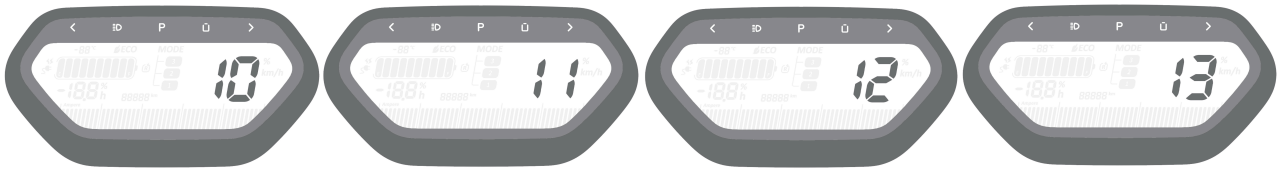
Diagnostic Code - 00 on display

- **Code 00 on Display**
  - **Display Failure**
    - Cable in bad connection, reconnect connectors
      - Reconnect cable
    - Use H1<Comm Data> feature to read communication between ECU and Display Ref: H1 User Guide
      - Replace Display Ref: 006
  - **BMS Failed to send data to ECU**
    - Use H1<BMS Info> feature to read BMS status Ref: H1 User Guide
      - Replace BMS Ref: Contact Supplier
  - **FOC Controller Failed to send data to ECU**
    - Use H1<Comm Data> feature to read communication between ECU and FOC controller Ref: H1 User Guide
      - Replace FOC Controller Ref: 004
  - **ECU Failed to send data to dashboard**
    - Check APP status Ref:002
      - Replace ECU Ref:003
    - Use H1<Comm Data> feature to read communication between ECU and Display Ref: H1 User Guide
      - Replace ECU Ref:003

Diagnostic Code - 10/11/12/13 on display



Fault Code 10/11/12/13

Fault Code 10: Locked Rotor

- Check FOC Controller indicator status Ref:001
  - Replace FOC Controller Ref:004
- Release Twist grip and restart the scooter again

Fault Code 12 : Battery Over-Current

- Use H1 to check Battery Total Current Ref: H1 User Guide
  - Replace battery if greater than 0.5A
- Check FOC Controller indicator status Ref: 001
  - Replace FOC Controller Ref: 004

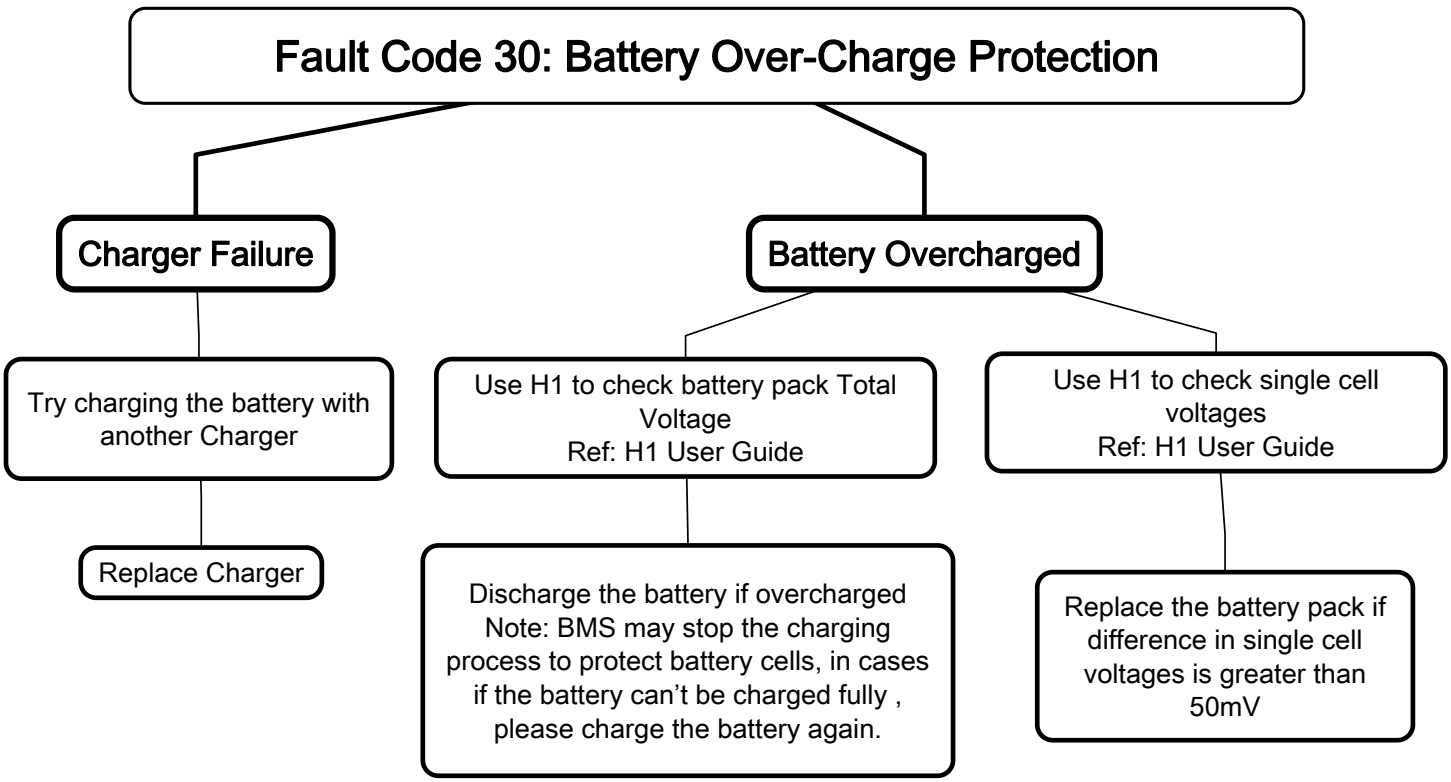
Fault Code 13: Battery/FOC Controller Over-Temperature

- Use H1 to check battery temperatures Ref: H1 User Guide
  - Disconnect the battery and cool down before reuse
- Check FOC Controller indicator status Ref: 001
  - Replace FOC Controller Ref: 004

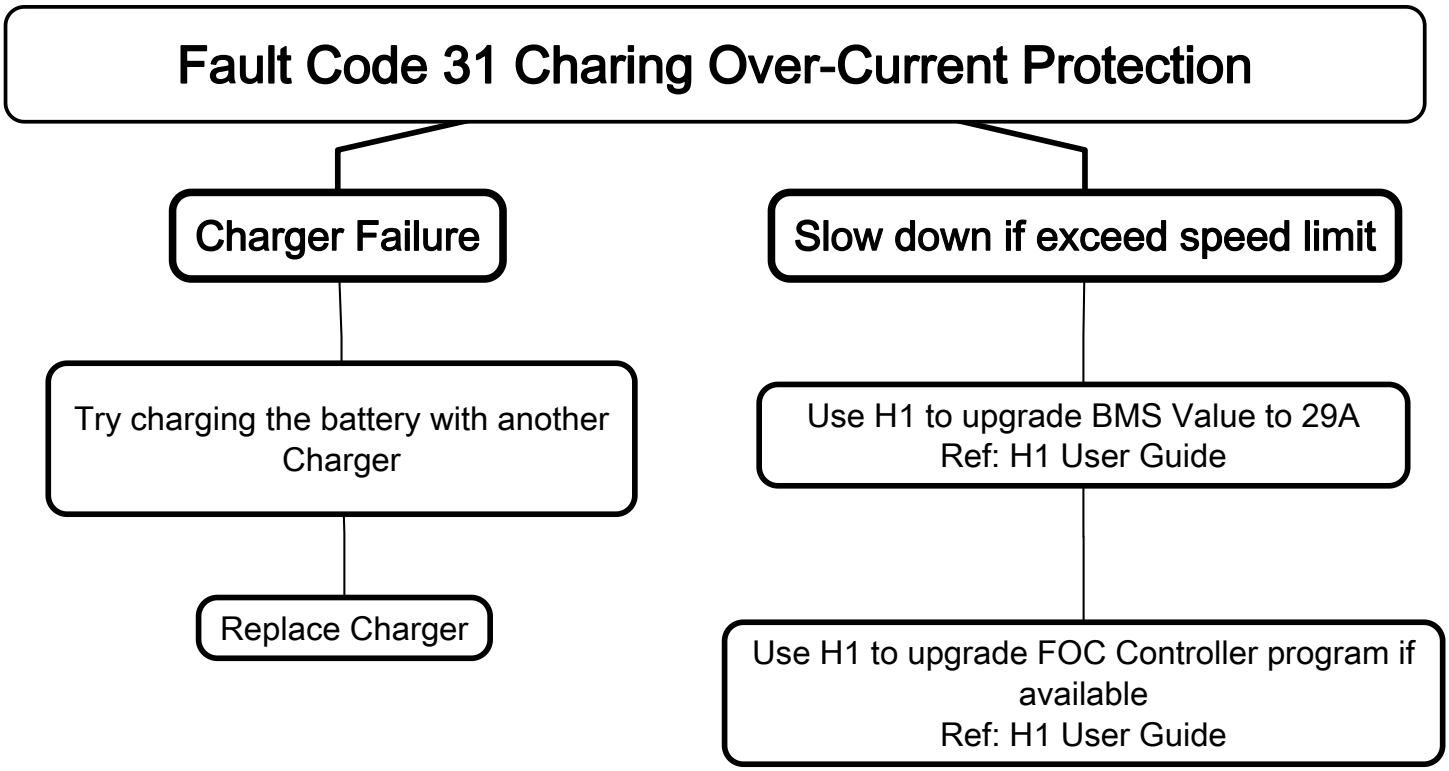
Fault Code 11: FOC controller UnderVoltage/ OverVoltage

- Slow down if exceed speed limit
  - Use H1 to upgrade BMS Value to 29A Ref: H1 User Guide
    - Use H1 to upgrade FOC Controller program if available Ref: H1 User Guide
- Check battery voltages with H1 Ref: H1 User Guide
  - Charge the battery if low
    - Replace Battery if voltage difference between cells is greater than 50mV
  - Discharge the battery if voltage is high, Check and charger output voltage
    - Replace the Charger
    - Replace Battery if voltage difference between cells is greater than 50mV
- Check Connectors of FOC Controller are properlly attached Ref:004
- Check Connectors of BMS Controller are properlly attached Ref: Contact Supplier

Diagnostic Code - 30 on display



Diagnostic Code - 31 on display

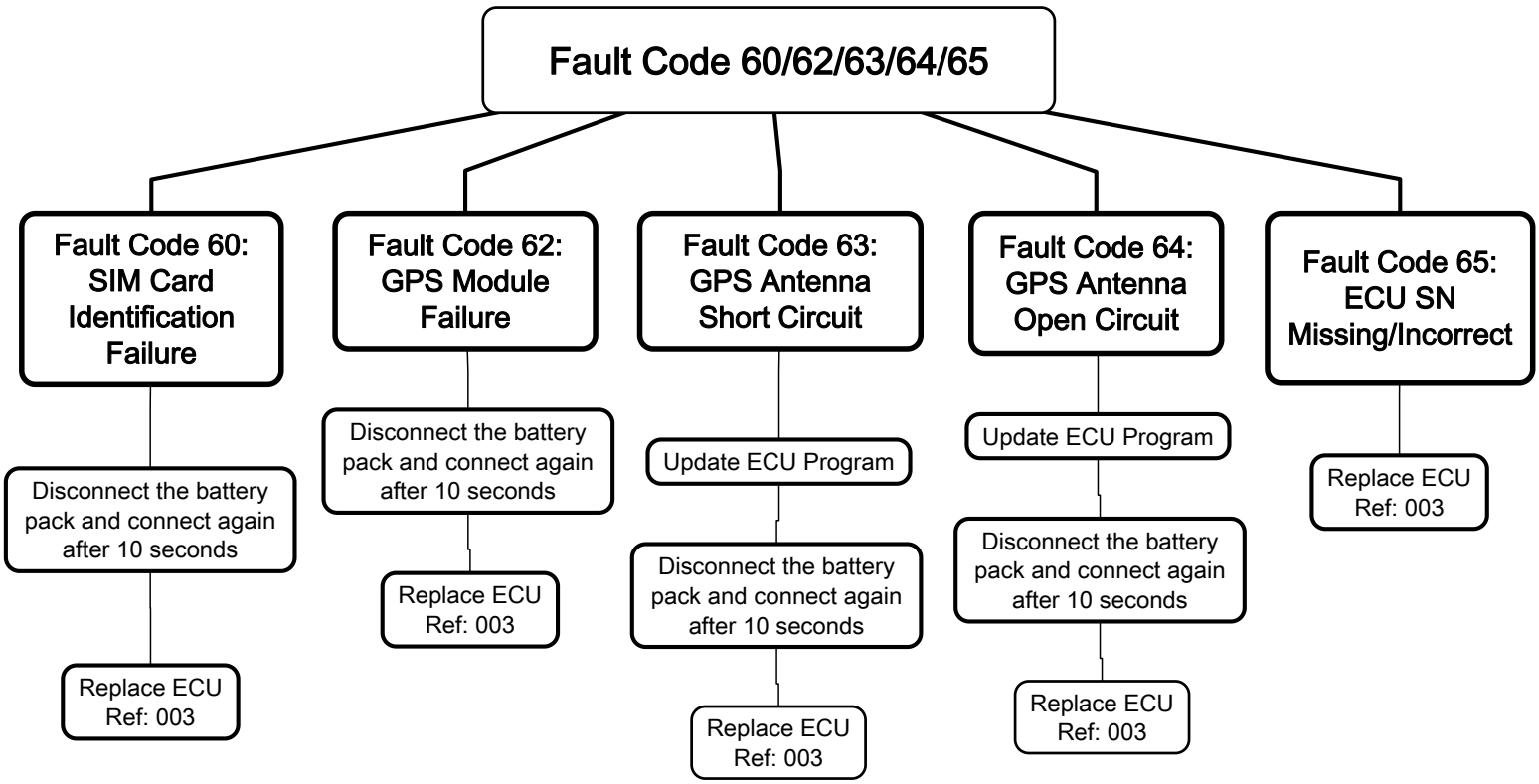


Diagnostic Code - 32 on display

Fault Code 32 Charging Prohibted at Low Temperature

- **Battery temperature sensors failure**
  - Use H1 to check Temperature sensors
    Ref: H1 User Guide
    - Replace the BMS if temperature is imbalanced
      Ref: Contact Supplier
- **Battery Temperature LOW (below-20°)**
  - Take the battery pack indoor until back to normal operating temperature

Diagnostic Code - 60/62/63/64/65 on display

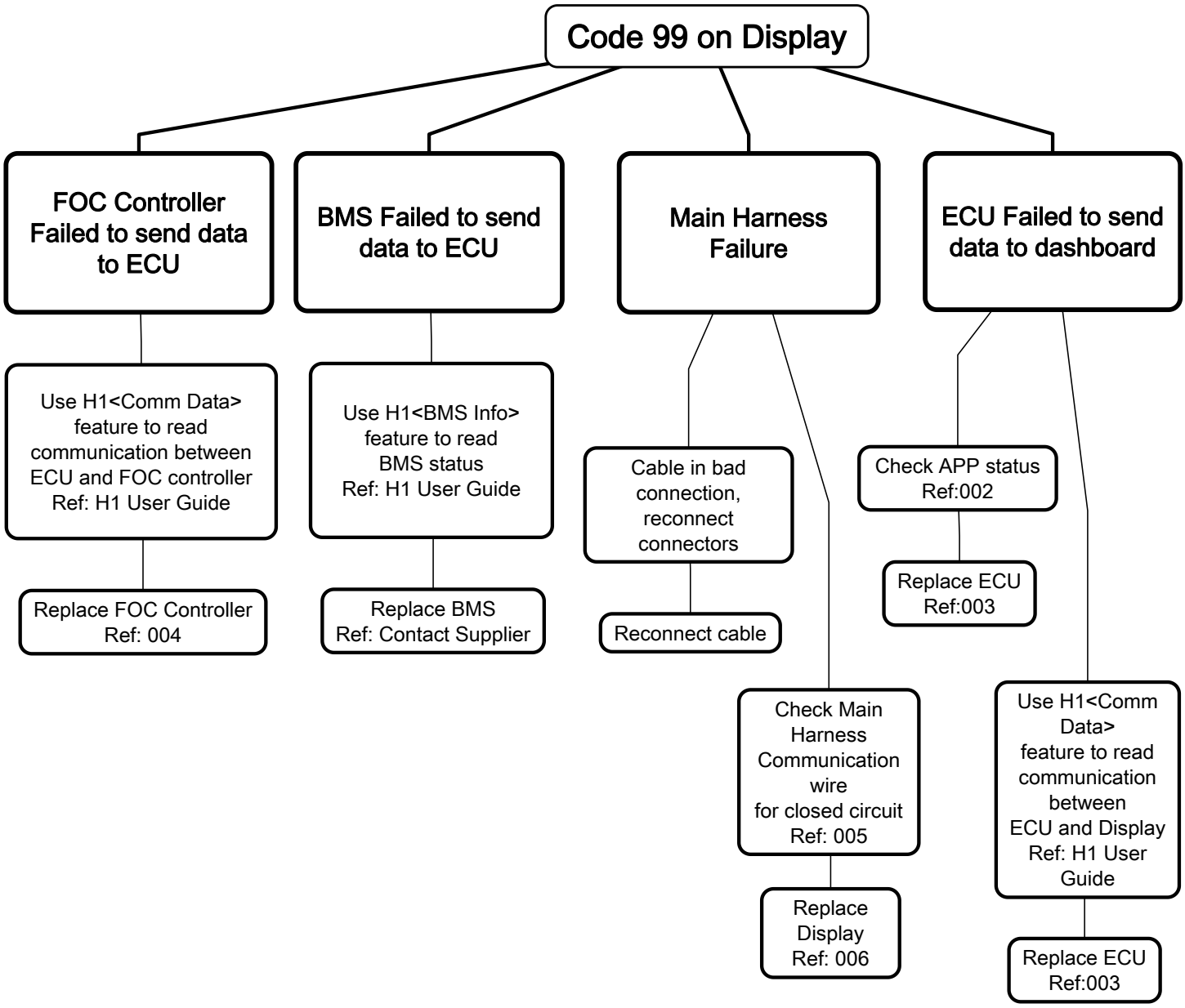


Diagnostic Code - 67 on display

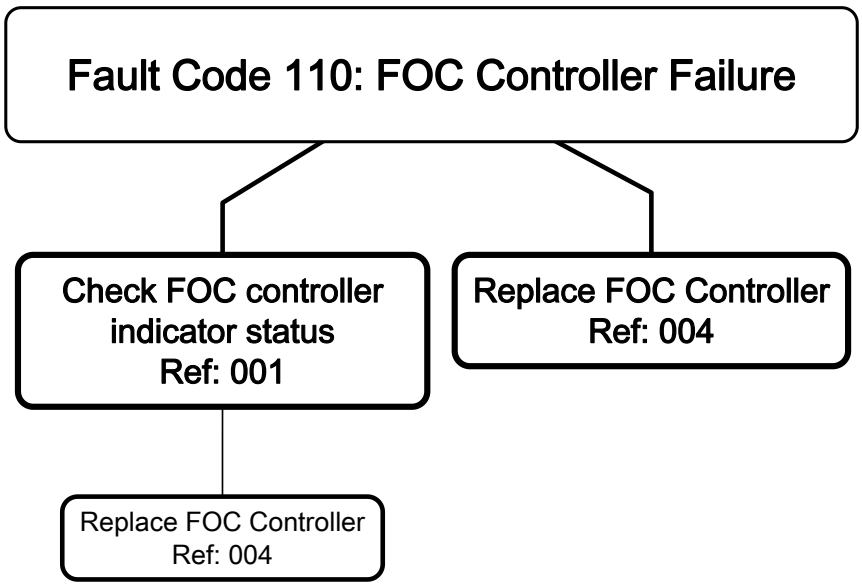
Fault Code 67 Data Service(SIM Card)Unpaid/Inactivated/Low Signal Strength

- **Renew Top-up App Data Service**
  - Log into App and follow instrunctions
- **SIM Card Unpaid/Inactivated**
  - Activate the SIM card Ref: please follow APP instruction
  - Update ECU program to Data Deactivated program to Cancel 67 Warning Code Ref: H1 User Guide
- **Use H1 to check Signal Strength Ref: H1 User Guide**
  - Move the scooter to open ground and wait for 10 mintues for better signal reception

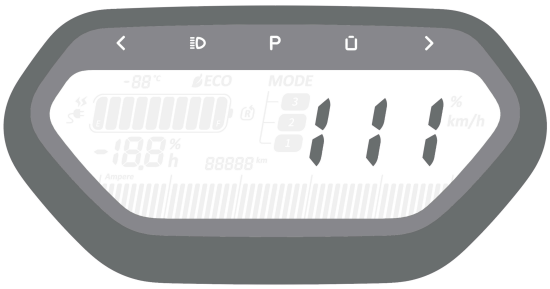
Diagnostic Code - 99 on display



Diagnostic Code - 110 on display



Diagnostic Code - 111 on display



Fault Code 111 FOC : Controller Verification Failure

- Check Headlights, Turning Signal Lights, Tail Lights are working properly
  - Disconnect the battery pack, Reconnect after 10 seconds then restart the scooter
- Check FOC Controller Connector for damage
- Check circuit is closed(FOC Controller<>ECU) Ref: 005
- Check circuit is closed(FOC Controller<>Alarm) Ref: 007
  Check FOC indicator status: turn the power to ON and indicator should flash once, if indicator doesn't flash at all after turning the power ON, then check orange wire for closed circuit.
  - Replace Alarm Ref: 008
- Check Motor Hall Cable Connector for tighteness and damage
  - Disconnect the connetor, check if all PINs are normal, Reconnect again

Diagnostic Code - 120 on display

Fault Code 120 Motor Failure

Check FOC Controller Indicator status Ref: 001

Flashing Frequency: 5times
Motor Hall sensor failed

Replace Motor
Ref: 009

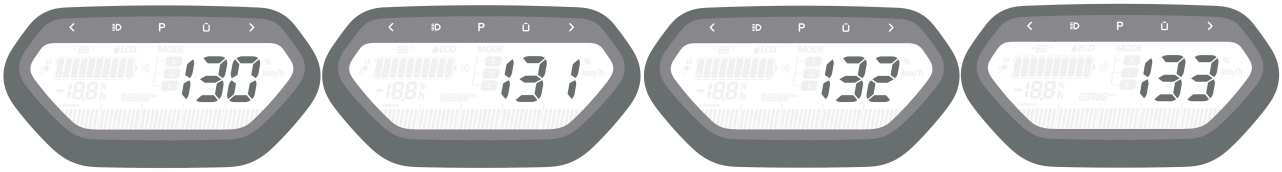
Flashing Frequency: 7times
One or more phase cables missing

Replace Motor
Ref: 009

Motor Hall cable in bad connection with FOC controller connector (please check both connectors between FOC Controller and Motor)
Please pay attention to vehicles produced before 12.2016)

Disconnect the Motorl Hall sensor cable and reconnect again

Diagnostic Code - 130/131/132/133 on display



Fault Code 130/131/132/133

Fault Code 130 : Battery Over Discharged Warning

Battery LOW, Check battery voltages by H1 and charge the battery
Ref: H1 User Guide

Replace the battery if voltage differences between cell is grater than 0.05V

Fault Code 131: Over-Current Discharging Warning

Check the Current of battery with H1
Ref: H1 User Guide

Fault Code 132 : Battery Over-temperature (55°+) Warning

Disconnect the battery pack and check the battery temperature with H1, cool down before using
Ref: H1 User Guide

Replace the BMS if temperature is imbalanced
Ref: Contact Supplier

Fault Code 133: Battery Charge/Discharge prohibted -20° enviroments

Disconnect the battery pack and check the battery temperature with H1
Ref: H1 User Guide

Take the battery back indoor, Charge/Discharge will recover at -15°

Replace the BMS if temperature is imbalanced
Ref: Contact Supplier

Diagnostic Code - 140 on display

Fault Code 140: Hall Cable Sensor Failure

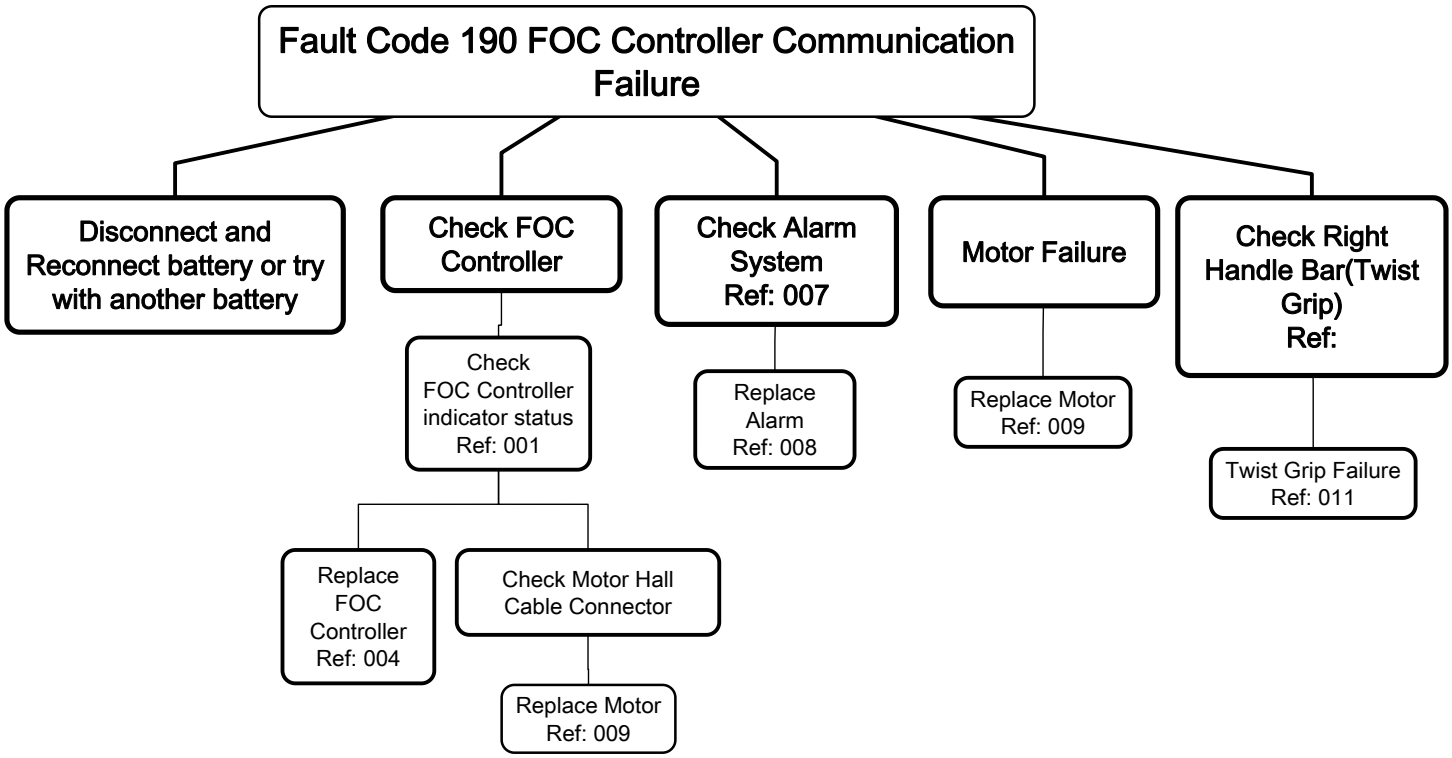
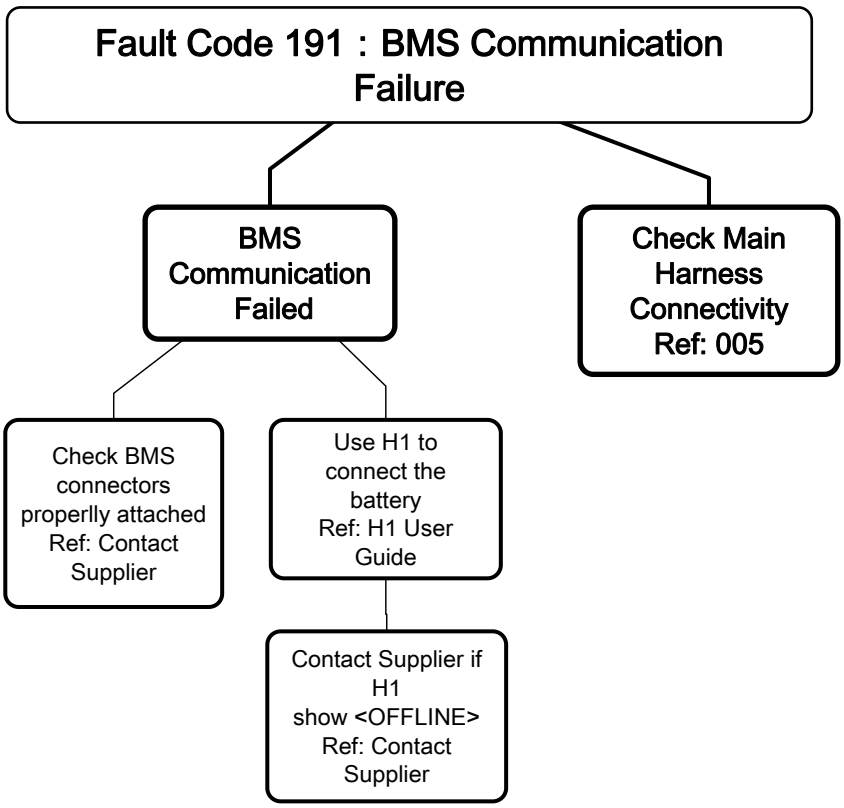
- **Check travel distance of twist grip cable and adjust accordingly Ref: 010**
- **Release the Twist grip fully and turn the power on**
- **if fault code shows only occasionally, install FOC controller fixing bracket**
  - Check main harness <>FOC Controller connector Pin 27 for damage
- **Check Hall Cable sensor**
  - Check connectors are connected properlly
  - Disconnect Hall Cable Sensor and check if fault code is cancelled
    - Replace Hall Cable Sensor Ref: 012
  - check voltages of hall cable sensor when throttle is Not-applied and when fully applied Ref: 011
    - Replace Hall Cable Sensor Ref: 012

Diagnostic Code - 161 on display

Fault Code 161: Scooter has been locked by remote command

Contact Supplier to unlock

Diagnostic Code - 190 on display



Diagnostic Code - 191 on display