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ANNEX II

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# INTRODUCTION

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

# 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/>).

# CLASS B SYSTEMS

## 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 part of the network before 1 July 2015.

## 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.

## 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 | INDUSI I 60 (2) | Whole network |  |  |
| PZB 90 (3) | Whole network | AT/DE |  |
| LZB L72LZB L72 CE I LZB L72 CE II | Whole networkWhole networkWhole network |  |  |
| Belgium | Crocodile | Whole network |  |  |
| TBL 1 | Whole network |
| TBL 2 | Whole network |
| TVM 430 | Whole network |
| TBL1+ | Off-TEN only |
| KVB | Access to high speed line 1 |
| Bulgaria | EBICAB 700 | Whole network | BU |  |
| Croatia | INDUSI I 60 (2) | Whole network |  |  |
| Czechia | LS | Whole network |  |  |
| Denmark | ZUB 123 | Whole network | SW02A (version 1.37 edition 04) | 2.2.2004 |
| Estonia | ALSN | Whole network |  |  |
| Finland | ATP-VR/RHK | Whole network |  |  |
| France | Crocodile | Whole network |  |  |
| KVB | Whole network |
| TVM 300 | High speed lines |
| TVM 430 | High speed lines |
| KVBP | (sub)urban area of Paris |
| KCVP | (sub)urban area of Paris |
| KCVB | (sub)urban area of Paris |
| NEXTEO | (sub)urban area of Paris |
| DAAT | Whole network |
| Germany | PZB 90  | Whole network | AT/DE |  |
| LZB L72 CE ILZB L72 CE II (4) | Whole networkWhole network |  |
| GNT (Geschwindigkeitsüberwachung für NeiTech-Züge) (5) | Whole network (routes with higher lateral acceleration for tilting trains) |  |
| Hungary | EVM | Whole network |  |  |
| Ireland | CAWS | Whole network |  |  |
| ATP | Whole network |
| Italy | SCMT + RSC | Whole network |  |  |
| SCMT | Whole network |
| SSC | Off-TEN only |
| Latvia | ALSN | Whole network |  |  |
| Lithuania | ALSN | Whole network |  |  |
| Norway (6) | ATC (7) | Whole network | 2 | 1993 |
| Poland | SHP | Whole network |  |  |
| PKP radio system with Radiostop function | Whole network |
| Portugal | INDUSI I 60 | Cascais line Off-TEN | PT |  |
| EBICAB 700 (CONVEL) | Whole network |  |
| Romania | INDUSI I 60 (2) | Whole network |  |  |
| Slovak Republic | LS | Whole network | LS04, LS05, LS06 |  |
| Slovenia | INDUSI I 60 (2) | All main lines and also 3 regional lines |  |  |
| Spain | ASFA | Conventional network and rest of the network equipped with third rail tracksHigh Speed Lines except sections equipped with third rail tracksMetric gauge lines | CONVAVRAM |  |
|  |  |  |
| LZB | High Speed Line ‘Madrid – Sevilla/Toledo/Málaga’ C5 Commuter Line (Madrid). Section ‘Humanes – Mostoles el Soto’ | ES |
| Sweden | ATC (7) | Whole network except Linköping-Västervik/Kisa | 2 |  |
|  | Linköping-Västervik/Kisa | R |  |
| Switzerland (6) | EuroSIGNUM (8) | Whole network |  |  |
| EuroZUB (8) | Whole network |
| The Netherlands | ATB First generation  | Whole network |  |  |
| ATB new generation | Whole network |
| UK for Northern Ireland  | GW ATP | limited to specific routes only  |  |  |
| RETB | limited to specific routes only |
| TPWS/AWS | Whole network |
| Chiltern-ATP | limited to specific routes only |
| Mechanical Trainstops | limited to specific routes only |
| (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) Rolling stock equipped with higher versions (eg PZB 90) is accepted.(3) All new authorised vehicles must be equipped with PZB 90.(4) LZB 72 no longer in operation in Germany, since end of 2023.(5) GNT can only work in connection with PZB 90.(6) For information.(7) Formerly referred as ‘EBICAB 700’(8) Swiss Class B system is only allowed for ETCS B2 vehicles. |

## LIST OF CLASS B VOICE RADIO SYSTEMS([[1]](#footnote-2))

| **Member State** | **Name of the legacy system (**1**)** | **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 | Analogue Radio Germany - in compliance with UIC 751-3 (all chapters): |  |  |  |
| * TGL 43886 März 1987, UKW-Verkehrsfunktechnik , Zugfunksystem
 | Lines of the former GDR installed before 1990 |
| * functional requirement specification radio for low frequency traffic routes (Lastenheft Zugfunk auf Strecken mit einfachen betrieblichen Verhältnissen), detailed standard for an open simplex mode
 | Low frequency traffic routes |
| * 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 DMI for cab radio with the function to switch between GSM-R and analogue train radio, used in the migration period
 | Routes not covered by the GSM-R network |
| 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 systemDMR  | Whole network |  |  |
| Lithuania | The Lithuanian Railways train radio system | All line sections between stations in border areas |  |  |
| Shunting Radio Communication System | Whole network (for manoeuvring) |
| Poland | PKP radio system | Whole network  |  |  |
| Portugal | UIC Radio Chapter 1-4 (TTT radio system installed at Cascais line) | Cascais line Off TEN |  |  |
| TTT radio system CP\_N (RSC – Rádio Solo-Comboio) | 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) | 1. Local track radio network (stations Vrutky, Presov, Plavec, Kysak)
 |  |  |
| 1. Local track radio network (the area of lines Bratislava – Zilina, Bratislava – Dunajska Streda – Komarno, Trnava – Kuty)
 |
| 1. Local track radio network (the area of line Nove Mesto nad Vahom – Myjava)
 |
| 1. Internal radio network of ZSR (ZSR’s departments in the area of Zvolen, Zilina and Trnava)
 |
| 1. Track radio network SRO for local lines
 |
| Slovenia | Analogue railway radio system called RDZ - in compliance with UIC 751-3 | All main lines and 5 regional lines |  |  |
| Spain | UIC Radio Chapter 1-4+6 |  |  |  |
| UK for Northern Ireland  | RETB (voice) | RETB lines only |  |  |
| (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. |

1. () This list is based on the information in Commission Decision 2006/860/EC of 7 November 2006 concerning a technical specification for interoperability relating to the control-command and signalling subsystem of the trans-European high speed rail system and modifying Annex A to Decision 2006/679/EC concerning the technical specification for interoperability relating to the control- command and signalling subsystem of the trans-European conventional rail system (OJ L 342, 7.12.2006, p. 1) and in Commission Decision 2006/679/EC of 28 March 2006 concerning the technical specification for interoperability relating to the control-command and signalling subsystem of the trans-European conventional rail system (OJ L 284, 16.10.2006, p. 1).This list is based on the information in the Decisions 2006/860/EC and 2006/679/EC. [↑](#footnote-ref-2)