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ANNEX 2

ANNEX

to the

Commission Implementing Regulation

**on the technical specification for interoperability relating to the control-command and
signalling subsystems of the rail system in the European Union and
repealing Regulation (EU) 2016/919**

ANNEX II

Table of Contents

1.	INTRODUCTION.....	2
2.	ABBREVIATIONS, ACRONYMS	2
3.	CLASS B SYSTEMS.....	3
3.1.	CONDITIONS FOR CLASS B SYSTEMS	3
3.2.	USE OF THIS ANNEX	3
3.3.	LIST OF CLASS B TRAIN PROTECTION SYSTEMS	3
3.4.	LIST OF CLASS B VOICE RADIO SYSTEMS	6

1. INTRODUCTION

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

2. ABBREVIATIONS, ACRONYMS

The acronyms used as names of legacy systems are explained in the tables in sections 3.3 and 3.4.

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

3. CLASS B SYSTEMS

3.1. CONDITIONS FOR CLASS B SYSTEMS

Class B systems for the trans-European rail system network are a limited set of train protection and voice radio legacy systems that were already in use in the trans-European rail network before 20 April 2001.

Class B systems for other parts of the network of the rail system in the European Union are a limited set of train protection and voice radio legacy systems that were already in use in those networks before 1 July 2015.

3.2. USE OF THIS ANNEX

This is an annex based on information received from Member States, Norway, Switzerland and United Kingdom, and in accordance with the provisions of this TSI.

As stated in point 3.1 of the Annex I of this Regulation, “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.

3.3. LIST OF CLASS B TRAIN PROTECTION SYSTEMS

Member State	Name of the legacy system ¹	Scope	Version identification	Date of latest authorisation to placing into service
Austria	INDUS I 60 ³ PZB 90 ² 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	INDUS I 60 ³	Whole network		
Czechia	LS	Whole network		
Denmark	ZUB 123	Whole network	SW02A (version 1.37 edition 04)	02.02.2004
Estonia	ALSN	Whole network		

¹ 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.

² All new authorised vehicles must be equipped with PZB 90

³ Rolling stock equipped with higher versions (eg PZB 90) is accepted.

Member State	Name of the legacy system ¹	Scope	Version identification	Date of latest authorisation to placing into service
Finland	ATP-VR/RHK	Whole network		
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) ⁴ GNT (Geschwindigkeitsüberwachung für NeiTech-Züge) ⁵	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	SCMT + RSC SCMT SSC	Whole network Whole network Off-TEN only		
Latvia	ALSN	Whole network		
Lithuania	ALSN	Whole network		
Norway ⁶	ATC ⁷	Whole network	2	1993
Poland	SHP PKP radio system with Radiostop function	Whole network Whole network		
Portugal	INDUS I 60 EBICAB 700 (CONVEL)	Cascais line Off-TEN Whole network	PT	
Romania	INDUS I 60 ⁸	Whole network		

⁴ 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

⁵ GNT can only work in connection with PZB 90

⁶ For information

⁷ Formerly referred as “EBICAB 700”

Member State	Name of the legacy system ¹	Scope	Version identification	Date of latest authorisation to placing into service
Slovak Republic	LS	Whole network		
Slovenia	INDUS I 60 ⁹	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 ¹⁰	Whole network except Linköping-Västervik/Kisa	2	
		Linköping-Västervik/Kisa	R	
Switzerland ¹¹	EuroSIGNUM ¹² EuroZUB ¹³	Whole network Whole network		
The Netherlands	ATB First generation ATB new generation	Whole network Whole network		
UK for Northern Ireland	GW ATP RETB TPWS/AWS Chiltern-ATP Mechanical Trainstops	limited to specific routes only limited to specific routes only Whole network limited to specific routes only limited to specific routes only		

⁸ Rolling stock equipped with higher versions (eg PZB 90) is accepted
⁹ Rolling stock equipped with higher versions (eg PZB 90) is accepted.
¹⁰ Formerly referred as “EBICAB 700”
¹¹ For information
¹² Swiss Class B systems are forbidden for ETCS B3 vehicles.
¹³ For information

3.4. LIST OF CLASS B VOICE RADIO SYSTEMS¹⁴

Member State	Name of the legacy system ¹⁵	Scope	Version identification	Date of latest authorisation to placing into service
Austria	UIC Radio Chapter 1-4+6			
Bulgaria	UIC Radio Chapter Bulgaria			
Croatia	Analogue railway radio system (RDU) - in compliance with UIC 751-3			
Czechia	SRD			
Estonia	The Estonian Railways train communication network	Whole network		
Germany	<p>Analogue Radio Germany - in compliance with UIC 751-3 (all chapters):</p> <ul style="list-style-type: none"> • 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 	<p>Lines of the former GDR installed before 1990</p> <p>Low frequency traffic routes</p> <p>All routes outside the GSM-R network</p>		

¹⁴ This list is based on the information in the Decisions 2006/860/EC and 2006/679/EC.

¹⁵ 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 ¹⁵	Scope	Version identification	Date of latest authorisation to placing into service
Greece	CH — Greek Railways radio system (VHF)	Whole network except Kiato-Athens airport section and Egio-Kiato (open line).		
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		
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	Whole network		
Portugal	UIC Radio Chapter 1-4 (TTT radio system installed at Cascais line) TTT radio system CP_N (RSC – Rádio Solo-Comboio)	Cascais line Off TEN Whole network		
Romania	Radio Network of CFR			
Slovakia	450 Mhz UIC (Channel C) Multikom (160 MHz and 450 MHz) BOSCH (160 MHz) OMEGA (160 MHz) SRO (160 MHz)	Local track radio network (stations Vrutky, Presov, Plavec, Kysak) Local track radio network (the area of lines Bratislava – Zilina, Bratislava – Dunajska Streda – Komarno, Trnava – Kutý) Local track radio network (the area of line Nove Mesto nad Vahom – Myjava) Internal radio network of ZSR (ZSR's departments in the area of Zvolen, Zilina and Trnava) Track radio network SRO for local lines		

Member State	Name of the legacy system¹⁵	Scope	Version identification	Date of latest authorisation to placing into service
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 for Northern Ireland	RETB (voice)	RETB lines only		