EUROPEAN UNION AGENCY FOR RAILWAYS

Making the railway system work better for society.

List of CCS Class B systems

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1.0	25/01/2012	First publication
2.0	05/12/2014	Extension to the whole EU rail network
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4.0	11/06/2019	Official update according to Regulation (EU) 2019/776

Contents

1. INTRODUCTION

This document contains the list of train protection and voice radio legacy systems referred in the Control-Command and Signalling TSI.

2. ABBREVIATIONS, ACRONYMS AND REFERENCES

2.1. ABBREVIATIONS AND ACRONYMS

The acronyms used as names of legacy systems are explained in the table in sections 3.2 and 3.3.

RDD: Reference Document Database (https://rdd.era.europa.eu/RDD/).

2.2. REFERENCES

[1] – Commission Regulation (EU) 2016/919 of 27 May 2016 on the technical specification for interoperability relating to control-command and signalling subsystems of the rail system in the European Union[1] and its amendments[2].

[1] *OJ L158, 15.6.2016, p.1.*

[2] *At the time of publishing this document, the latest amendment is Commission Implementing Regulation (EU) 2019/776 of 16 May 2019 (OJ L139 I, 27.5.2019, p. 108.)*

3. CLASS B SYSTEMS

3.1. USE OF THIS DOCUMENT

This is a technical document prepared by the European Union Agency for Railways based on information received from Member States, Norway and Switzerland, and in accordance with the provisions of [1].

As stated in article 3.1 of the Annex of [1] *"The requirements for Class B systems are the responsibility of the relevant Member State"*. Details on the technical specifications can be found in the RDD.

3.2. LIST OF CLASS B TRAIN PROTECTION SYSTEMS

Member State	Name of the legacy system[3]	Scope	Version identification	Date of latest authorisation to placing into service
Austria	INDUSI I60[3] PZB 90[4] LZB (LZB L72, LZB L72 CE I and LZB L72 CE II)	Whole network Whole network Whole network	AT/DE	
Belgium	Crocodile TBL 1 TBL 2 TVM 430 TBL1+ KVB	Whole network Whole network Whole network Whole network Off-TEN only Access to high speed line 1		
Bulgaria	EBICAB 700	Whole network	BU	
Croatia	INDUSI I60[5]	Whole network		
Czech Republic	LS	Whole network		
Denmark	ZUB 123	Whole network	SW02A (version 1.37 edition 04)	02.02.2004
Estonia	ALSN	Whole network		
Finland	ATP-VR/RHK	Whole network		

[3] *The fact that two or more Member States use the same system does not imply that they are compatible: the versions shall be taken into account.*

[4] All new authorised vehicles must be equipped with PZB 90.

[5] *Rolling stock equipped with higher versions (eg PZB 90) is accepted.*

Member State	Name of the legacy system[3]	Scope	Version identification	Date of latest authorisation to placing into service
France	Crocodile KVB TVM 300 TVM 430 KVBP KCVP KCVB NEXTEO DAAT	Whole network Whole network High speed lines High speed lines (sub)urban area of Paris (sub)urban area of Paris (sub)urban area of Paris (sub)urban area of Paris Whole network		
Germany	PZB 90 LZB (LZB L72, LZB L72 CE I and LZB L72 CE II)[6] GNT (Geschwindigkeitsüberwachung für NeiTech-Züge)[7]	Whole network Whole network Whole network (routes with higher lateral acceleration for tilting trains)	AT/DE	
Hungary	EVM	Whole network		
Ireland	CAWS ATP	Whole network Whole network		
Italy	BACC RSDD/SCMT SSC	Whole network Whole network Off-TEN only		
Latvia	ALSN	Whole network		
Lithuania	ALSN	Whole network		
Luxembourg	MEMOR II+[8]	Whole network		
Norway[9]	ATC[10]	Whole network	2	1993
Poland	SHP PKP radio system with Radiostop function	Whole network Whole network		

[6] *Leading vehicles for operation on LZB lines have to be equipped with an onboard system which can connect at least to L72 and CE I*

[7] *GNT can only work in connection with PZB 90*

[8] *ETCS BL2 is the safety system required on the Luxembourg rail network. Vehicles equipped and authorized with MEMOR II+ are still allowed to run on a limited area of the network on the basis of a derogation delivered by the NSA LU.*

[9] *For information*

[10] *Formerly referred as "EBICAB 700"*

Member State	Name of the legacy system[3]	Scope	Version identification	Date of latest authorisation to placing into service
Portugal	INDUSI I60 EBICAB 700	Cascais line Off-TEN Whole network	 PT	
Romania	INDUSI I60[11]	Whole network		
Slovak Republic	LS	Whole network		
Slovenia	INDUSI I60[12]	All main tracks and also 3 regional tracks		
Spain	ASFA EBICAB 900 LZB	Whole network Mediterranean Corridor. Section "La Encina – Barcelona Sants" High Speed Line "Madrid – Sevilla/Toledo/Málaga" C5 Commuter Line (Madrid). Section "Humanes – Mostoles el Soto"	 ES ES	
Sweden	ATC[13]	Whole network except Linköping-Västervik/Kisa Linköping-Västervik/Kisa	2 R	
Switzerland[14]	EuroSIGNUM[15] EuroZUB[15]	Whole network Whole network		
The Netherlands	ATB First generation ATB new generation	Whole network Whole network		

[11] *Rolling stock equipped with higher versions (eg PZB 90) is accepted*
[12] *Rolling stock equipped with higher versions (eg PZB 90) is accepted.*
[13] *Formerly referred as "EBICAB 700"*
[14] *For information*
[15] *Swiss Class B systems are forbidden for ETCS B3 vehicles.*

Member State	Name of the legacy system[3]	Scope	Version identification	Date of latest authorisation to placing into service
UK	GW ATP RETB TPWS/AWS TVM 430 Chiltern-ATP Mechanical Trainstops KVB	limited to specific routes only limited to specific routes only Whole network HS1 only limited to specific routes only limited to specific routes only HS1 only		

3.3. LIST OF CLASS B VOICE RADIO SYSTEMS[16]

Member State	Name of the legacy system[17]	Scope	Version identification	Date of latest authorisation to placing into service
Austria	UIC Radio Chapter 1-4+6			
Bulgaria	UIC Radio Chapter Bulgaria			
Croatia	UIC Radio Chapter 1-4			
Czech Republic	TRS — The Czech Railways radio system			
Estonia	The Estonian Railways train communication network	Whole network		

[16] *This list is based on the information in the Decisions 2006/860/EC and 2006/679/EC.*

[17] *The fact that two or more Member States use the same system does not imply that they are compatible: the versions shall be taken into account.*

Member State	Name of the legacy system[17]	Scope	Version identification	Date of latest authorisation to placing into service
Germany	Analogue Radio Germany - in compliance with UIC 751-3 (all chapters): • TGL 43886 März 1987, UKW-Verkehrsfunktechnik , Zugfunksystem, • functional requirement specification radio for low frequency traffic routes (Lastenheft Zugfunk auf Strecken mit einfachen betrieblichen Verhältnissen), detailed standard for an open simplex mode • functional requirement specification for dual mode user interface for digital and analogue cab radio and digital shunting radio – part 2 (Lastenheft Dualmode Bedienteil für digitalen und analogen Zugfunk digitalen Rangierfunk - Teil 2 - Funktionale Anforderungen), detailed standard for the MMI for cab radio with the function to switch between GSM-R and analogue train radio, used in the migration period	Lines of the former GDR installed before 1990 Low frequency traffic routes All routes outside the GSM-R network		
Greece	CH — Greek Railways radio system (VHF)	Whole network except Kiato-Athens airport section.		
Hungary	UIC Radio Chapter 1-4 UIC Radio Chapter 1- 4 + 6 (Irish system)			
Ireland	UIC Radio Chapter 1- 4 + 6 (Irish system)			
Italy	GSM-P	On lines not covered with GSM-R		
Latvia	LDZ radio system	Whole network		

Member State	Name of the legacy system[17]	Scope	Version identification	Date of latest authorisation to placing into service
Lithuania	The Lithuanian Railways train radio system Shunting Radio Communication System	All line sections between stations in border areas Whole network (for manoeuvring)		
Poland	PKP radio system	TEN only		
Portugal	UIC Radio Chapter 1-4 (TTT radio system installed at Cascais line) TTT radio system CP_N	Cascais line Off TEN Whole-network		
Romania	Radio Network of CFR			
Slovakia	450 Mhz UIC (kanál C) Multikom BOSCH OMEGA SRO ZUGFUNK 95 ZUGFUNK 2000			
Slovenia	Analogue railway radio system called RDZ - in compliance with UIC 751-3	All main tracks and 5 regional tracks		
Spain	UIC Radio Chapter 1-4+6			
UK	RETB (voice)	RETB lines only		