

	<b>Elektro-elektronické rozhranie medzi podvozkom kabíny a nadstavbou automobilov na odvoz odpadu.</b>	<b>TNI CEN/TR 16596</b>  30 0353
--	--	--

Electric-electronic interface between chassis-cab and bodywork of refuse collection vehicles (RCVs)

Táto technická normalizačná informácia obsahuje anglickú verziu CEN/TR 16596:2013.  
This Technical standard information includes the English version of CEN/TR 16596:2013.

Táto technická normalizačná informácia bola oznámená vo Vestníku ÚNMS SR č. 04/14

**118897**

TECHNICAL REPORT

**CEN/TR 16596**

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

November 2013

---

ICS 43.040.15; 43.160

English Version

## Electric-electronic interface between chassis-cab and bodywork of refuse collection vehicles (RCVs)

Interface électrique-électronique entre le châssis-cabine et  
la superstructure des bennes de collecte des déchets

CAN-Schnittstelle zwischen Fahrgestellen und Aufbau von  
Abfallsammelfahrzeugen

This Technical Report was approved by CEN on 24 September 2013. It has been drawn up by the Technical Committee CEN/TC 183.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

<b>Contents</b>		Page
<b>Foreword</b> .....		<b>3</b>
<b>Introduction</b> .....		<b>4</b>
<b>1</b>	<b>Scope</b> .....	<b>5</b>
<b>2</b>	<b>Normative references</b> .....	<b>5</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>5</b>
<b>4</b>	<b>Electric interface</b> .....	<b>5</b>
<b>4.1</b>	<b>Objective</b> .....	<b>5</b>
<b>4.2</b>	<b>Description</b> .....	<b>6</b>
<b>4.3</b>	<b>Plugs</b> .....	<b>6</b>
<b>4.4</b>	<b>Pin-out and defined signals</b> .....	<b>6</b>
<b>4.5</b>	<b>Video cable</b> .....	<b>6</b>
<b>4.6</b>	<b>Plugs location</b> .....	<b>7</b>
<b>5</b>	<b>CAN Interface</b> .....	<b>7</b>
<b>5.1</b>	<b>Objective</b> .....	<b>7</b>
<b>5.2</b>	<b>SAE J1939/71 messaging for RCV</b> .....	<b>7</b>
<b>5.3</b>	<b>Management of the information between bodywork and chassis-cab</b> .....	<b>7</b>
<b>Annex A (normative) Architecture of the electric-electronic interface</b> .....		<b>23</b>
<b>Annex B (normative) Plugs</b> .....		<b>24</b>
<b>Annex C (normative) Pin-out and defined signals</b> .....		<b>25</b>
<b>Annex D (normative) Characteristics of the engine revolution signal</b> .....		<b>29</b>
<b>Annex E (normative) Characteristics of the driving speed signal</b> .....		<b>30</b>
<b>Annex F (normative) Configuration of the information: chassis ready</b> .....		<b>31</b>
<b>Annex G (normative) Control of the beacon</b> .....		<b>32</b>
<b>Annex H (normative) CAN messages transmitted by bodywork</b> .....		<b>33</b>
<b>Annex I (normative) CAN messages received by bodywork</b> .....		<b>43</b>
<b>Bibliography</b> .....		<b>73</b>

## **Foreword**

This document (CEN/TR 16596:2013) has been prepared by Technical Committee CEN/TC 183 “Waste management”, the secretariat of which is held by DIN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

## **Introduction**

On September 29, 2009, CEN/TC 183/WG 2 mandated its PWG 5 to work on a proposal for the CAN communication between the chassis-cab and the bodywork of RCVs. Based on an earlier proposal (PWG 5 from 2002 to 2005), the experts of PWG 5 discussed the possibilities and concluded in the results shown in this document.

To comply with the requirements of the relevant safety Directives and Standards, it is unavoidable to use electronic controls on the RCV chassis-cab and on the bodywork of RCVs because the control devices have to communicate to get the RCV working in proper and safe conditions.

This document contains a proposal for an interface between the chassis-cab and the bodywork in terms of electrical wiring including plugs and positions for the plugs as well as an adequate CAN protocol.

## 1 Scope

This Technical Report proposes a standardized interface between the chassis-cab and the bodywork of refuse collection vehicles. The solution, initially for vehicles with hard wired interface and CAN interface, is developed into full CAN communication between the bodywork and the chassis-cab.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1501-1:2011, *Refuse collection vehicles — General requirements and safety requirements — Part 1: Rear loaded refuse collection vehicles*

EN 1501-5:2011, *Refuse collection vehicles — General requirements and safety requirements — Part 5: Lifting devices for refuse collection vehicles*

SAE J1939/71:2010-02, *Vehicle application layer*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**