

Making the railway system
work better for society.

List of harmonised and national restriction codes

<i>Document ID</i>	ERA/TD/2011-09/INT
<i>Origin</i>	ERA

Document History

<i>Version</i>	<i>Date</i>	<i>Comments</i>
1.00	30/06/2011	First issue. Adapted according to draft ERATV decision.
1.01	13/04/2012	Code 05.01 added, update of reference to ERATV
1.02	08/10/2014	“0” was removed from all codes
1.03	08/02/2018	Updated document layout. New codes from: <ul style="list-style-type: none"> - Agency Recommendation of project Rationalisation of vehicle-related registers (RVRR). - Finish NSA request (code 2.6.201) - NOI TSI Working Party (codes 2.7.xxx)
1.04	17/10/2018	Corrected typo on document history date (version 1.03 correct date is 08.02.2018). No changes in document content.
1.05	17/06/2019	Update of Tables 3 and 4 after update to v4.0 of TD/2011-11 List of CCS Class B systems
1.06	01/10/2019	New codes for: <ul style="list-style-type: none"> - Identifying historical vehicles - on-board equipment – recording devices
1.07	29/04/2020	Updated contact point email to servicedesk@era.europa.eu
1.08	15/12/2020	Added codes explanations. Alignment of the document to current legal texts.
1.09	05/03/2021	Corrected typo in table 4, code 2.5.124.
1.10	18/03/2021	Updated explanation in table 4, code 2.3. Corrected typo in table 4, code 3.1.
1.11	19/01/2021	Updated table 4, code 3.1, name and comment.
1.12	11/03/2022	Updated table 4, code 2.7.2 comment.

1.13	22/09/2023	Updated table 3 and 4 according to Annex II of Regulation 2023/1695.
1.14	15/03/2024	New code 5.1.04. Introduction updated. Harmonised restriction codes introduction updated. Section 2.5 updated: Split of LZB values in row 54. Section 2.6 updated
1.15	27/06/2024	Table 3: typo correction (duplicated line 61)
1.16	21/02/2025	Table 3: typo correction (index 14). For tables 3 and 4, updated “(“ and “)” into “[“ and “]” for clarity.
1.17	15/09/2025	Added new code 2.5.233

Contents

INTRODUCTION	4
ABBREVIATIONS AND REFERENCES	6
Abbreviations and acronyms	6
References	6
HARMONISED RESTRICTION CODES	7
NATIONAL RESTRICTION CODES	8
UPDATING	9
Appendix 1	10
Appendix 2	18

List of tables

Table 1. Harmonised restriction codes	10
Table 2. National restriction codes	17
Table 3. Class B signalling system	18
Table 4. Class B radio system	20
Table 5. Other CCS signalling systems on board	22
Table 6. Other CCS radio systems on board	22
Table 7. On-board equipment. Recording device	22

INTRODUCTION

This document describes the list of harmonised and national restriction codes for the whole of the Union rail system, to be referred in ECVVR(NVR), EVR, ERATV, ERADIS and in vehicle and vehicle type authorisations delivered (OSS), as specified in the following legal texts:

National Vehicle Register / European Vehicle Register:

- Directive (EU) 2016/797:
 - o Article 47(3): *“The national vehicle register shall contain at least the following elements: ... (e) restrictions on how the vehicle may be used;...”*
- Decision 2007/756/EC (NVR Decision)
 - o Annex, Appendix 1: *The Agency shall keep up-to-date and publish on its web site the list of harmonised restriction codes for the whole of the Union rail system.*
 - o Annex, Appendix 1: *The Agency shall keep a unique list of restriction codes for the EVR, the European register of authorised types of vehicles referred to in Article 48 of Directive (EU) 2016/797, the one-stop shop and the European Railway Agency Database of Interoperability and Safety.*
- Decision (EU) 2018/1614 (EVR Decision):
 - o Annex II, Appendix 1: *The Agency shall keep a unique list of restriction codes for the EVR, the European register of authorised types of vehicles referred to in Article 48 of Directive (EU) 2016/797, the one-stop shop and the European Railway Agency Database of Interoperability and Safety.*

European Register of Authorised Types of Vehicles:

- Directive (EU) 2016/797:
 - o Article 48(3): *“The register shall include at least the following elements for each type of vehicle: ... (c) the data of the authorisations related to the area of use for a vehicle type, including any restrictions or withdrawals.”*
- Decision 2011/665/EU (ERATV Decision):
 - o Article 4: *“The list of harmonised restriction codes shall be the list referred to in Commission Implementing Decision (EU) 2018/1614”*

Vehicle type authorisation and vehicle authorisation for placing on the market :

- Directive (EU) 2016/797:
 - o Article 15(4): *“The applicant shall be responsible for compiling the technical file that is to accompany the ‘EC’ declaration of verification. That technical file shall contain...all the elements relating to the conditions and limits of use...”*
 - o Article 21(10): *“Vehicle authorisations for placing on the market shall state: ... (d) the conditions for use of the vehicle and other restrictions.”*
- Regulation (EU) 2018/545:
 - o Article 20: *“The applicant shall identify the intended conditions for use of the vehicle and other restrictions linked to the vehicle type”*
 - o Article 27(2): *“In order to mitigate a situation of non-conformity the applicant may, alternatively, do one or more of the following: (b) establish conditions for use of the vehicle and other restrictions as pursuant to Article 20 ...”*
 - o Article 39(5): *“An assessment file shall be issued by the authorising entity and shall contain the following: (a) ... and, where appropriate, conditions for use or restrictions...”*
 - o Article 46(4): *“The authorising entity shall state the following in its decision: (a) any conditions for use of the vehicle and other restrictions...”*
 - o Article 48 : *“The vehicle type authorisation issued by the authorising entity shall contain the following information: (...) (c) an identification of the basic design characteristics of the vehicle type: (...) (iii) the conditions for use of the vehicle and other restrictions;”*

- Article 49 : *“The vehicle authorisation for placing on the market issued by the authorising entity shall contain the following information: (...) (d) identification of the: (...) (iii) conditions for use of the vehicle and other restrictions;”*
- Annex I: *“Content of the application (...) 14. Conditions for use of the vehicle and other restrictions (to be specified according to Decision 2011/665/EU Annex II) (M)”*
- Regulation (EU) 2019/250:
 - Annex I, II, III, IV & V: *“The following conditions of use and other restrictions apply: [List or reference to the list of conditions for use and other restrictions; When a reference to a list of conditions for use and other restrictions is made, such list shall be accessible to the authorising entity”*

Note: *Coded conditions for use and other restrictions* should only be added to a record being created in a register or database (ERATV, ECVVR, EVR, ERADIS) if the the value for the *coded condition for use and other restrictions* is not already included in one of the record’s technical parameters.

For example, considering ERATV, please refer to the explanations about the *Coded conditions for use and other restrictions* included in the [ERATV Application guide – Directive \(EU\) 2016/797](#).

ABBREVIATIONS AND REFERENCES**Abbreviations and acronyms**

Abbreviation	Definition
Agency / ERA	European Union Agency for Railways
ECVVR	European centralised virtual vehicle register
ERADIS	European Railway Agency Database of Interoperability and Safety
ERATV	European register of authorised types of vehicle
EVR	European Vehicle Register
MS	Member State
NVR	National vehicle register
NSA	National safety authority
OSS	One Stop Shop
RVRR	Recommendation on the Rationalisation of vehicle-related registers
RE	Registration entity
WP	Working Party

References

[N°]	Title
[1]	Decision 2007/756/EC (NVR Decision)
[2]	Decision 2011/665/EU (ERATV Decision)
[3]	Agency Recommendation on the specification of the National Vehicle Register and the adoption of the system of organization codes in TAF and TAP TSIs (RVRR). (ERA-REC-102-2016)
[4]	EU Interinstitutional style guide
[5]	Decision (EU) 2018/1614 (EVR Decision)
[6]	Directive (EU) 2016/797
[7]	Regulation 2018/545
[8]	Regulation 2019/250

HARMONISED RESTRICTION CODES

This section includes the list of harmonised restriction codes for the whole of the Union rail system.

These codes are applicable in all the Member States.

If an Authorising Entity (NSA or ERA) considers that a new code needs to be added to the list of harmonised restriction codes, it will request the Agency to evaluate the inclusion of this new code.

The request must be sent to the following email address: servicedesk@era.europa.eu indicating in the subject line "*List of harmonised coded restrictions – request for a restriction code*" and providing justification of the need and an explanation of the new code including (format of the data, content expected)

The Agency will evaluate the request, in consultation with other Authorising Entities, where appropriate.

When appropriate, the Agency will include a new restriction code in the list.

The list of harmonised restriction codes is included in Appendix 1 - Table 1 and published on the Agency website.

Note: *Coded conditions for use and other restrictions* should only be added to a record being created in a register or database (ERATV, ECVVR, EVR, ERADIS) if the the value for the *coded condition for use and other restrictions* is not already included in one of the record's technical parameters.

For example, considering ERATV, please refer to the explanations about the *Coded conditions for use and other restrictions* included in the [ERATV Application guide – Directive \(EU\) 2016/797](#).

NATIONAL RESTRICTION CODES

Use of national restriction codes is limited to those restrictions that reflect particular characteristics of the existing railway system of a Member State and are unlikely to be applied with the same meaning in other Member States.

For types of restrictions not indicated in the list referred to in section 0, the NSA may request the Agency the inclusion of a new code in the list of national restriction codes. The Agency will evaluate the request, where appropriate in consultation with other national safety authorities. If appropriate, the Agency will include a new restriction code in the list.

The request should include the meaning of the restriction in the language of the MS and in English. The request must be sent to the email address servicedesk@era.europa.eu indicating in the subject line “*List of harmonised coded restrictions – request for a national restriction code*” and providing justification of the need and an explanation of the new code including (format of the data, content expected).

The national restriction code is preceded by the country code as officially published and updated on the European website in the *Interinstitutional style guide* [4].

The list of national restriction codes is included in Appendix 1 - Table 2 and published on the Agency website.

UPDATING

This document will be updated following the received requests referred to sections 3 and 4.

Appendix 1

LIST OF RESTRICTION CODES

The structure of a code is a combination of:

- Category of restriction
- Type of restriction
- Value or specification.

Which are joint by a dot (.):

[Category].[Type].[Value or specification]

Table 1. Harmonised restriction codes

Cat	Type	Value or specification	Name	Date ¹	Comments
1			Technical restriction related to construction		
	1	[Number]	Minimum curve radius in meters		
	2	-	Track circuit restrictions		

¹ Date of insertion in the list

Cat	Type	Value or specification	Name	Date ¹	Comments
	3	[Number]	Speed restrictions (on the given network) in km/h		<p>The values to be mentioned are the ones defined in the issued vehicle type authorisation and/ or vehicle authorisation for placing on the market.</p> <p>E.g., For the trainsets we should have :</p> <ul style="list-style-type: none"> - Area of use France : Speed restrictions (on the given network) in km/h: 300km/h - Area of use Germany : Speed restrictions (on the given network) in km/h: 250km/h <p>For the freight wagon :</p> <ul style="list-style-type: none"> - Speed restrictions (on the given network) in km/h: 100km/h loaded and 120km/h empty <p>If the system would not allow having more than once this coded restriction, a coded restriction is to be created with one speed value and a non coded restriction with the other speed values.</p>
	4	[Number]	Use in multiple operation (maximum number of trainsets authorised to be coupled together to operate as a single train)		
2			Geographical restriction		
	1	Alphanumeric	Kinematic gauge (coding WAG TSI)		This is to be understood as the reference profile. (See 4.2.3.1 of WAG TSI)

Cat	Type	Value or specification	Name	Date ¹	Comments
	2	Coded list	Wheelset gauge		The wheelset gauge depends on the area of use of the vehicle, several nominal track gauges exist (as referred in LOC&PAS TSI or TSI WAG) : 1 435 mm, 1 520 mm, 1 524 mm, 1 600 mm, and 1 668 mm. Some of the vehicles might declare one or more wheelset gauges (e.g. 1435mm, 1668 mm)
		1	Variable gauge 1435/1520		The values to be mentioned are the ones defined in the issued vehicle type authorisation and/or vehicle authorisation for placing on the market, so If the minimum curve radius is different for 1435 mm and for 1668 mm, the values for each minimum curves radius shall be mentioned by track gage.
		2	Variable gauge 1435/1668		See explanation for previous “Variable gauge 1435/1520”
		3	Gauge 1000	08.02.2018	This is to indicate the selected gauge
		4	Gauge 1435	08.02.2018	This is to indicate the selected gauge
		5	Gauge 1520	08.02.2018	This is to indicate the selected gauge
		6	Gauge 1524	08.02.2018	This is to indicate the selected gauge
		7	Gauge 1600	08.02.2018	This is to indicate the selected gauge
		8	Gauge 1668	08.02.2018	This is to indicate the selected gauge
	3		No CCS on board		Code to be used for all non-CCS equipped vehicles (e.g. for freight wagons, code 2.3 means NO CCS on board)

Cat	Type	Value or specification	Name	Date ¹	Comments
	4	Coded list	ERTMS on board		For the ETCS, level 1, 2 or 3 relate to trackside application level and not to the on-board equipment. The value to be mentioned is only if there is ETCS on board or not. E.g.: A vehicle able to operate on level 2 track is equipped with ETCS + GSM-R for ETCS, which correspond to codes 4.2.10 and 4.2.21.
		10	ETCS	08.02.2018	If the ETCS Class A train protection part is installed.
		20	GSM-R voice	08.02.2018	If the Class A voice radio communication part is installed
		21	GSM-R for ETCS	08.02.2018	If the Class A data radio communication part is installed
	5	Coded list	B System on board		If the vehicle is equipped with more than one system, an individual code for each system must be indicated.
		1xx	Class B signalling system		(see Appendix 2 - Table 3)
		2xx	Class B radio system		(see Appendix 2 - Table 4)
	6	Coded list	Other CCS systems on board		If the vehicle is equipped with more than one system, an individual code for each system must be indicated.
		1xx	Other CCS signalling systems on board		(see Appendix 2 - Table 5)
		2xx	Other CCS radio systems on board		(see Appendix 2 -Table 6)

Cat	Type	Value or specification	Name	Date ¹	Comments
	7	Coded list	Noise category	08.02.2018	<p>The quieter routes apply only to wagons in the scope of the Wagon TSI (refer to Article 5a of the Noise TSI).</p> <p>For wagons equipped with cast iron brake blocks the code to be used depends on the noise level of the wagon. Point 7.2.2.2 of the Noise TSI provides the different possibilities.</p>
		1	Can be used in all quieter routes - Noise TSI compliant - Retrofitted without testing		This case applies to wagons retrofitted as explained in the second paragraph of point 7.2.2 of the Noise TSI
		2	Can be used in all quieter routes - Noise TSI compliant (tested against the Noise TSI)		Tested in this context should be understood as assessed against the Noise TSI (fully tested or assessed using the simplified method set out in point 6.2.3 of the Noise TSI)
		3	Can be used in all quieter routes - Noise TSI compliant - Noise emissions at least 3 dB below the relevant value set out in the Noise TSI (tested against the Noise TSI)		<p>Tested in this context should be understood as assessed against the Noise TSI (fully tested or assessed with the simplified method set out in point 6.2.3 of the Noise TSI)</p> <p>Note: The value of 3 dB was specified in the repealed Regulation (EU) 2015/429. This regulation allowed additional discounts from track access charges for very quiet wagons.</p>

Cat	Type	Value or specification	Name	Date ¹	Comments
		4	Can be used in all quieter routes - Noise TSI not compliant - Exempted in accordance with the Noise TSI		Exemptions are set out in the first paragraph of point 7.2.2 of the Noise TSI: Wagons mostly operated on lines with a gradient of more than 40 ‰, wagons with a maximum operating speed higher than 120 km/h, wagons with a maximum axle load higher than 22.5 t, wagons exclusively operated for infrastructure works and wagons used in rescue trains
		5	Can be used in quieter routes only in this MS - Covered by particular implementation rules		Particular implementation rules are set out in section 7.4 of the Noise TSI
		6	Can be used in quieter routes only in this MS - Fitted with historic composite brake blocks		Historic composite brake blocks are covered by appendix E of the Noise TSI
		7	Can't be used in quieter routes		
3			Environmental restrictions		
	1		Climatic zone		The following values are defined in table 2 of clause 4.3 of EN50125-1:2014 and table 2 of clause 4.3 of EN50125-1:1999
		1	T1		
		2	T2		
		3	T3		
		4	TX	08.02.2018	
4			Restrictions on use		

Cat	Type	Value or specification	Name	Date ¹	Comments
	1		Time based		Some issued authorisation can include time-limited conditions for use. Time limitation is not a data provided by the applicant but a consequence of an authorisation decision (see Art 46(6) or regulation 2018/545)
	2		Condition based (distance travelled, wear, etc.)		The values to be mentioned are the ones defined in the issued vehicle type authorisation and/or vehicle authorisation for placing on the market. The details of any specified condition is to be specified within a non-coded restriction (e.g. concerned constituents where CV modules apply).
	3		Strictly local, historical or tourist use		
5			On-board equipment		
	1	xxx	Recording device	15.02.2012	(See Appendix 2 - Table 7)

LIST OF NATIONAL RESTRICTION CODES

No national restriction codes have been recorded.

Table 2. National restriction codes

MS	Cat	Type	Value or specification	Name	Date ²	Comments

² Date of insertion in the list

Appendix 2**LISTS OF CODIFIED VALUES****2.5 Class B systems on board**

These codes are for systems considered B systems. They are split into B systems for signalling and B systems for radio.

Following codes apply:

Table 3. Class B signalling system

2.5.1xx Class B signalling system³		
INDEX xx	NAME	Comments
01	ALSN	
02	ASFA	
03	ATB	Value 03 not to be used. Replaced by 25 and 26. Kept for historical data.
04	ATP-VR/RHK	
05	BACC	Value 05 not to be used. Replaced by 57 and 58. Kept for historical data.
06	CAWS and ATP	Value 06 not to be used. Replaced by 27 and 28. Kept for historical data.
07	Crocodile	
08	Ebicab	Value 08 not to be used. Replaced by 31 and 32. Kept for historical data
09	EVM	
10	GW ATP	
11	Indusi/PZB	Value 11 not to be used. Replaced by 53 and 56. Kept for historical data.
12	KVB	
13	LS	
14	LZB	Value 14 not to be used. Replaced by 55, 59, 60 and 61. Kept for historical data.
15	MEMOR II+	Value 15 not to be used. Kept for historical data.
16	RETB	

³ (from Decision 2006/679/EC and [Annex II of Regulation \(EU\) 2023/1695](#))

2.5.1xx Class B signalling system³		
INDEX xx	NAME	Comments
17	RSDD/SCMT	Value 17 not to be used. Replaced by 57 and 58. Kept for historical data.
18	SELCAB	Value 18 not to be used. Kept for historical data.
19	SHP	
20	TBL	Value 20 not to be used. Replaced by 43, 44 and 45. Kept for historical data.
21	TPWS/AWS	
22	TVM	Value 22 not to be used. Replaced by 46 and 47. Kept for historical data.
23	ZUB 123	
24	ZUB 121	Value 24 not to be used. Kept for historical data.
25	ATB First generation	
26	ATB new generation	
27	ATP	
28	CAWS	
29	Chiltern-ATP	
30	DAAT	
31	EBICAB 700	Value 31 not to be used. Replaced by 48, 49, 50 and 51. Kept for historical data.
32	EBICAB 900 ES	
33	EuroSIGNUM	
34	EuroZUB	
35	Indusi	Value 35 not to be used. Replaced by 53 and 56. Kept for historical data.
36	KCVB	
37	KCVP	
38	KVBP	
39	Mechanical Trainstops	
40	NEXTEO	
41	PKP radio system with Radiostop function	
42	SSC	
43	TBL 1	
44	TBL 2	

2.5.1xx Class B signalling system ³		
INDEX xx	NAME	Comments
45	TBL1+	
46	TVM 300	
47	TVM 430	
48	ATC v2	
49	ATC vR	
50	EBICAB 700 BU	
51	EBICAB 700 PT [CONVEL]	
52	GNT [Geschwindigkeitsüberwachung für NeiTech-Züge]	
53	INDUSI I60	
54	LZB [LZB L72, LZB L72 CE I and LZB L72 CE II]	Value 54 not to be used. Split into values 59, 60 and 61. Kept for historical data.
55	LZB ES	
56	PZB 90	
57	SCMT + RSC	
58	SCMT	
59	LZB L72	
60	LZB CE I	
61	LZB CE II	

Table 4. Class B radio system

2.5.2xx Class B radio system ⁴		
INDEX xx	NAME	Comments
01	UIC Radio Chapter 1-4	
02	UIC Radio Chapter 1-4+6	
03	UIC Radio Chapter 1- 4 + 6 [Irish system]	
04	UIC Radio Chapter 1-4+6+7	Value 04 not to be used. Kept for historical data.
05	BR 1845	Value 05 not to be used. Kept for historical data.

⁴ (from Decision 2006/679/EC and [Annex II of Regulation \(EU\) 2023/1695](#))

2.5.2xx Class B radio system ⁴		
INDEX xx	NAME	Comments
06	BR 1609	Value 06 not to be used. Kept for historical data.
07	FS ETACS and GSM	Value 07 not to be used. Replaced by 21. Kept for historical data.
08	UIC Radio Chapter 1-4 [TTT radio system installed at Cascais line]	
09	TTT radio system CP_N [RSC – Rádio Solo-Comboio]	
10	PKP radio system	
11	VR trainr	Value 11 not to be used. Kept for historical data
12	TRS — The Czech Railways radio system	Value 12 not to be used. Replaced by 32. Kept for historical data.
13	LDZ radio system	
14	CH — Greek Railways radio system [VHF]	
15	UIC Radio Chapter Bulgaria	
16	The Estonian radio system	
17	The Lithuanian radio system	
18	450 Mhz UIC [Channel C]	
19	Analogue Radio Germany - UIC 751	
20	BOSCH [160 MHz]	
21	GSM-P	
22	Multikom [160 MHz and 450 MHz]	
23	OMEGA [160 MHz]	
24	RDZ - in compliance with UIC 751-3	
25	RETB [voice]	
26	Radio Network of CFR	
27	SRO [160 MHz]	
28	Shunting Radio Communication System	
29	ZUGFUNK 95	Value 29 not to be used. Kept for historical data
30	ZUGFUNK 2000	Value 30 not to be used. Kept for historical data
31	Analogue railway radio system [RDU] - in compliance with UIC 751-3	
32	SRD	

2.5.2xx Class B radio system ⁴		
INDEX xx	NAME	Comments
33	DMR	

2.6 Other CCS systems on board

These codes are used for systems that are neither ERTMS nor listed as class B systems. They are split into systems for signalling and systems for radio. These codes are kept for historical compatibility. No new codes are accepted in these lists.

Following codes apply:

Table 5. Other CCS signalling systems on board

2.6.1xx Other CCS signalling system		
INDEX xx	NAME	Comments
01	SSC BL3	Added 15.02.2012. Requested by NSA IT

Table 6. Other CCS radio systems on board

2.6.2xx Other CCS radio system		
INDEX xx	NAME	Comments
01	TETRA-URCA (Terrestrial Trunked Radio -Unified Railway Communication and Application System)	Added 08.02.2018 Requested by NSA FI

5.1 On-board equipment. Recording device

Following codes apply:

Table 7. On-board equipment. Recording device

5.1.xx On board equipment - Recording Device		
INDEX xx	NAME	Comments
01	“Registratore cronologico d’eventi computerizzato” (RCEC) according to specification RFI/DTC/CSI/SR/OR/10/002/B of 11/02/2008	Requested by NSA IT
02	“Acquisition et Traitement des Evénements de Sécurité en Statique” (ATESS)	Added 01.10.2019 Requested by NSA FR
03	TELOC	Added 01.10.2019

5.1.xx On board equipment - Recording Device		
INDEX xx	NAME	Comments
		Requested by NSA FR
04	Trainborne Recorder Units (TRU) NG	Added 13.10.2024