

**Isolation Monitoring  
Demoboard**

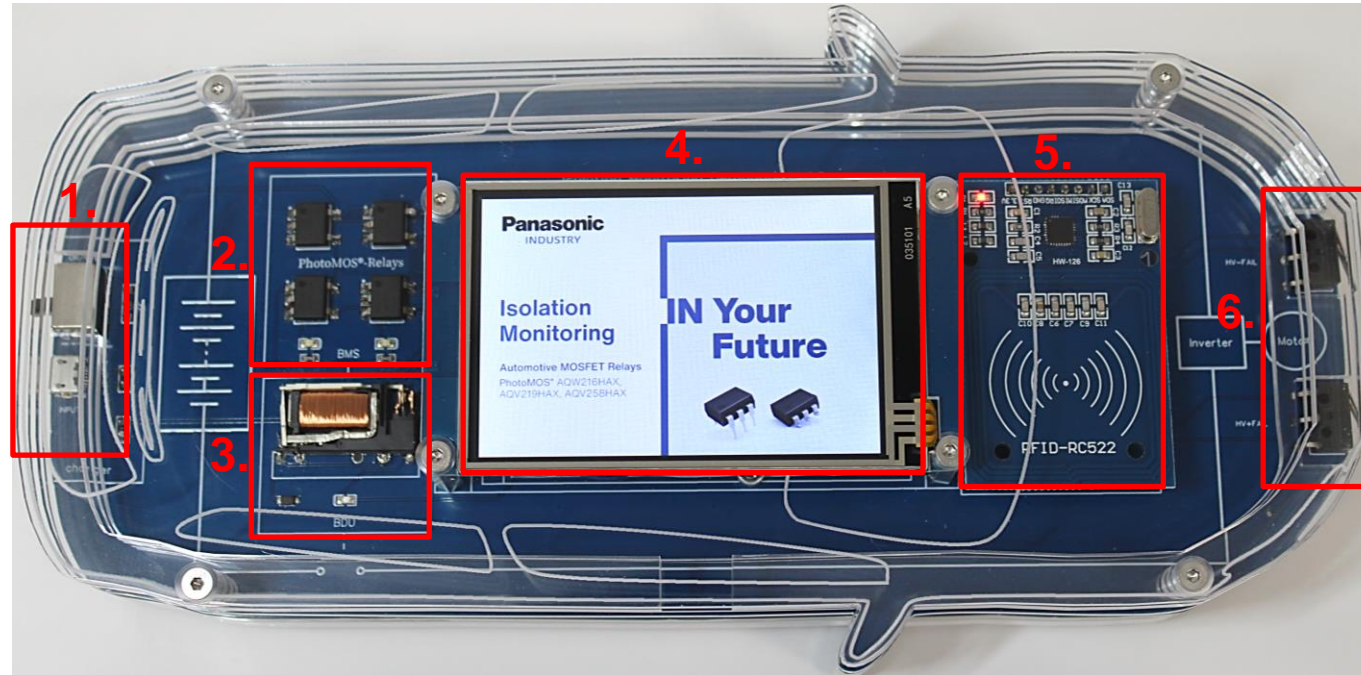
**IN Manual**

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# Overview

- The model illustrates basic isolation monitoring in an electric vehicle with our automotive MOSFET relays
- By interacting with the model, it is possible to simulate a single fault between the HV battery load circuit and the car body
- This way, the operation of the isolation monitoring and the special characteristics of the automotive MOSFET relays can be made clear to the customer

1. ON/OFF Switch and Power supply(USB-Micro) battery operation 18 hours
2. Battery management system (BMS)
3. Battery disconnect unit (BDU)



4. Touchscreen
5. RFID- reader
6. Micro switches for HV- /HV+ Failure

# Operation

## Homescreen

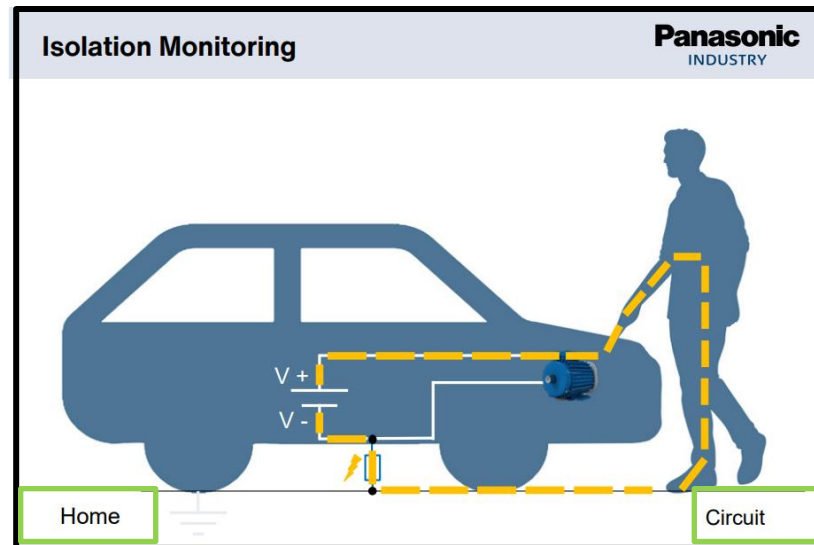
- After switching on, this home screen is displayed
- The Automotive MOSFET Relays will be presented here
- Touching the center of the display switches to the second page



# Operation

## Illustration of an isolation failure

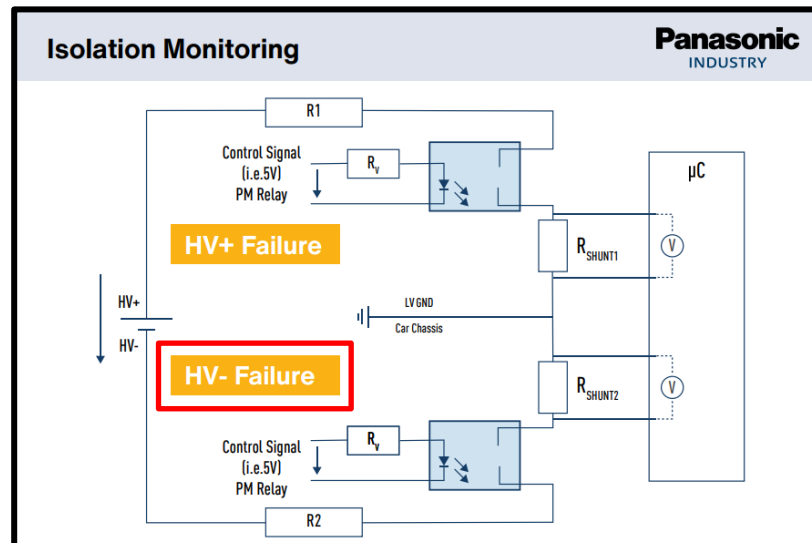
- The importance of isolation monitoring is illustrated
- Touching the Home function element on the display switches back to the first page
- The Circuit function element takes the user to the third page



# Operation

## Isolation Monitoring

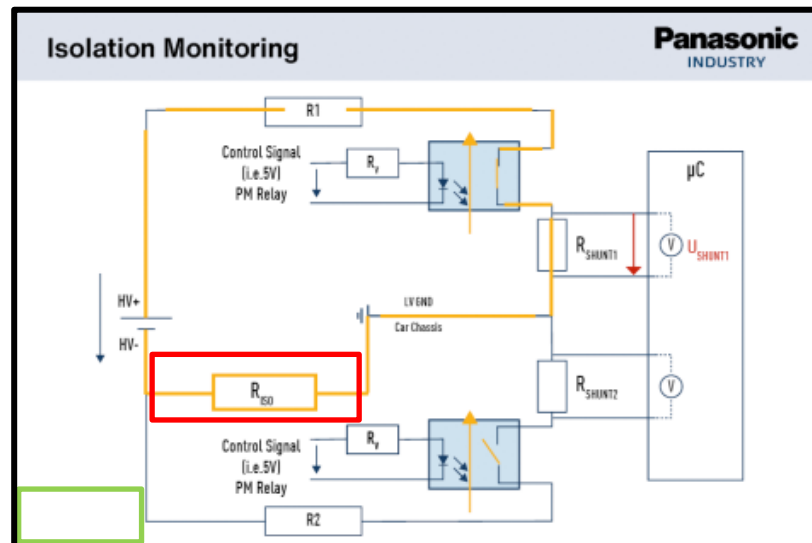
- The circuit of the active isolation monitoring
  - BDU close and its blue LED on
- To initiate a HV - Failure, there are these options:
  - Touching the red marked field on the touch screen
  - Pressing the corresponding micro switch
  - Holding the corresponding RFID card up to the reader
- After the failure has been triggered, the corresponding red LED on the BMS lights up and is followed by an animation



# Operation

## Isolation Monitoring

- Here you can see the end of the animation (fault circuit):
  - BDU open and its blue LED off
- Reset to initial state:
  - Touching the orange resistor on the touch screen (red marked field)
  - Release the corresponding micro switch
  - Hold the corresponding RFID card to the reader again
- Touching the lower left field (green marked field) returns to illustration of an isolation failure



# Operation

## The back of the Isolation Monitoring Demoboard

- The QR code will take you to the PhotoMOS®relays website for further information



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