

# NIT USER MANUAL: NAR version



AUTOMOTIVE  
MOTORSPORT  
AEROSPACE & DEFENCE  
RAILWAYS

Step forward with us

15/07/2021 - REV.2.0

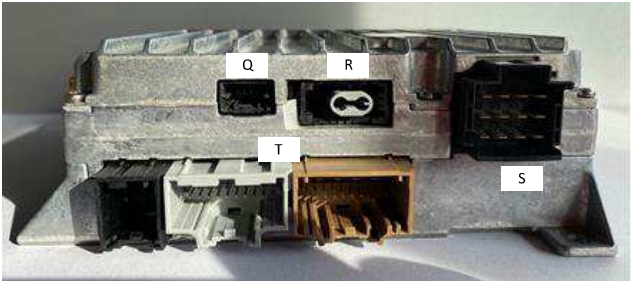
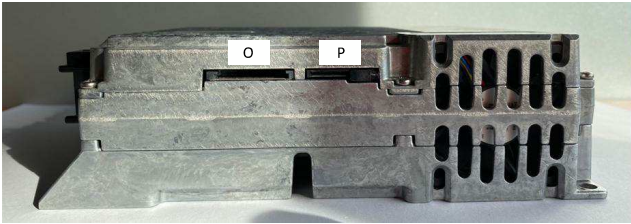
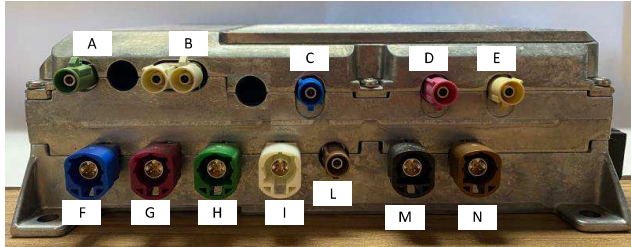
# INTRODUCTION

The **NIT** is a control unit designed to manage typical infotainment functions of a vehicle. It is designed to manage up to 3 output display and 3 input video sources, so it can concentrate even additional functions, like Park Assistance, Telemetry, Passenger display, HVAC and other vehicle settings. The specific features of **NIT** are:

1. Radio – Multi standard Radio receiver function.
2. Navigation – Map navigation.
3. Media – Multimedia player for audio and video contents.
4. Phone – Management of a BT connected phone to make phone calls and access phone address book.
5. Smartphone Projection – Management of Apple CarPlay and Android Auto functionality, for smartphone which support these types of connection the vehicle infotainment system.
6. Comfort Settings – Management of HVAC and seat adjustment.
7. Telemetry Interface – Management of an external ECU for Telemetry application.
8. Park Assistance Interface – Management of an external ECU or Camera for Park assistance.
9. Voice recognition – Management of main **NIT** controls via voice commands.
10. Vehicle Setting – Management of Vehicle setup.

# PRODUCT OVERVIEW

## EXTERNAL CONNECTION



ID	FUNCTIONALITY	COLOR
Connector A	SDARS antenna	GREEN
Connector B	AM/FM antenna	WHITE
Connector C	GPS antenna	BLUE
Connector D	Wi-Fi antenna	PINK
Connector E	BLUETOOTH antenna	BEIGE
Connector F	NDR DISPLAY video out	BLUE
Connector G	NDP DISPLAY video out	PINK
Connector H	NQS DISPLAY video out	GREEN
Connector I	TELEMETRY CAMERA-1 video in	WHITE
Connector L	RCAM video in	GREEN
Connector M	TELEMETRY CAMERA-2 video in	BLACK
Connector N	USB connector	BROWN
Connector O	SD_CARD slot	BLACK
Connector P	Not used	BLACK
Connector Q	ETHERNET connector	BLACK
Connector R	MOST connector	BLACK
Connector S	AUDIO connector *	BLACK
Connector t	MAIN connector	BLACK

\* Audio connector Pinout

PIN N°	Function
1	Speaker: Front Left +
2	Speaker: Rear Left +
3	Speaker: Front Left -
4	Speaker: Rear Left -
5	Speaker: Front Right +
6	Speaker: Rear Right +
7	Speaker: Front Right -
8	Speaker: Rear Right -
9	Speaker: center left +
10	Speaker: center left -
11	Speaker: center right +
12	Speaker: center right -

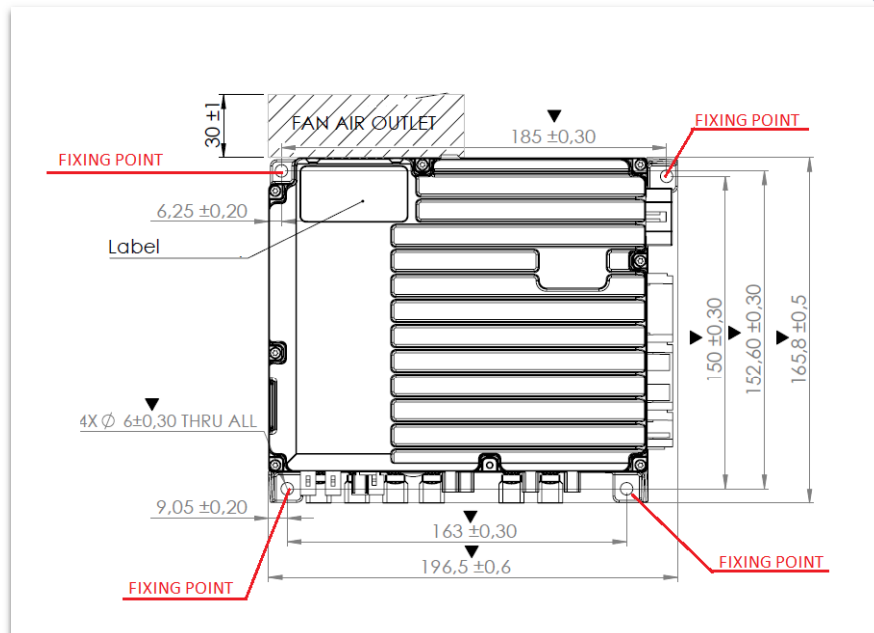


# TECHNICAL INFORMATIONS



## TECHNICAL FEATURES

Parameter	Value
Supply Voltage [Vdc]	12
Maximum current drawn [A]	9
Operating range [°C]	-40 / +85
Protection grade [ISO20653]	IP5K0
Overall size [mm]	196,5 x 165,8 x 58,87
Bluetooth: frequencies	2,4-2,4835GHz
Bluetooth: Maximum output power	0,01W
Bluetooth: Modulations	GFSK,DQPSK, 8PSK
GPS: Frequencies	1575,42MHz,1602MHz,1561MHz
WLAN: Frequencies	2,4 – 5GHz
WLAN: Maximum output power	0,39W (2,412-2,472GHz)



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and  
(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:  
—Reorient or relocate the receiving antenna.  
—Increase the separation between the equipment and receiver.  
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.  
—Consult the dealer or an experienced radio/TV technician for help.

## PRODUCT INSTALLATION

**NIT is mounted inside the vehicle cockpit; user have not access to the NIT mechanical box.**

### INSTALLATION SCREWS AND TIGHTENING TORQUE:

**Use 4 Screws M5 Class 6.8 (Iso 898/I) And Washers. Installation Torque 4.5 Nm. Use Self-locking System. The fixing points are reported on the picture on the right.**

**ART**  
ADVANCED SOLUTION

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