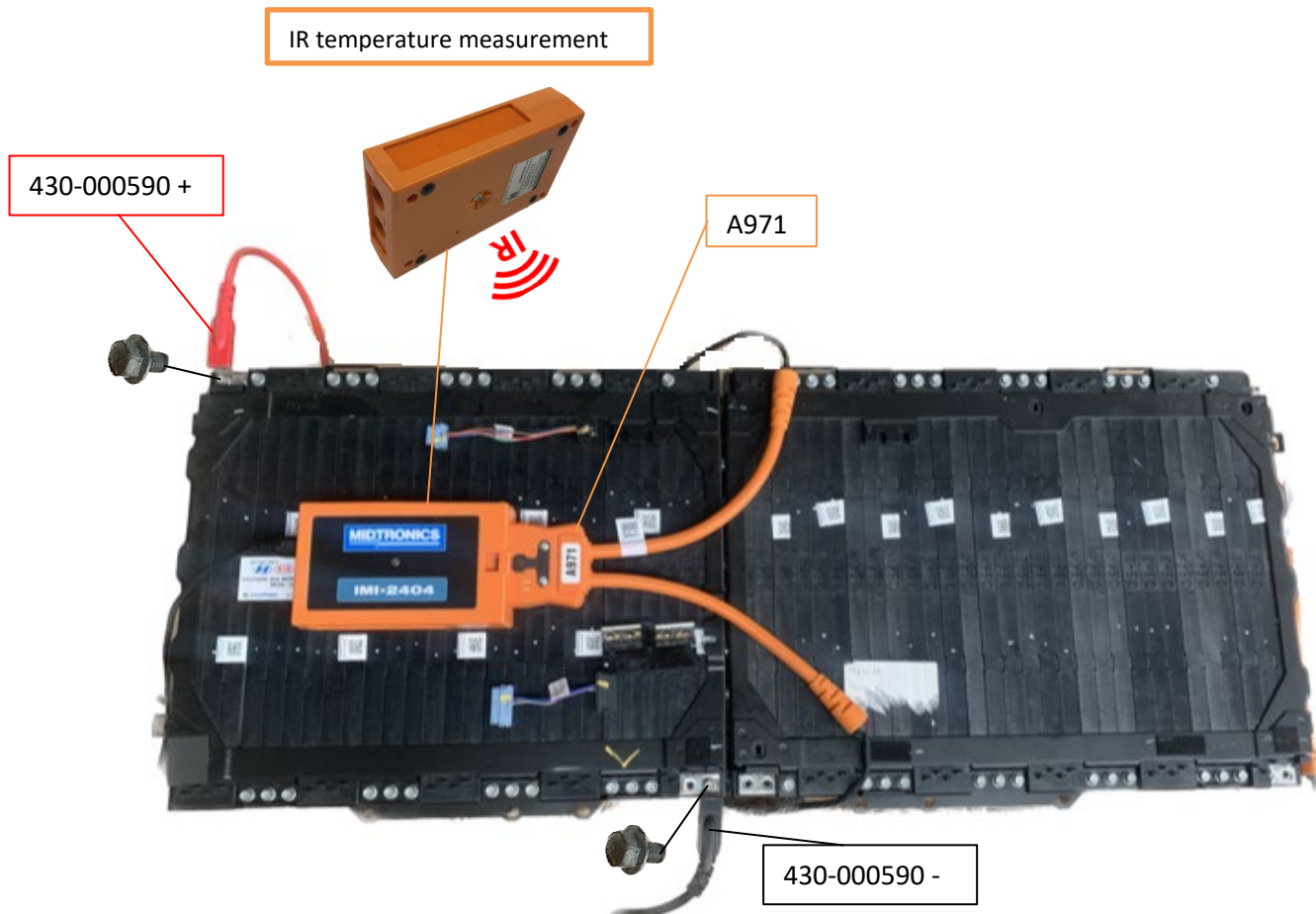


3 Niro (MY -18) DE EV

3.1. Niro (MY -18) DE EV - 3P9S

Step 1: In case of 19S configuration, make sure to disconnect the 10S section by removing the 2 wiring harnesses between the sections and remove the busbar.

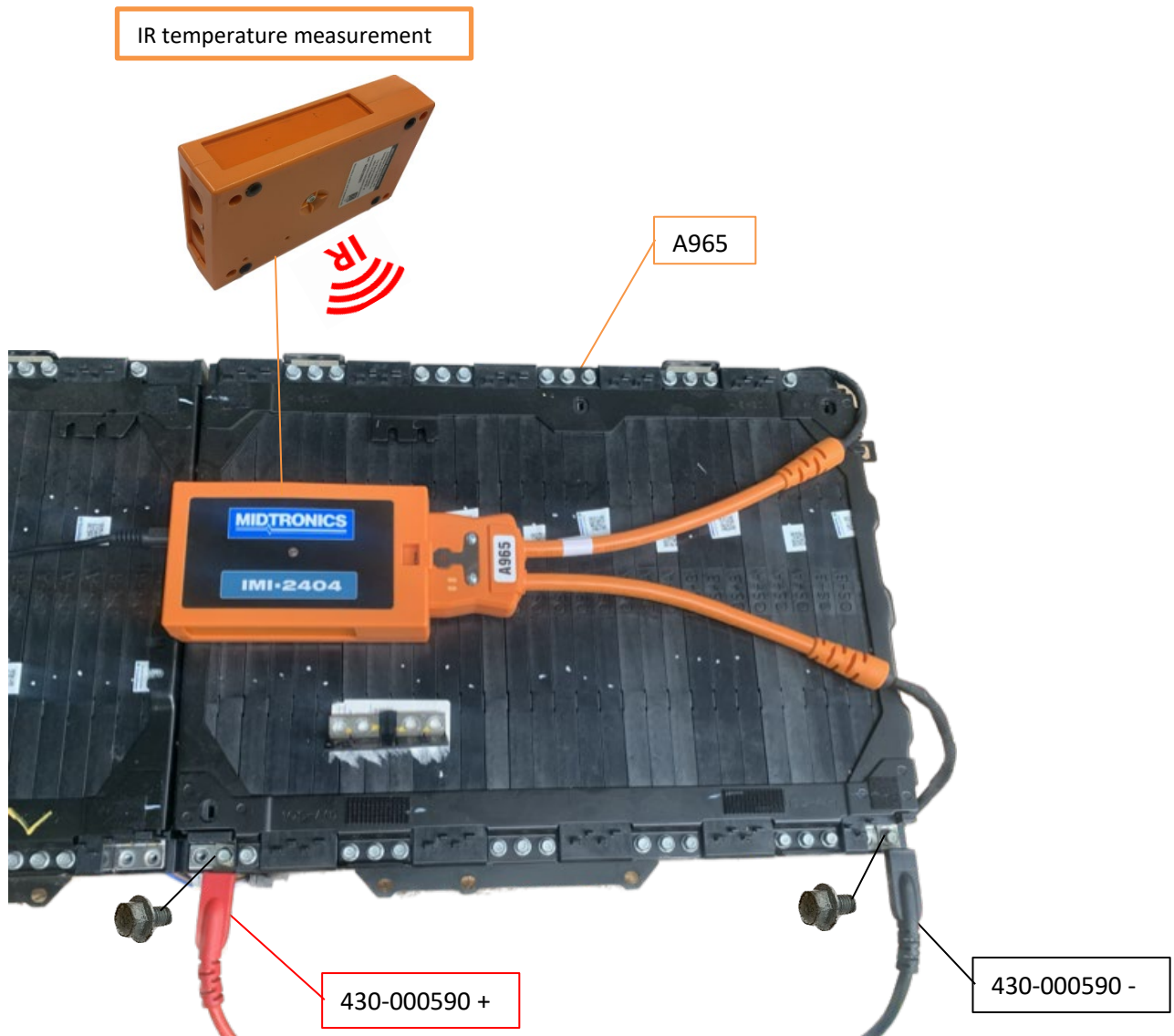
Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements:**



3.2. Niro (MY -18) DE EV - 3P10S

Step 1: In case of 19S or 20S configuration, make sure to disconnect the 10S or 9S section by removing the two wiring harnesses between the sections and remove the busbar.

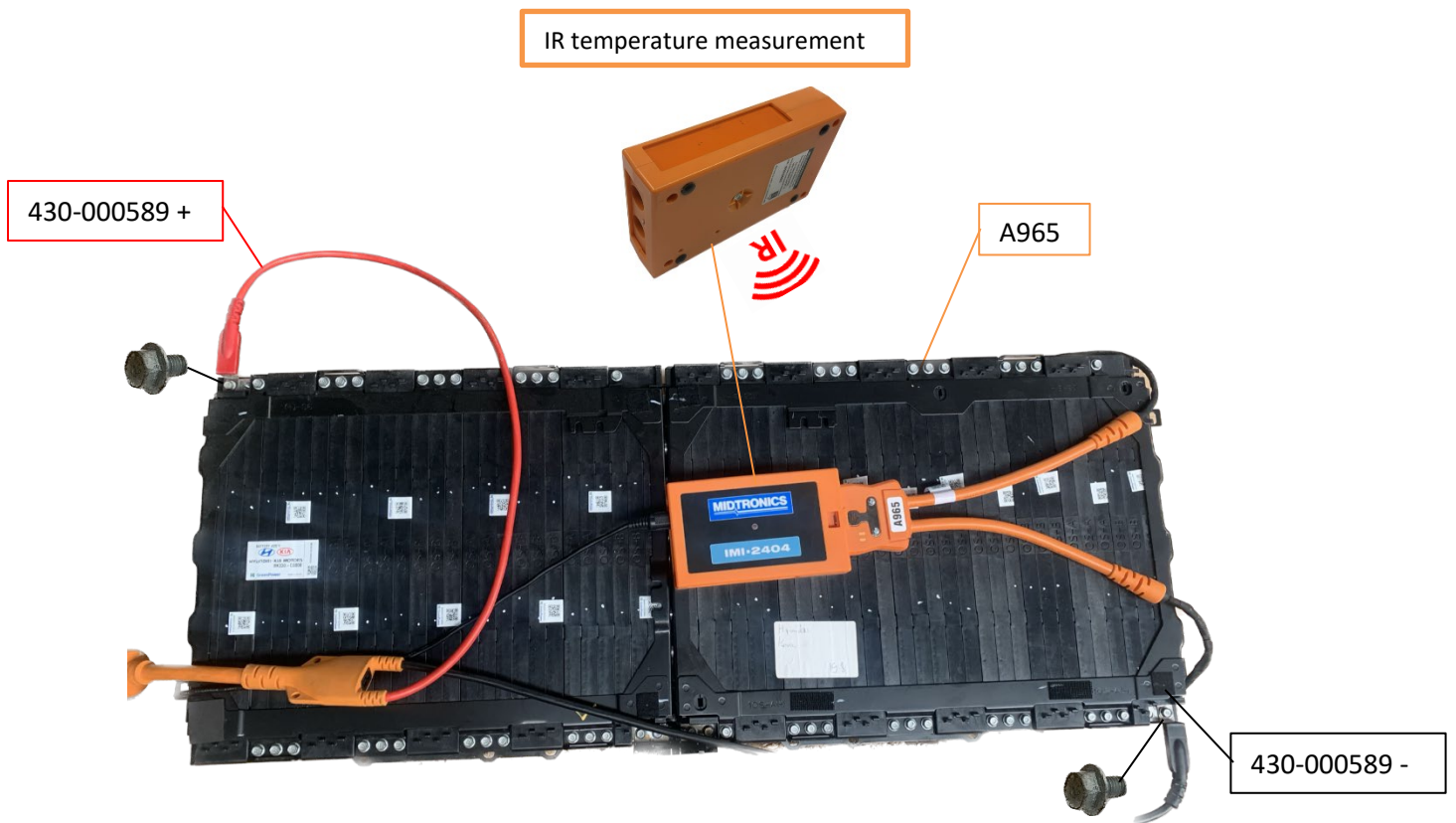
Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements:**



3.3. Niro (MY -18) DE EV - 3P19S

Step 1: Make sure to connect the wiring harnesses in the middle and mount the busbar.

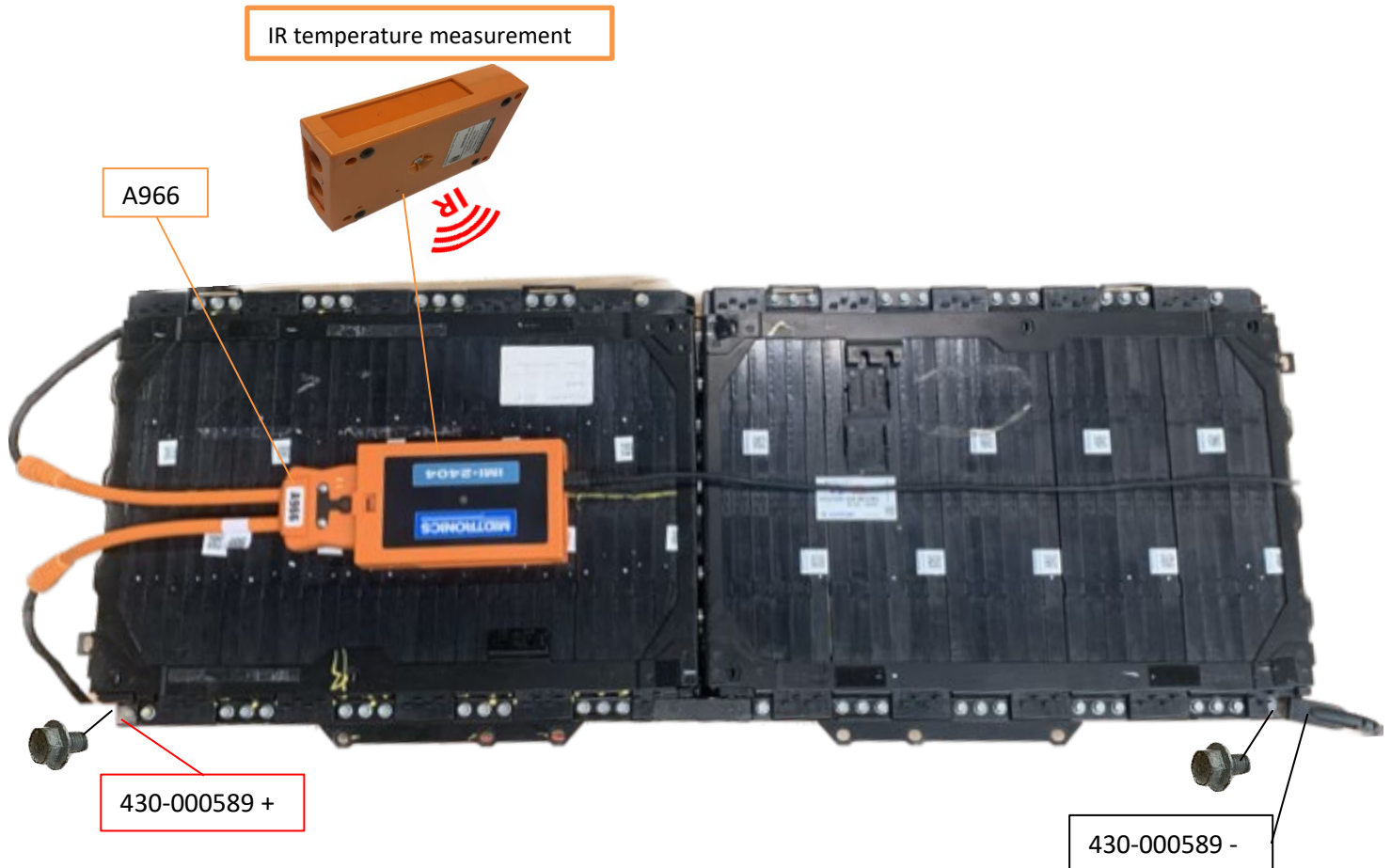
Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**



3.4. Niro (MY -18) DE EV - 3P20S

Step 1: Make sure to connect the wiring harnesses in the middle of the two sections and mount the busbar.

Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**

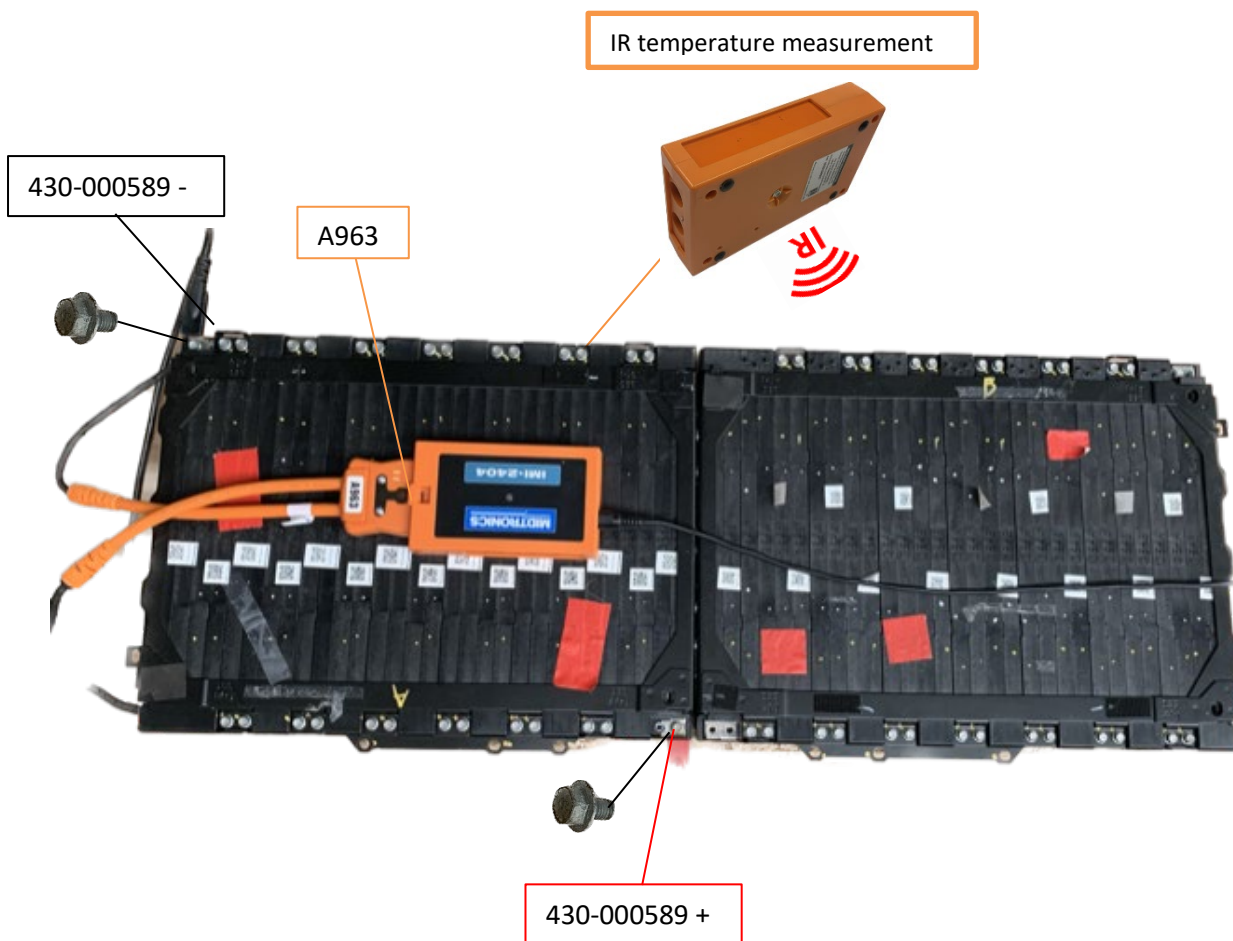


3.5. Niro (MY -18) DE EV - 2P15S (A)

Step 1: In case of 30S configuration, make sure to disconnect the wiring harnesses in the middle and remove the busbar.

Due to voltage limitation, 30S needs to be balanced separately (15S-A and 15S-B), you can find the A and B identification on the side of the module.

Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**

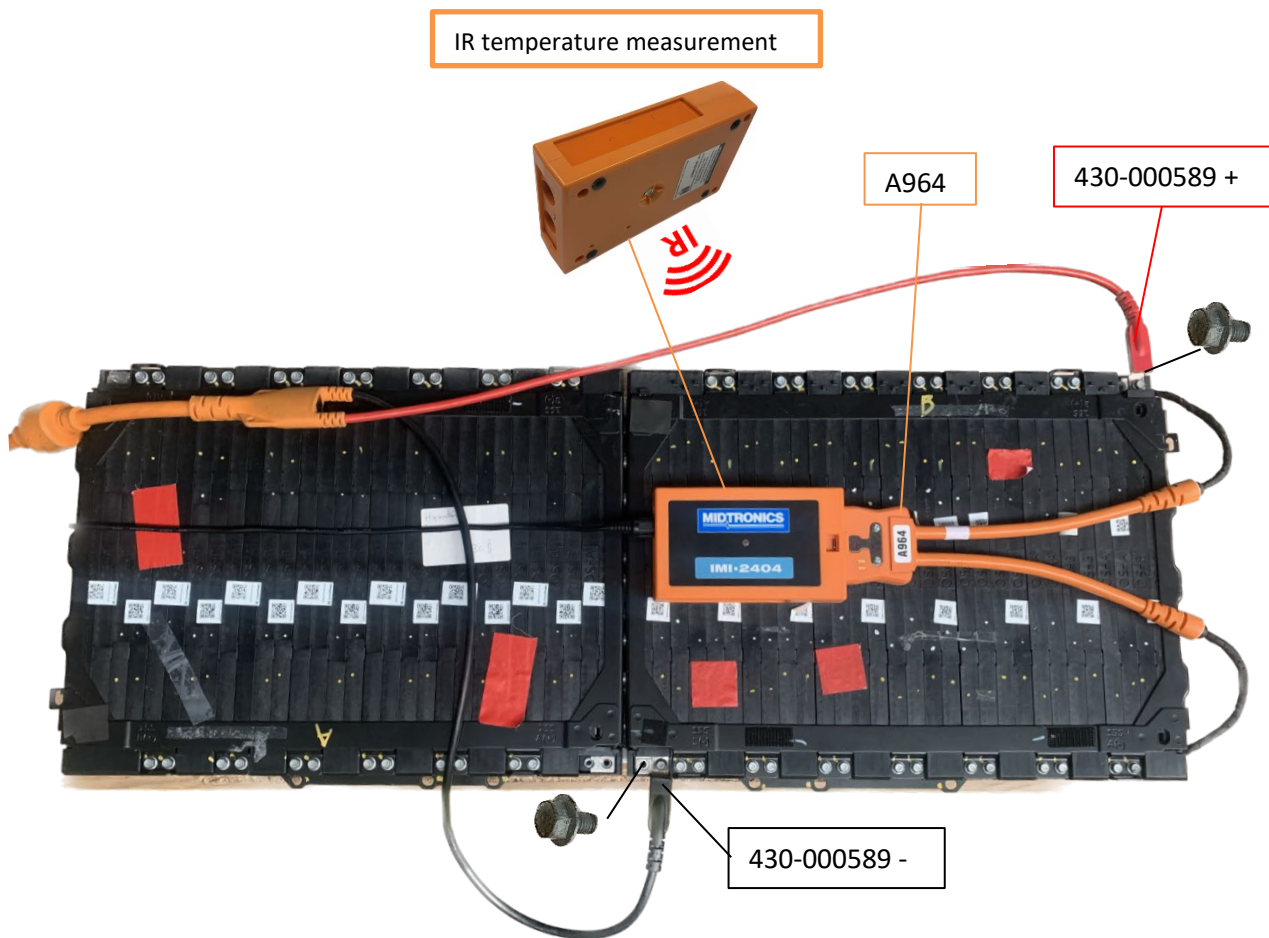


3.6. Niro (MY -18) DE EV - 2P15S (B)

Step 1: In case of 30S configuration, make sure to disconnect the wiring harnesses in the middle and remove the busbar.

Due to voltage limitation, 30S needs to be balanced separately (15S-A and 15S-B), you can find the A and B identification on the side of the module.

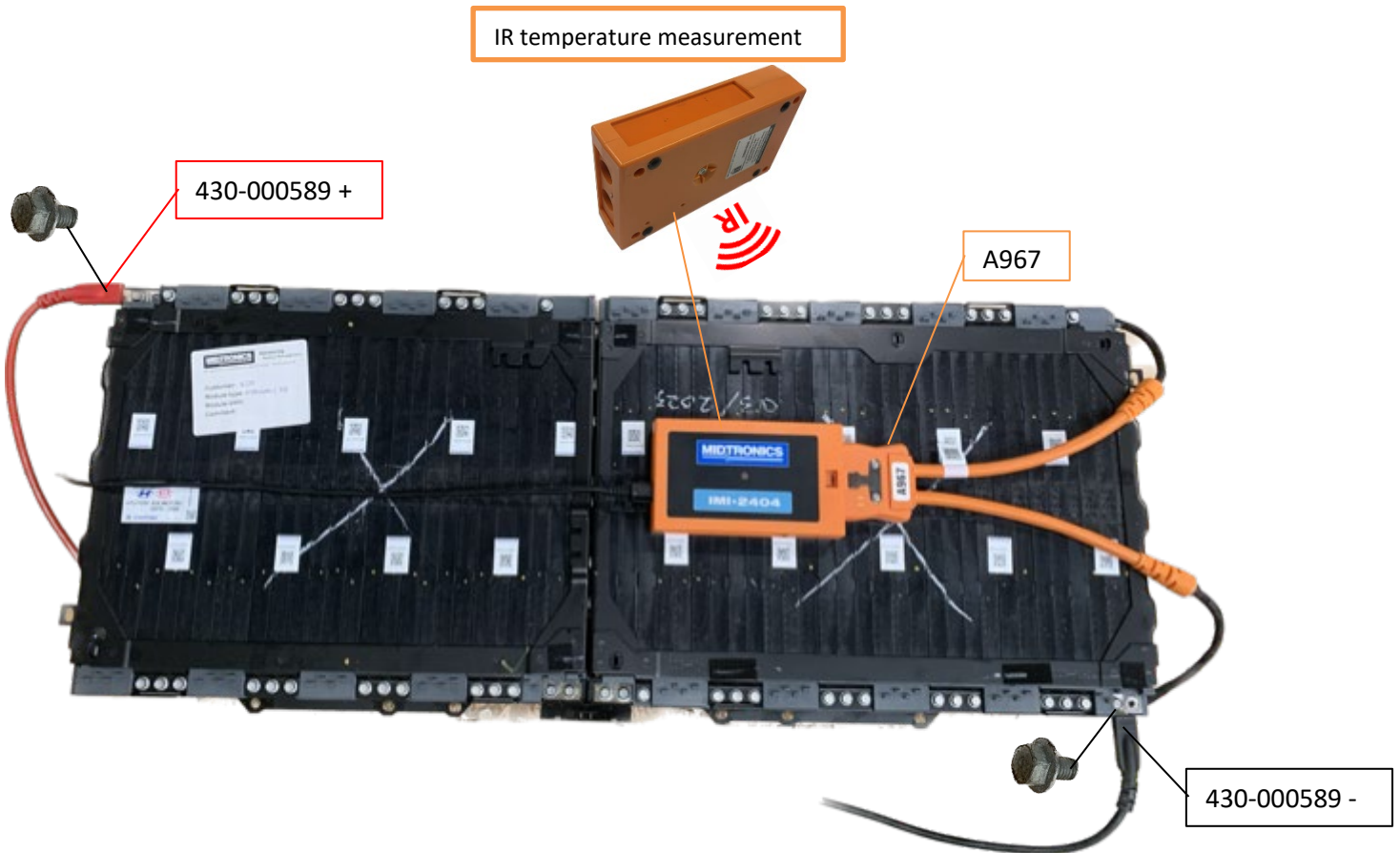
Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**



4.3. Niro (MY 19-) DE EV - 3P19S

Step 1: Make sure to connect the wiring harnesses in the middle of the two sections and mount the busbar.

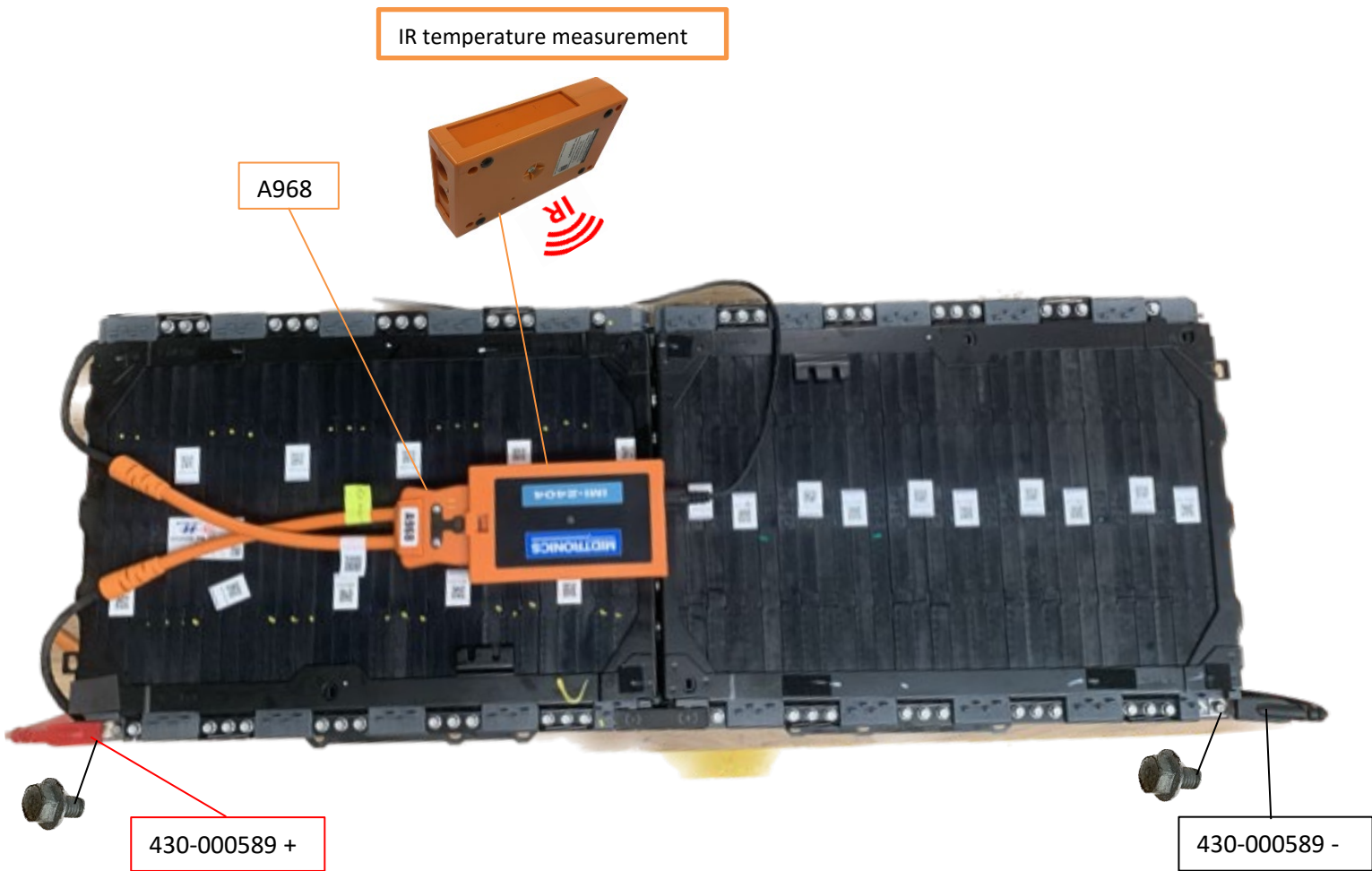
Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**



4.4. Niro (MY 19-) DE EV - 3P20S

Step 1: Make sure to connect the wiring harnesses in the middle of the two sections and mount the busbar.

Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**

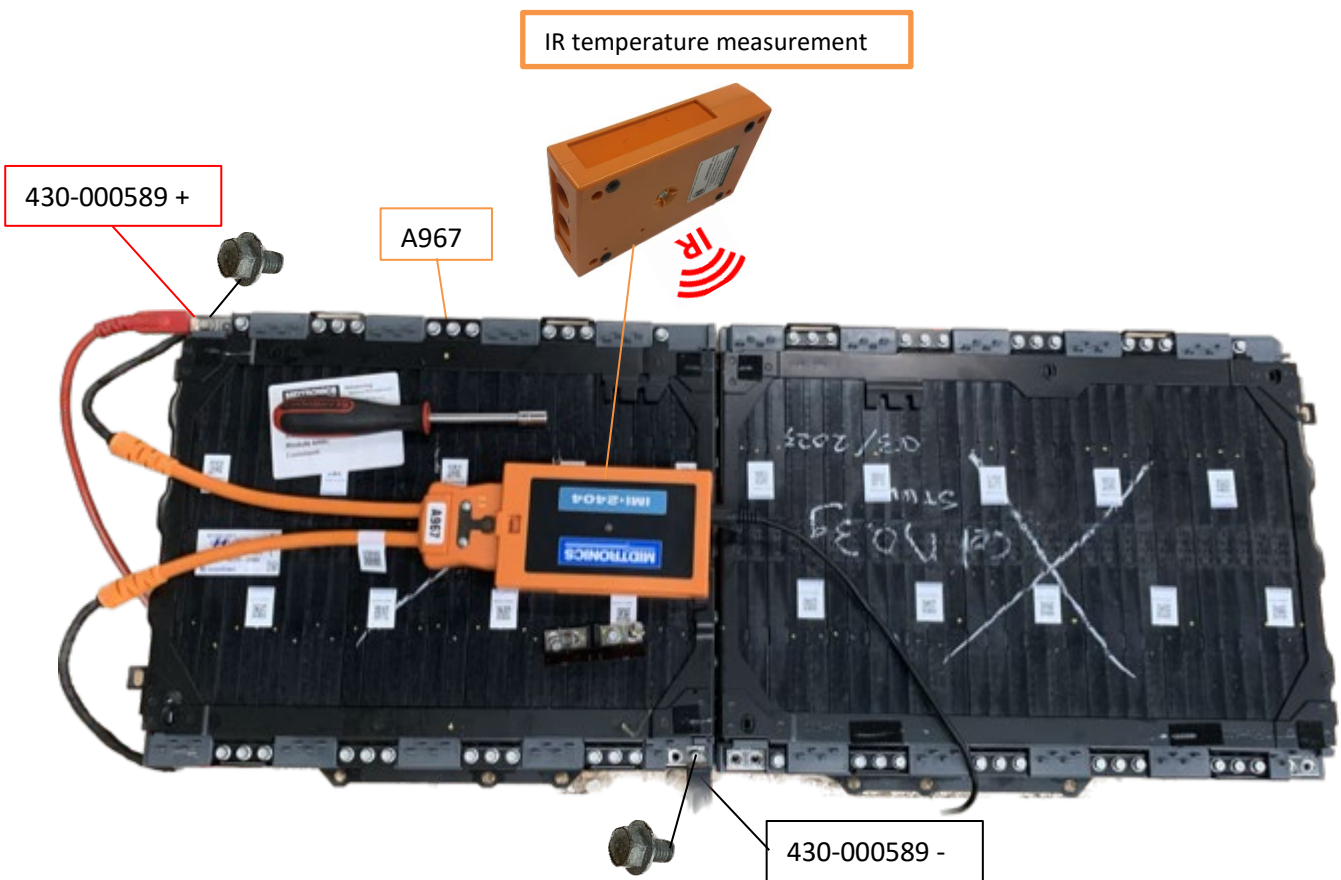


4.5. Niro (MY 19-) DE EV - 2P15S (A)

Step 1: In case of 30S configuration, make sure to disconnect the 15S section by removing the two wiring harnesses in the middle and remove the busbar.

Due to voltage limitation, 30S needs to be balanced separately (15S-A and 15S-B), you can find the A and B identification on the side of the module.

Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**

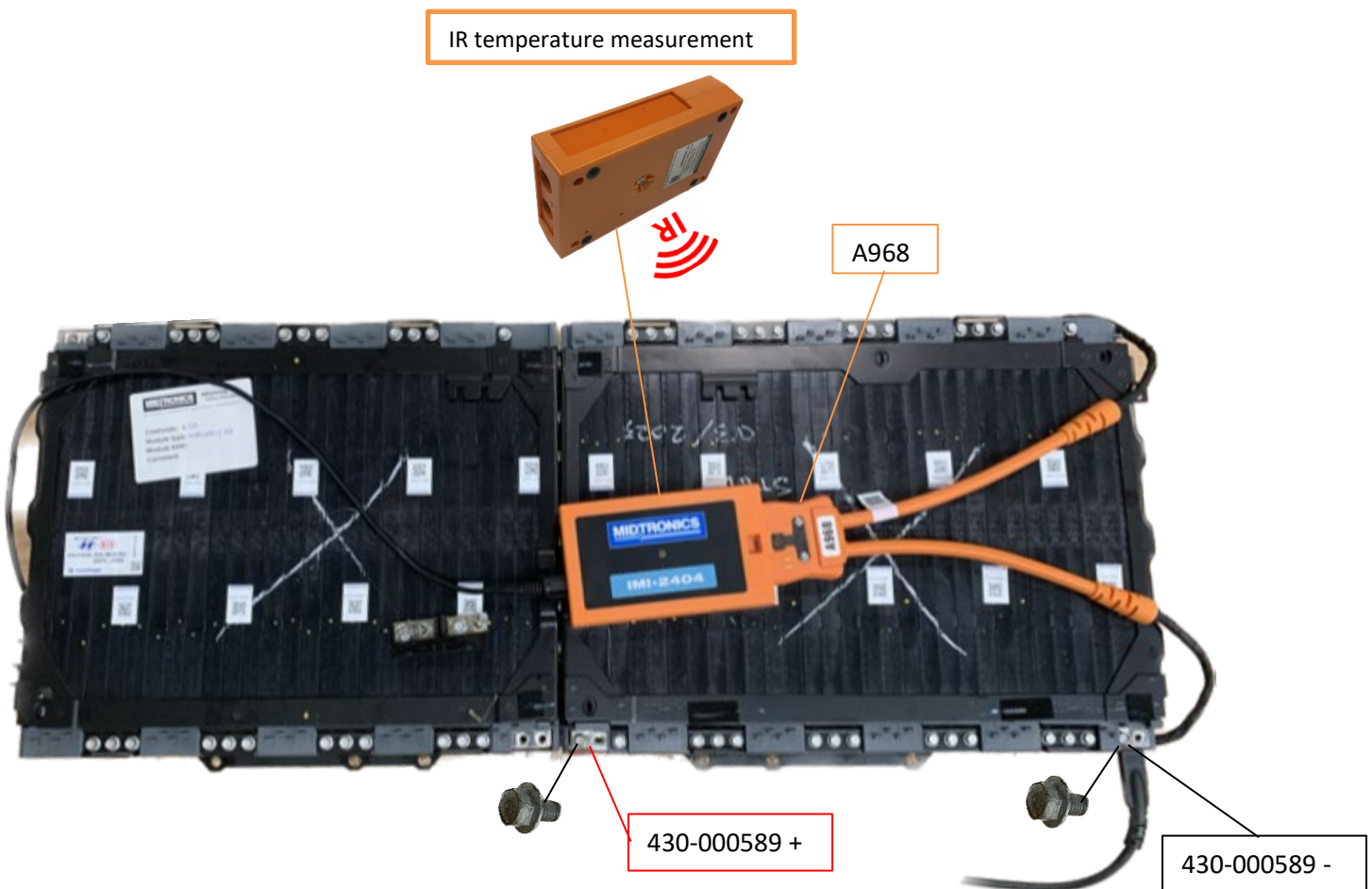


4.6. Niro (MY 19-) DE EV - 2P15S (A)

Step 1: In case of 30S configuration, make sure to disconnect the 15S section by removing the two wiring harnesses in the middle and remove the busbar.

Due to voltage limitation, 30S needs to be balanced separately (15S-A and 15S-B), you can find the A and B identification on the side of the module.

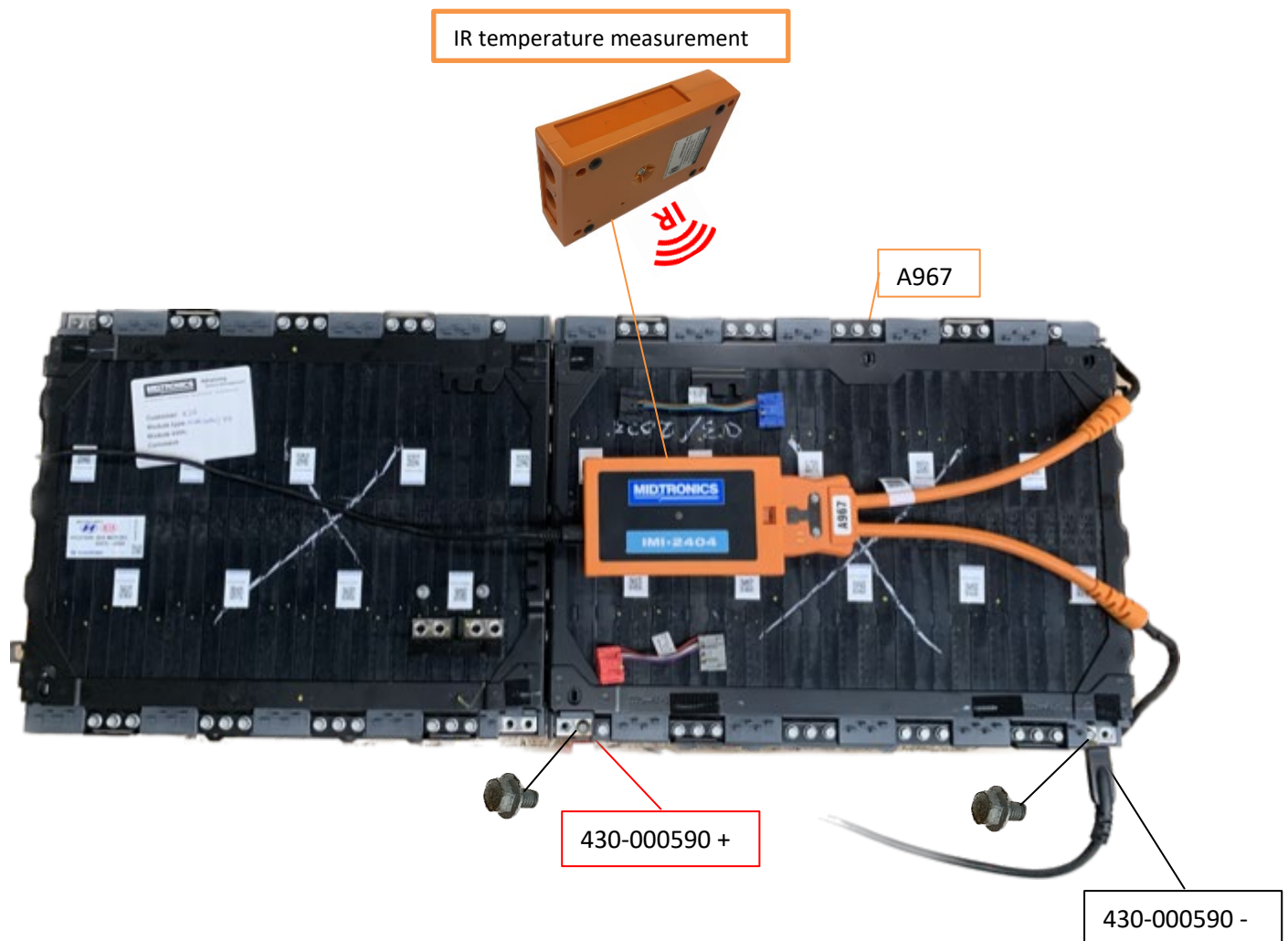
Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**



5.2. Soul SK3 EV - 3P10S

Step 1: In case of 19S or 20S configuration, make sure to disconnect the 9S or 10S section by removing the two wiring harnesses in the middle and remove the busbar.

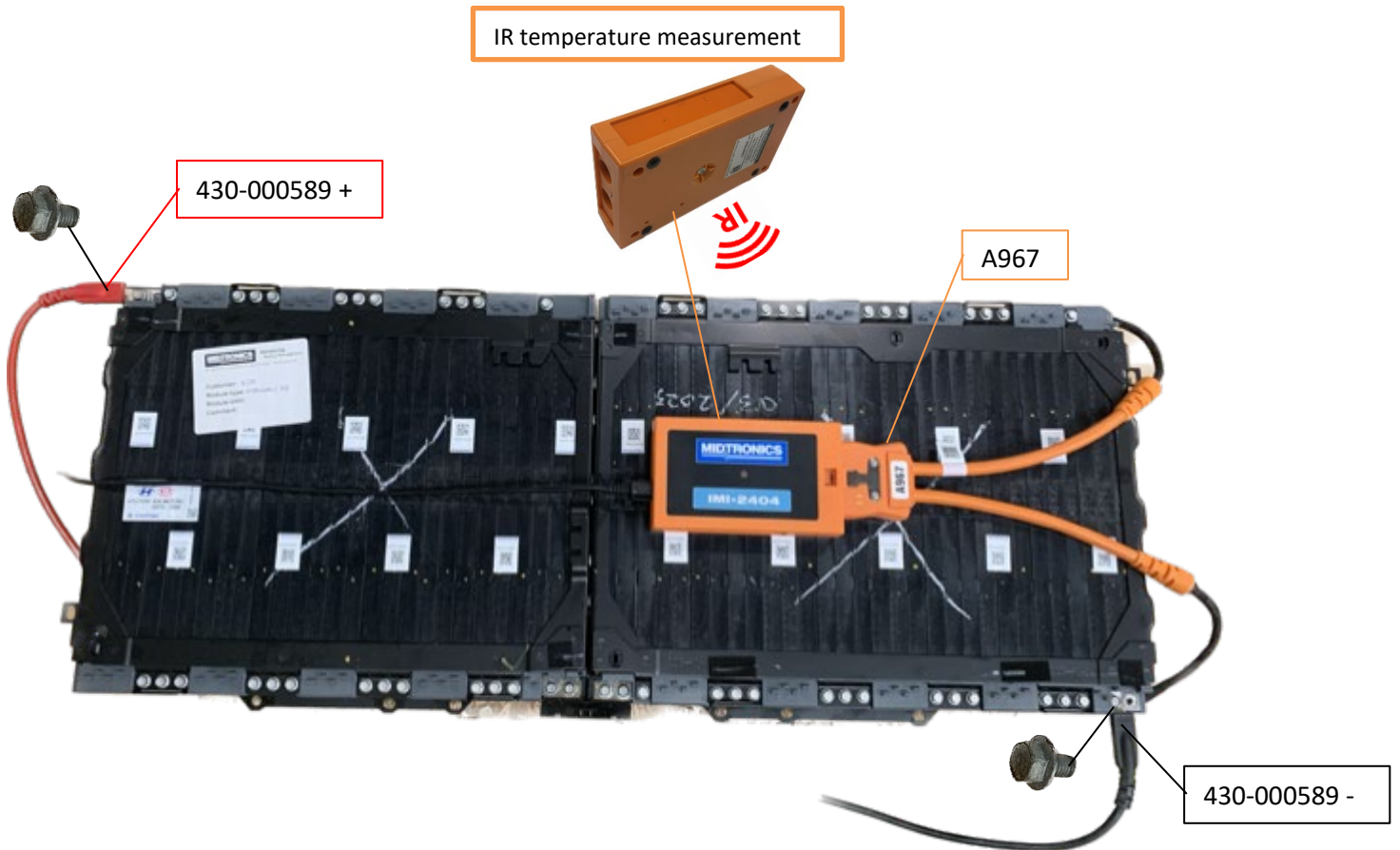
Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements:**



5.3. Soul SK3 EV - 3P19S

Step 1: Make sure to connect the wiring harnesses in the middle of the two sections and mount the busbar.

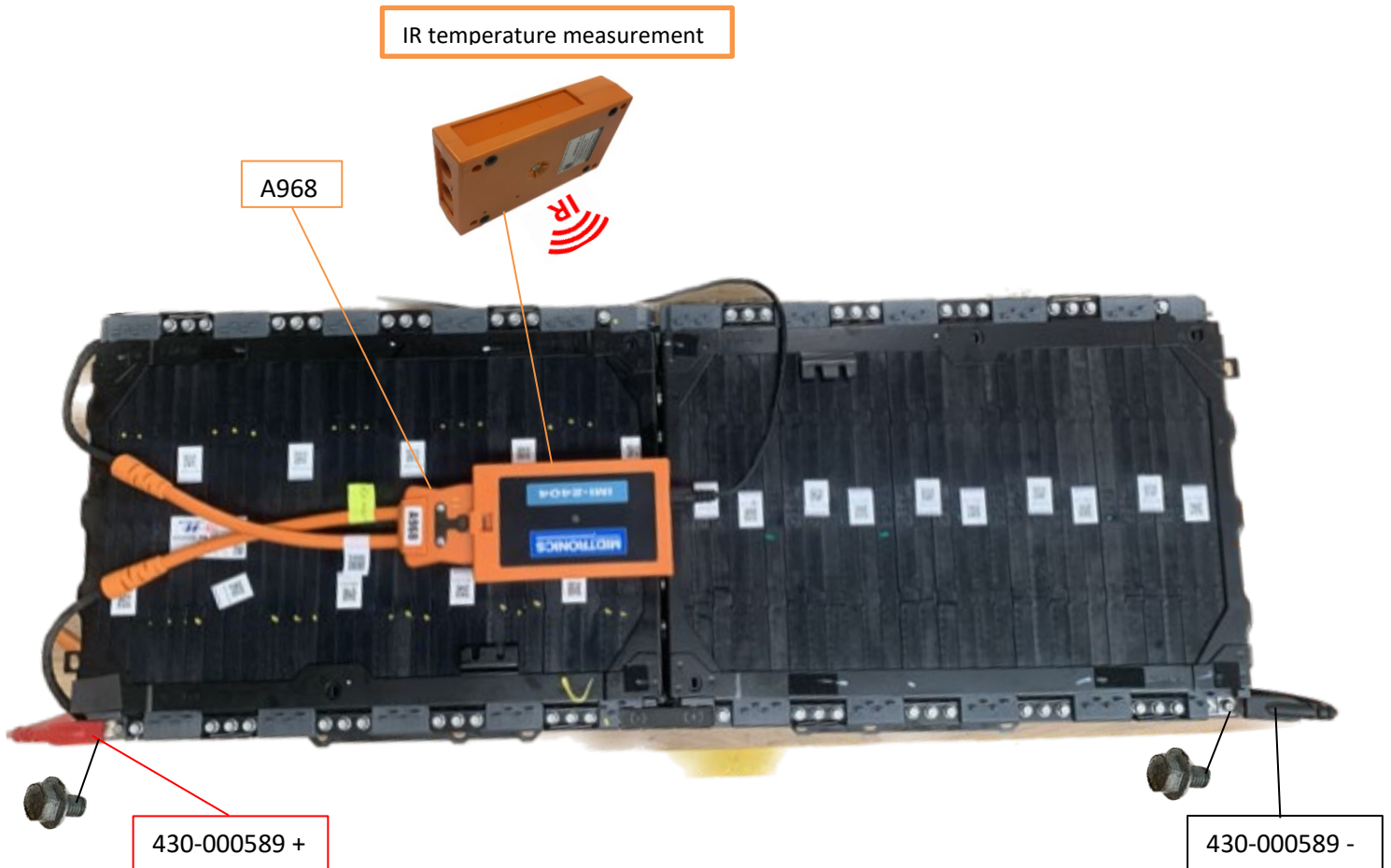
Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**



5.4. Soul SK3 EV - 3P20S

Step 1: Make sure to connect the wiring harnesses in the middle of the two sections and mount the busbar.

Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**

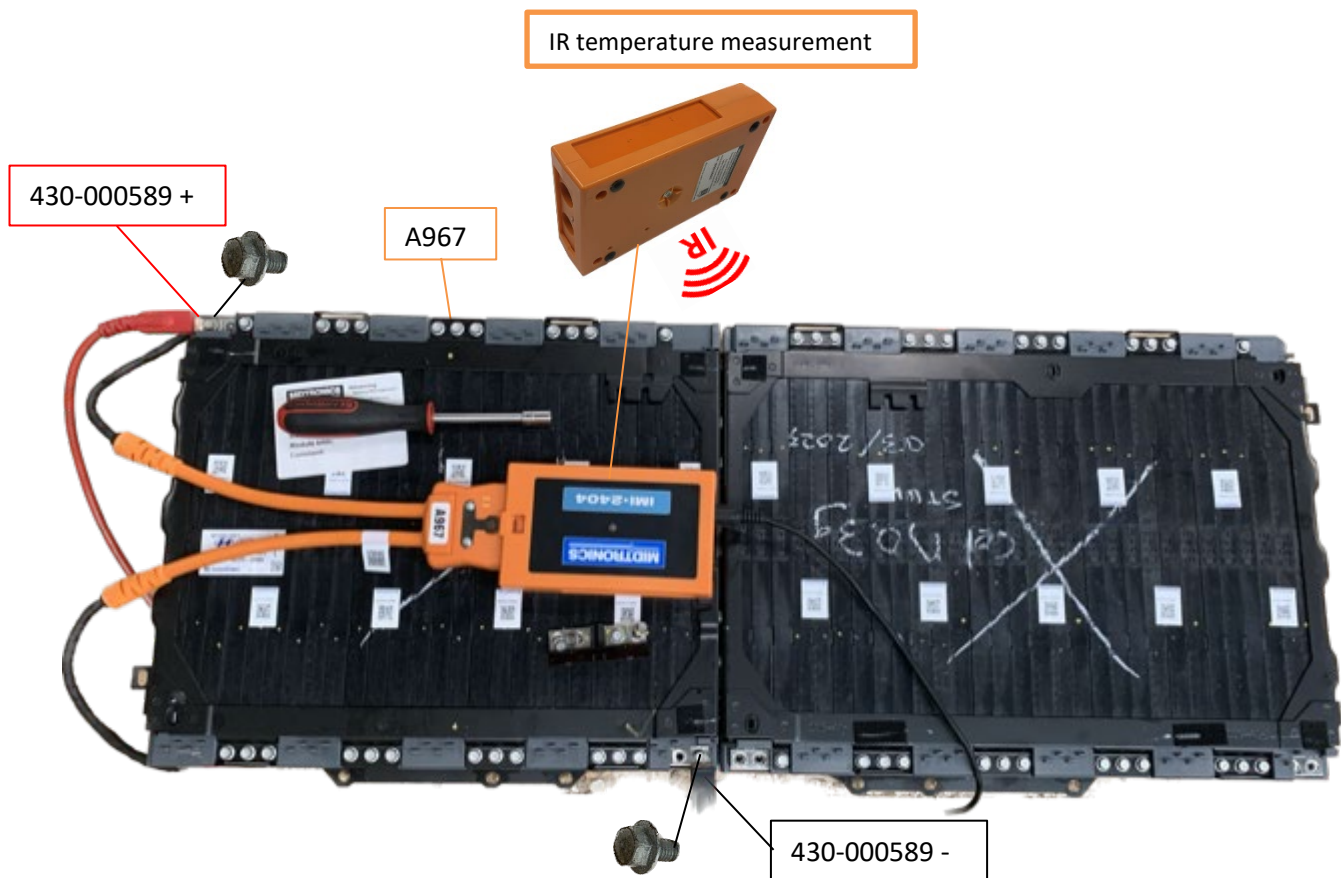


5.5. *Soul SK3 EV - 2P15S (A)*

Step 1: In case of 30S configuration, make sure to disconnect the 15S section by removing the two wiring harnesses in the middle and remove the busbar.

Due to voltage limitation, 30S needs to be balanced separately (15S-A and 15S-B), you can find the A and B identification on the side of the module.

Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**

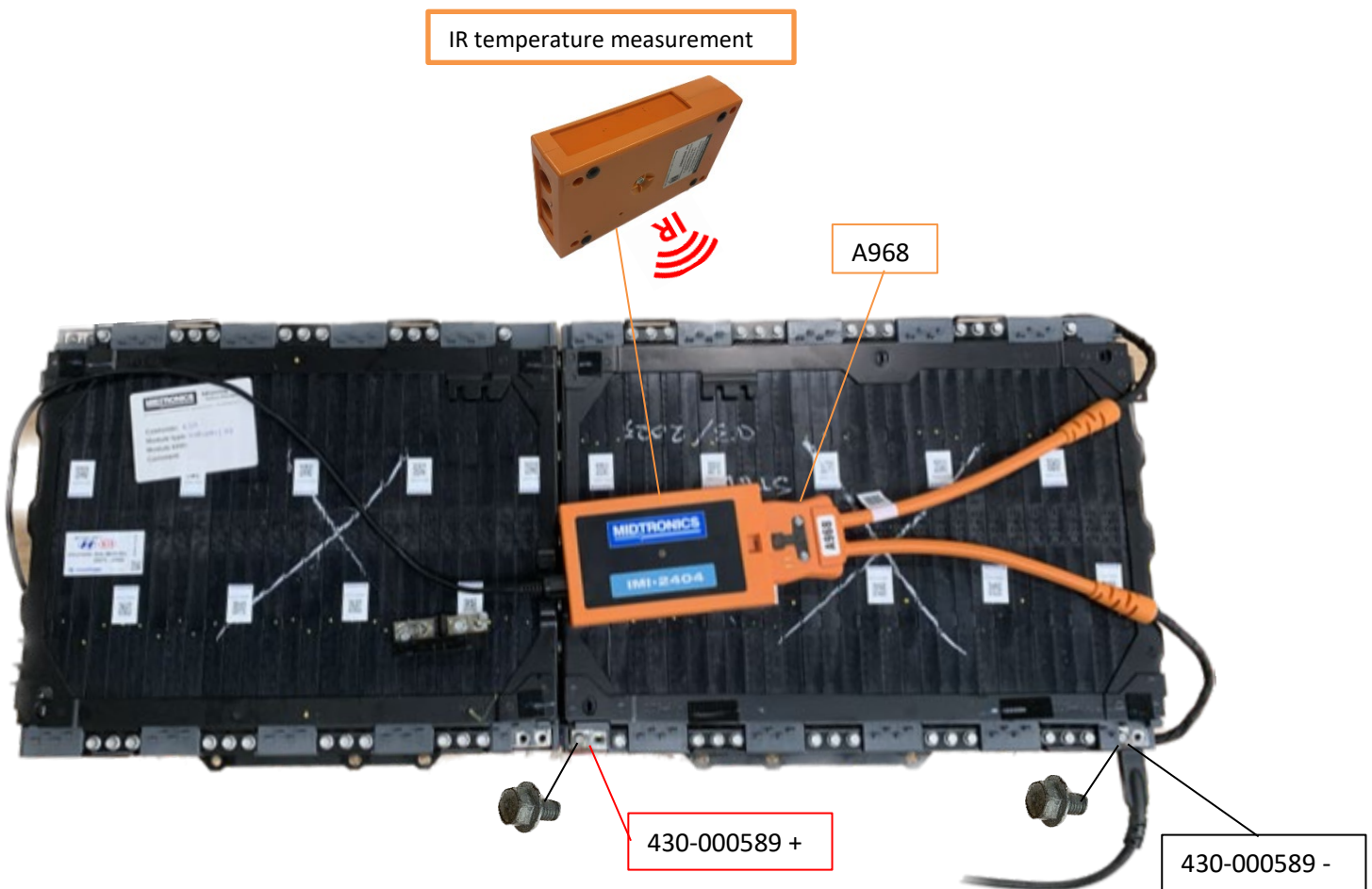


5.6. *Soul SK3 EV - 2P15S (B)*

Step 1: In case of 30S configuration, make sure to disconnect the 15S section by removing the two wiring harnesses in the middle and remove the busbar.

Due to voltage limitation, 30S needs to be balanced separately (15S-A and 15S-B), you can find the A and B identification on the side of the module.

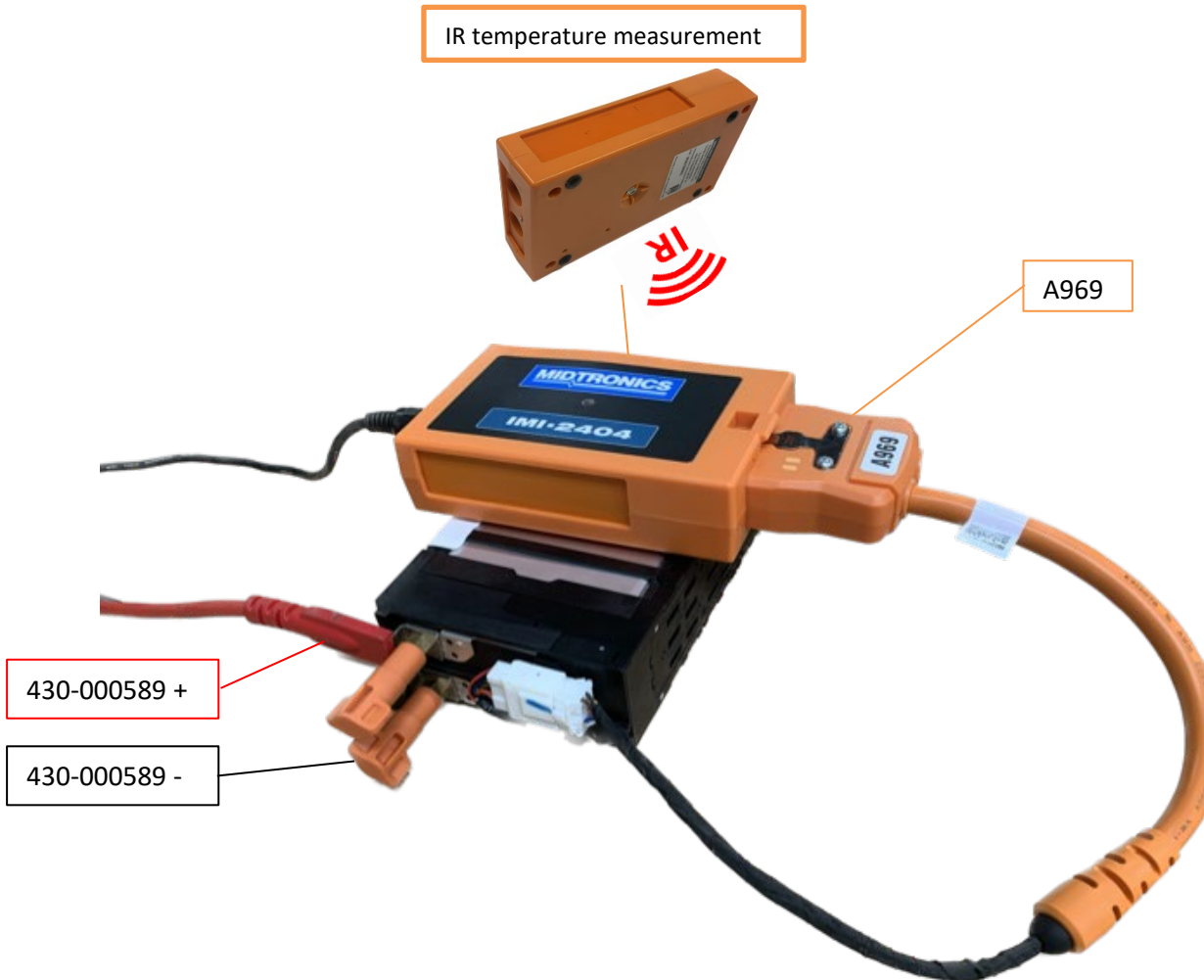
Step 2: Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**



6 Sorento MQ4 HEV

6.1. Sorento MQ4 HEV - 1P8S

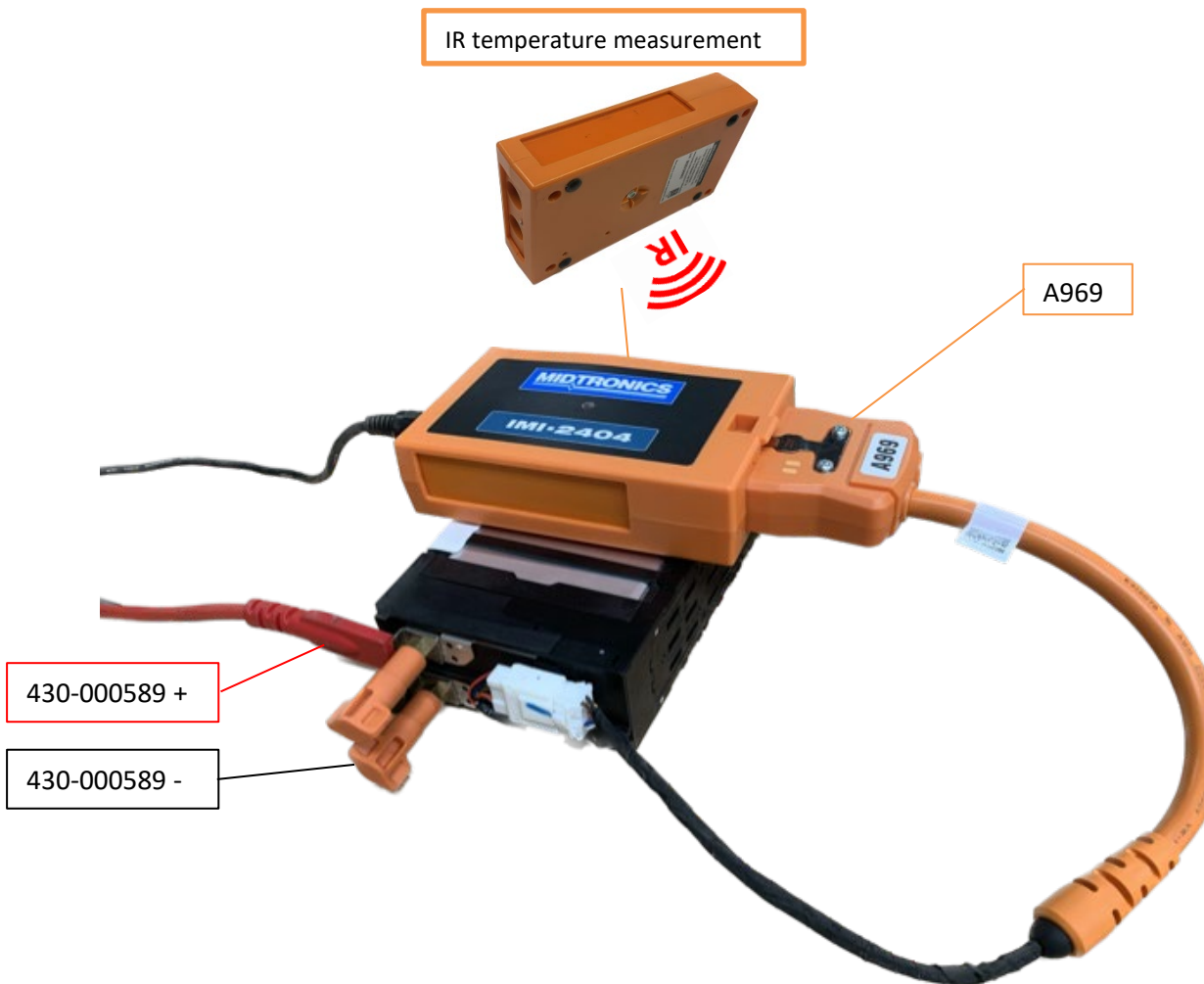
Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**



7 Sportage NQ5 HEV

7.1. Sportage NQ5 HEV - 1P8S

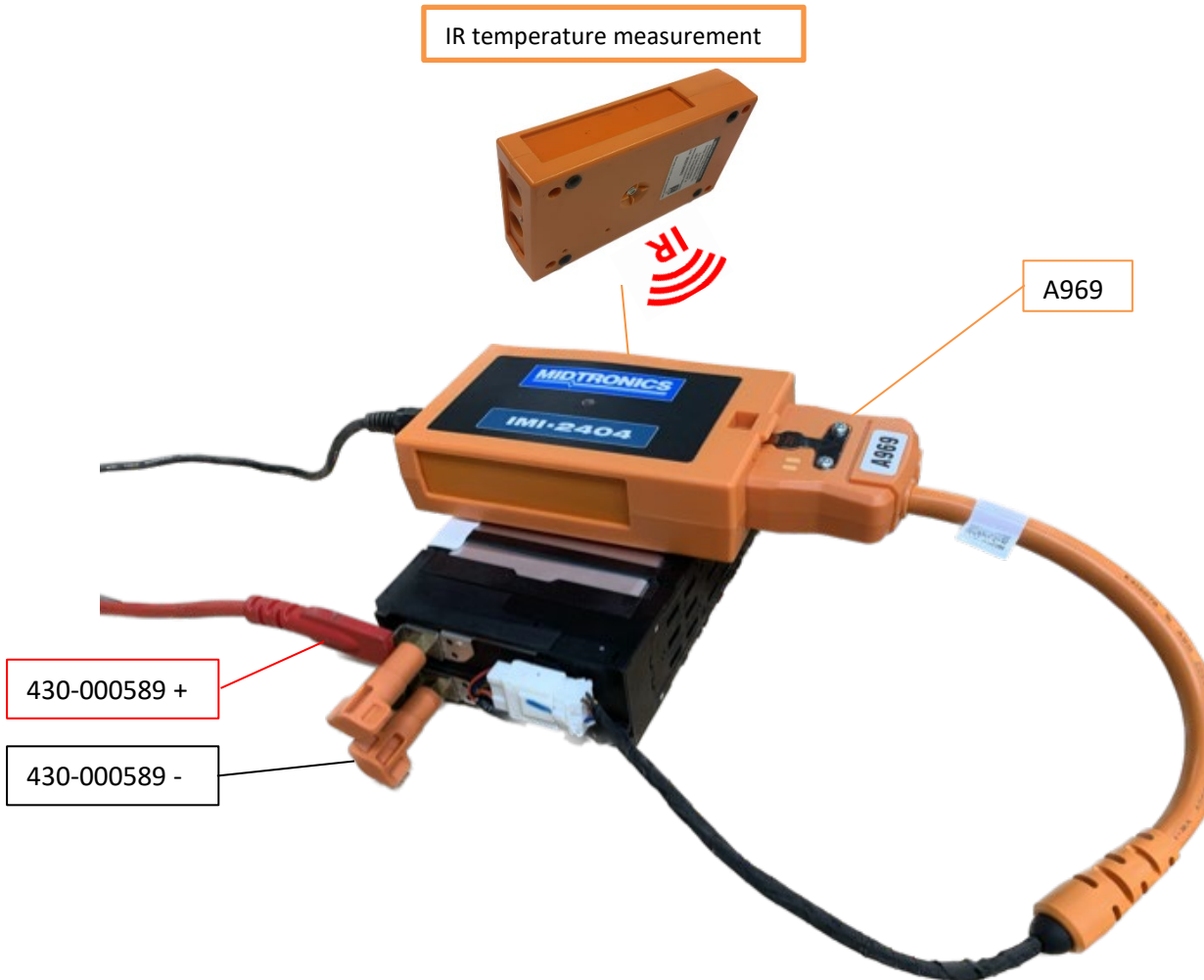
Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**



8 Niro SG2 HEV

8.1 Niro SG2 HEV - 1P8S

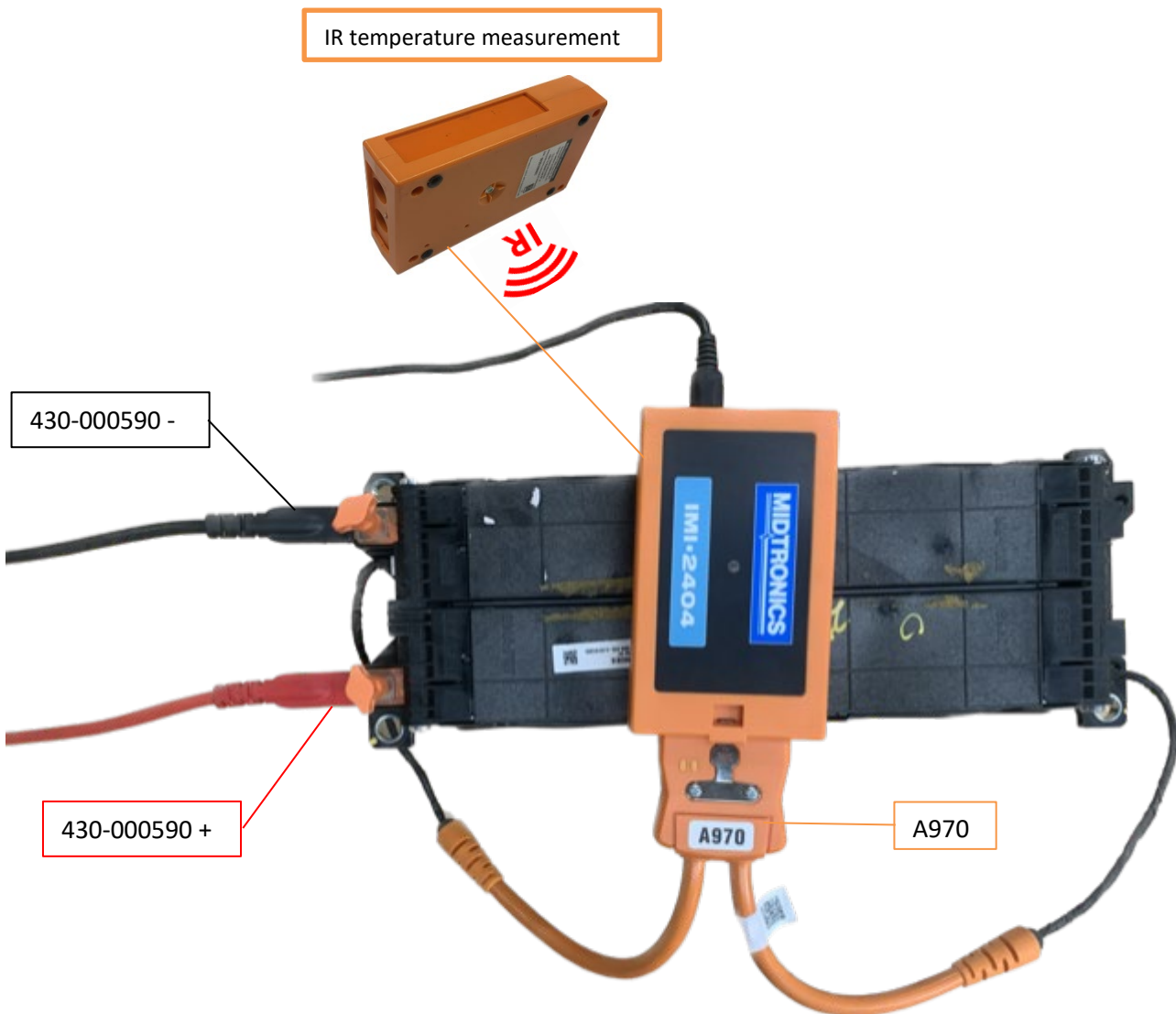
Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**



9 EV6 CV EV

9.1. EV6 CV EV - 2P6S

Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**



10 Niro SG2 EV

10.1. Niro SG2 EV - 1P4S

Make connections as shown in the image below. **Note to place to IMI-2404 on top of the module for IR temperature measurements.**

