



## I-CAN issue - U0010-00 (C01000) and U0011-00 (C01100)

DATE: December 8, 2021

**MODELS:** M161

**SECTION:** 08.60 – 3/5/7 MAIN WIRING

**ISSUE:** I-CAN network anomalies

**ISSUE DESCRIPTION:** Possible symptoms may be:

1. The touchscreen of the ETM module is not working properly. For example, if you click on ETM screen to activate a function, it does not set or the screen turns off.
2. After the vehicle is turned off, the ICS and IPC could remain on.
3. Electronic door locking and unlocking may not work properly

**CONDITIONS:** During normal use of the vehicle or after the vehicle is turned off. The problem may appear or could be intermittent.

**ECU ERRORS:** DTCs set in BCM:

- U0010-00 (C01000) - Can Interior Bus;
- U0011 (C01100) - Can Interior Bus Off Performance;
- U0147 (C14700) - Lost Communication with Telematics Gateway;

The DTC U0010-00 (C01000) - Can Interior Bus could be stored also in other modules that are connected to I-CAN network

### **ACTIONS:**

It is possible that the symptoms described in the Problem description section are due to a short to ground in the I-CAN network.

NOTE: All vehicles, regardless of whether they are equipped with a four-zone climate control or not, have the I-CAN network line preparation for the HVACR (control module of the rear climate control unit).

### **TROUBLESHOOTING:**

#### **CHECKS:**

1. Remove the complete tunnel console (component #1 section 09.51-1 of Online Technical Documentation of ModisCS).
2. Check if there is a cut / break in the I-CAN line (white wire and blue wire) for the HVACR module in the area of the complete tunnel console. If you do not find any anomalies go to the next step.
3. Disassemble the rear passenger trim (Component 3 of Section 09.60-1 of the Spare Parts Catalogue). If it's all ok go to the next step.
4. Check for a cut / break along the I-CAN line (white wire and blue wire) for the HVAC-R control unit

Below are some pictures showing the I-CAN line located under the console.



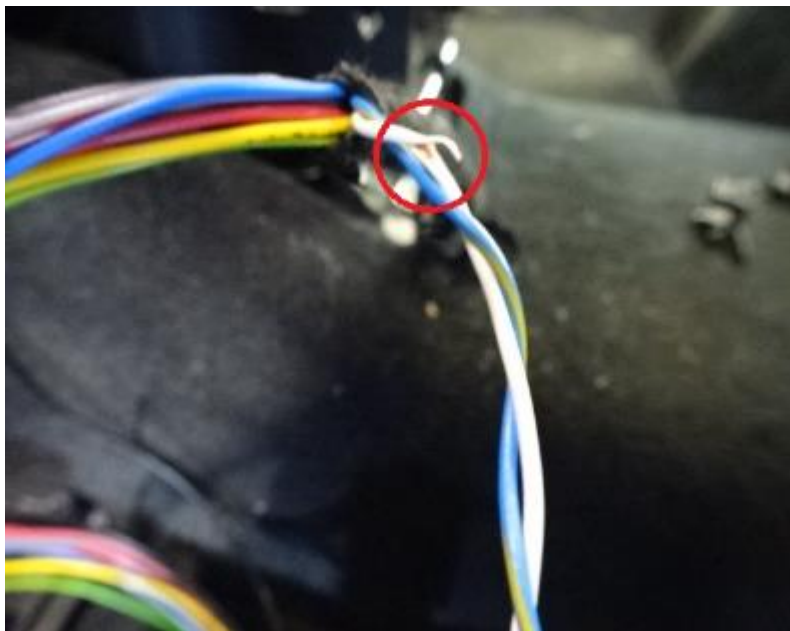
**Figure 1:** Point where it is possible to find a cut / interruption of the I-CAN line (white wire and blue wire)



**Figure 2:** Harness containing the I-CAN line (white wire and blue wire) for the HVACR control unit (complete tunnel cabinet and rear passenger compartment carpet have been removed).



**Figure 3:** Example of a possible problem on the I-CAN line (white wire and blue wire) for the HVACR control unit).



**Figure 4:** Example of a possible problem on the I-CAN line (white wire and blue wire) for the HVACR control unit)..

**CONSIDERATIONS:**

- a) If the above checks show a problem related to the I-CAN line (white wire and blue wire) related to the HVACR control unit and the vehicle does not have a four-zone climate, disconnect the I-CAN line referring to the HVACR control unit from the rear I-CAN star connector.
- b) If the above checks show a problem related to the I-CAN line (white wire and blue wire) of the HVACR control unit and the vehicle has a four-zone climate, repair the section of the I-CAN line that presents the problem referring to Bulletin MAS000766 (attached for your convenience).

If you have any questions, contact the Maserati Technical Support Helpdesk.

  
**MASERATI**  
EXCELLENCE THROUGH PASSION  
**Circular Letter MAS000766**

**January 5th, 2016**

**SUBJECT: New Maserati Tools: Wire Harness Connector - Repair and Replacement Starter Kit**

Dear Dealer Network,

In order to ensure the high quality standards required by Maserati, you will automatically be sent a new tool kit used for the repair and replacement of wire terminals and connectors. Typically, when there is damage to a wire terminal or connector, a complete wiring harness may be needed which could add unnecessary delays for completing the repairs. This new kit, P/N: 673004777 can help avoid delays and help to improve customer service. The cost of the “Starter Kit” is \$1889.00 USD. This kit is designed to be used on the following models: Ghibli (M157), Quattroporte (M156) and the upcoming Levante (M161).



**Figure 1 - CONNECTOR REPLACEMENT STARTER KIT CASE**

## 1. CONNECTOR REPLACEMENT STARTER KIT CONTENTS

The CONNECTOR REPLACEMENT STARTER KIT is made up of 2 sections:

1) SPECIFIC EQUIPMENT INCLUDING:

- a) Soldering iron Weller WP3EU
- b) Wire stripper
- c) Extractors

2) REPAIR KITS

### 1) SPECIFIC TOOLS

#### a) SOLDERING IRON WELLER WP3EU



The soldering iron WELLER WP3EU enables operators to solder conductors. The heat conveyor included in the kit provides even heat distribution and ensures excellent melting of conductive metal components and plastic insulating components in the heat-shrink sheaths. Maximum operating temperature is about 450 °C and operation time approximately 30 min.

Replacement butane must be purchased locally.

**b) WIRE STRIPPER**

This is an automatic tool to remove the insulating sheath of wiring in a simple, effective way. There is no need to set wire cross-section area. It provides fine adjustment for sheath thickness and length of the wire to be stripped. Its shock-resistant plastic body lends it high resistance for intensive use. It comes with a wire cutter for cross-section areas up to 4 mm<sup>2</sup>.

**c) EXTRACTORS**

These tools are necessary to extract terminals from connector housing. Each extractor is able to remove a set of terminals, as shown in Table 3.

Each connector may require the use of several extractors at the same time.



The following table lists all extractors included in the kit and their P/Ns.

| EXTRACTOR<br>P/N | IMAGE                                                                                |
|------------------|--------------------------------------------------------------------------------------|
| 673004778        |    |
| 673004779        |    |
| 673004780        |   |
| 673004781        |  |
| 673004782        |  |

| EXTRACTOR<br>P/N | IMAGE                                                                              |
|------------------|------------------------------------------------------------------------------------|
| 673004783        |  |
| 673004784        |  |

## 2) REPAIR KITS

Each repair kit comes in a clear plastic bag with the Maserati logo that contains:

- ✓ Housings/connectors.
- ✓ Terminals with crimped wires (harnesses).
- ✓ Solder heat-shrink splices in protection class IP67.

Each bag contains the proper number of wires for the pins present – with the exception of wire gauges above 4 mm<sup>2</sup> – and waterproof seals, where required. Harness wires are colour-coded to identify terminal coating material:

- steel: white,
- silver: grey,
- gold: yellow

### ✓ HOUSINGS/CONNECTORS

The list of connectors in this kit is a selection of the most widely used connectors which Maserati allows to be repaired. Each connection included in the starter kit may have multiple applications in the vehicle. A comprehensive, updated list of connectors and applications is available in the Technical Documentation in Modis.

Images of the various connectors and the part numbers are listed below.

| P/N: 673004787                                                                      | P/N: 673004788                                                                      | P/N: 673004789                                                                        |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|    |    |    |
| P/N:673004790                                                                       | P/N:673004791                                                                       | P/N:673004792                                                                         |
|   |   |   |
| P/N:673004793                                                                       | P/N:673004794                                                                       | P/N:673004795                                                                         |
|  |  |  |

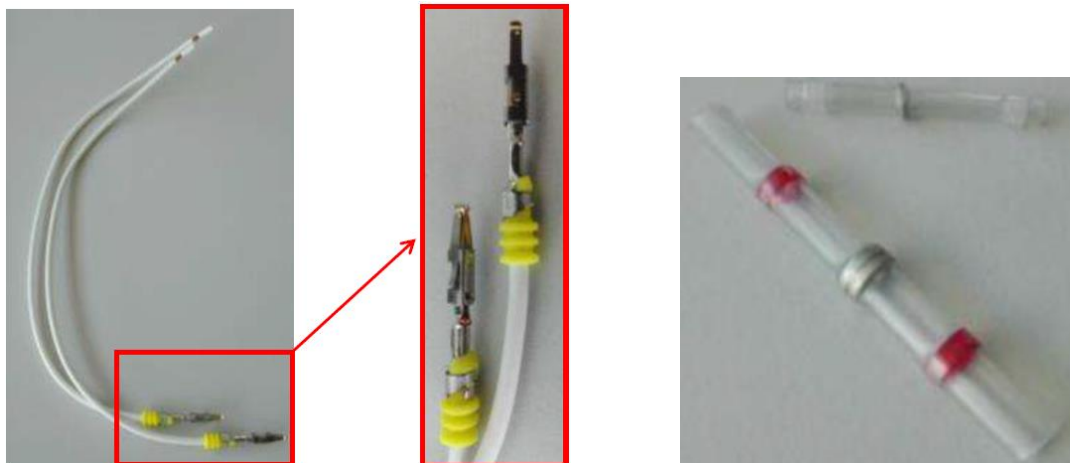
| P/N:673004796                                                                       | P/N:673004797                                                                       | P/N:673004798                                                                         |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|    |    |    |
| P/N:673004799                                                                       | P/N:673004800                                                                       | P/N:673004801                                                                         |
|   |   |   |
| P/N:673004802                                                                       | P/N:673004803                                                                       | P/N:673004804                                                                         |
|  |  |  |

| P/N:673004805                                                                       | P/N:673004806                                                                       | P/N:673004807                                                                         |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|    |    |    |
| P/N:673004808                                                                       | P/N:673004809                                                                       | P/N:673004810                                                                         |
|   |   |   |
| P/N:673004811                                                                       | P/N:673004812                                                                       | P/N:673004813                                                                         |
|  |  |  |



#### ✓ CRIMPED WIRE TERMINALS (HARNESSES)

All wires supplied with the connectors come with pre-crimped terminals to suit that specific connector. Wires are color-coded (white, grey, yellow) to identify terminal coating. If needed, terminals are equipped with special waterproof seals.



#### ✓ SOLDER HEAT-SHRINK SPLICES IN PROTECTION

The heat-shrink splices supplied with the repair kits are designed to splice two stripped wire ends ensuring protection, strength and reliable conductivity. They consist in a clear sleeve with three sealing/solder rings that melt at about the same temperature. They come in different sizes to accommodate wire gauges ranging from 0.35 mm<sup>2</sup> to 4 mm<sup>2</sup>.

Listed below are the part numbers for the connectors in the kit, the connector number listed in the electrical section of the wiring diagrams, a description of where the connector is located in the vehicle, which extractor is used and the model the connector is used in.

| SPARE P/N | MASERATI<br>TECHNICAL<br>DOC. # | DESCRIPTION                                         | EXTRACTOR<br>P/N        | M156 | M157 |
|-----------|---------------------------------|-----------------------------------------------------|-------------------------|------|------|
| 673004787 | P012                            | Latch - Liftgate                                    | 673004780               | X    | X    |
| 673004788 | G001                            | LH Headlamp                                         | 673004780+<br>673004783 | X    | X    |
| 673004788 | G002                            | RH Headlamp                                         | 673004780+<br>673004783 | X    | X    |
| 673004789 | D016                            | Engine compartment service -<br>front bumper (MALE) | 673004780+<br>673004783 | X    | X    |
| 673004790 | K001                            | Intelligent Battery Sensor (IBS)                    | 673004781               | X    | X    |
| 673004790 | P011                            | Latch - Fuel lid                                    | 673004781               | /    | X    |

| SPARE P/N | MASERATI<br>TECHNICAL<br>DOC. # | DESCRIPTION                                                  | EXTRACTOR<br>P/N                        | M156 | M157 |
|-----------|---------------------------------|--------------------------------------------------------------|-----------------------------------------|------|------|
| 673004791 | D024.A                          | Driver seat harness in-line connection                       | 673004782 +<br>673004784 +<br>673004778 | X    | X    |
| 673004791 | D030                            | Rear seat LH harness in-line connection                      | 673004782 +<br>673004784 +<br>673004778 | X    | /    |
| 673004792 | D027                            | Front LH seat harness in-line connection                     | 673004784+<br>673004781                 | X    | X    |
| 673004793 | D025.A                          | Passenger seat harness in-line connection                    | 673004782 +<br>673004784                | X    | X    |
| 673004793 | D029                            | Rear seat RH harness in-line connection                      | 673004782 +<br>673004784                | X    | X    |
| 673004793 | D018                            | Rear passenger door - Rear left door carrier connection      | 673004782 +<br>673004784 +<br>673004778 | X    | X    |
| 673004793 | D019                            | Rear passenger door - Rear right door panel harness          | 673004782 +<br>673004784 +<br>673004778 | X    | X    |
| 673004793 | D014                            | Front Driver Door - Front Driver Door Panel connection       | 673004782 +<br>673004784 +<br>673004778 | X    | X    |
| 673004793 | D015                            | Front Passenger Door - Front Passenger Door Panel connection | 673004782 +<br>673004784 +<br>673004778 | X    | X    |
| 673004794 | D024.B                          | Driver seat harness in-line connection                       | 673004782 +<br>673004784 +<br>673004778 | X    | X    |
| 673004794 | D003.B                          | Dashboard - Body connection                                  | 673004782 +<br>673004784 +<br>673004778 | X    | X    |
| 673004795 | D016                            | Engine compartment service - front bumper (FEMALE)           | 673004780                               | X    | X    |
| 673004796 | D017                            | Rear cable - rear bumper (MALE)                              | 673004780                               | X    | X    |
| 673004797 | D017                            | Rear cable - rear bumper (FEMALE)                            | 673004780                               | X    | X    |
| 673004798 | H003                            | License lamp                                                 | 673004784                               | X    | X    |
| 673004799 | D032                            | Wiping harness in-line connection                            | 673004782 +<br>673004784                | X    | X    |

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| SPARE P/N | MASERATI<br>TECHNICAL<br>DOC. # | DESCRIPTION                                              | EXTRACTOR<br>P/N        | M156 | M157 |
|-----------|---------------------------------|----------------------------------------------------------|-------------------------|------|------|
| 673004800 | G005                            | Center high mounted stop lamp                            | /                       | X    | X    |
| 673004801 | K022                            | Sensor - Parking aid (Internal front LH)                 | 673004781               | X    | X    |
| 673004801 | K023                            | Sensor - Parking aid (Internal front RH)                 | 673004781               | X    | X    |
| 673004804 | K044                            | Sensor - Oxygen (Precatalyst)                            | 673004784+<br>673004781 | X    | X    |
| 673004804 | K046                            | Sensor - 2nd Oxygen (Precatalyst)                        | 673004784+<br>673004781 | X    | X    |
| 673004805 | J009.A                          | Bonnet ajar switch                                       | 673004778               | X    | X    |
| 673004805 | J009.B                          | Bonnet ajar switch                                       | 673004778               | /    | X    |
| 673004805 | S002.B                          | Door loudspeaker (Front LH) High Premium                 | 673004778               | X    | X    |
| 673004805 | S003.B                          | Door loudspeaker (Front RH) High Premium                 | 673004778               | X    | X    |
| 673004805 | S004.B                          | Door loudspeaker (Rear LH) High Premium                  | 673004778               | X    | X    |
| 673004805 | S005.B                          | Door loudspeaker (Rear RH) High Premium                  | 673004778               | X    | X    |
| 673004806 | G006                            | Liftgate lamp M157 (LH)                                  | 673004778               | /    | X    |
| 673004806 | G007                            | Liftgate lamp M157 (RH)                                  | 673004778               | /    | X    |
| 673004807 | G003                            | LH Tail lamp (M157)                                      | 673004778               | /    | X    |
| 673004807 | G004                            | RH Tail lamp (M157)                                      | 673004778               | /    | X    |
| 673004808 | K045                            | Sensor - Oxygen (Post catalyst)                          | 673004779               | X    | X    |
| 673004808 | K047                            | Sensor - 2nd Oxygen (Post catalyst)                      | 673004779               | X    | X    |
| 673004809 | K002                            | Video Parking Aid System (VPAS) / Rear View Camera (RVC) | 673004780+<br>673004783 | X    | X    |
| 673004810 | H001                            | Foot lamp (Front Driver)                                 | 673004780+<br>673004783 | X    | X    |
| 673004810 | H002                            | Foot lamp (Front Passenger)                              | 673004780+<br>673004783 | X    | X    |
| 673004810 | H004.B                          | Glove Box Ceiling Light Unit (GCLU)                      | 673004780+<br>673004783 | X    | X    |
| 673004811 | B005.B                          | CAN star distribution 125K dashboard                     | 673004781               | X    | X    |

| SPARE P/N                 | MASERATI<br>TECHNICAL<br>DOC. #                  | DESCRIPTION                              | EXTRACTOR<br>P/N        | M156 | M157 |
|---------------------------|--------------------------------------------------|------------------------------------------|-------------------------|------|------|
| 673004811                 | B005.C                                           | CAN star distribution 125K dashboard     | 673004781               | X    | X    |
| 673004811                 | B005.D                                           | CAN star distribution 125K dashboard     | 673004781               | X    | X    |
| 673004811                 | B005.E                                           | CAN star distribution 125K dashboard     | 673004781               | X    | X    |
| 673004812                 | B005.A                                           | CAN star distribution 125K dashboard     | 673004781               | X    | X    |
| 673004813                 | K020                                             | Sensor - Parking (External front LH)     | 673004780+<br>673004783 | X    | X    |
| 673004813                 | K021                                             | Sensor - Parking (External front RH)     | 673004780+<br>673004783 | X    | X    |
| 673004813                 | K024                                             | Sensor - Parking (External Rear LH)      | 673004780+<br>673004783 | X    | X    |
| 673004813                 | K025                                             | Sensor - Parking (External Rear RH)      | 673004780+<br>673004783 | X    | X    |
| 673004813                 | K026                                             | Sensor - Parking (Internal Rear LH)      | 673004780+<br>673004783 | X    | X    |
| 673004813                 | K027                                             | Sensor - Parking (Internal Rear RH)      | 673004780+<br>673004783 | X    | X    |
| 673004813                 | K028                                             | Sensor - Parking aid (Front LH)          | 673004780+<br>673004783 | X    | X    |
| 673004813                 | K029                                             | Sensor - Parking aid (Front RH)          | 673004780+<br>673004783 | X    | X    |
| 673004814                 | L001                                             | Front left shock absorber valve          | 673004780               | X    | X    |
| 673004814                 | L002                                             | Front right shock absorber valve         | 673004780               | X    | X    |
| 673004814                 | L005                                             | Rear left shock absorber valve           | 673004780               | X    | X    |
| 673004814                 | L006                                             | Rear right shock absorber valve          | 673004780               | X    | X    |
| 673004815                 | I-CAN 125k 6 Pockets                             | I-CAN 125k 6 Pockets                     | /                       | X    | X    |
| 673004816                 | Nav Brid (10 cm) Fakra Connectors Z-Polarization | Nav Brid Fakra Connectors Z-Polarization | /                       | X    | X    |
| 673004802 F + 673004803 M | R001                                             | Antenna Connector                        | /                       | X    | X    |
| 673004802 F + 673004803 M | R009                                             | Antenna Connector                        | /                       | X    | X    |

| SPARE P/N                       | MASERATI<br>TECHNICAL<br>DOCUMENTA<br>TION<br>REFERENCE | DESCRIPTION       | EXTRACTOR<br>P/N | M156 | M157 |
|---------------------------------|---------------------------------------------------------|-------------------|------------------|------|------|
| 673004802 F<br>+ 673004803<br>M | R010                                                    | Antenna Connector | /                | X    | X    |

**NOTE: ALWAYS REFER TO THE ON-LINE TECHNICAL DOCUMENTATION, WHICH IS UPDATED TO REFLECT KIT COMPATIBILITY WITH VEHICLE.**

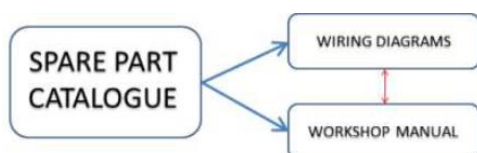
## 2. TECHNICAL DOCUMENTATION (from Update 129)

### 2.1 REPAIR APPROACHES

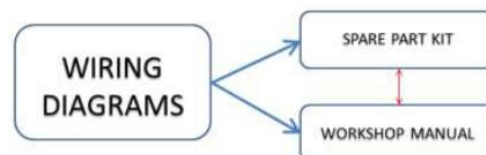
Introducing the starter kit required certain significant changes to technical documentation. The Workshop Manual, Flat Rate Times and Spare Parts Catalog sections are now linked to the Electrical System section, and users may browse through all parts of the documentation. This means users can look up the documentation in either of two ways:

- ✓ direct access: when users know the part number of a repair kit available to order or included in the starter kit, they may access technical documentation directly from the spare parts catalogue;
- ✓ indirect access: when users do not know the part number of a repair kit, they need to refer to the technical documentation and look up:
  - diagrams: starting with the set of connectors on each individual wiring harness (subsection Electrical System);
  - alphabetical list of Connectors (subsection Electrical System)

Here, users can determine which connectors may be repaired and ordered from the spare parts catalog.



**Direct Access**



**Indirect Access**

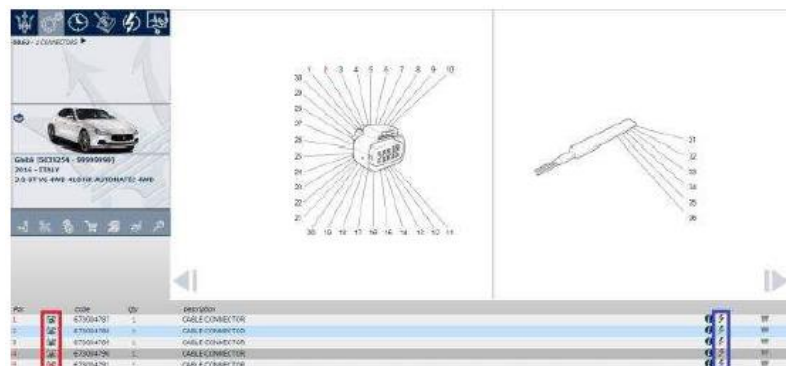
The introduction of the CONNECTOR REPLACEMENT STARTER KIT also required the addition of a new section to the Maserati technical documentation available on MODIS CS+:

## 08.62 – CONNECTORS



### TECHNICAL DOCUMENTATION SECTION

When users access section 08.62 of the spare parts catalog, a list of the items (part numbers) included in the case presently and of those that will be added in the future is displayed. Clicking the photo icon (marked in red) on the left of a part number displays a picture of the connector included in the kit.



### SPARE PARTS CATALOG

A new icon – marked in blue has been added to give direct access to the Electrical System section. Here, users will find a list of the vehicle applications that can be repaired using that connector.



## LIST OF APPLICATIONS OF A SPARE PART

Clicking the icon identified with "A" gives access to the corresponding section of the Spare Parts Catalog; clicking the icon identified with "B" returns users to the Workshop Manual.

## FLAT RATE TIMES

The screenshot shows a software interface with a sidebar on the left containing a car icon and vehicle information: VIN 00000000000000000000, 2016 - ITALY, 3.0 BT V6 4WD 410 HP AUTOMATIC 4WD. The main area displays a diagram of a cable connector with pins numbered 1 through 30. To the right of the diagram is a diagram of a cable with pins numbered 31 through 36. Below the diagrams is a table with the following data:

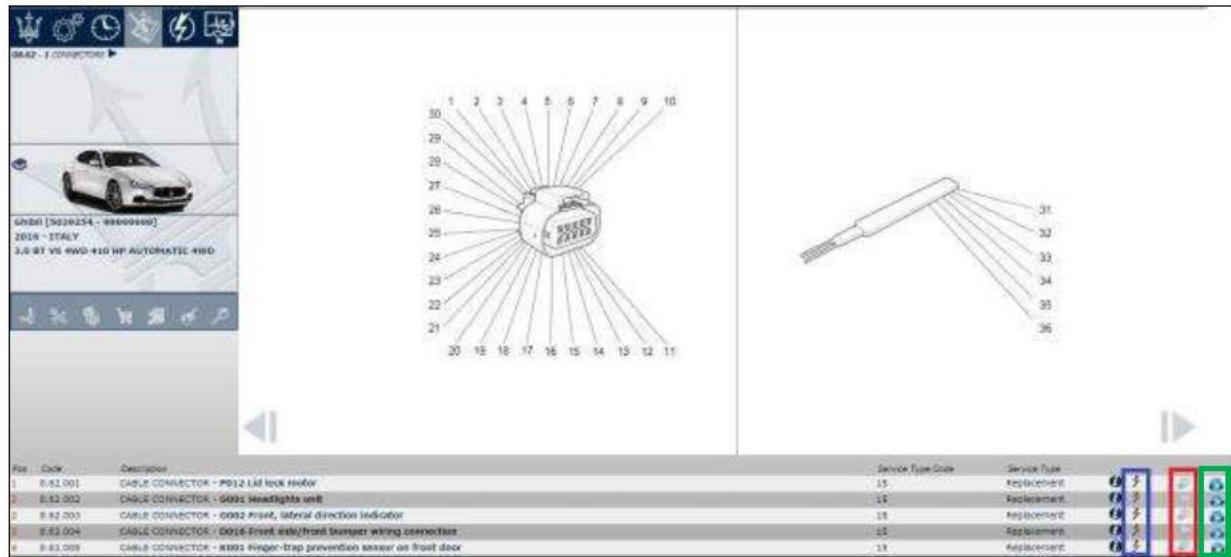
| Pos. | Auto component | Time | Description of Auto component          | Service Type Code | Service Type             |
|------|----------------|------|----------------------------------------|-------------------|--------------------------|
| 1    | 0.02.001.0     |      | CABLE CONNECTOR - P012 L&R lock master | 15                | Replacement COMPLETE CAR |
| 2    | 0.02.002.0     |      | CABLE CONNECTOR - 0001 (T) Headlamp    | 18                | Replacement COMPLETE CAR |
| 3    | 0.02.003.0     |      | CABLE CONNECTOR - 0002 RT Headlamp     | 18                | Replacement              |

On the right side of the table, there are two circular icons labeled "A" and "B".

## FLAT RATE TIMES

Just like the previous section, the Flat Rate Times section is also accessible using the icons marked in blue and includes links to the Electrical System section, however only to the selected application. Flat rates reported in this section include the time required to gain access to a connector in the vehicle and repair time.

## WORKSHOP MANUAL



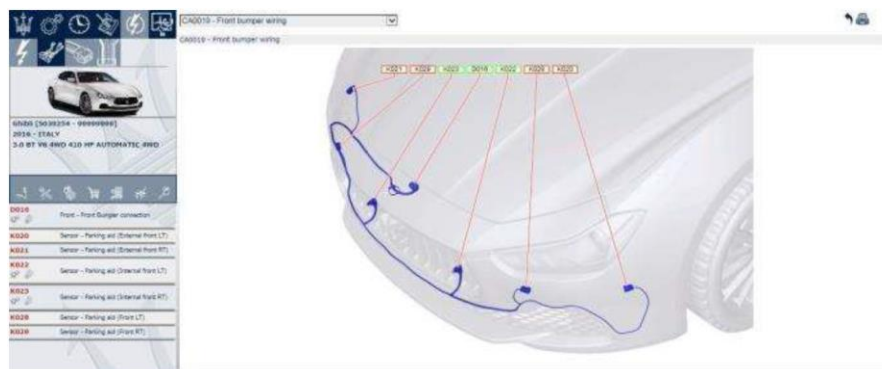
## WORKSHOP MANUAL

Just like the Spare Parts Catalog, the Workshop Manual offers direct access to the Electrical System section through the icons marked in blue, and to the repair procedure for a specific connector through the icons marked in red. The procedure includes the instructions to gain access to that connector and a procedure to replace and solder terminals.

Links to a tutorial video on how to repair connectors are marked in "Green" on the right.

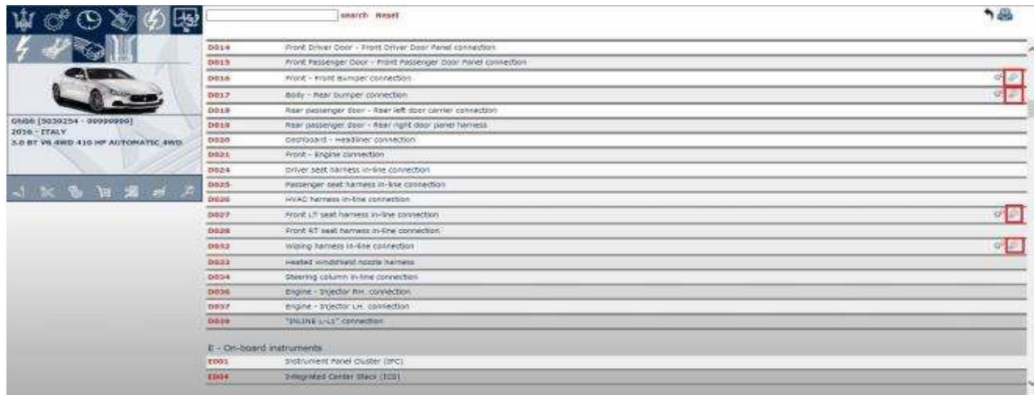
## ELECTRICAL SYSTEM

The graphic layout of the Electrical System section has been updated. It is now possible to determine at a glance which applications have a repair kit. This is shown by a green outline around the part number of the connection when the desired wiring is selected in section "WIRES".



## IDENTIFICATION OF REPAIR KITS

When section “CONNECTORS” is selected, icons marked in red identify those connections for which a procedure is available in the Workshop Manual, which means that a repair kit is available as well.



## LIST OF CONNECTORS

Clicking one of the applications opens the window shown with a PINOUT diagram for the connector.



## PINOUT DIAGRAM

**NOTE:** Maserati does not allow any repairs to airbag system wiring harnesses, connectors or terminals. If any damage is found on an airbag harness, connector or wire terminal, it must be replaced.

## ALLOWED REPAIRS / SAFETY RECOMMENDATIONS

At present, it is forbidden to repair (solder) any electrical connections that affect devices involved in the active safety of the vehicle, unless prior express authorisation from Maserati Technical Service is obtained. Maserati forbids repairing wires with wire gauges greater than 4 mm<sup>2</sup>. For full details of repair methods, please read the dedicated Workshop Manual section.

**Safety Notice**

This publication's purpose is to provide technical information to individuals in the automotive trade. All test and repair procedures must be performed in accordance with the manufacturer's service publications.

All warnings and cautions must be observed for safety reasons. The following is a list of general guidelines:

- Proper service and repair is critical to the safe, reliable operation of all motor vehicles.
- The information in this publication is developed for service personnel and can help when diagnosing and performing vehicle repairs.
- Some service procedures require the use of special tools. These tools must be used as recommended throughout the publications of the Maserati Service Department and Service Personnel must adhere to all applicable usage instructions and tool manufacturer specifications.
- Always use proper personal protection equipment (PPE) such as safety goggles, safety shoes and safety gloves when necessary. Improper service methods can result in bodily injury and/or death.

Your attention and care is the way to ensure that customers enjoy the best possible driving experience and to demonstrate our passion for building unique vehicles that convey style and driving performance.

Please review this information with your staff and, if you have any questions contact your Aftersales Business Manager or Maserati Technical Support.

Thank you for your cooperation.

Maserati North America, Inc.  
Aftersales Department