

ReliaCOR 40-13

**Fanless Edge IPC for Industrial Applications
Up to 13th Intel Core i9**

EN

Hardware Manual

Original instructions

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**FOR SAFE AND PROPER USE,
FOLLOW THESE INSTRUCTIONS.
KEEP THEM FOR FUTURE REFERENCE.**

Intended audience of this document

This document is intended for **system integrators**. System integrator is a term applied to skilled persons who are specialized in linking together, physically or functionally, different computing systems and software applications to operate as a coordinated whole in compliance with the applicable regulations.

Skilled person is a term applied to persons who have training or experience in the equipment technology, particularly in knowing the various energies and energy magnitudes used in the equipment. Skilled persons are expected to use their training and experience to recognize energy sources capable of causing pain or injury and to take action for protection from injury from those energies. Skilled persons should also be protected against unintentional contact or exposure to energy sources capable of causing injury.

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Revision history

Revision	Description	Date of Issue
1-0-CU2	Release 1-0-CU2	2024.08.28



GETTING STARTED

To get started with the ReliaCOR 40-13:

1. Obey the instructions and warnings contained in this Hardware Manual

To lower the risk of personal injury, electric shock, fire, or damage to the equipment, obey the instructions and warnings contained in this manual.

For more information, refer to: "Safety instructions" on page 7.

If you have questions about these instructions, refer to: <https://www.eurotech.com/support>.

2. Know the ReliaCOR 40-13 and its interfaces

For more information, refer to:

- "Product overview" on page 17
- "Technical specifications" on page 21
- "Interfaces overview" on page 29

3. Install the ReliaCOR 40-13

For more information, refer to:

- "Product power supply requirements" on page 41
- "Product installation" on page 43
- "Mechanical specifications" on page 48

4. Start developing your IoT applications

The ReliaCOR 40-13 supports the Eurotech Everyware Software Framework (ESF). ESF is a smart application container that enables remote management of IoT gateways and gives a wide range of APIs allowing you to write and deploy your own IoT application.

For more information, refer to:

- "Eurotech Everyware IoT" on page 52
- <http://esf.eurotech.com/docs>.

CONTENTS

<i>Intended audience of this document</i>	2
<i>Manufacturer information</i>	2
<i>Trademarks</i>	2
<i>Revision history</i>	2
Getting started	3
Contents	4
1 Safety instructions	7
1.1 Important information	8
1.2 Explanation of messages	8
1.3 Power supply safety instructions	9
1.3.1 <i>What to do before you supply power to the product</i>	9
1.4 Battery safety instructions	10
1.5 Product handling safety instructions	10
2 Consignes de sécurité	11
2.1 Informations importantes	12
2.2 Explication des messages	12
2.3 Instructions de sécurité pour l'alimentation électrique	13
2.3.1 <i>Que faire avant d'alimenter le produit en électricité</i>	13
2.4 Instructions de sécurité pur la batterie	14
2.5 Instructions de sécurité pour la manipulation du produit	14
3 Technical terms and graphical symbols	15
3.1 Technical terms (acronyms, abbreviations)	16
3.2 Graphical symbols	16
4 Product overview	17
4.1 Product description	18
4.2 Intended use and not allowed uses of the product	20
4.2.1 <i>Deterministic output notice</i>	20
4.2.2 <i>Intended use</i>	20
4.2.3 <i>Not allowed uses</i>	20
4.3 Technical specifications	21
4.3.1 <i>Hardware technical specifications</i>	21
4.3.2 <i>Software technical specifications</i>	22
5 Certifications	23
5.1 CE marking	24
5.1.1 <i>Safety</i>	24
5.1.2 <i>RoHS 3 compliance</i>	24
5.1.3 <i>Packaging and packaging waste</i>	24
5.1.4 <i>Product disposal and recycling</i>	24
5.1.5 <i>Electromagnetic compatibility</i>	24
5.2 REACH compliance	25
5.3 FCC compliance	26
5.3.1 <i>FCC marking</i>	26
5.3.2 <i>FCC compliance: Class B Digital Device</i>	26
5.4 ISED Canada compliance	27
5.4.1 <i>ISED compliance: Class B Digital Device</i>	27
5.4.2 <i>Responsible parties: Canadian Representative contact information</i>	27
5.5 IEC 62443 (cybersecurity)	28



5.5.1 Documents related to IEC 62443	28
5.5.2 Cybersecurity and product life-cycle	28
6 Interfaces overview	29
6.1 Front side interfaces overview	30
6.2 Service Panel and Service Interfaces overview	31
6.2.1 Anti-Tamper Function	31
6.2.2 Service Interfaces overview	31
6.2.3 How to remove the Front Panel and the Service Panel cover	32
6.2.4 How to reinstall the Service Panel cover and the Front Panel	33
6.2.5 How to replace the CMOS battery	34
6.3 Rear side interfaces overview	36
7 Interfaces in detail	37
7.1 Serial Ports connectors	38
7.1.1 Serial Ports connectors specifications	38
7.2 CAN connectors	39
7.2.1 CAN connectors specifications	39
7.3 Digital I/Os connector	39
7.3.1 Digital I/Os connector specifications	39
7.4 Remote Power Switch connector	40
7.4.1 Remote Power Switch connector specifications	40
8 Product power supply requirements	41
8.1 Power specifications	42
8.2 Power IN connector specifications	42
8.3 Guidelines about the power supply cables to use	42
9 Product installation	43
9.1 Transporting the product	44
9.1.1 Avoid heavy shocks and vibrations	44
9.1.2 Avoid condensation	44
9.2 Unpacking the product	44
9.3 Installing the product	45
9.4 Connecting the peripheral devices	46
9.5 Supplying power, turning ON/OFF the product	46
9.5.1 What to do before you supply power to the product	46
9.5.2 Supplying power and turning ON the product	47
9.5.3 Turning OFF the product	47
10 Mechanical specifications	48
10.1 Product enclosure specifications and mechanical dimensions	49
11 Product maintenance	50
11.1 How to maintain the product	51
12 Eurotech Everywhere IoT	52
12.1 Everywhere IoT	53
12.2 Everywhere Cloud (EC)	53
12.3 Everywhere Software Framework (ESF)	53
12.3.1 ESF reference port	54
13 Product decommissioning	55
13.1 What is the decommissioning process	56
13.2 How to do the decommissioning	56



Notes **57**



1 SAFETY INSTRUCTIONS

This chapter gives the following information:

- 1.1 Important information 8
- 1.2 Explanation of messages 8
- 1.3 Power supply safety instructions 9
- 1.4 Battery safety instructions 10
- 1.5 Product handling safety instructions 10



1.1 Important information

For safe and proper use, obey these instructions. Keep them for future reference.

Failure to obey these instructions, violates the standards of safety, design, manufacture, and intended use of the product.





Eurotech assume no liability for damages caused by failure to obey these instructions.

If you have questions about these instructions, refer to: <https://www.eurotech.com/support>.

Additional safety-related information is given in the following sections.

1.2 Explanation of messages

This Hardware Manual uses these messages:

	<p style="text-align: center;">DANGER</p> <p>Indicates a hazardous situation that, if not avoided, will result in death or serious injury. Indicates how to avoid the hazardous situation.</p>
	<p style="text-align: center;">WARNING</p> <p>Indicates a hazardous situation that, if not avoided, could result in death or serious injury. Indicates how to avoid the hazardous situation.</p>
	<p style="text-align: center;">CAUTION</p> <p>Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury. Indicates how to avoid the hazardous situation.</p>
	<p style="text-align: center;">NOTICE</p> <p>Used to address practices not related to physical injury.</p>



1.3 Power supply safety instructions



WARNING

Some electronic components may retain electrical energy even after the power supply sources are disconnected. Risk of electrical discharge and personal injury.

Always make sure that all the power supply sources are disconnected and all the circuits are fully discharged before servicing.



WARNING

The power cable remains energized even when disconnected from the product. Risk of electric shock and personal injury.

Always make sure that all the power supply sources are disconnected and all the circuits are fully discharged before servicing.



WARNING

Failure to supply power correctly could result in risk of electric shock and personal injury, and could damage the equipment or other property.

Refer to "[What to do before you supply power to the product](#)" below.

1.3.1 What to do before you supply power to the product

Before you supply power to the product, obey the following safety instructions:

- Make sure that you have understood any instructions for safety, installation, and for operation
- Make sure that your hands are dry
- Make sure that all the cables to use:
 - meet the product requirements and comply with the relevant standards and regulations
 - are in good condition
 - are placed with care
 - are not placed where they may be trampled or compressed
- Make sure that all power-points and plugs:
 - are in good condition
 - are not overloaded
- Make sure that the product has a proper grounding connection
- Make sure that the power supply source meets the product requirements and complies with the relevant standards and regulations
- Make sure that the product installation is made correctly and in compliance with the relevant standards and regulations
- Make sure that you supply power only after the product installation is completed.

If you have questions about these instructions, refer to: <https://www.eurotech.com/support>.

1.4 Battery safety instructions



WARNING

If the battery is used incorrectly it can explode, leak, and can cause injury.
To avoid these risks, refer to **"How to safely use the battery"** below.

1.4.0.1 How to safely use the battery

To safely use the battery, obey the instructions that follow:

- Obey the battery manufacturer's instructions for safety
- Replace the battery only with correct size and type
- Insert the battery with the plus (+) and minus (-) terminals aligned correctly
- Do not recharge the battery
- Do not disassemble the battery
- Do not put the battery in short-circuit
- Do not discard the battery in fire
- To discard the used battery, refer to the local laws and regulations.

1.5 Product handling safety instructions



CAUTION

If the product is used at high temperatures, its surfaces become hot. Burn hazard.
Always make sure that the product's surfaces are sufficiently cool before you touch them.



2 CONSIGNES DE SÉCURITÉ

Ce chapitre fournit les informations suivantes:

2.1 Informations importantes	12
2.2 Explication des messages	12
2.3 Instructions de sécurité pour l'alimentation électrique	13
2.4 Instructions de sécurité pur la batterie	14
2.5 Instructions de sécurité pour la manipulation du produit	14



2.1 Informations importantes

Pour une utilisation sûre et correcte, suivez ces instructions. Conservez-les pour référence ultérieure.

Le non-respect de ces instructions constitue une violation des normes de sécurité, de conception, de fabrication et d'utilisation prévue du produit.





Eurotech rejette toute responsabilité pour les dommages causés en cas de non-respect de ces instructions.

En cas de doutes sur ces instructions, consultez le site: <https://www.eurotech.com/support>.

Des informations supplémentaires liées à la sécurité sont fournies dans les chapitres suivants.

2.2 Explication des messages

Ce manuel utilise les messages suivants:

	<p style="text-align: center;">DANGER</p> <p>Indique une situation dangereuse qui, si elle n'est pas évitée, entraînera la mort ou un préjudice grave. Indique comment éviter la situation dangereuse.</p>
	<p style="text-align: center;">AVERTISSEMENT</p> <p>Indique une situation dangereuse qui, si elle n'est pas évitée, pourrait entraîner la mort ou un préjudice grave. Indique comment éviter la situation dangereuse.</p>
	<p style="text-align: center;">ATTENTION</p> <p>Indique une situation dangereuse qui, si elle n'est pas évitée, pourrait entraîner un préjudice mineur ou modéré. Indique comment éviter la situation dangereuse.</p>
	<p style="text-align: center;">AVIS</p> <p>Utilisé pour traiter les pratiques non liées à des blessures physiques.</p>

2.3 Instructions de sécurité pour l'alimentation électrique



AVERTISSEMENT

Certains composants électroniques peuvent conserver de l'énergie électrique même après que les sources d'alimentation aient été déconnectées. Risque de décharge électrique et de blessures corporelles.

Assurez-vous toujours que toutes les sources d'alimentation sont déconnectées et que tous les circuits sont complètement déchargés avant toute intervention.



AVERTISSEMENT

Le câble d'alimentation reste sous tension même lorsqu'il est débranché du produit. Risque de choc électrique et de blessures corporelles.

Assurez-vous toujours que toutes les sources d'alimentation sont déconnectées et que tous les circuits sont complètement déchargés avant toute intervention.



AVERTISSEMENT

Ne pas fournir correctement l'électricité peut causer un risque de choc électrique, des blessures personnelles, et endommager l'équipement ou d'autres biens.

Référez-vous à la section "[Que faire avant d'alimenter le produit en électricité](#)" ci-dessous.

2.3.1 Que faire avant d'alimenter le produit en électricité

Avant d'alimenter le produit, respectez les consignes de sécurité suivantes:

- Assurez-vous d'avoir bien compris toutes les instructions relatives à la sécurité, à l'installation et au fonctionnement.
- Assurez-vous que vos mains soient sèches
- Assurez-vous que tous les câbles à utiliser:
 - soient conformes aux exigences du produit et aux normes et réglementations en vigueur
 - soient en bon état
 - soient placés avec soin
 - ne soient pas placés dans des endroits où ils peuvent être piétinés ou compressés
- Assurez-vous que toutes les prises de courant et les connecteurs d'alimentation:
 - soient en bon état
 - ne soient pas surchargés
- Assurez-vous que le produit soit correctement relié à la terre
- Assurez-vous que la source d'alimentation électrique réponde aux exigences du produit et soit conforme aux normes et réglementations en vigueur
- Assurez-vous que l'installation du produit soit effectuée correctement et en conformité avec les normes et réglementations en vigueur
- Assurez-vous de ne fournir l'alimentation qu'une fois l'installation du produit terminée.

En cas de doutes sur ces instructions, veuillez consulter le site: <https://www.eurotech.com/support>.

2.4 Instructions de sécurité pur la batterie



AVERTISSEMENT

Si la batterie est utilisée de manière incorrecte elle peut exploser, couler, ou causer des dommages.

Pour éviter ce phénomène dangereux, voir "[Comment utiliser la batterie en toute sécurité](#)" ci-dessous.

2.4.0.1 *Comment utiliser la batterie en toute sécurité*

Pour utiliser la batterie en toute sécurité, suivez ces instructions:

- Vérifier que vous avez bien compris les instructions de sécurité du fabricant de la batterie
- Remplacer la batterie uniquement par une batterie de dimension et de type corrects
- Insérer la batterie avec les terminaux plus (+) et moins (-) correctement alignées
- Ne pas recharger la batterie
- Ne pas démonter la batterie
- Ne pas court-circuiter la batterie
- Ne pas jeter la batterie au feu
- Jeter la batterie usagée au rebut conformément aux lois et réglementations locales.

2.5 Instructions de sécurité pour la manipulation du produit



ATTENTION

Si le produit est utilisé à des températures élevées, ses surfaces deviennent chaudes. Risque de brûlure.

Assurez-vous toujours que les surfaces du produit sont suffisamment froides avant de les toucher.



3 TECHNICAL TERMS AND GRAPHICAL SYMBOLS

This chapter gives the following information:

3.1 Technical terms (acronyms, abbreviations) 16
3.2 Graphical symbols 16



3.1 Technical terms (acronyms, abbreviations)

The following technical terms (acronyms, abbreviations) can be used in this manual:

Les termes techniques suivants (acronymes, abréviations) peuvent être utilisés dans ce manuel:

Term Terme	Meaning Signification
GND	Ground <i>Masse</i>
+	Positive signal; Positive signal in differential pair <i>Signal positif ; signal positif dans la paire différentielle</i>
-	Negative signal; Negative signal in differential pair <i>Signal négatif ; Signal négatif dans la paire différentielle</i>
I	The signal is an input to the product <i>Le signal est une entrée du produit</i>
O	The signal is an output from the product <i>Le signal est une sortie du produit</i>
IO	The signal may be input or output <i>Le signal peut être une entrée ou une sortie</i>
P	Power and Ground <i>Alimentation et masse</i>
NC	No Connection <i>Absence de connexion</i>
R	Use is reserved to Eurotech <i>L'utilisation est réservée à Eurotech</i>
Reserved	

3.2 Graphical symbols

The following graphical symbols can be used in this manual:

Les symboles graphiques suivants peuvent être utilisés dans ce manuel:

Symbol Symbole	Meaning Signification
	Direct current (DC) <i>Courant continu (CC)</i>
	Protective earth; protective ground <i>Mise à la terre de protection (PE)</i>

4 PRODUCT OVERVIEW

This chapter gives the following information:

4.1 Product description	18
4.2 Intended use and not allowed uses of the product	20
4.3 Technical specifications	21



4.1 Product description

The ReliaCOR 40-13 is a compact, fanless platform that supports a wide range of workloads at the Edge. Designed for industrial use cases, it offers reliable operation thanks to industrial grade ruggedization and a robust power supply.

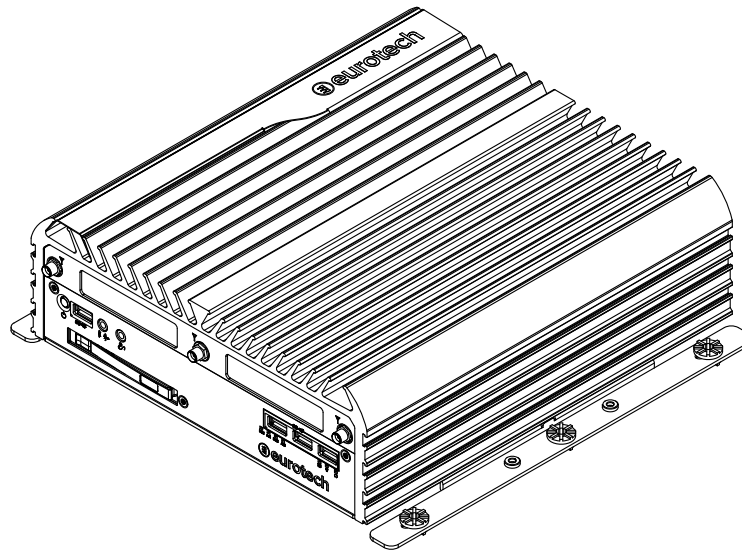


Fig. 1 - The ReliaCOR 40-13

Very compact and power efficient, the ReliaCOR 40-13 can be deployed in dense installations; an optional mounting accessory further increases its versatility. Completely fanless and without ventilation grids, it offers great resilience and reliability even under extreme load.

The ReliaCOR 40-13 features a top-of-line 13th Gen Intel Core i9 CPU, to deliver power efficient computational crunch, with plenty of RAM thanks to a dual SO-DIMM. It offers a very complete set of interfaces, including dual 2.5Gbps Ethernet with TSN support, eight USB3.2 ports (10Gbps each, great for camera input) and two serial ports; thanks to dual universal bays, additional interfaces and devices can be added (such as 4G/5G cellular modules, 2x 10GbE ports, 4x GbE on RJ-45 or M12, with optional PoE, more USB ports). The ReliaCOR 40-13 is also rich in Fieldbus interfaces, with CAN, RS-232/422/485, and isolated Digital I/O lines.

The ReliaCOR 40-13 offers best in class Cybersecurity: it leads the market with ISA/IEC 62443-4-1/-4-2 SL2. Protection starts at the hardware level, with full support for TPM 2.0, Secure Boot and an always-on physical antitampering monitor/logger that is active even when the system is removed from power. For most demanding customers, special production-only images can be configured with full hardware hardening (interface disabling) to further reduce the attack surface.

Eurotech configuration management service offers a simple and fast way to fine tune the ReliaCOR 40-13 to your project requirements. Examples of personalized configurations include custom branding (with logo and custom colors), and can extend to deep customization leveraging the capabilities of the two EdgeBoost Bays for additional expansion modules.

The product comes with [Everyware Software Framework \(ESF\)](#), a commercial, enterprise-ready edition of Eclipse Kura, the open source Java/OSGi middleware for IoT Edge Gateways. Distributed and supported by Eurotech, ESF supports ready-to-use field protocols (including Modbus, OPC-UA, S7), MQTT connectivity, web-based visual data flow programming and deep configuration. ESF is also integrated with [Everyware Cloud \(EC\)](#), Eurotech IoT Integration Platform (separately available), enabling advanced diagnostics, provisioning, and full remote device access and management.



The product can be optionally configured with [Everyware GreenEdge \(EGE\)](#), IoT edge software solution [qualified for AWS IoT Greengrass V2](#). EGE reduces onboarding time with just a few clicks, provides factory-generated trusted identity, seamless southbound connectivity, easy cloud integration and device management while consolidating IoT costs into one AWS bill.

For more information visit www.eurotech.com.



4.2 Intended use and not allowed uses of the product

The product is intended for professional use and must be installed by qualified personnel only.

The product must be installed in a secured location, accessible to authorized personnel only (for example in a cabinet / technical compartment).

The product is designed to be installed on a flat surface, primarily in a horizontal orientation, but it can also be installed in a vertical orientation.

4.2.1 Deterministic output notice

	<p style="text-align: center;">NOTICE</p> <p>This product is not intended to be physically or logically connected to an automation process.</p>
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4.2.2 Intended use

The ReliaCOR 40-13 is a compact, fanless platform that supports a wide range of workloads at the Edge. Designed for industrial use cases, it offers reliable operation thanks to industrial grade ruggedization and a robust power supply.

The ReliaCOR 40-13 must:

- Be installed in a secured location, only accessible to authorized personnel (for example in a cabinet/ technical compartment), and not exposed to atmospheric agents
- Be used indoors in industrial applications
- Be used with appropriate interconnecting and power cables
- Be used with an external DC power supply source that meets the requirements stated on the identification label of the product

4.2.3 Not allowed uses

Do not use the ReliaCOR 40-13:

- In automotive applications
- In railway applications
- In defense applications
- Outdoors
- In safety-critical applications
- In environments with potentially explosive atmospheres
- If not installed according to the instructions and warnings contained in this document.



4.3 Technical specifications

The ReliaCOR 40-13 family includes several ordering codes (product variants):

Ordering code (product variant) = RECOR-40-13-xx-yy

-xx identifies the hardware variant

-yy identifies the software variant

The ReliaCOR 40-13 family has the following hardware and software technical specifications:

4.3.1 Hardware technical specifications

Ordering Code: RECOR-40-13-xx-yy				
Hardware Variant -xx		-11	-13	-15
PROCESSOR	CPU	Intel Core i5-13500T, 35 W	Intel Core i7-13700TE, 35 W	Intel Core i9-13900TE, 35 W
	Cores	14 Cores: 6 P-cores + 8 E-Cores	16 Cores: 8 P-cores + 8 E-Cores	24 Cores: 8 P-cores + 16 E-Cores
	Threads	20 Threads	24 Threads	32 Threads
	Frequency	1.30 GHz / 4.50 GHz	1.10 GHz / 4.80 GHz	1.10 GHz / 5.00 GHz
MEMORY	RAM	8 GB DDR5	16 GB DDR5	64 GB DDR5
STORAGE	OS Storage	512 GB, M.2 2242 Key B-M, MLC		
	Internal Disk	Factory Option: 2.5" SATA MLC or TLC		
	Data Storage (Removable)	-	1x 960 GB, 2.5" SATA, TLC	1x 1920 GB, 2.5" SATA, TLC
I/O INTERFACES	USB 2.0	2x USB 2.0 (internal)		
	USB 3.0	8x USB 3.2 Gen2 (10 Gbps) 1x USB 3.2 Gen1 (5 Gbps, Internal)		
	Serial	2x RS-232/422/485 DB9		
	CAN	2x CANBus DB9		
	Digital Output	8x Digital OUT (isolated)		
	Digital Input	8x Digital IN (isolated)		
	Audio	1x Mic-in, 1x Line-out		
	1GbE	Factory Option: 4x 1GbE RJ-45 or M12	4x 1GbE RJ-45 (see EDGEBoost Bay #1); Factory Option: 4x 1GbE PoE or M12	
	2.5GbE	2x 2.5 GbE RJ-45, i226 – with TSN, WoL, PXE		
10GbE	Factory option: 2x 10GbE RJ-45		2x 10GbE RJ-45 (see EDGEBoost Bay #2)	
EDGEBOOST BAYS	EdgeBoost Bay #1	Factory Option	Standard: 4x 1GbE RJ-45; Factory Option: 4x 1GbE PoE or 4x 1GbE M12	
	EdgeBoost Bay #2	Factory Option		Standard: 2x 10GbE RJ-45
VIDEO OUTPUT	DisplayPort	2x DisplayPort		
	VGA	Yes		
	DVI-D	Yes		
RADIO INTERFACES	5G	Factory Option		
	LTE 4G	Factory Option		
	GNSS	Factory Option		
	Wi-Fi/BT	Factory Option		
CYBERSECURITY (HW)	TPM	TPM 2.0		
	Antitampering	Yes		
COOLING	Technology	Fanless and Ventless		
POWER	Input	9 to 48 V DC (24 V DC Nominal); Ignition Key Function (not enabled by default)		
	Consumption	60 W	65 W	90 W



Ordering Code: RECOR-40-13-xx-yy				
Hardware Variant -xx		-11	-13	-15
ENVIRONMENT	Operating Temp	-25 to +50°C without external air flow, +65°C with mild external air flow		
	Storage Temp	-30 to +85°C		
	Humidity	10 to 95% Non-condensing		
CERTIFICATIONS	Regulatory	CE, FCC, ISED		
	Cybersecurity	Secure Boot, California SB-327*, Always-on Antitamper Monitor, TPM 2.0, IEC 62443-4-1*/-4-2* SL2		
	Safety	UL 62368-1 (UL-Mark)		
	Cellular	Factory Option		
	Environmental	RoHS3 & REACH		
	Ingress	IP20		
	MECHANICAL	Enclosure	Material: Metal	
	Dimensions	240 x 79 x 261 mm (W x H x D) - Excluding connectors and mounting brackets		

(*) Ongoing

4.3.2 Software technical specifications

Ordering Code: RECOR-40-13-xx-yy						
Software Variant -yy	-04	-05	-07	-08	-10	-12
Ubuntu LTS 22.04 (or later)	✓	✓	✓		✓	✓
Windows 10 IoT Enterprise LTSC (or later)				✓		
Ignition Ready (IPCs) ⁽¹⁾		✓	✓			✓
ESF	✓		✓		✓	✓
AWS IoT Core	✓		✓		✓	✓
AWS IoT Greengrass v2 ⁽²⁾⁽³⁾	✓		✓		✓	✓
Everyware GreenEdge (EGE)	✓		✓		✓	✓
Software Hardening ⁽³⁾					✓	✓

(1) Customers must purchase an Ignition License separately

(2) AWS IoT Greengrass v2 is installed but not enabled by default

(3) AWS IoT Greengrass v2 with Software Hardening: enabling AWS IoT Greengrass v2 on a hardened image requires the customers to run an update of the threat model and review the configuration with an assessor to ensure that it meets IEC 62443-4-2 requirements



5 CERTIFICATIONS

Note about the Declaration of Conformity

Upon request, Eurotech can provide the product Declaration of Conformity.

For more information, refer to: <https://www.eurotech.com/support>.

This chapter gives the following information:

5.1 CE marking	24
5.2 REACH compliance	25
5.3 FCC compliance	26
5.4 ISED Canada compliance	27
5.5 IEC 62443 (cybersecurity)	28



5.1 CE marking

This section applies to all product variants.

This product is CE marked and complies with the essential requirements and other relevant requirements of the directives reported in the following sections.

Eurotech does not approve the use of this product with equipment (for example: power supplies, personal computers, etc.) that is not CE marked and that is not compliant with the requirements specified in this Hardware Manual.



5.1.1 Safety

This product complies with the standard IEC EN 62368-1 on the safety requirements in information and communication technology equipment.

5.1.2 RoHS 3 compliance

This product complies with the following Directives:

- Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- Commission Delegated Directive (EU) 2015/863 as regards the list of restricted substances.

5.1.3 Packaging and packaging waste

This product complies with the Directive 94/62/EC on packaging and packaging waste.

5.1.4 Product disposal and recycling

This product, at the end of its life cycle, must be collected separately and managed in accordance with the provisions of the Directive 2012/19/EU on waste of electrical and electronic equipment (WEEE).

For more information, refer to: "[The WEEE label](#)" below.

5.1.4.1 The WEEE label

This symbol, placed on the product, indicates that the product at the end of its life cycle must be sent to separate collection facilities for recovery and recycling. Because of the substances present in the product, improper disposal can cause damage to human health and to the environment.

For collecting and recycling information, refer to: <https://www.eurotech.com/support>.



5.1.5 Electromagnetic compatibility

This product is manufactured in compliance with the Directive 2014/30/EU on the harmonization of the laws of the Member States relating to electromagnetic compatibility.

Modification statement

Eurotech does not approve any changes or modifications to this product by the user. Any changes or modifications could void the user's authority to operate this product.



5.2 REACH compliance

This product is assessed to be compliant with the regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), with the exceptions allowed by the EU Technical Committee.

Eurotech has set in place a monitoring process to assess compliance to REACH regulation. For details and more information, refer to: <https://www.eurotech.com/support>.



5.3 FCC compliance

This section applies to all product variants.

5.3.1 FCC marking

This product is FCC marked and complies with the regulatory information reported in the following sections.

Eurotech is not responsible for the use of the product together with equipment (for example: power supplies, personal computers, etc.) that are not FCC marked and not compliant with the requirements specified in this instructions for use.

Cet appareil est certifié FCC et est conforme aux exigences réglementaires décrites dans les sections suivantes.

Eurotech n'est pas responsable de l'utilisation de l'appareil avec des équipements (par exemple : alimentations, ordinateurs personnels, etc.) non certifiés FCC et qui ne sont pas conformes aux exigences spécifiées dans ces instructions d'utilisation.

Modification statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Les changements ou modifications qui ne sont pas expressément approuvés par la partie responsable de la conformité peuvent annuler l'autorité de l'utilisateur à utiliser l'équipement.



5.3.2 FCC compliance: Class B Digital Device

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.

Cet appareil est conforme à la partie 15 des règlements de la FCC. L'utilisation est soumise aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.



5.4 ISED Canada compliance

This section applies to all product variants.

This device complies with ISED Canada. 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.

Le présent appareil est conforme aux ISED Canada. L'utilisation est soumise aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement du dispositif.

5.4.1 ISED compliance: Class B Digital Device

ICES-003 Class B Notice - Avis NMB-003, Classe B.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

5.4.2 Responsible parties: Canadian Representative contact information

The Canadian Representative has the following contact information:

Le Représentant Canadien dispose des coordonnées suivantes:

Contact Information	
Company Name	Canadian Certification Consulting, Inc.
Company Number ^(*)	10842A
Company Address	2210 Horizon Drive, Suite 17
City	West Kelowna
Province/State	BC
Postal Code	V1Z 3L4
Country	Canada
Contact Name	Jon Hughes
Title	President
Phone Number	1-250-575-1719
Email	info@can-cert.com

(*) Company Number is issued by Innovation, Science and Economic Development Canada (formerly Industry Canada).

Le numéro d'entreprise est délivré par Innovation, Science et Développement économique Canada (anciennement Industrie Canada).



5.5 IEC 62443 (cybersecurity)

The following sections refer to the ReliaCOR 40-13 configurations that are IEC 63443 4-1 and 4-2 certified for cybersecurity. Any change/ modification of the product requires the reassessment of the cybersecurity certification.

5.5.1 Documents related to IEC 62443

To require the documentation for reassessing or expanding the cybersecurity certification for integration purposes, contact Eurotech Sales Department: sales.it@eurotech.com

5.5.2 Cybersecurity and product life-cycle

Delivery of cybersecurity updates over the duration of the product life-cycle is a Professional Service. For more information, contact Eurotech Sales Department: sales.it@eurotech.com



6 INTERFACES OVERVIEW

This chapter gives the following information:

6.1 Front side interfaces overview	30
6.2 Service Panel and Service Interfaces overview	31
6.3 Rear side interfaces overview	36



6.1 Front side interfaces overview

Note on the torque: set the torque force to 3.5 kgf·cm (0.34 N·m) to loosen/tighten the screws.

The Front side interfaces are as follows:

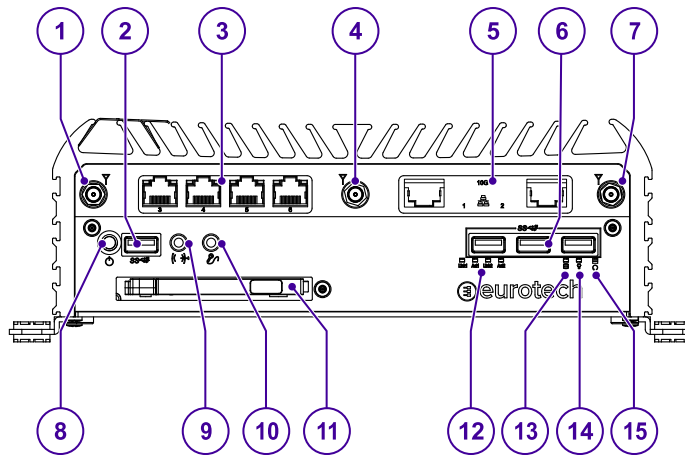


Fig. 2 - Front side interfaces layout

Ref #	Description
1	Antenna Connector Provision (Factory Option)
2	1x USB 3.2 Gen 2 Connector
3	EdgeBoost Bay #1: <ul style="list-style-type: none"> For hardware variants -11: Factory Option For hardware variants -13 and -15: 4x 1GbE PoE R-J45
4	Antenna Connector Provision (Factory Option)
5	EdgeBoost Bay #2: <ul style="list-style-type: none"> For hardware variants -11 and -13: Factory Option For hardware variants -15: 2x 10GbE RJ-45
6	3x USB 3.2 Gen 2 Connector
7	Antenna Connector Provision (Factory Option)
8	ATX Power ON/OFF Pushbutton
9	Line Out Jack
10	Mic-In Jack
11	Removable Data Storage Disk
12	LAN1 and LAN2 Ethernet Status LEDs. Act Status LED: <ul style="list-style-type: none"> Blinking Yellow: Data Activity OFF: No Activity Link Status LED: <ul style="list-style-type: none"> Steady Orange: 2.5 Gbps Network Link Steady Green: 1 Gbps Network Link OFF: 100 Mbps Network Link
13	Data Storage Disk Access Status LED
14	Power Status LED
15	Reset Pushbutton

Tab. 1 - Front side interfaces description

6.2 Service Panel and Service Interfaces overview

The Service Panel **A** is placed on the front side and contains the Service Interfaces. To get access to the Service Panel, you have to remove the Front Panel.

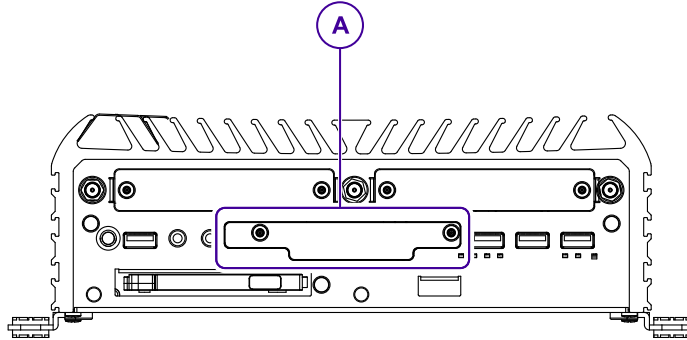


Fig. 3 - Service Panel layout **A** (after you removed the Front Panel)

6.2.1 Anti-Tamper Function

The product is equipped with an anti-tampering detection mechanisms. When the Service Panel Cover is removed, the time-stamp of this event is recorded by the RTC. Additional anti-tampering sensors are integrated into the product to detect intrusion attempts, such as the removal of the bottom cover. The anti-tampering detection remains active even when the product is not powered.

6.2.2 Service Interfaces overview

The Interfaces available in the Service Panel are as follows:

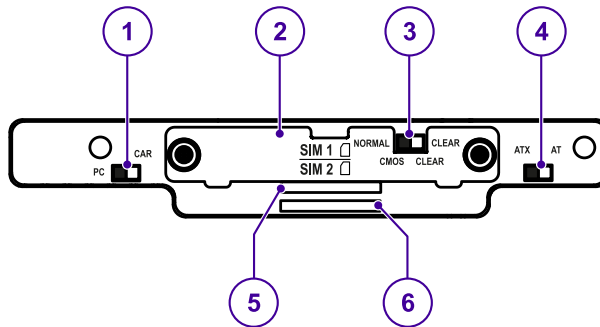


Fig. 4 - Service Interfaces layout

Ref #	Description
1	PC/CAR Mode Select Switch: <ul style="list-style-type: none"> • Left Position: PC Power Mode (Default) • Right Position: Power Ignition Mode (the Ignition Key Function is enabled)
2	CMOS Battery Holder
3	Clear CMOS (BIOS) Switch <ul style="list-style-type: none"> • Left Position: Normal Status (Default) • Right Position: Clear BIOS
4	AT/ATX Mode Select Switch: <ul style="list-style-type: none"> • Left Position: ATX Power Mode (Default) • Right Position: AT Power Mode
5, 6	MicroSIM Push-pull Card Receptacles 1 (Top) and 2 (Bottom) - Factory Option

Tab. 2 - Service Interfaces description



6.2.3 How to remove the Front Panel and the Service Panel cover



NOTICE

The IP rating is not maintained when the Front Panel / the Service Panel cover are removed. Do not use the product for long periods with the Front Panel / the Service Panel cover removed, otherwise dust and other particulates can go into the system. If it is necessary to have the Front Panel / the Service Panel cover removed for long periods, use appropriate precautions to stop the particulates.

Required item: 1x TR8 Torx security screwdriver.

Note on the torque: set the torque force to 3.5 kgf·cm (0.34 N·m) to loosen/tighten the screws.

To remove the Front Panel and the Service Panel cover, complete this procedure:

1. Remove the three Torx screws **A** (M3, L = 8 mm) and remove the Front Panel **B** (Fig. 5 below). The Anti-tamper is triggered: the event is timestamped and recorded by the RTC. For more information, refer to: "[Anti-Tamper Function](#)" on the previous page

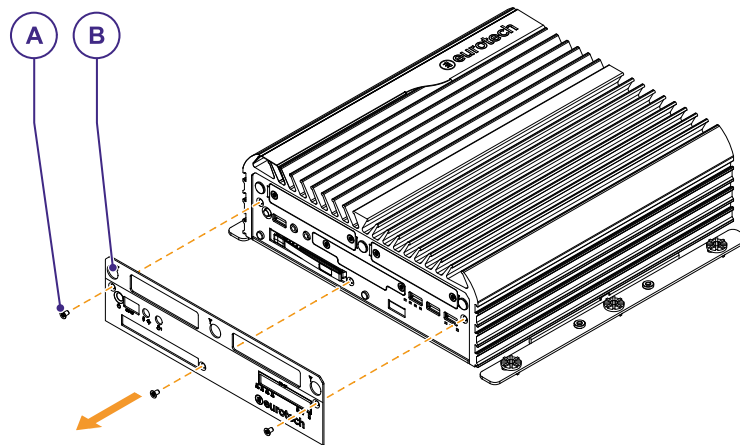


Fig. 5 - Remove the Front Panel **B**

2. Remove the two Torx screws **C** (M3, L = 5 mm) and remove the Service Panel Cover **D** (Fig. 6 below). You can now get access to the Service Interfaces.

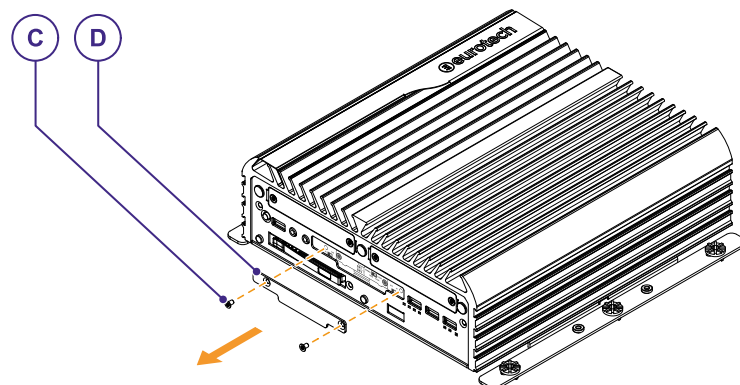


Fig. 6 - Remove the Service Panel Cover **B**



6.2.4 How to reinstall the Service Panel cover and the Front Panel

Required item: 1x TR8 Torx security screwdriver.

Note on the torque: set the torque force to 3.5 kgf·cm (0.34 N·m) to loosen/tighten the screws.

To reinstall the Service Panel cover and the Front Panel, complete this procedure:

1. Put the Service Panel cover **A** in position (Fig. 7 below)
2. Tighten the 2 Torx screws **B** (M3, L= 5 mm).

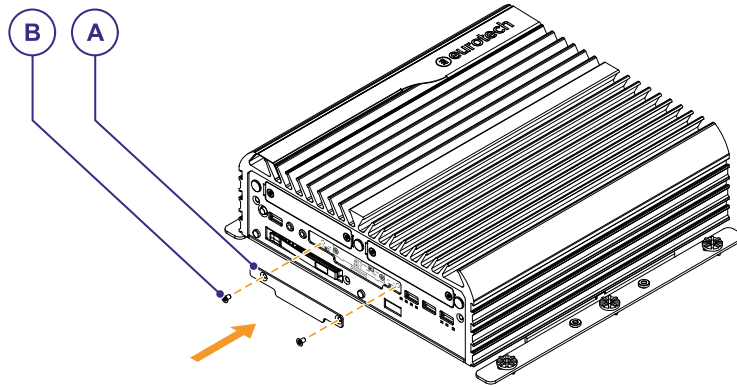


Fig. 7 - Reinstall the Service Panel Cover **A**

3. Put the Front Panel **C** in position (Fig. 8 below).
4. Tighten the 3 Torx screws **D** (M3, L= 8 mm)

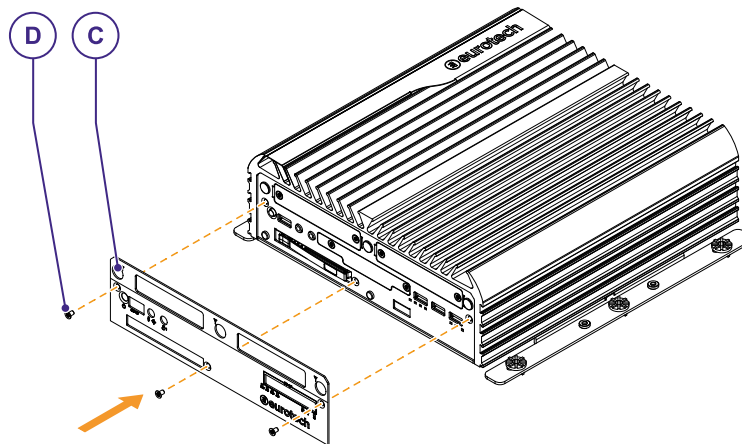


Fig. 8 - Reinstall the Front Panel **C**

6.2.5 How to replace the CMOS battery

WARNING



Serious harm if battery is used incorrectly.

Before using the battery:

1. Always obey to the instructions given in the section "[Battery safety instructions](#)" on [page 10](#)
2. Always refer to battery manufacturer's instructions for safety.

CAUTION



Risk of explosion if battery is replaced by an incorrect type.

Use and replace only with correct size and type.

Dispose of used batteries according to battery manufacturer's instructions.

Required items:

- 1x cross-head screwdriver.
Note on the torque: set the torque force to 3.5 kgf·cm (0.34 N·m) to loosen/tighten the screws.
- 1x plastic tweezers
- 1x new CR2032 battery (3 V)

To replace the CMOS battery, complete this procedure:

1. Turn OFF the product and disconnect the power cable
2. Remove the Service Panel cover (for more information, refer to "[How to remove the Front Panel and the Service Panel cover](#)" on [page 32](#))
3. Remove the two cross-head screws **A** (M2.5, L = 3.5 mm) and extract the battery holder **B** (Fig. 9 below)

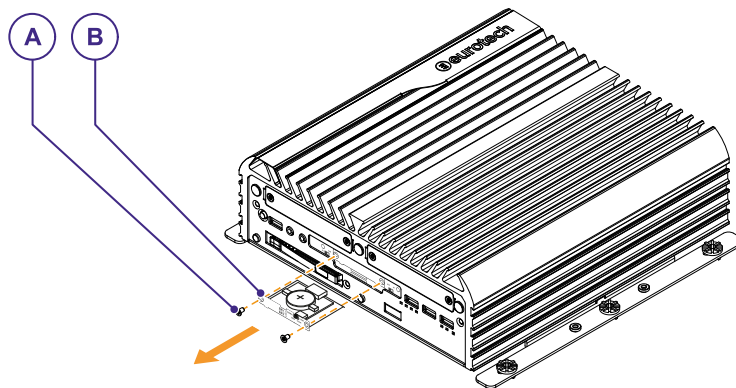


Fig. 9 - Remove the battery holder B

4. Remove the old battery from the holder: use the plastic tweezers to pull out the battery. Dispose of old battery properly
5. Insert in the holder the new CR2032 battery (3 V) with the plus "+" pole facing upward



6. Reinstall the battery holder **A** (Fig. 10 below)
7. Tighten the 2 cross-head screws **B** (M2.5, L = 3.5 mm).

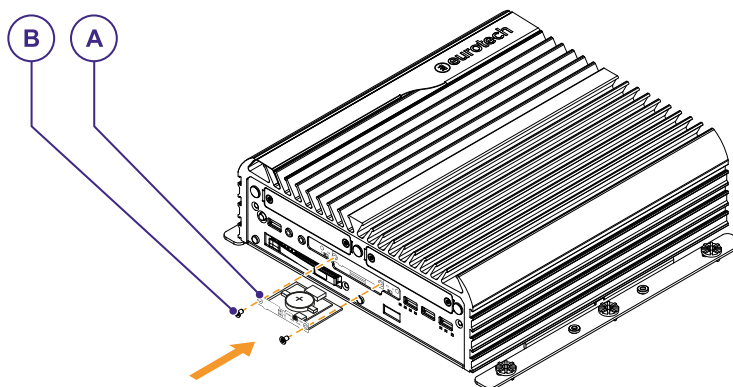


Fig. 10 - Reinstall the battery holder **A**

8. Reinstall the Service Panel cover and the Front Panel (for more information, refer to ["How to reinstall the Service Panel cover and the Front Panel"](#) on page 33)

6.3 Rear side interfaces overview

Note on the torque: set the torque force to 3.5 kgf·cm (0.34 N·m) to loosen/tighten the screws.

The Rear side interfaces are as follows:

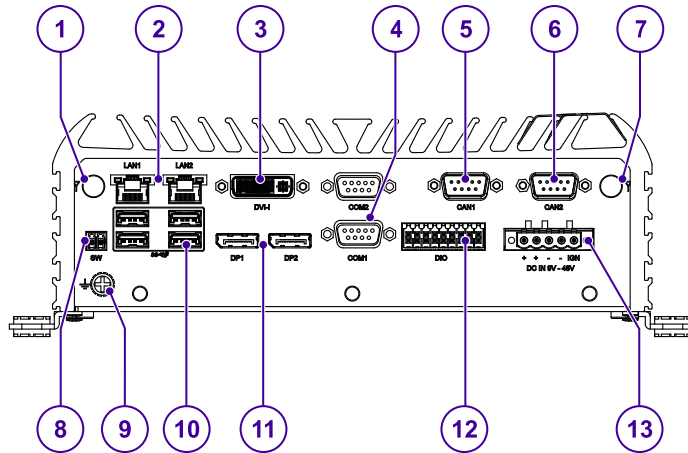


Fig. 11 - Rear side interfaces layout

Ref #	Description
1	Antenna Connector Provision (Factory Option)
2	2x 2.5GbE (RJ-45, i226) Connectors
3	DVI-I Connector
4	2x Serial Ports Connectors
5, 6	2x CANBus Connectors
7	Antenna Connector Provision (Factory Option)
8	Remote Power Switch Connector
9	Earth Connection Terminal (M5 connection)
10	4x USB 3.2 Gen 2 Connectors
11	2x DisplayPorts Connectors
12	Digital I/O Connectors
13	Power IN Connector + Ignition Key

Tab. 3 - Rear side interfaces description

7 INTERFACES IN DETAIL

This chapter gives the following information:

7.1 Serial Ports connectors	38
7.2 CAN connectors	39
7.3 Digital I/Os connector	39
7.4 Remote Power Switch connector	40

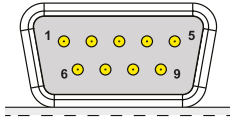


7.1 Serial Ports connectors

The ReliaCOR 40-13, on the rear side, has 2x Serial Ports connectors.

7.1.1 Serial Ports connectors specifications

Connector Layout:



Connector Specifications:

- Standard 9-Pin D-Sub (plug)
- Gender: Male

Mating Connector Specifications:

- Standard 9-Pin D-Sub (socket)
- Gender: Female

Connector Pinout in RS-232 Mode:

Pin #	Signal	Type	Description
1	DCD	I	Data Carrier Detect
2	RxD	I	Receive Data
3	TxD	O	Transmit Data
4	DTR	O	Data Terminal Ready
5	GND	P	Ground
6	DSR	I	Data Set Ready
7	RTS	O	Request To Send
8	CTS	I	Clear To Send
9	RI	I	Ring Indicator

Connector Pinout in RS-422/485 Full Duplex Mode (pins not listed are not connected):

Pin #	Signal	Type	Description
1	TX-	O	Transmit Negative Data
2	TX+	O	Transmit Positive Data
3	RX+	I	Receive Positive Data
4	RX-	I	Receive Negative Data
5	GND	P	Ground

Connector Pinout in RS-485 Half Duplex Mode (pins not listed are not connected):

Pin #	Signal	Type	Description
1	TX-/RX-	IO	Transmit Negative Data / Receive Negative Data
2	TX+/RX+	IO	Transmit Positive Data / Receive Positive Data
5	GND	P	Ground

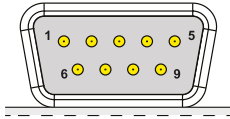


7.2 CAN connectors

The ReliaCOR 40-13, on the front side, has 2x CANBus connectors.

7.2.1 CAN connectors specifications

Connector Layout:



Connector Specifications:

- Standard 9-Pin D-Sub (plug)
- Gender: Male

Mating Connector Specifications:

- Standard 9-Pin D-Sub (socket)
- Gender: Female

Connector Pinout (pins not listed are not connected):

Pin #	Signal	Type	Description
2	CAN L	IO	CAN Negative Data
7	CAN H	IO	CAN Positive Data

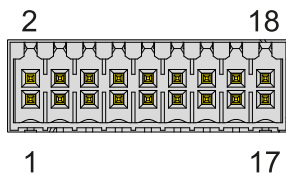
7.3 Digital I/Os connector

The ReliaCOR 40-13, on the rear side, has a connector with the following I/O interfaces:

- 8x Digital OUT (isolated)
- 8x Digital IN (isolated)

7.3.1 Digital I/Os connector specifications

Connector Layout:



Connector Specifications:

- Header
- Gender: Male
- Type: 2x 9 18-pin, 3.5 mm pitch

Mating Connector Specifications:

- Pluggable screw terminal block
- Gender: Female
- Type: 2x 9 18-pin, 3.5 mm pitch

The mating connector is supplied with the product, ready to be wired up.

Connector Pinout:

Pin #	Signal	Type	Description
1	DIN1	I	Digital IN1
2	DOU1	O	Digital OUT1
3	DIN2	I	Digital IN2
4	DOU2	O	Digital OUT2
5	DIN3	I	Digital IN3
6	DOU3	O	Digital OUT3
7	DIN4	I	Digital IN4
8	DOU4	O	Digital OUT4
9	DIN5	I	Digital IN5
10	DOU5	O	Digital OUT5
11	DIN6	I	Digital IN6
12	DOU6	O	Digital OUT6
13	DIN7	I	Digital IN7
14	DOU7	O	Digital OUT7
15	DIN8	I	Digital IN8
16	DOU8	O	Digital OUT8
17	+5 to +24 V	P	+5 to +48 V DC IN(*)
18	GND	P	GND(*)

(*) To use the Digital I/Os, supply external power to pins 17 and 18

7.4 Remote Power Switch connector

The ReliaCOR 40-13, on the rear side, has a connector to install the Remote Power Switch.

7.4.1 Remote Power Switch connector specifications

Connector Layout:



Connector Pinout:

Pin #	Signal	Type	Description
1	PWR_SW2	P	Power Button
2	GND	P	GND

Connector Specifications:

- Header
- Gender: Male
- Type: 1x2 2-pin, 3.5 mm pitch

Mating Connector Specifications:

- Pluggable screw terminal block
- Gender: Female
- Type: 1x2 2-pin, 3.5 mm pitch

The mating connector is supplied with the product, ready to be wired up.



8 PRODUCT POWER SUPPLY REQUIREMENTS

This chapter gives the following information:

- 8.1 Power specifications 42
- 8.2 Power IN connector specifications 42
- 8.3 Guidelines about the power supply cables to use 42



8.1 Power specifications

The power input is protected against: surge, noise, reverse polarity, over-voltage.

Specification	Description
Power Supply	<ul style="list-style-type: none"> All product variants: 9 to 48 V DC (24 V DC Nominal); Ignition Key Function (not enabled by default)
Power Consumption	<ul style="list-style-type: none"> RECOR-40-13-11-yy: 60 W RECOR-40-13-13-yy: 65 W RECOR-40-13-15-yy: 90 W

8.2 Power IN connector specifications

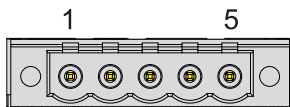


NOTICE

The Power IN connector is NOT protected against short circuit.

The Power IN connector has the following specifications:

Connector Layout:



Connector Specifications:

- Base strip, Header
- Gender: Male
- Type: 5-pin, 5 mm pitch

Mating Connector Specifications:

- Pluggable screw terminal block
- Gender: Female
- Type: 5-pin, 5 mm pitch

The mating connector is supplied with the product, ready to be wired up.

Connector Pinout:

Pin #	Signal	Type	Description
1	+9 to +48 V	P	+9 to +48 V DC IN
2	+9 to +48 V	P	+9 to +48 V DC IN
3	GND	P	GND
4	GND	P	GND
5	IGN	P	IGN Signal(*)

(*) The IGN Signal is compatible with the voltage range of the product power supply: 9 to 48 V DC.

NOTICE: The Ignition Key Function is not enabled by default. For more information, refer to the "PC/CAR Mode Select Switch" in the section "Service Interfaces overview" on page 31.

8.3 Guidelines about the power supply cables to use

Make sure that all the power supply cables to use:

- meet the product requirements
- comply with the relevant standards and regulations
- are in good condition
- have a length lower than 3 m
- have a cross-section of 2.5 mm² (size 14 AWG)



9 PRODUCT INSTALLATION

This chapter gives the following information:

- 9.1 Transporting the product 44
- 9.2 Unpacking the product 44
- 9.3 Installing the product 45
- 9.4 Connecting the peripheral devices 46
- 9.5 Supplying power, turning ON/OFF the product 46



9.1 Transporting the product

When transporting the product, obey the following instructions.

9.1.1 Avoid heavy shocks and vibrations

The built-in components of the product are sensitive to heavy shocks and vibrations.

To avoid damages, during transportation use the original packaging and protect the product from heavy shocks and vibrations.

9.1.2 Avoid condensation

To avoid damages, when the product is transported in cold environments, or when it is exposed to extreme temperature differences:

1. Make sure that no moisture (condensation, condensed water, etc.) is present on the product
2. Wait for at least 12 hours before you turn ON the product

9.2 Unpacking the product

To unpack the product, complete this procedure:

1. Remove the packaging
2. Check the contents of the packaging for visible transportation damages
3. Check the contents of the packaging for items completeness
4. Keep the packaging for possible re-transport
5. Make sure to keep the supplied documents, they are required for initial start-up and belong to the device.

If you notice any transport damage or discrepancies between the contents of the packaging and your order, contact <https://www.eurotech.com/support>.



9.3 Installing the product

The product is intended for professional use and must be installed by qualified personnel only.

The product must be installed in a secured location, accessible to authorized personnel only (for example in a cabinet / technical compartment).

The product is designed to be installed on a flat surface, primarily in a horizontal orientation, but it can also be installed in a vertical orientation.

When you install the product, always allow the correct cooling of the product:

- make sure to leave adequate clearance around the product, particularly on the top and side walls where fins are present



NOTICE

Always use the Earth connection terminal to connect the product to an earth point in the installation.

To install the product, complete this procedure:

1. Make sure that the two mounting brackets are correctly installed on the bottom side of the product using the dedicated screws
2. Make sure that the place where you install the product is a plane surface
3. Refer to "[Mechanical specifications](#)" on page 48
4. Using the slots / holes available on the two lateral mounting brackets of the product, add all the necessary hardware to safely fasten the product in place, according to your installation requirements. Mounting brackets can here optionally host anti-vibrational rubber dumpers. **Material, type, and length of the screws, and the maximum torque applicable, depend on your installation requirements.**

For more information, refer to: <https://support.eurotech.com>.

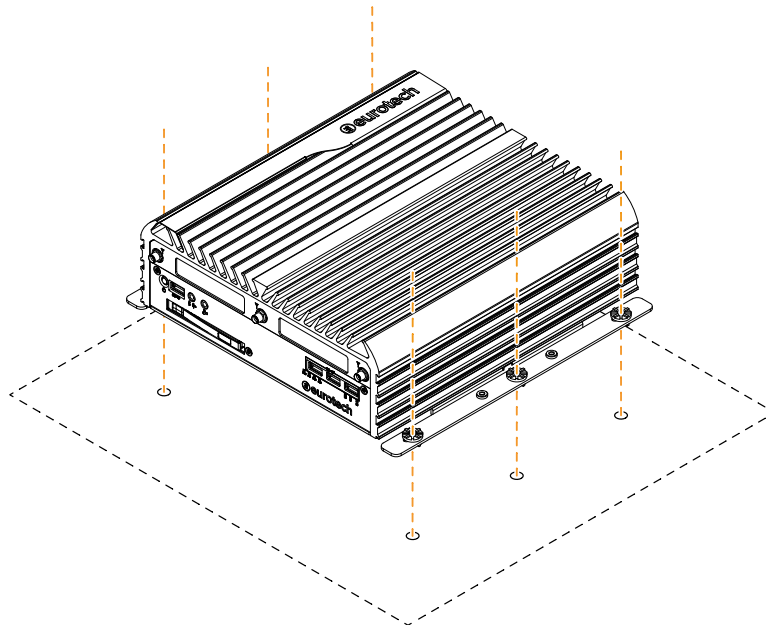


Fig. 12 - Example of how to install the product

9.4 Connecting the peripheral devices

Make sure to obey the instructions that come with the peripheral devices.

Make sure to connect non-hot-pluggable peripheral devices only when the product is OFF.

9.5 Supplying power, turning ON/OFF the product



WARNING

Failure to supply power correctly could result in risk of electric shock and personal injury, and could damage the equipment or other property.

Refer to "**What to do before you supply power to the product**" below.

9.5.1 What to do before you supply power to the product

Before you supply power to the product, obey the following safety instructions:

- Make sure that you have understood any instructions for safety, installation, and for operation
- Make sure that your hands are dry
- Make sure that all the cables to use:
 - meet the product requirements and comply with the relevant standards and regulations
 - are in good condition
 - are placed with care
 - are not placed where they may be trampled or compressed
- Make sure that all power-points and plugs:
 - are in good condition
 - are not overloaded
- Make sure that the product has a proper grounding connection
- Make sure that the power supply source meets the product requirements and complies with the relevant standards and regulations
- Make sure that the product installation is made correctly and in compliance with the relevant standards and regulations
- Make sure that you supply power only after the product installation is completed.

If you have questions about these instructions, refer to: <https://www.eurotech.com/support>.



9.5.2 Supplying power and turning ON the product

To supply power and turn ON the product, complete this procedure:

1. Refer to ["Product power supply requirements" on page 41](#)
2. Make sure that a suitable external DC power supply source is connect to the Power IN connector
3. Optional: if a monitor is available, connect it to the product and turn it ON
4. Push the ATX Power ON/OFF Pushbutton. The turning ON process will start:
 - a. The Power LED turns ON and the product runs through the power on self test
 - b. Optional: If the monitor is connected and turned ON, the BIOS boot message is displayed. If no messages are displayed, check the cabling and make sure that the sockets carry power
 - c. The Operating System is loaded

Other ways to turn ON the product are:

- Using the Ignition Key Function
- Using the Remote Power Switch connector

9.5.2.1 Ignition Key Function

In the ReliaCOR 40-13, the Ignition Key Function is not enabled by default. To enable it, get access to the Service Interfaces and set the "PC/CAR Mode Select Switch" on the position: Power Ignition Mode. For more information, refer to the "PC/CAR Mode Select Switch" in the section ["Service Interfaces overview" on page 31](#).

For this function, the following timing settings are available:

- The power ON delay timing is set to 10 seconds
- The power OFF delay timing is set to 3 seconds
- The force shut-down timing is set to 60 seconds.

They are configured in the BIOS.

9.5.2.2 Remote Power Switch connector

To remotely turn ON the product, briefly short the two pins on the Remote Power Switch connector. This action is the same as pressing the power button.

For more information, refer to: ["Remote Power Switch connector" on page 40](#)

9.5.3 Turning OFF the product

NOTICE: If you don't obey the procedure below, data might be lost.

To safely turn OFF the product, complete this procedure:

1. Save all data and close all applications
2. Execute a safe shutdown via the Operating System.

Another way to turn OFF the product safely is using the Ignition Key Function. For more information, refer to: ["Ignition Key Function" above](#).

10 MECHANICAL SPECIFICATIONS

This chapter gives the following information:

10.1 Product enclosure specifications and mechanical dimensions 49



10.1 Product enclosure specifications and mechanical dimensions

The product enclosure has the following specifications: Material: Metal

The product has the following mechanical dimensions: 240 x 79 x 261 mm (W x H x D) - Excluding connectors and mounting brackets.

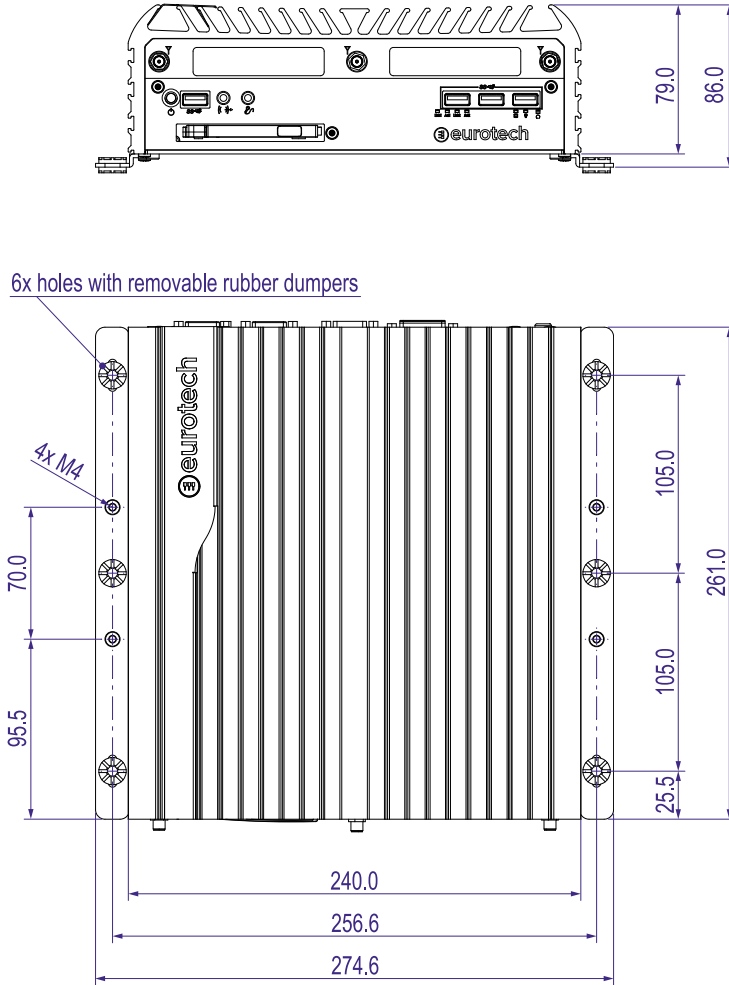


Fig. 13 - ReliaCOR 40-13 mechanical dimensions (in mm)



11 PRODUCT MAINTENANCE

This chapter gives the following information:

11.1 How to maintain the product 51



11.1 How to maintain the product



WARNING

The power cable remains energized even when disconnected from the product. Risk of electric shock and personal injury.

Always make sure that all the power supply sources are disconnected and all the circuits are fully discharged before servicing.



WARNING

Some electronic components may retain electrical energy even after the power supply sources are disconnected. Risk of electrical discharge and personal injury.

Always make sure that all the power supply sources are disconnected and all the circuits are fully discharged before servicing.

Periodically maintain the product to examine its integrity and to ensure its proper operation. A maximum inspection period of 2 years is recommended, though the installer must assess the impact of environmental conditions when selecting an appropriate inspection regime.

To maintain the product, complete this procedure:

1. Obey the instructions contained in the section ["Safety instructions" on page 7](#)
2. Remove the power supply from the product:
 - a. Make sure that your hands are dry
 - b. Turn OFF all the power supply sources
 - c. Disconnect all the cables
 - d. Make sure that all the circuits are discharged
3. Examine the product and cabling:
 - a. Make sure that the product is not damaged
 - b. Make sure that the LED indicators are visible and not damaged
 - c. Make sure that the external cabling is not damaged or frayed
4. Clean the product:
 - To remove the dust, use a dry lint-free cloth
 - To remove the dirt, use water-based non-flammable cleaning products
 - To dry the product, use a dry lint-free cloth
 - Do not use detergents, aerosol sprays, solvents or abrasive sponges
5. Examine the product installation:
 - a. Make sure that all the locking parts (for example: screws, bolts, nuts) are securely fastened
 - b. Make sure that the product is installed correctly (refer also to ["Product installation" on page 43](#))
 - c. Make sure that the product is grounded correctly.



12 EUROTECH EVERYWARE IOT

This chapter gives the following information:

- 12.1 Everyware IoT 53
- 12.2 Everyware Cloud (EC) 53
- 12.3 Everyware Software Framework (ESF) 53



12.1 Everyware IoT

Eurotech provides hardware and software IoT solutions under the brand name of Everyware IoT.

Everyware IoT is an integrated platform for the Internet of Things which provides IoT gateways for any industry vertical, an open edge framework, and a modular cloud infrastructure to connect field devices to business analytics and enterprise applications.

Based on open source and standards, Everyware IoT accelerates IoT application development and project deployment while avoiding vendor lock-in.

For more information, refer to: <https://www.eurotech.com/en/products/iot>

12.2 Everyware Cloud (EC)

Everyware Cloud (EC) is the IoT Edge Management Platform distributed and supported by Eurotech. It gives all the services required for the management of IoT gateways and devices in the field, including configuration management, application life-cycle management and remote access.

It also connects the data collected by field-deployed devices to enterprise applications and analytics leveraging reliable and open protocols.

Eurotech's IoT Edge Management Platform integrates interconnected field devices and assets such as sensors, actuators, PLCs and IoT gateways and provides the infrastructure for IoT application enablement by integrating data with business apps. EC provides device management, diagnostics, provisioning, remote access of IoT gateways and devices and integration services for the telemetry data.

For more information, refer to: <https://ec.eurotech.com/>

12.3 Everyware Software Framework (ESF)

Everyware Software Framework (ESF) is a high-level, multi-platform, and flexible application development environment for Edge Computers and IoT Gateways. ESF connects and interfaces with field devices thanks to its ready-to-use field protocol libraries. Field data can be processed at the edge through rich Java APIs or a web-based visual programming environment.

The resulting data can be published and delivered to leading IoT Cloud Services such as Everyware Cloud (Eurotech IoT Edge Management Platform), Eclipse Kapua, AWS IoT and Azure IoT.

Everyware Software Framework bridges the physical world to the digital world. It encapsulates field devices and data sources into a common model. For each field device, a digital twin is created. The twin can be incorporated into visually composed data flows running on the edge or it can be remotely managed from the cloud. Remote management and monitoring of field devices is therefore made easier: ESF becomes the ideal solution for a wide range of IoT applications.

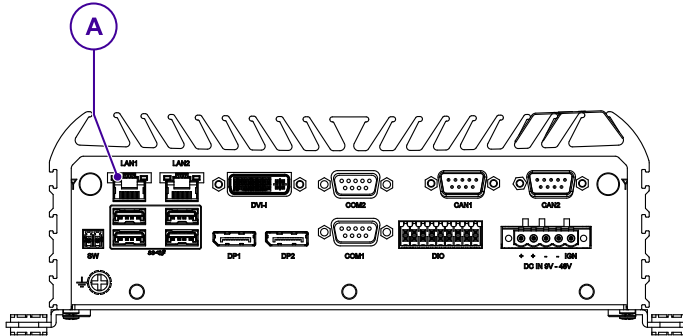
For more information, refer to: <https://esf.eurotech.com/>



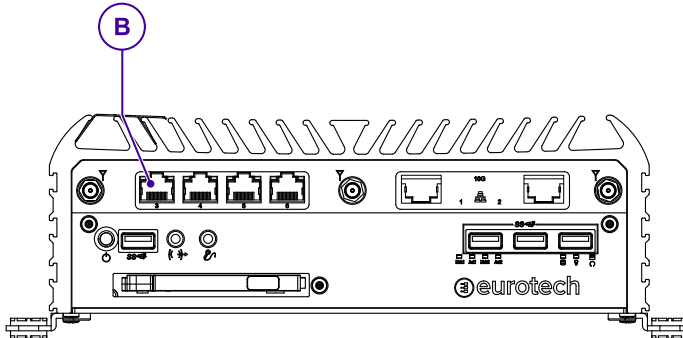
12.3.1 ESF reference port

According to the hardware variants, the reference ESF port to use is placed as follows:

- in the hardware variant -11, it is on the rear side, the first 2.5GbE RJ-45 port on the left (indicated with **A** in the figure below):



- in the other hardware variants, it is on the EdgeBoost Bay #1 (front side), the first 1GbE RJ-45 port on the left (indicated with **B** in the figure below):



13 PRODUCT DECOMMISSIONING

This chapter gives the following information:

13.1 What is the decommissioning process	56
13.2 How to do the decommissioning	56



13.1 What is the decommissioning process

The ReliaCOR 40-13 incorporates a tool to decommission the system.

The decommissioning of the system is the same as restoring the factory restore image, but also deleting the backups saved in the recovery partition.

13.2 How to do the decommissioning

To do the decommissioning, complete this procedure:

1. Execute the following command:

```
eth-rollback -d
```

2. Reboot the ReliaCOR 40-13.

After the reboot, the rootfs will be erased, the factory restore snapshot will be recovered, and the residual backups in the recovery partition with sensitive data will be deleted.





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