

# LABELLING FOR ELECTRICALLY RECHARGEABLE ROAD VEHICLES AND CHARGING INFRASTRUCTURE

## GENERAL BACKGROUND

European Union (EU) **Directive 2014/94/EU** of the European Parliament and of the Council (the 'co-legislators') addresses the EU-wide deployment of alternative fuel infrastructure. This Directive addresses Europe's future needs for providing wider access to alternative fuels and includes a requirement for new vehicles and all fuel pumps/recharging stations to be labelled in order to enable vehicle drivers to better select the fuel or recharging option that their vehicle can properly use. The Directive regulates the deployment of a new, unique and harmonised set of fuel and electric charging labels.

For the electric vehicles these labels will appear:

- on newly-produced vehicles near each vehicle charging location and on each charging plug,
- on detached charging cables,
- in the vehicle owner's manual or in the electronic handbook,
- on EV charging stations adjacent to the socket-outlet or to the storage location of the vehicle connector cable, and
- for information, in vehicle dealerships.

## WHO DEVELOPED THE NEW LABELS?

A specific task force under the CEN (European Committee for Standardisation) Technical Committee 301 (TC 301) worked on the design and format of the new labels to comply with the general prescriptions of Directive 2014/94/EU. The participants of the task force included experts from the electric vehicles and charging stations industry, NGOs representing consumers, national standard bodies, a number of EU governments and the European Commission. Standard **EN 17186** describes the technical design and size of the new labels.

## WHICH VEHICLES ARE CONCERNED BY THIS LABELLING REQUIREMENT?

When it comes to road vehicles, the labels will appear on **newly produced** electrically rechargeable vehicles in the following categories:

- Mopeds, motorcycles, tricycles and quadricycles;
- Passenger cars;
- Light commercial vehicles;
- Heavy-duty commercial vehicles;
- Buses and coaches.

## ARE VEHICLES OF ALL AGES CONCERNED?

**No.** The European legislation requires the labels only for the new vehicles placed on the market for the first time or registered as of 20 March 2021. Vehicle manufacturers do not recommend fitting the labels to any older vehicles.

## WHEN WILL THESE LABELS BE VISIBLE IN EU MEMBER STATES?

As of **20 March 2021**, the label will be placed on all newly produced electrically rechargeable vehicles (i.e. battery electric and plug-in hybrid-electric vehicles) and on all European Union charging stations in a clear and visible manner for consumers. Since this is a compliance date, vehicle manufacturers and charging stations operators will start to introduce these labels over a transitional period prior to that date. The labelling of charging stations is also submitted to the specific **national laws** implementing the European Directive.

## WHAT ABOUT THE UK AFTER BREXIT?

It is up to the UK to decide the way in which EU rules will apply after Brexit, but newly produced vehicles **will have the labels** fitted on the production line so vehicles entering the UK market will have the labels.

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## WHAT DO THE LABELS LOOK LIKE?

The size of the identifier shall be a **minimum of 30 mm** in diameter (width), with an outer line at least 3,2 points thick. The shape for all electrical interfaces is a regular horizontal hexagon. The electrical interface is categorized by a symbol. The symbol consists of a single letter in normal Latin script. The font size of the symbol shall be scalable to the size of the shape, but the minimum being 3,2 points for 30 mm diameter.

### Colour scheme for electrical interfaces:

- for the vehicle connector and vehicle inlet, in a white/ silver symbol with black internal background and a white / silver outline.
- for the plug and socket-outlet, in black symbol with a white / silver internal background and a black outline.



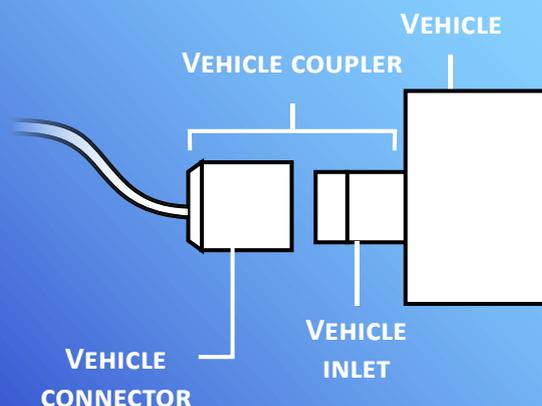
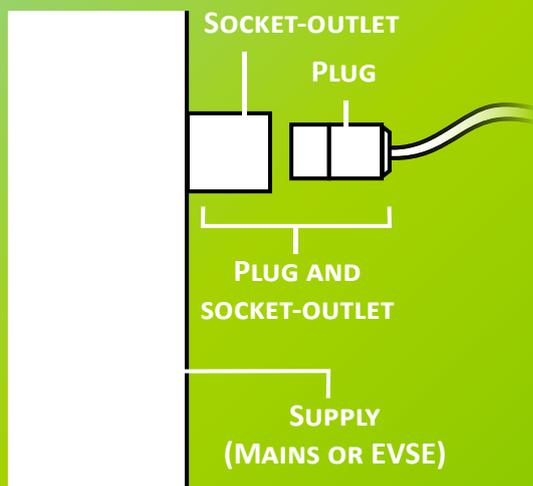
### EV CHARGING STATION SIDE

Identifier for plug and socket-outlet



### VEHICLE SIDE

Identifier for vehicle connector and vehicle inlet



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### WHERE TO FIND THESE LABELS ON VEHICLES?

The labels are visible on **newly produced vehicles** near each vehicle inlet and on each plug, as well as on the detached charging cables. Information on the labels will also be found in the vehicle owner's manual or in the electronic handbook.

### WHERE TO FIND THE LABELS AT THE CHARGING STATIONS?

Labels shall be affixed to an EV charging station adjacent to socket-outlet(s) or to the storage location(s) of vehicle connector(s); on the vehicle connector of each cable assembly or on a flag attached to each cable in the immediate proximity of the vehicle connector, or on floating cables if any. In case of a payment or selection terminal that is separate from the EV charging station, it shall be affixed near or as part of the selection device.

Additional information may be included on the label at charging points, according to **national requirements** and in the local language.

### ARE DIGITAL LABELS REQUIRED BY EN 17186 STANDARD?

The Standard makes reference only to physical representations of the symbols. Digital representations (mobile application) are not required by the Standard. Additional display of the labels on digital screens or signposts is optional / voluntary.

### DOES EACH CHARGING POINT NEED A LABEL?

A charging station with multiple charging points needs to apply labels on each charging point according to the voltage range.



## LABELLING FOR ELECTRICALLY RECHARGEABLE ROAD VEHICLES AND CHARGING INFRASTRUCTURE (ANNEX)

### IDENTIFIERS FOR AC CHARGING

CONFIGURATION	TYPE OF ACCESSORY	VOLTAGE RANGE	IDENTIFIER
	Home plug, Home socket; Industrial plug and socket-outlet		No graphical expression
TYPE 1	Vehicle connector and vehicle inlet	≤ 250 V RMS	
TYPE 2	Vehicle connector and vehicle inlet	≤ 480 V RMS	
TYPE 2	Plug socket outlet	≤ 480 V RMS	
TYPE 3-A	Plug socket outlet	≤ 480 V RMS	
TYPE 3-C	Plug socket outlet	≤ 480 V RMS	

### IDENTIFIERS FOR DC CHARGING

CONFIGURATION	TYPE OF ACCESSORY	VOLTAGE RANGE	IDENTIFIER
FF	Vehicle connector and vehicle inlet	50 V – 500 V	
		200 – 920 V	
AA	Vehicle connector and vehicle inlet	50 V – 500 V	
		200 V – 920 V	
TYPE 2a	Vehicle connector and vehicle inlet	50 V – 500 V	