Renault Store - Technical specifications

Totems and flag insignia

Contents

General requirements

General remarks

Technical principles

1
Technical requirements

General technical requirements

1.1 Preamble

RENAULT expects all those involved in the "Renault Store" programme to meet their obligations in terms of results as per the requirements of the Technical Specifications. The general rules and specificities set out below are to be considered as the minimum necessary that has to be done to achieve the expected result.

1.2. Safety of persons and property

The supplier shall be able to provide proof that it has analysed the risks related to the services it is to provide and that its personnel and any sub-contractors have undergone sufficient training. Strict compliance with legislation in terms of safety and protection of workers is required.

1.3. Respect for the environment

Materials and methods which make it possible to reduce harm to the environment shall be used wherever possible (recyclable materials, energy-saving technologies, toxicity of materials and products used, etc.).

The supplier shall be able to provide proof that it has the various administrative permits (operating permit, environmental permit) necessary to manufacture the various items of equipment and that it complies with the operating conditions required by the legislation in force or by the specific operating conditions in the countries concerned.

A global approach such as the ISO 14001 standard is recommended.

1.4. Quality

The supplier shall be able to provide proof that it works in accordance with ISO 9000 quality assurance standards, formal certification being particularly recommended in this regard. The signwriter shall attach a specific Quality Plan to its offer to assure RENAULT of its capacity to supply finished products and spare parts that are compliant with the contractual requirements, within the set time periods. It shall request its sub-contractors to do likewise.

The procedures applied must make it possible to:

- Be sure that the parts and products purchased, manufactured and supplied shall neither be used nor delivered before they have been checked and be recognized as compliant.
- Procedures shall be set out for identifying causes of non-compliance, which make it possible to provide sustainable solutions that can be applied more widely to resolve the non-compliance and prevent it reoccurring.

These operations shall be recorded in the appropriate documents and be approved by RENAULT prior to being applied more widely.

- Track changes in the quality of products and assembly and removal services using inspection and audit indicators (incidents, complaints, etc.).

This tracking shall result in preventive or corrective actions; they shall be approved by RENAULT before being applied.

General technical requirements

1.5. Compliance of messages and colours

Visuals must comply with the official images contained in this document.

All shades have a 40% satin finish unless specified otherwise. Particular attention should be paid to complying with the colour code.

Compliance with the tolerances for the L.a.b. is required.

2.1. General technical standards

The reference base to be followed for design and manufacturing shall, at the very least, be that required by Eurocode standards.

The regulations relating to the dimensioning of structures in force in each of the countries concerned shall be complied with taking climatic conditions into account.

The following obligations in terms of results must be met:

- Supported under their own weight, the equipment must appear perfectly horizontal and vertical.
- The parallel alignment of separate elements must be observed.
- Under normal wind conditions (Cf. NV65 and NF EN1991-1-4 (Eurocode 1)), the permissible bend between the fastening and the point most distant from the fastening (dimension "d") shall not exceed d/100.

2.1.1. CLIMATIC CONDITIONS

Wind loads to be considered for the design of structures shall be taken from the Eurocode 1 rules (EN 1991-1-3): zones 4 (28 m/s), roughness IIIb, force coefficient equal to 1.80.Any structure situated in an unfavorable geographical area with regard to this load case shall be subject to a special design basis in order to meet the applicable standards.

2.1.2. DESIGN RULES

2.1.2.1 Aluminium structures

Design rules for aluminium structures - most recent edition of DTU rules (currently, July 1976).

Applicable standard for the execution of structures: NF EN 1090-2 and Eurocode 9.

2.1.2.2 Steel structures

Design rules for steel structures CM 66 » - most recent edition.

Applicable standard for the execution of structures: EN 1093 and Eurocode 3.

2.1.2.3 Concrete blocks

Concrete blocks shall be of "weight" type with minimum reinforcement.

The concrete to be used shall have an ordinary Portland cement (OPC) content of 400 kg/m3 (s' 28=300 bars - s28=25 bars).

General technical requirements

2.1.2.4 Design calculations for plastic elements

Adapt the CM 66 rules using a safety coefficient of 2 for the stresses.

2.1.3. MATERIALS

2.1.3.1 General remarks

The materials used shall all be first-choice materials suitable for their envisaged use and they shall be used in accordance with the rules of best industry practice for the profession and in compliance with the standards and regulations in force in France and in the Countries in which they are intended to be used.

The materials used shall not have any defect that is likely to compromise the durability of the structures. The equipment shall be easy to clean, maintain and service.

The materials shall be capable of withstanding harsh climatic conditions such as rain, snow, hail, condensation, dust and salt spray.

Operation must be guaranteed between - 20 and + 80 ° C.

2.1.3.2 Steels

Steels shall be either "hot finished" as per NF EN 10210 or "cold finished" as per NF EN 10219-1 and 2. The quality of the steels shall be stated on the production drawings and it goes without saying that the mechanical properties of the different types of steels must be taken into account for stability calculations.

All elements shall be manufactured in a covered, sheltered location.

After machining, welding, drilling, notching, etc. the elements shall be prepared prior to anti-corrosion treatment: brushing of welds, careful deburring, cleaning, shot peening and sand blasting.

The anti-corrosion treatment shall be performed by hot galvanization of a minimum of 80 µm and shall provide fault-free protection for at least the period of the ten-year guarantee.

No machining may be carried out once the parts have undergone anti-corrosion treatment.

All fasteners and hardware (including hinges) shall be made of 18/10 stainless steel (NFE 25.033).

2.1.3.3. Aluminium

The reference standard is NF EN 573-1. Parts used in a supporting structure shall be chosen from the "6000" series. For parts which are not used in a supporting structure, the "1000" series shall be acceptable.

The alloys are to be weldable.

The parts shall be carefully deburred and the welds shall be brushed before any protective treatment.

The visible parts of equipment shall be treated by the application of paintwork performed according to a "Qualicoat"-type procedure.

General technical requirements

2.1.3.4. PMMA

The PMMA shall meet at least the following characteristics:

	Flat parts machined "cast" PMMA	Flat parts unmachined "extruded" PMMA
• Opal white (values for a test piece of 3mm thick)		
• Tensile strength	> 75 MPa	> 70 MPa
• Bending strength	> 130 MPa	> 120 MPa
• Bending modulus	> 3,250 MPa	> 3,000 MPa
• Unnotched CHARPY impact test strength	> 12 MPa	>10 MPa
• Expansion	< 1 mm / 1 m / 10°C	<1 mm / 1 m / 10°C
• Light transmittance	> 50 %	>33 %

The thermoformed panels shall be made of white, light diffusing, extruded PMMA in compliance with the sheet manufacturer's heating parameters.

Where parts made of PMMA are more than 100 cm high, they shall be hung from the top by an adhesive PMMA cleat.

The thickness of the sheets shall be calculated in compliance with the tensile strength standards set out above.

2.1.3.5. Polycarbonate

The polycarbonate sheet shall meet at least the following characteristics:

- Uncoloured appearance
- Density > 1.2 g/cm3
- Tensile strength: 60 Mpa
- Expansion < 0.7 mm / 1 m / 10°C
- Light transmittance > 90%

2.1.3.6. Expanded foam

These following characteristics must be met:

- Material 9010 white PVC
- Density > 50 g/cm3
- UV-stabilized: 14 MPa
- Shore hardness D > 75
- Expansion < 1 mm / 1 m / 10°C

2.1.3.7. Paint

Painted parts must have an even appearance across their entire surface.

Defects such as pores, fissures, grains of dust, runs or waves of paint shall not be tolerated.

General technical requirements

Samples of painted rough parts shall be tested and accepted by RENAULT, after having undergone the following tests performed by a certified body:

- Colour based on a LAB test with a MINOLTA 508 D colorimeter with D65 illuminant and the observer at 10° and specular component included (the tolerances in the CIELAB colour space are L +/- 1, a +/-1.5, b +/- 1.5).
- Gloss at 40 °: based on a test according to NF T 30064 standard.
- Gloss at 60 °: based on a test according to NF T 30064 standard
- Adhesion: resistance to peeling based on grid test.

  Class 1, as per P UW 150 1. NF T 30038 standard
- Colourfastness:

  QUV as per NF T 30036 after 200 hours of exposure.

Samples of each of the elements shall be supplied, upon request, to RENAULT for inspection.

2.1.4. ELECTRICAL EQUIPMENT

Assemblies with electrical equipment shall comply with the essential safety requirements of the European Union. Within this framework, the supplier shall obtain a certificate (for each type of equipment) which must clearly state the compliance of the assemblies, and thus of the components, with:

- requirements relating to the safety and protection of users and all other persons (directive 73/23/EEC without any lower voltage threshold)
- requirements relating to electromagnetic compatibility (directive 89/336/EEC).

The rating plate on each item of equipment shall display the CE mark indicating compliance with these requirements.

The regulations relating to low-voltage signage in force in each of the countries concerned shall be complied with taking climatic conditions into account.

In addition, the following requirements shall be met:

Electrical equipment shall be compliant with the standards in force from the series NFC 15-100, NFC 20-010 and NFC 20-030, NFC 71, NFC 32 for France and the IEC 60364 international standard.

This concerns the following in particular:

- Category one electrical installations and low-voltage illuminated signage installations.
- The fire behaviour of electrical equipment and the degree of protection of enclosures,
- Flexible and rigid low-voltage cables.

In addition, the equipment shall comply regulations relating to the suppression of interference in inhabited areas and shall thus be delivered with interference suppression.

General technical requirements

2.1.4.1 IP rating

All the electrical equipment shall have a protection rating of at least IP 44-D.

2.1.4.2 Protection against electric shock

All equipment shall be "class 1".

2.1.4.3 Fasteners

The converters shall be placed in areas not subject to standing water.

The cables and sheaths shall be fastened to structures at 50 cm intervals.

2.1.4.4 Cable routing

Every cable or sheath passing through a metal part shall be routed through a cable gland.

Connection boxes.

An IP 44 sealed plastic connection box shall be provided at the inlet to each assembly. This box shall be equipped with a 5-input connection pin for 4 mm wiring.

All the connection boxes shall have the markings P1+P2+P3+T+N.

2.1.4.5 LEDs

The white LEDs used shall have the following characteristics:

- Lifetime: 50,000 hours for a loss of initial luminous flux of 50 % at the end of the period
- 5 year guarantee for operation 10 hours per day with a maximum loss of luminous flux of 20 %
- Operating temperature of LEDs: between - 20° C and +50 °C.
- Minimum protection index: IP 67
- The LEDs used must comply with the following international standards: IEC 62504 TS Ed. 1, IEC 61231, IEC 62560 Ed 1, IEC 62031 LED module safety, IEC 61347-2-13 LED control gear.

2.1.4.6 Converters

The power supply converters for the LEDs shall have the following characteristics:

- Wide power supply voltage range (100 to 300 volts)
- Reversible protection against increase in temperature and overload
- Protection against short-circuits with automatic restart
- Minimum protection index: IP 67
- Operation compliant with: EN 55015, EN 61000-3-2, EN 61547, EN 61558-2-17

General technical requirements

2.1.5. FASTENERS AND HARDWARE

All fasteners and hardware used shall be made of stainless steel (non-magnetizable).

Aluminium "pop" rivets are accepted as long as the steel rods are systematically removed.

For welding, the wires and electrodes are to be compliant with NF 81.830.

2.1.6. ANCHORING SYSTEMS AND FASTENINGS

The plinths for all equipments shall be completely removable without having to remove another element of the assembly. The plinths shall cover the attachment plates or fastenings. The attachment plates shall be easily accessible once the plinths have been removed.

For each of the assemblies which require a foundation block or fastening to a separate structure, the signwriter shall provide the elements necessary, as well as the conditions to be used to make design calculations for these elements (wind conditions and design calculation methods).

2.1.7. IDENTIFICATION PLATE

Each finished product shall be marked with a metal identification plate on the structure which shall show at least the following information:

- Name of the signwriter
- Product code and batch
- Month and year of manufacturing
- The CE Marking if it is illuminated.

2.1.8. STORAGE

The finished products shall be stored in a dry and well-ventilated location.

RENAULT inspectors shall be able to have access to them at any time.

2.2. Guarantees

The suppliers undertake to offer the guarantee conditions below for their products:

- 2 year guarantee on the installation against defects and faulty workmanship,
- 5 year guarantee on the electrical equipment including the LEDs and converters,
- 5 year guarantee on the adhesive elements,
- 5 year guarantee on digital printing (anti UV treatment),
- 5 year guarantee on workshop-lacquered sheet metal,
- 5 year guarantee on the chrome-plated diamonds,
- 7 year guarantee on sheet metal and profiles pre-lacquered by the aluminium manufacturer,
- 10 year guarantee on the internal structures,
- 10 year guarantee on the PMMA acrylic panels.

2
General remarks

Overview

Description

Renault sites, as well as Renault PRO+ Renault SELECTION sites, are identified by a totem or, failing that, by a flag insignia.

These elements bear the Renault signature, and are essential contributors to brand recognition present in the dans dealer networks.

Colours and materials

RAL 9010 satin white

- Pre-lacquered aluminium sheeting, 15/10 mm thick
- Satin finish with 40% gloss

Dark grey equivalent to RAL 7021

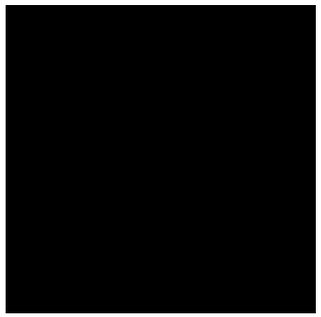
- Post-lacquered steel
- Pre-lacquered aluminium sheeting, 15/10 mm thick
- Satin finish with 40% gloss

Pantone 7408 EC yellow

- Pre-lacquered Alucobond sheeting, 40/10 mm thick, with satin finish with 40% gloss

Gloss chrome

- Vacuum metallized light-diffusing polycarbonate with gloss varnish protection



Black équivalent to RAL 9005

- Black & White PMMA

3
Technical principles

General presentation

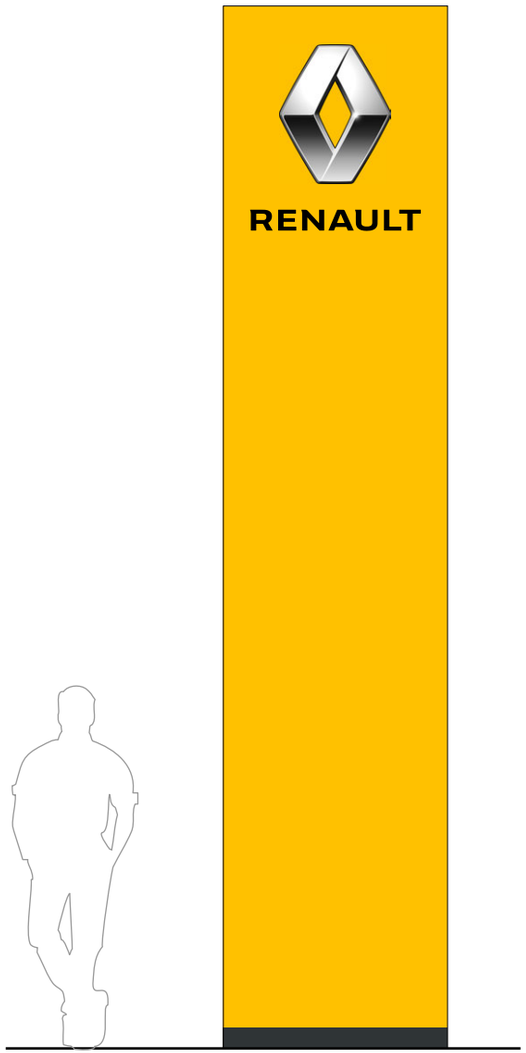
Description

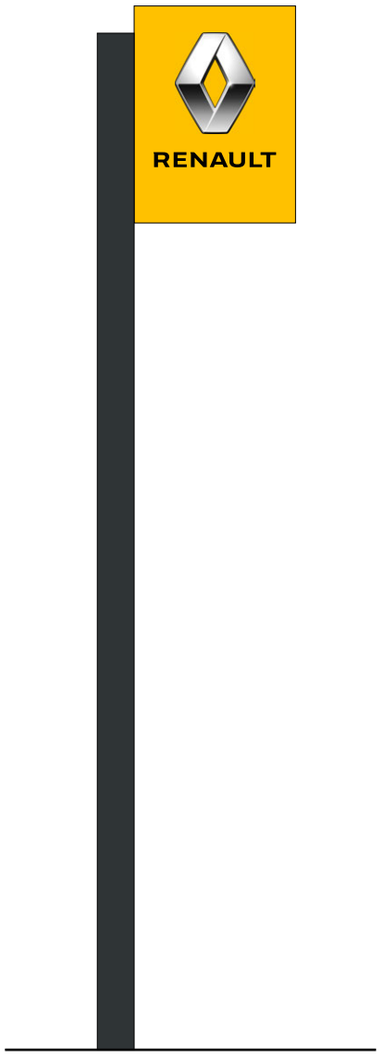
The totem is the primary visual element identitying the Renault brand when approaching the dealership.

The flag insignia is an alternative to the totem when the latter cannot be installed for technical or legal reasons.

The flag insignia can be installed:

- either directly on the façade,
- or offset from the façade on a mast.





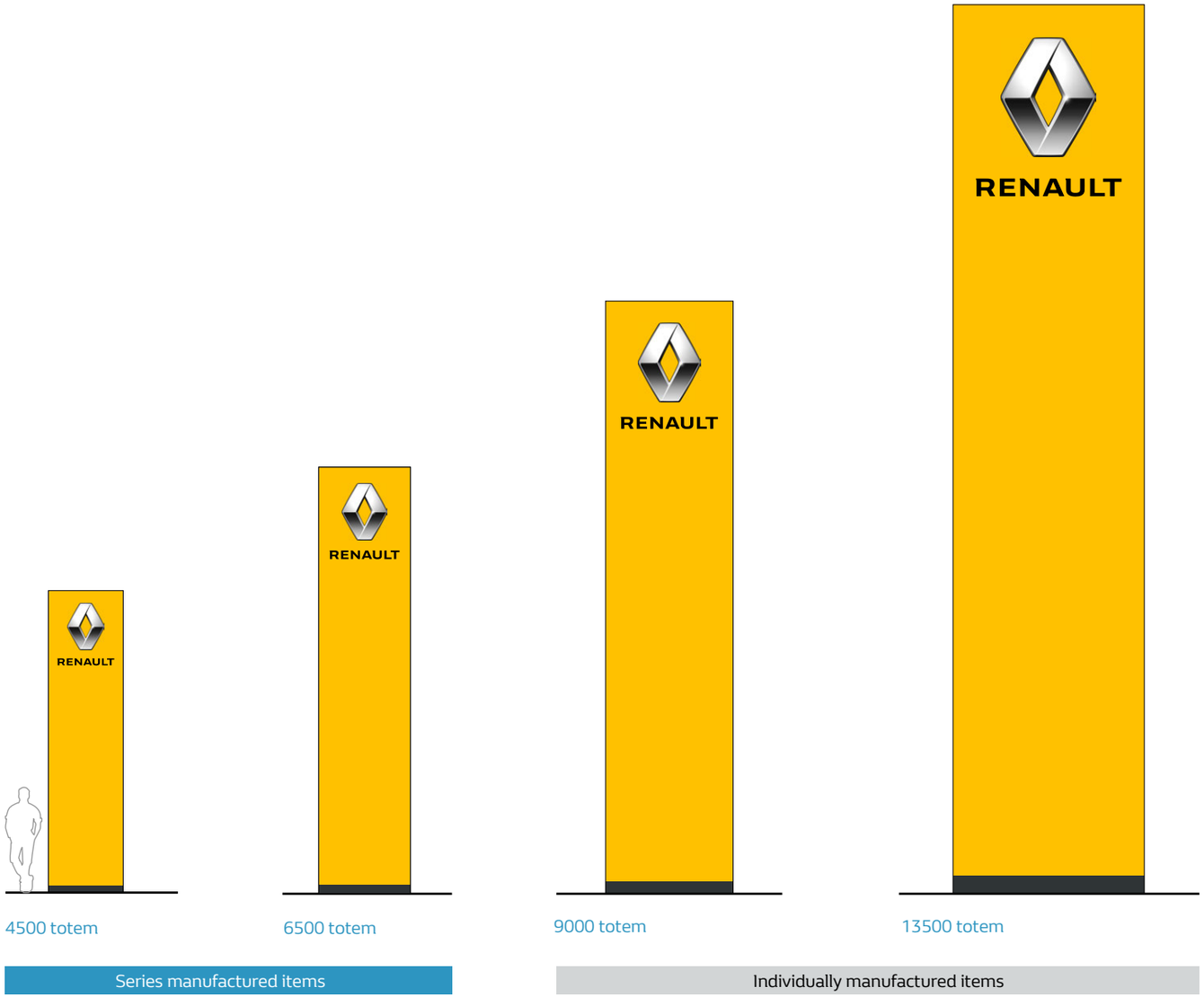
The family of totems

Principle

Four heights of totem make up this family.

The 4,500 and 6,500 mm totems are the ones most commonly used: they are industrially produced which means that their cost can be optimized.

Two other heights are offered to cater for particular situations: 9,000 and 13,500 mm.



Lighting of totems

Principle

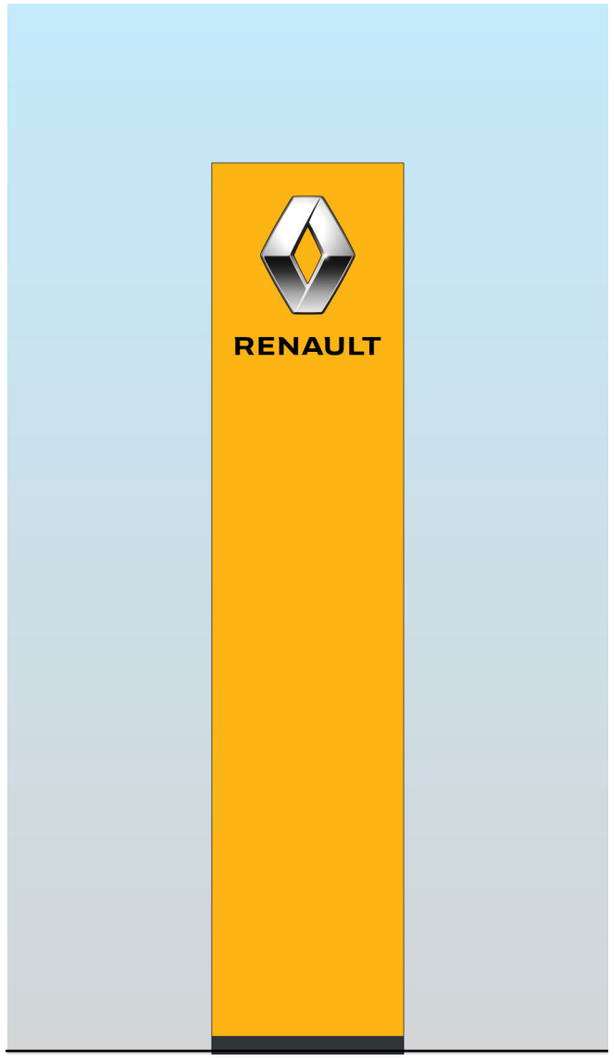
The diamond is backlit.

The Renault word lettering is backlit, becoming white when illuminated.

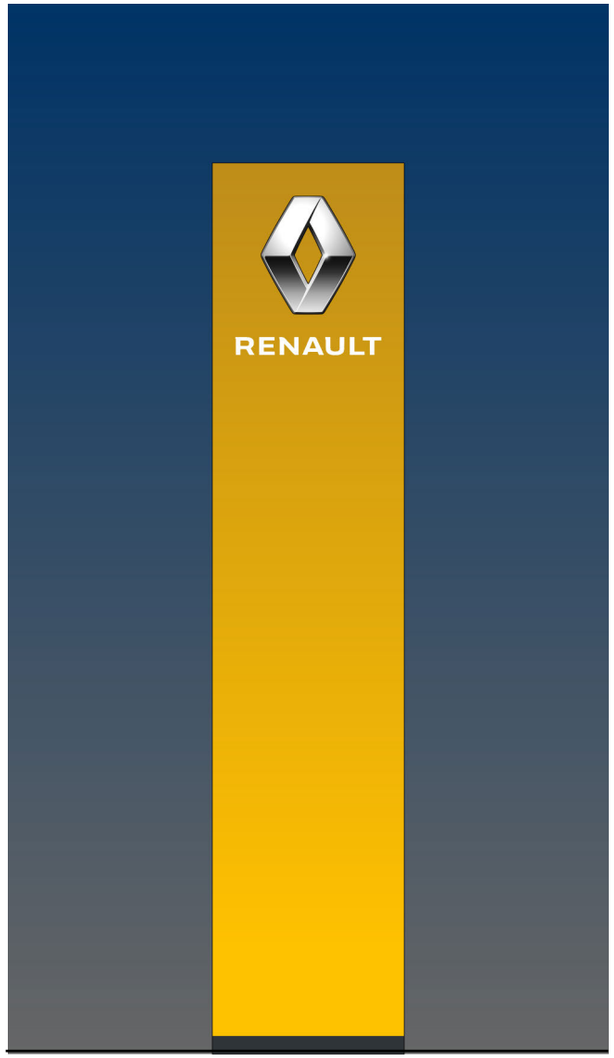
The lower part of the totem is illuminated with a gradation of light fading halfway up the face.

Key

1. Day view
2. Front lighting



1

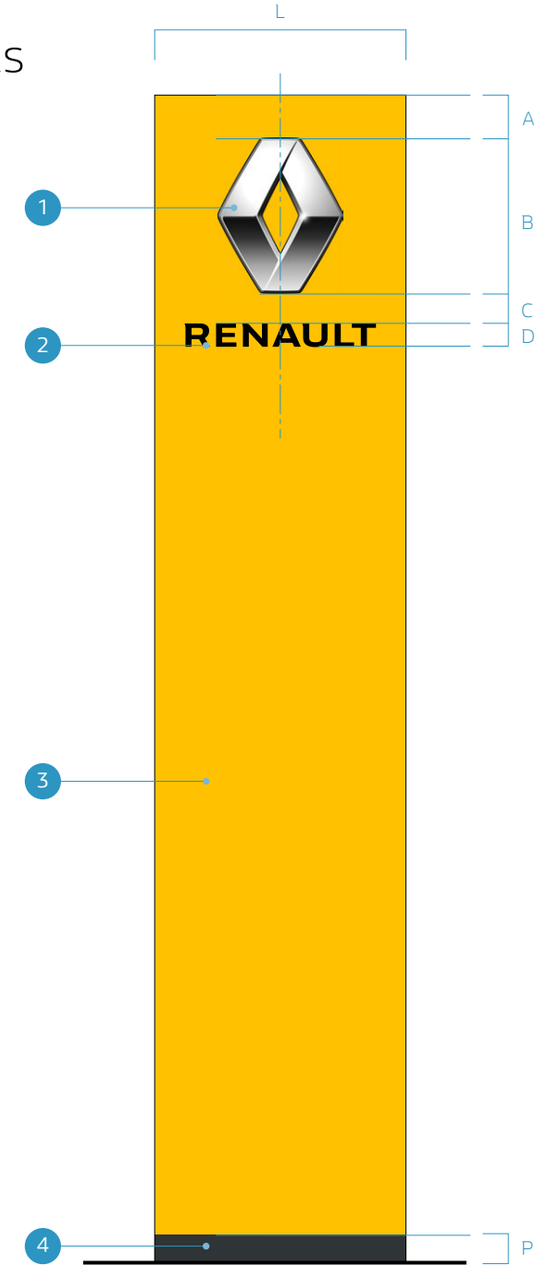


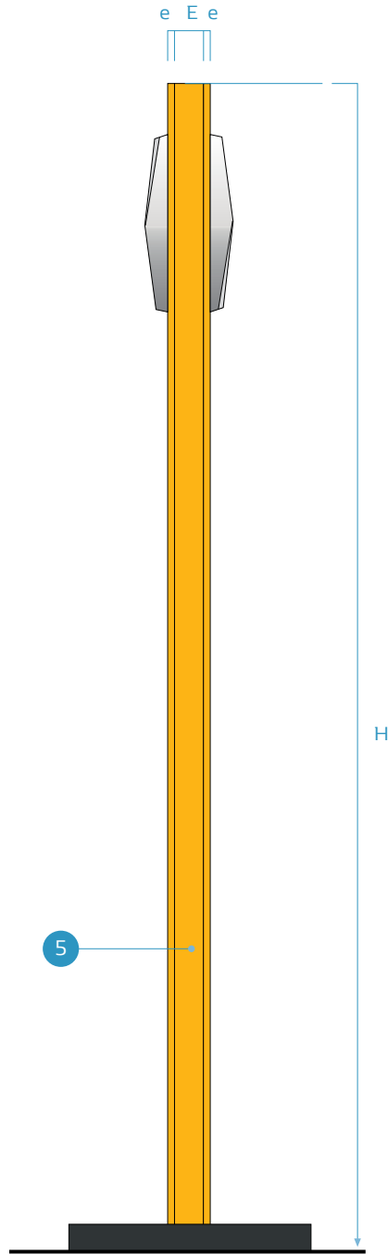
2

Description of 4,500 and 6,500 mm totems

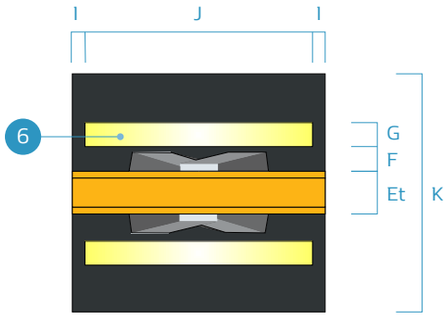
Key

1. Diamond with face in light-diffusing chrome injected Polycarbonate and 3D effect interior printed on adhesive, opaque edges, PVC bottom with LED equipment
2. Renault word in PMMA Black & White, in marquetry inlay, thickness 4 mm
3. One-piece front panel in composite (alucobond) thickness 4 mm, pre-lacquered in Pantone 7408 EC yellow
4. Base in RAL 7021 dark grey pre-lacquered aluminium, 20/10 mm thick
5. Edge in one piece, in pre-lacquered Alucobond sheeting, 40/10 mm thick, Pantone 7408 EC Yellow
6. Waterproof light unit integral with base, upper in crystal PMMA with chain LEDs mounted in the bottom of the unit.





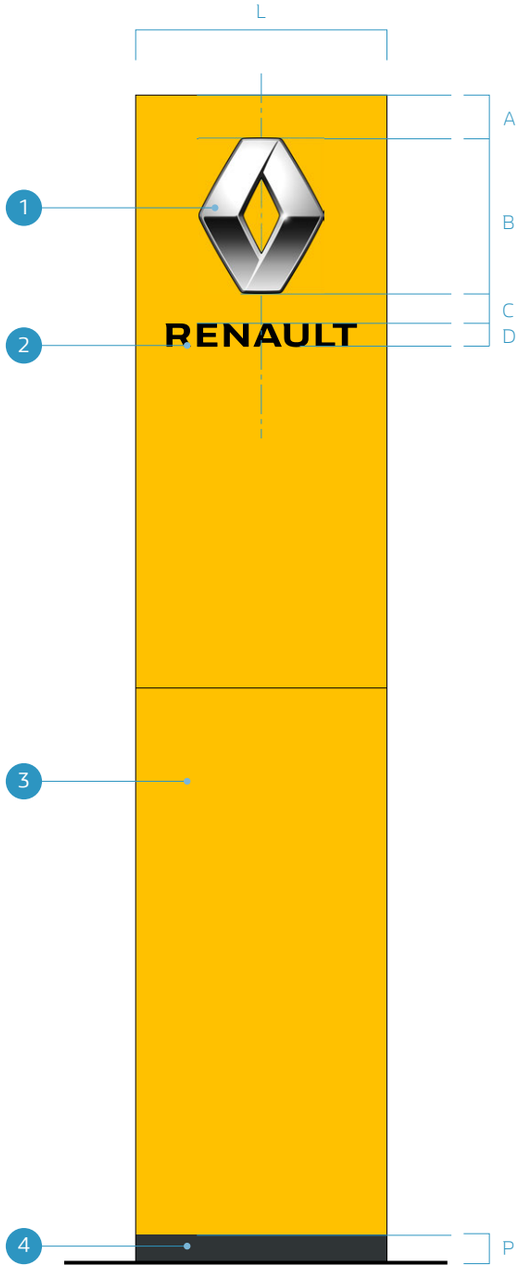
Dim.	4500 mm totem	6500 mm totem
L	1120	1400
A	190	240
B	670	860
C	136	170
D	104	130
H	4500	6500
P	126	180
E	126	160
e	28	40
Et	182	240
F	150	150
G	200	200
I	50	50
J	1020	1300
K	1120	1200

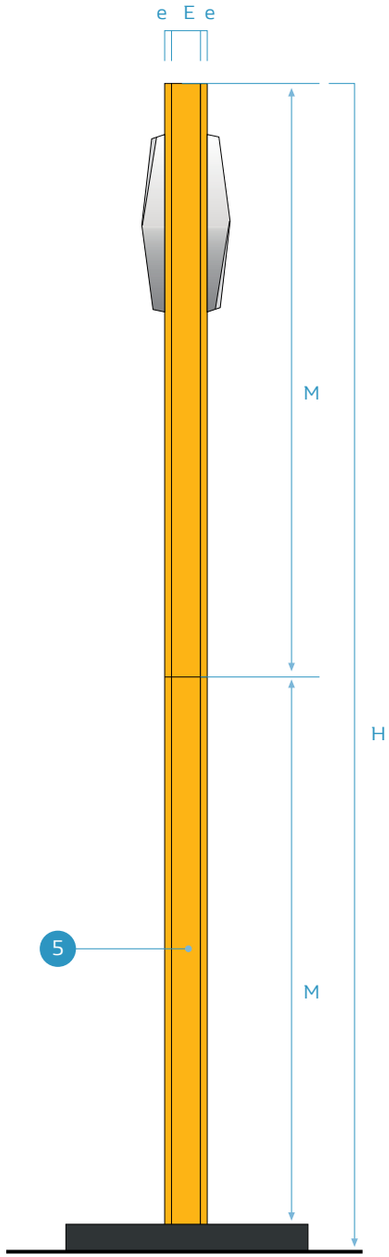


Description of 9,000 totem

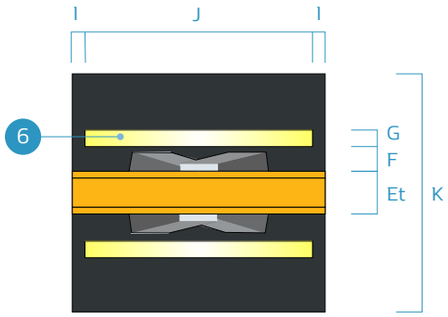
Key

1. Diamond with face in light-diffusing chrome injected Polycarbonate and 3D effect interior printed on adhesive, opaque edges, PVC bottom with LED equipment
2. Renault word in PMMA Black & White, in marquetry inlay, thickness 4 mm
3. Two-piece front panel in composite (alucobond) thickness 4 mm, pre-lacquered in Pantone 7408 EC yellow
4. Base in RAL 7021 dark grey pre-lacquered aluminium, 20/10 mm thick
5. Edge in 2 U-pieces, in pre-lacquered Alucobond sheeting, 40/10 mm thick, Pantone 7408 EC Yellow
6. Waterproof light unit integral with base, upper in crystal PMMA with chain LEDs mounted in the bottom of the unit.





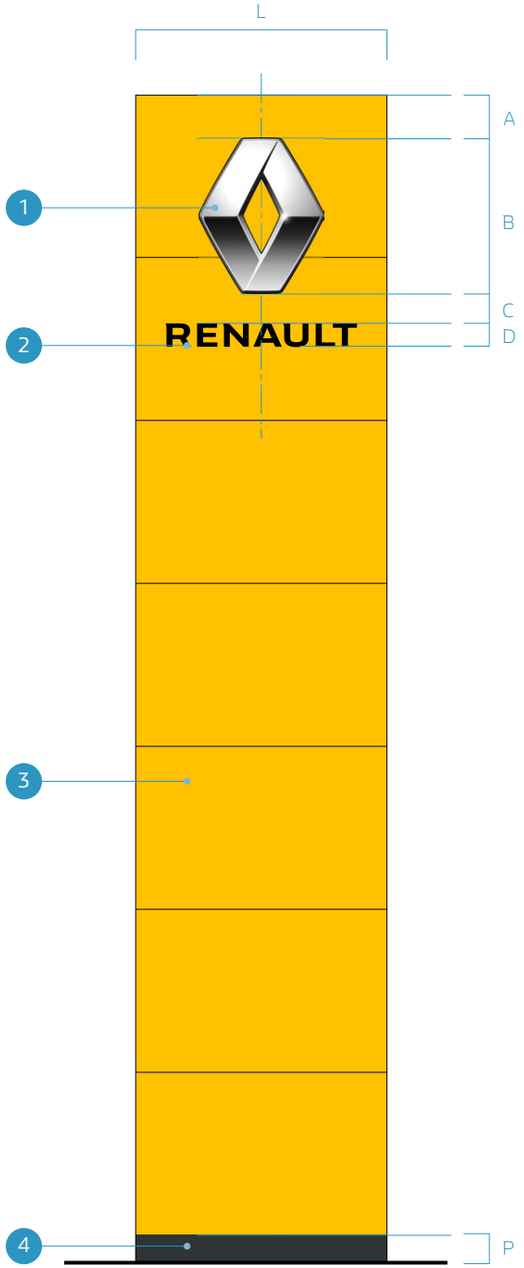
Dim.	9000 mm totem
L	1850
A	335
B	1200
C	238
D	181
H	9070
P	280
E	200
e	50
Et	300
F	210
G	200
I	50
J	1750
K	1500
M	4395

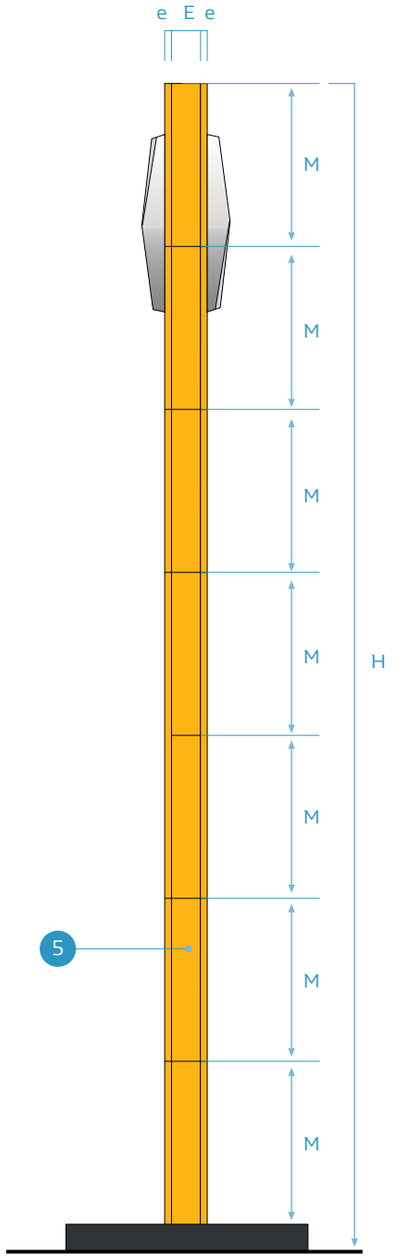


Description of 13,500 mm totems

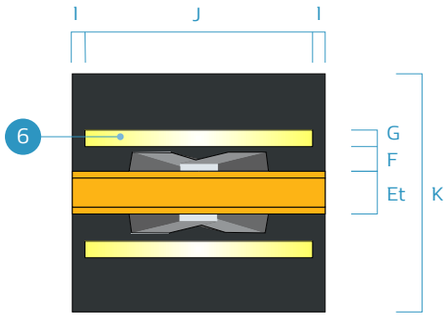
Key

1. Diamond with face in light-diffusing chrome injected Polycarbonate and 3D effect interior printed on adhesive, opaque edges, PVC bottom with LED equipment
2. Renault word in PMMA Black & White, in marquetry inlay, thickness 4 mm
3. 7-piece front panel in composite (alucobond) thickness 4 mm, pre-lacquered in Pantone 7408 EC yellow
4. Base in RAL 7021 dark grey pre-lacquered aluminium, 20/10 mm thick
5. Edge in 7 U-pieces, in pre-lacquered Alucobond sheeting, 40/10 mm thick, Pantone 7408 EC Yellow
6. Waterproof light unit integral with base, upper in crystal PMMA with chain LEDs mounted in the bottom of the unit.





Dim.	13500 mm totem
L	2925
A	502
B	1800
C	357
D	271
H	13600
P	400
E	300
e	75
Et	450
F	315
G	200
I	50
J	2825
K	3000
M	1885



Installation of totems on flush block

Principle

The recommended installation is on concrete block flush with ground surface to facilitate maintenance operations in case of damage to the totem.

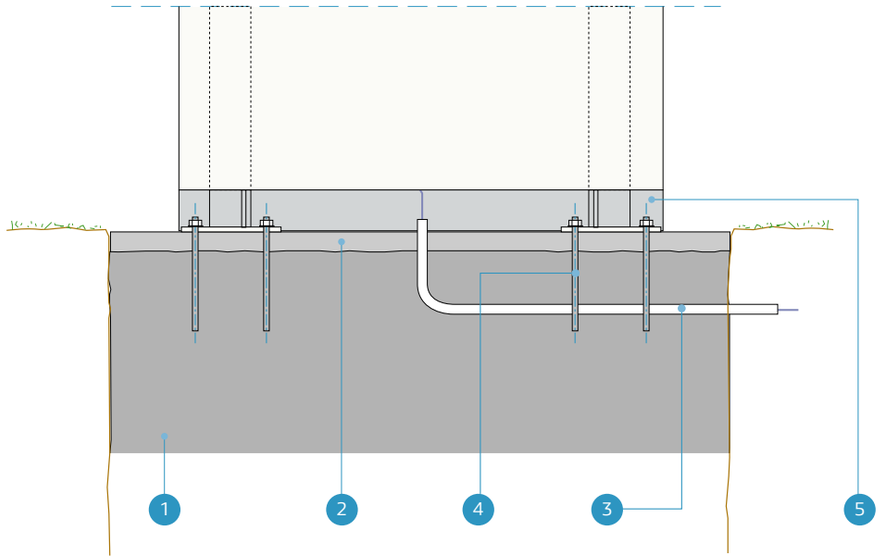
An attachment plate concealer is used to finish the anchor points on the concrete block.

Approximate weight of totems:

- 4,500 mm totem: 350 kg.

- 6,500 mm totem: 625 kg.

The anchoring systems and the weights of the 9,000 and 13,500 mm totems are to be specified by the manufacturers according to the concepts developed.



Key

1. Concrete block
2. Concrete screed
3. Power supply in
4. Anchoring system
5. Attachment plate concealer

Anchorage points for totems

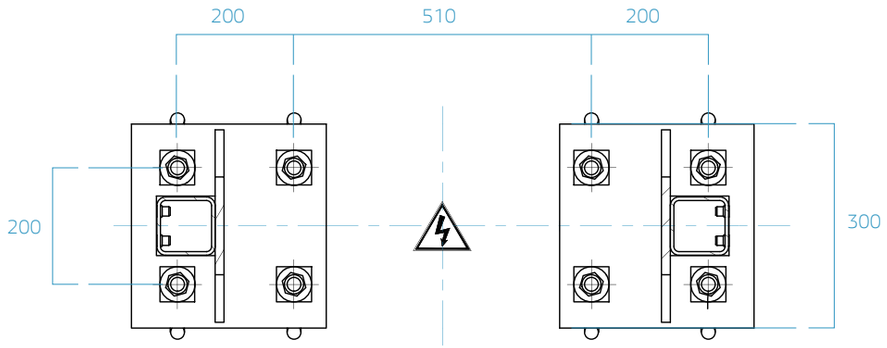
Ground attachment system

The totems are anchored to the ground via two plates fitted with 8 anchoring rods (M24 x 420).

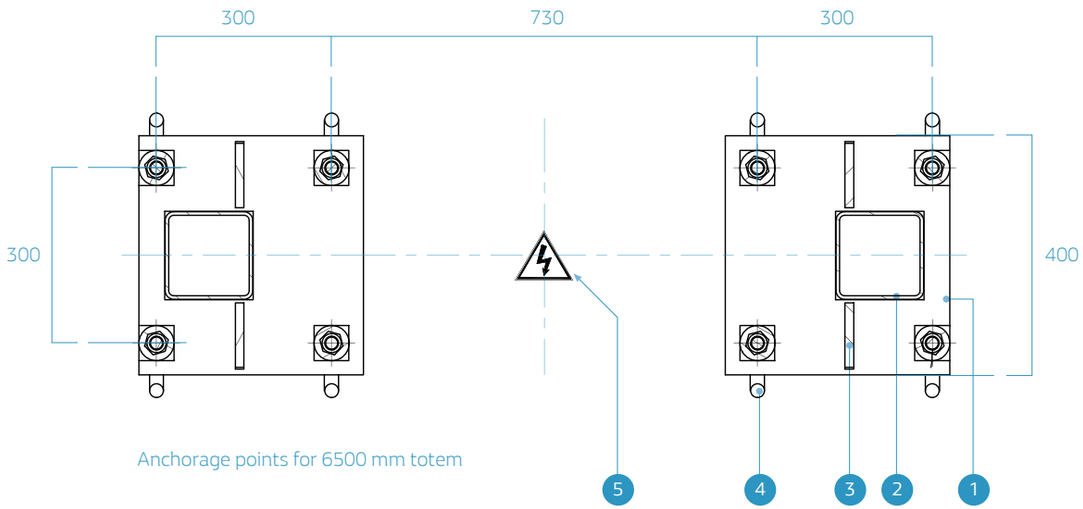
The assembly is covered with a attachment plate concealer allowing access to fastenings in order to facilitate replacement in case of damage.

Key

1. Galvanized steel attachment plate
2. Central structure in galvanized steel
3. Gusset plates
4. M24 x 420 anchoring rods
5. Power supply inlet



Anchorage points for 4500 mm totem

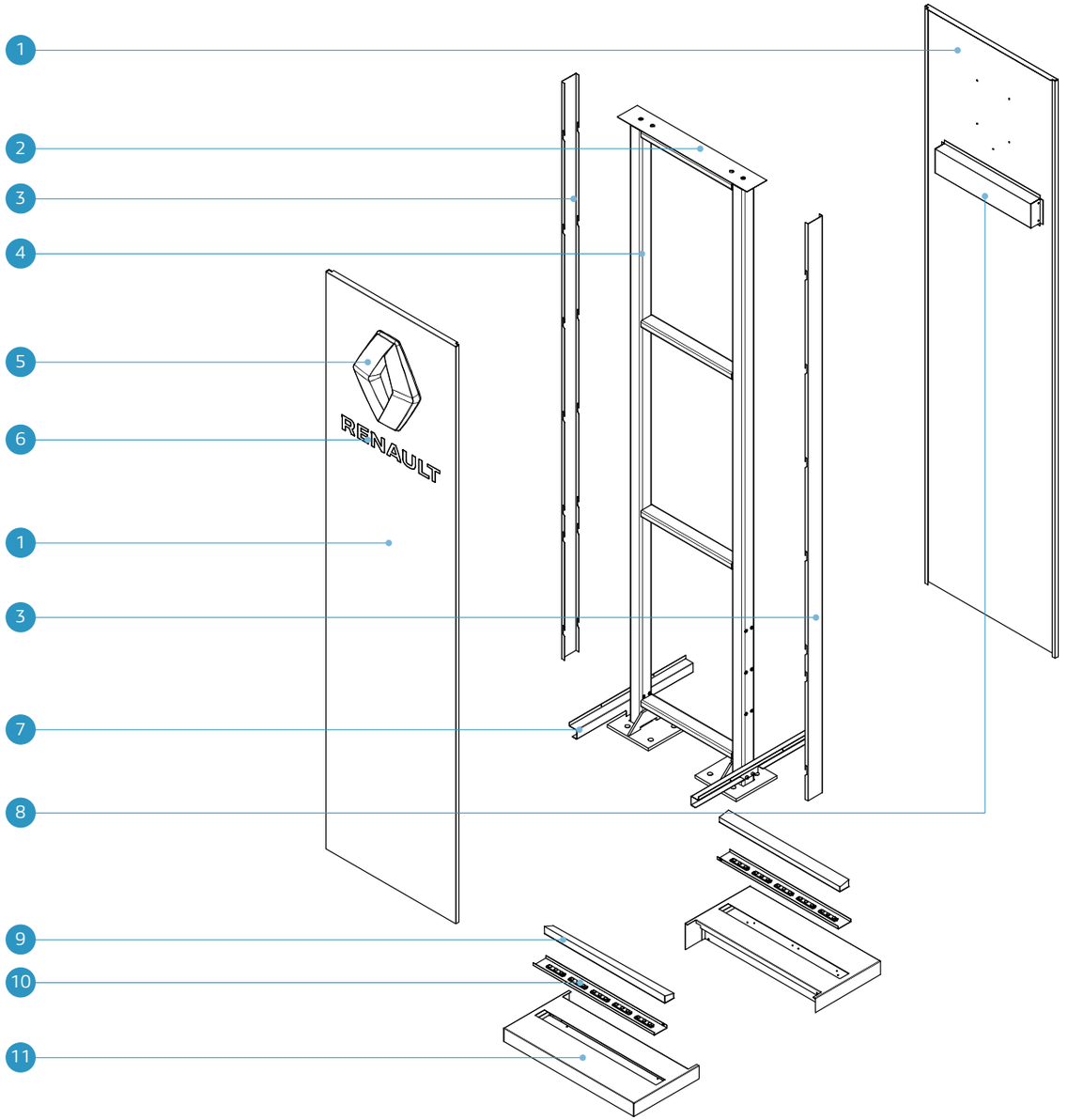


Anchorage points for 6500 mm totem

Schematic exploded view of totems

Key

1. Front panel with raised edges in Alucobond pre-lacquered Pantone 7408 EC yellow sheeting
2. Cover in pre-lacquered aluminium sheeting, Pantone 7408 EC yellow
3. Edge in pre-lacquered aluminium sheeting, Pantone 7408 EC yellow
4. Structure in galvanized steel including plates and reinforcing gussets
5. 3D diamond with built-in lighting
6. Renault word in Black & White PMMA
7. Unfinished aluminium angle bracket for attachment of concealer
8. Light box with raised edges in pre-lacquered white aluminium sheeting
9. Crystal PMMA, thk. 3 mm
10. Waterproof light unit integral with base, in pre-lacquered white aluminium sheeting with chain-LEDs mounted in the bottom of the unit.
11. Base in RAL 7021 dark grey pre-lacquered aluminium sheeting 20/10 mm thick, secured laterally with stainless steel fixing elements



Fastenings on totems and flag insignia

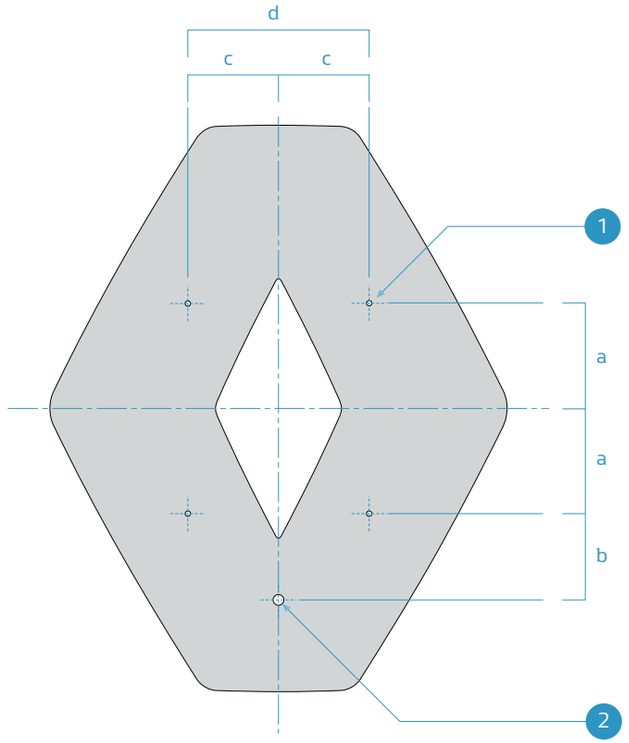
Principle

The PVC bottom comprises 6.5 mm dia. drilled holes for attachment to the faces of totems and flag insignia and for routing the power supply wiring.

Proper compliance with these dimensions will provide for interchangeability between 3D diamonds that may be from different manufacturing sources.

Key

1. Drilled holes for attachment to faces
2. Power supply routing



Dimension	Diamond 380	Diamond 670	Diamond 860	Diamond 980	Diamond 1200	Diamond 1800
a	71	125	161,25	184	225	337,5
b	53	94	120	136	167	250
c	60	107	137,5	156	246	369
d	120	214	275	312	492	738

Lighting

3D diamonds

The lighting principles and methods of manufacture of the different sizes of 3D diamonds are covered by another specification.

Required performance levels

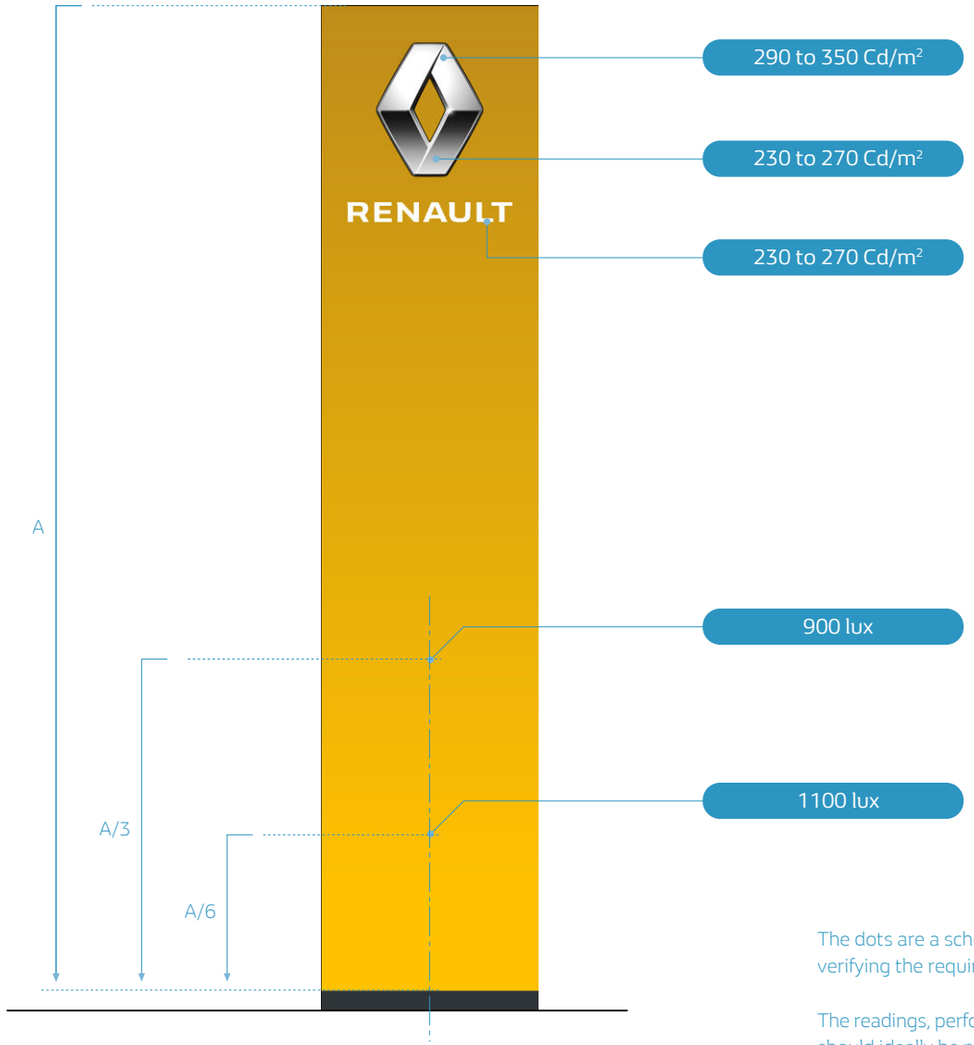
Supply: 220 volts.

12 volt converter with regulated voltage, IP 68 protection.

- RENAULT letters: 230 to 270 Cd/m^2
- Diamond: 230 to 270 Cd/m^2 for the lower part and 290 to 350 Cd/m^2 for the upper part.

Measurement points are defined for characterizing the shading effect on the yellow face of the totems. The illuminance measurements on these opaque surfaces are:

- at a height A/6: approx. 1,100 lux,
- at a height A/3: approx. 900 lux.



The dots are a schematic representation of the measurement points for verifying the required light intensity values.

The readings, performed with a calibrated luminance meter and a lux meter, should ideally be performed without light interference and at a distance of between 1 and 2 m from the face.

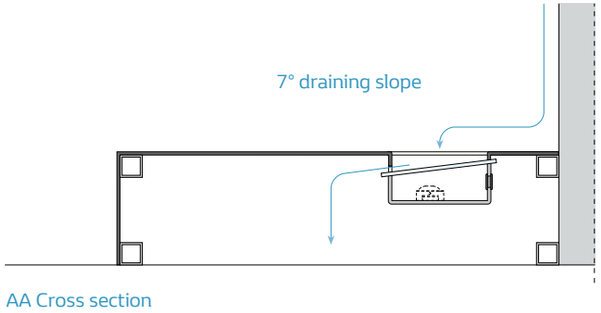
Lighting at the bottom of the totems

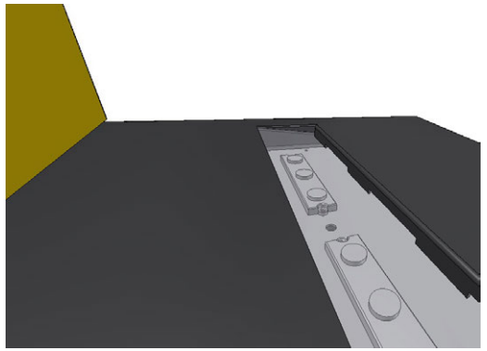
Principle

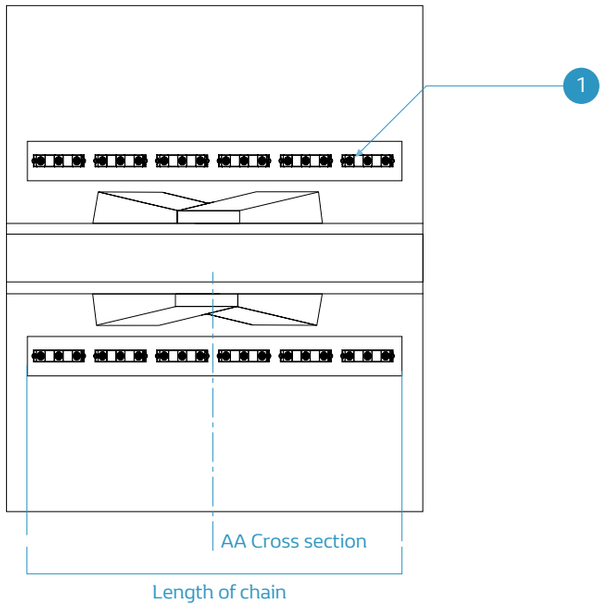
This recommendation is made on the basis of moduled with a luminous efficacy of 90 to 100 lumens/watts:

- 4,500 & 6,500 totems: 280 lm module,
- 9,000 & 13,500 totems: 525 lm module.

The instruction remains indicative and shall require, for each totem, a validation and a test for compliance with the performance targets indicated in this document.







Description

- Temperature: 3,000 - 3,500° K Warm White.
- Supply: 220 volts
- Converter: 12 volts, constant current
- Protection index: IP 67
- Asymmetric optics: 10-40°

Key

1 LED modules

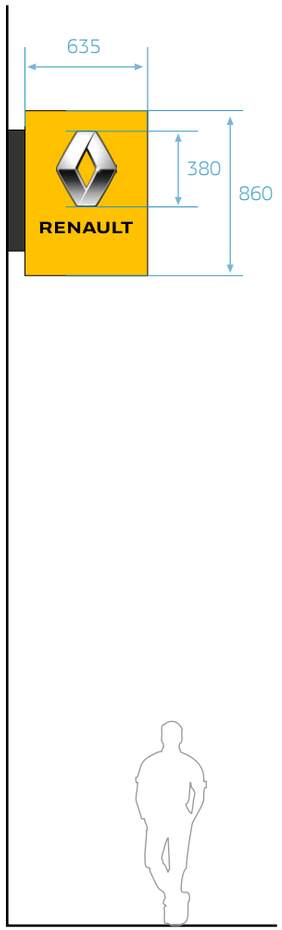
	280 lm modules		525 lm modules	
Characteristics (per face)	4500 totem	6500 totem	9000 totem	13500 totem
Number of modules	6	7	11	32
Energy consumption	18 w	21 w	66 w	96 w
Luminous flux	1680 lm	1960 lm	5775 lm	8400 lm
Converter	35 vA	35 vA	100 vA	100 vA
Length of chain	1020 mm	1300 mm	1900 mm	2900 mm

The family of flag insignia

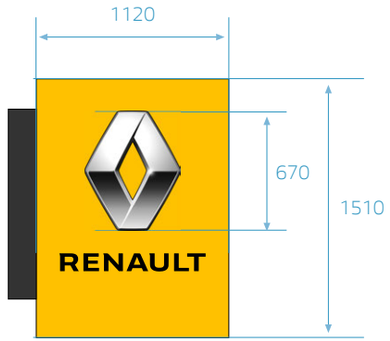
Principle

Three sizes of flag insignia are proposed to cover the different situations encountered in the networks.

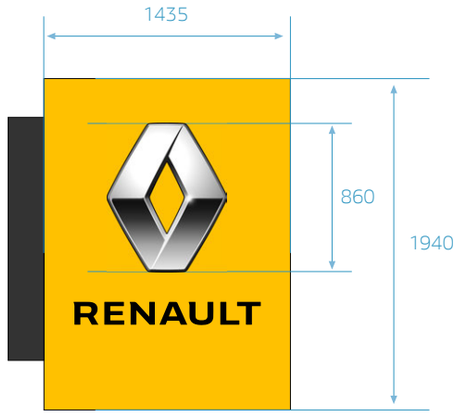
The small 635 mm-wide flag insignia shall be reserved for urban locations where regulatory constraints impose a maximum overhand limit.



700 flag insignia



1100 flag insignia



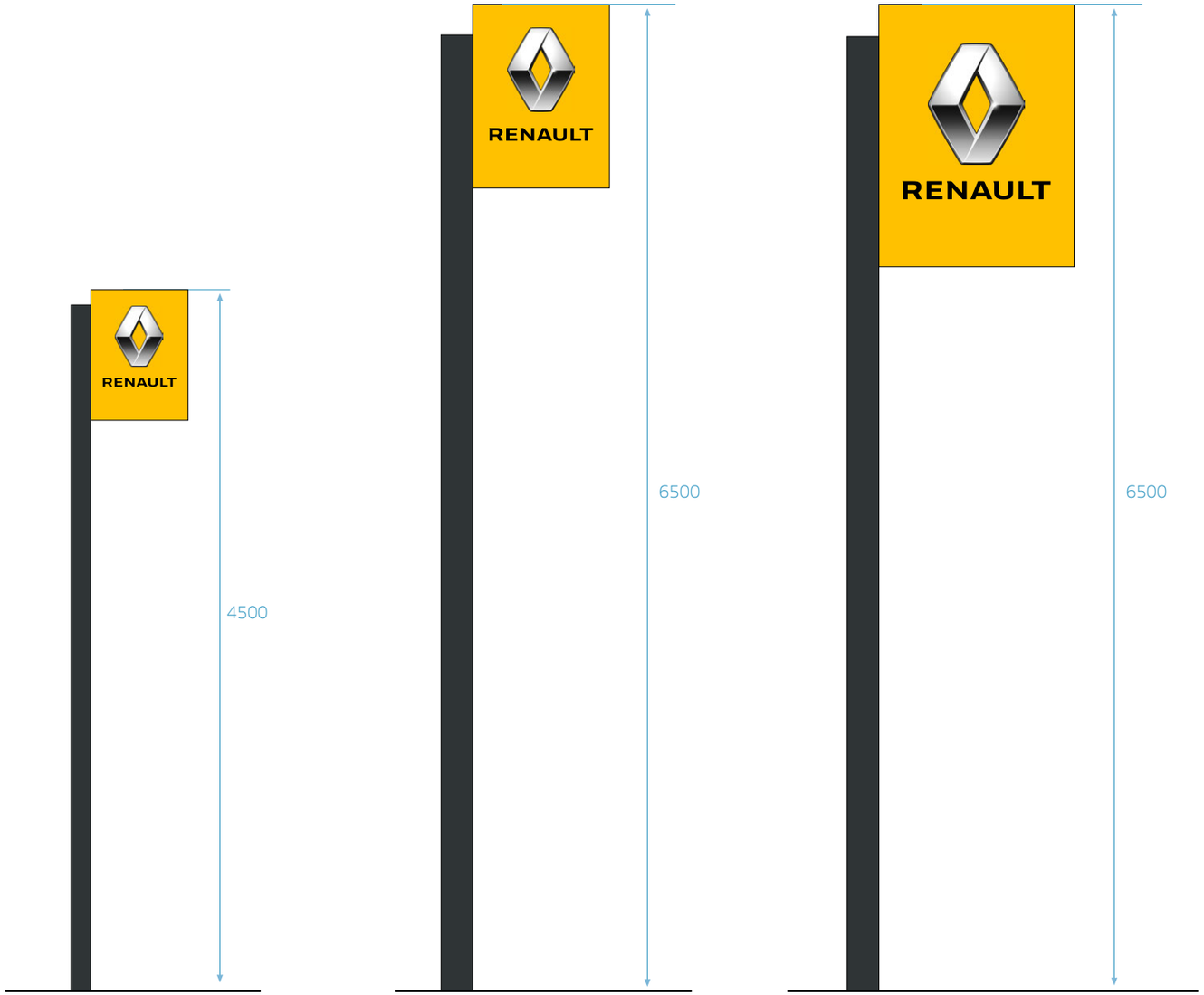
1400 flag insignia

Installation of flag insignia on masts

Principle

The three flag insignia can be mounted on masts:

- 4,500 mm masts for the small format 700 mm flag insignia
- 6,500 mm masts for 1,100 et 1,400 mm flag insignia.



700 flag insignia

1100 flag insignia

1400 flag insignia

Lighting of flag insignia

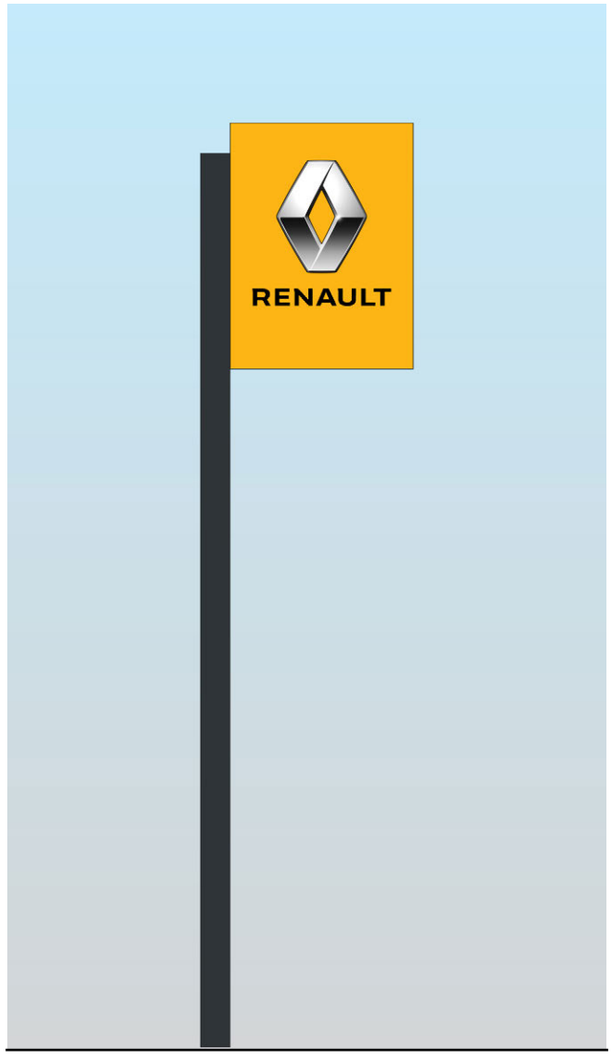
Principle

The diamond is backlit.

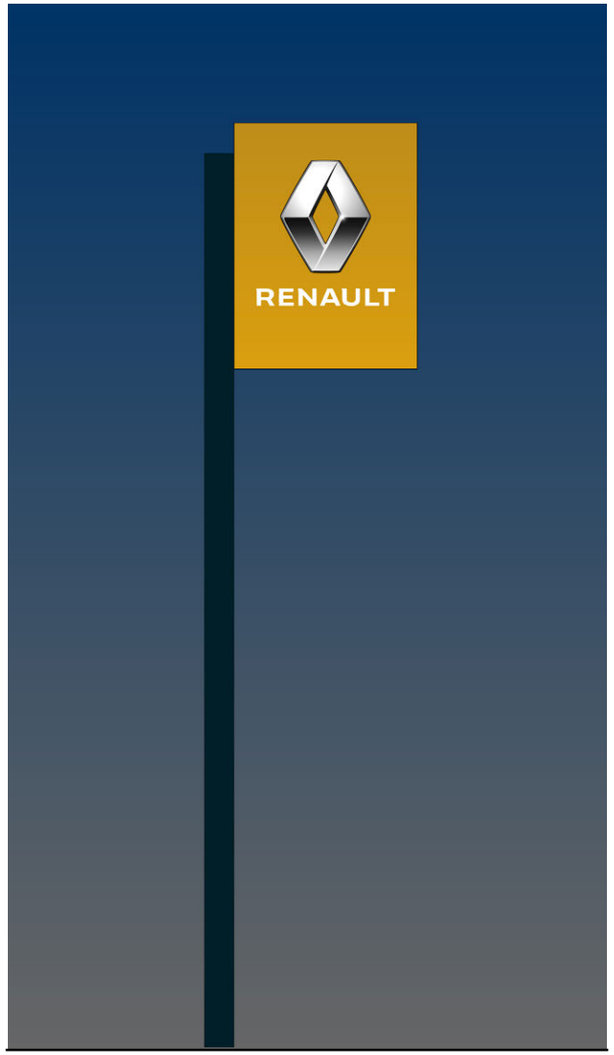
The Renault word lettering is backlit, becoming white when illuminated.

Key

1. Day view
2. Front lighting



1



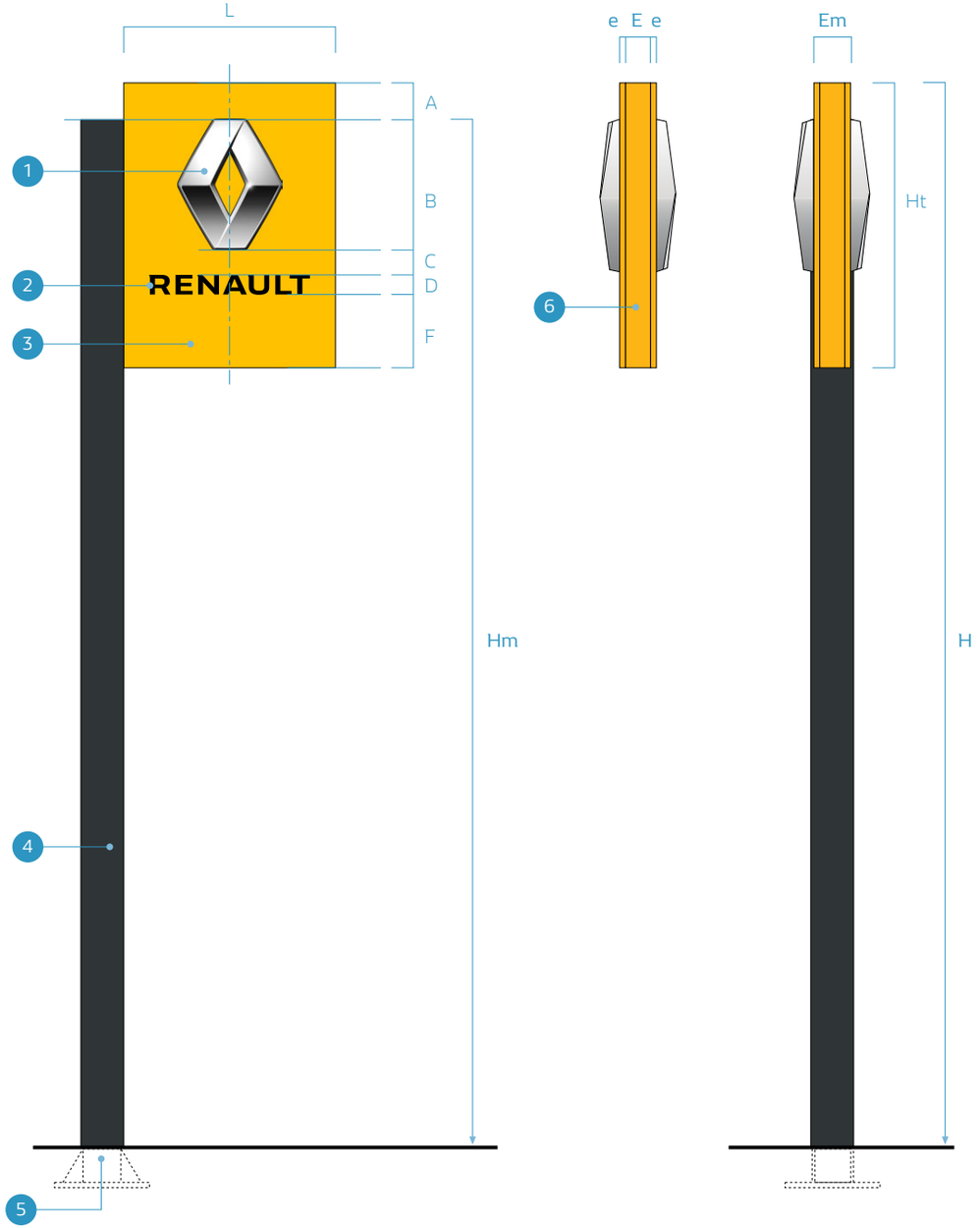
2

Description of flag insignia

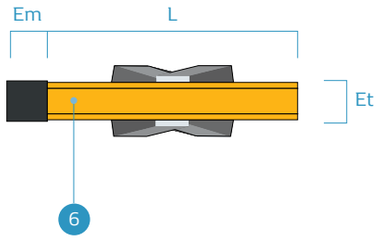
Key

1. Diamond with face in light-diffusing chrome injected polycarbonate and 3D effect interior printed on adhesive, opaque edges, PVC bottom with LED equipment
2. Renault word in Black & White PMMA pasted on the back of the aluminum surface, thk. 4 mm
3. Front panel in pre-lacquered aluminium sheeting, 20/10 mm thick, Pantone 7408 EC yellow
4. Galvanized steel mast, post-lacquered with dark grey RAL 7021 paint
5. Plates and reinforcements for (buried) ground attachment on concrete blocks, Galvanized for protection
6. Edge in pre-lacquered aluminium sheeting, 20/10 mm thick, Pantone 7408 EC yellow

NOTA: Dimension "Em" gives the cross-section of the masts.



Dim.	700 mm insignia	1100 mm insignia	1400 mm insignia
L	635	1120	1400
A	108	190	238
B	380	670	840
C	77	136	170
D	59	104	130
F	232	410	512
H	4500	6500	6500
E	45	90	110
e	20	25	30
Et	85	140	170
Em	120	200	200
Hm	4392	6310	6362



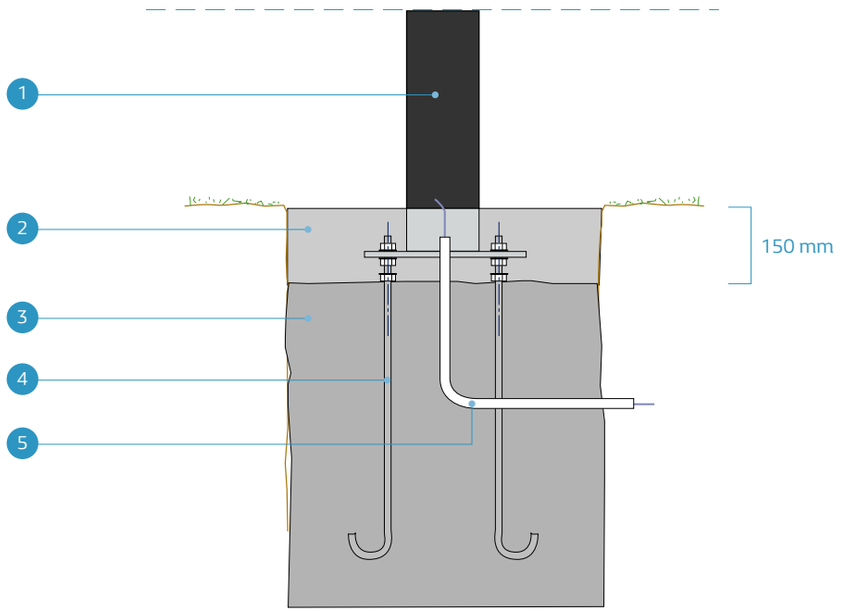
Installation of flag insignia on recessed block

Principle

Recommended installation is on recessed block in order to conceal the mast anchoring.

Key

1. Mast
2. Concrete screed
3. Concrete block
4. Anchoring rods
5. Power supply in



Mast for 700 mm flag insignia

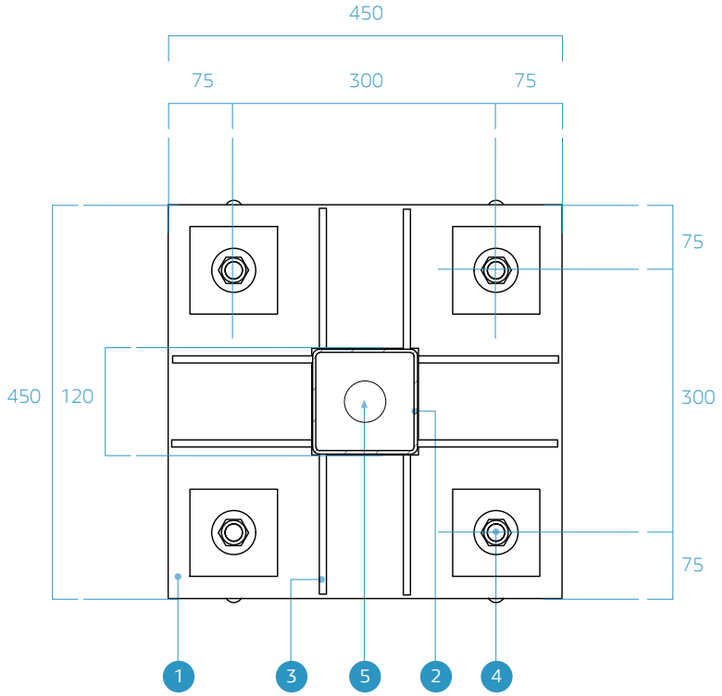
Ground attachment system

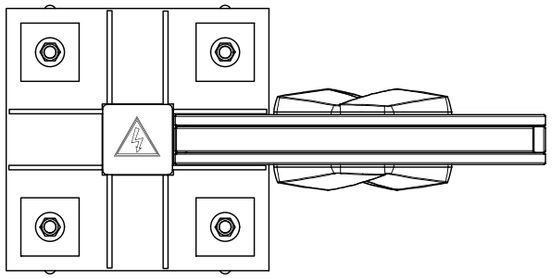
The flag insignia is anchored to the ground via one plate fitted with 4 anchoring rods.

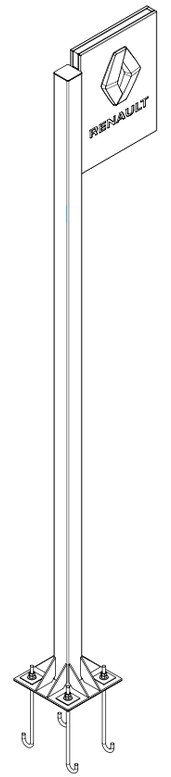
Weight of the mast and flag insignia assembly: 120 kg

Key

1. Galvanized steel attachment plate
2. 120 x 120 x 4,500 mm galvanized steel mast
3. Gusset plates
4. M24 x 420 anchoring rods
5. Power supply inlet







Wall mount for 700 mm flag insignia

Wall attachment system

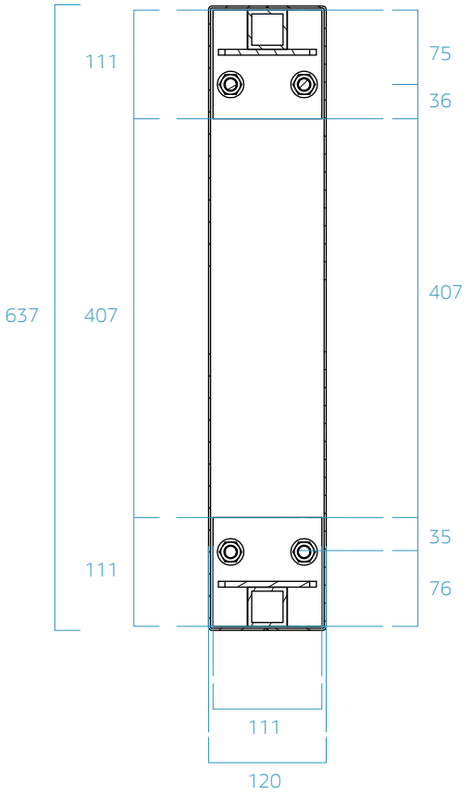
The flag insignia is anchored to the wall via plates with 4 drilled holes. These plates are welded to brackets attached to the flag insignia structure.

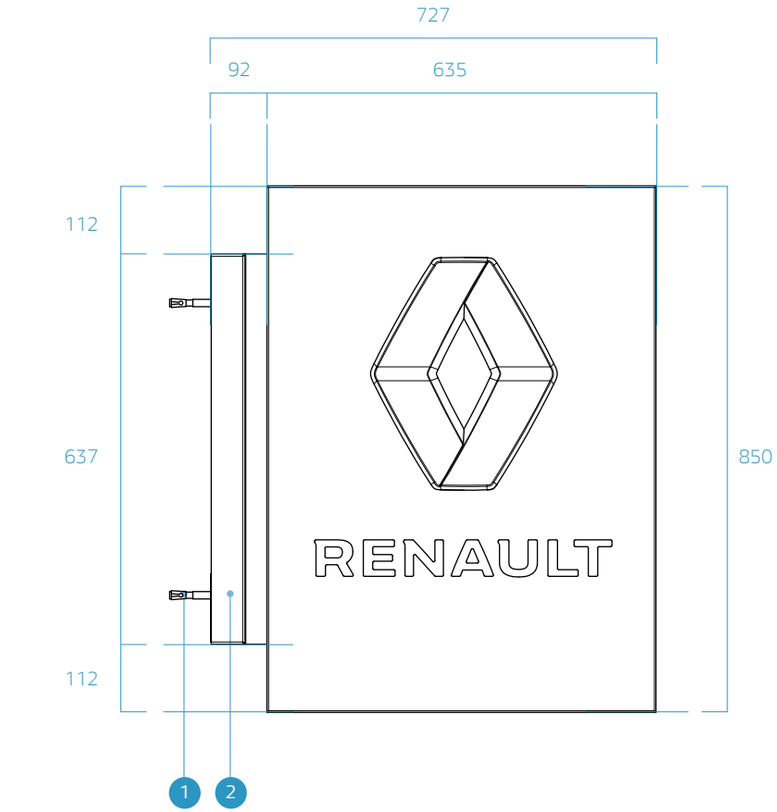
The assembly is completed by an attachment plate concealer.

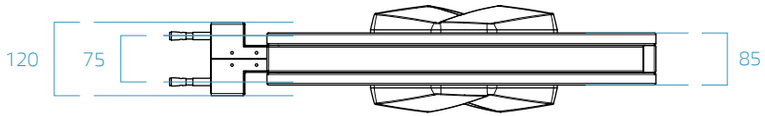
Weight of the flag insignia: 20 kg

Key

1. M12 anchor studs for attachment to wall
2. Attachment plate concealer, RAL 7021 grey in pre-lacquered aluminium sheeting, 15/10 mm thick, satin finish







Mast for 1,100 mm flag insignia

Ground attachment system

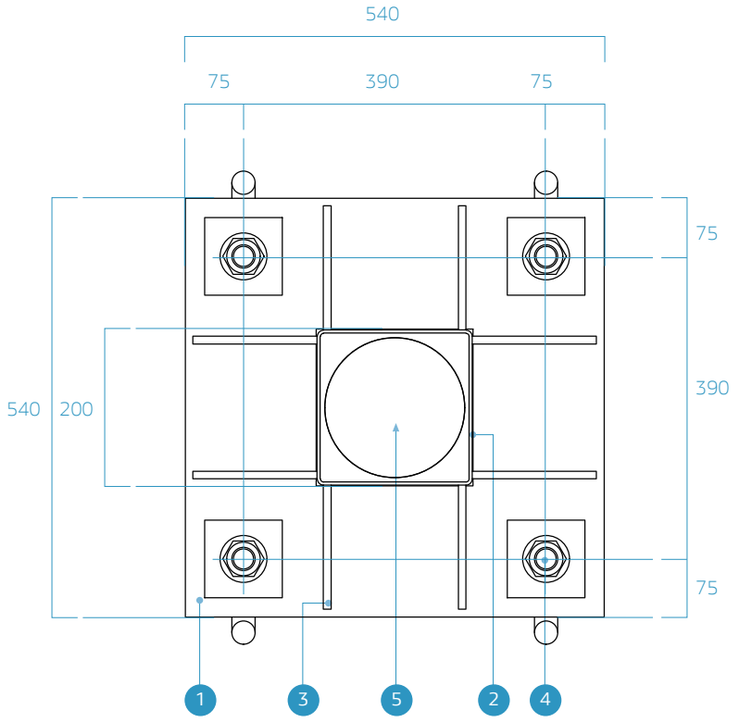
The flag insignia is anchored to the ground via one plate fitted with 4 anchoring rods.

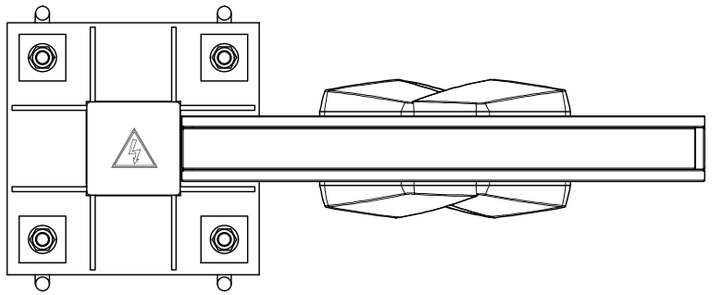
Weight of the mast and flag insignia assembly:

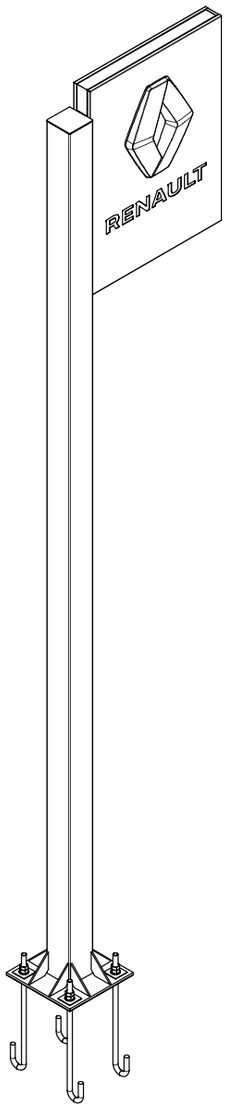
250 kg

Key

1. Galvanized steel attachment plate
2. 200 x 200 x 6,500 mm galvanized steel mast
3. Gusset plates
4. M30 x 870 anchoring rods
5. Power supply inlet







Montage mural de l’enseigne de 1100 mm

Wall attachment system

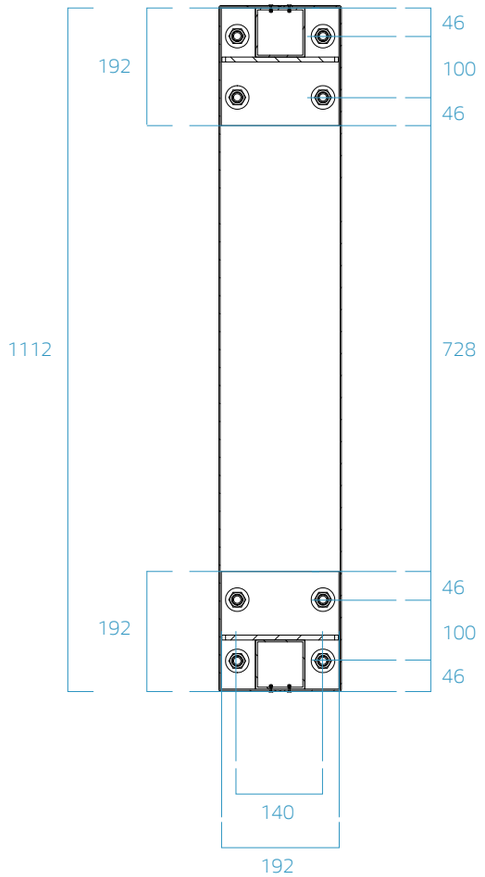
The flag insignia is anchored to the wall via plates with 8 drilled holes. These plates are welded to brackets attached to the flag insignia structure.

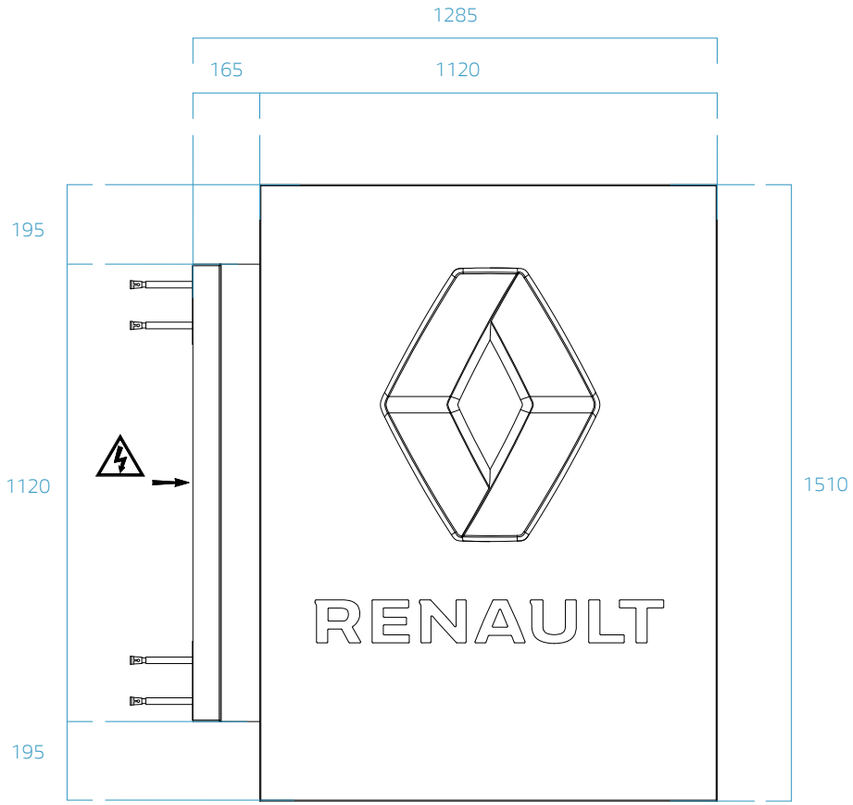
The assembly is completed by a attachment plate concealer.

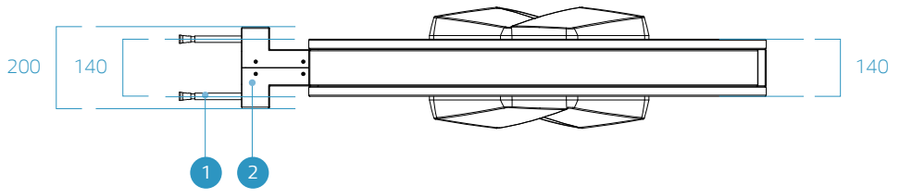
Weight of the flag insignia: 55 kg

Key

1. M12 anchor studs for attachment to wall
2. Attachment plate concealer, RAL 7021 grey in pre-lacquered aluminium sheeting, 15/10 mm thick, satin finish







Mast for 1,400 mm flag insignia

Ground attachment system

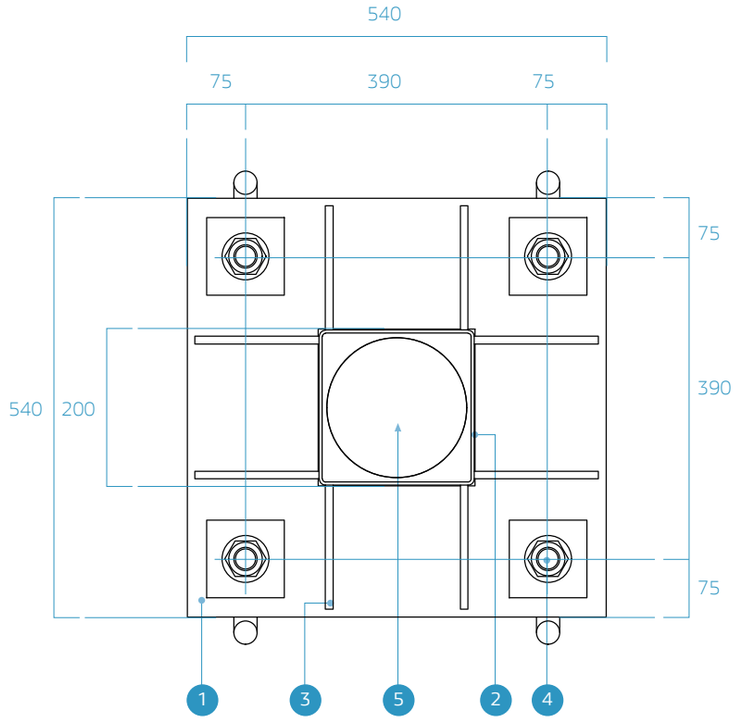
The flag insignia is anchored to the ground via one plate fitted with 4 anchoring rods.

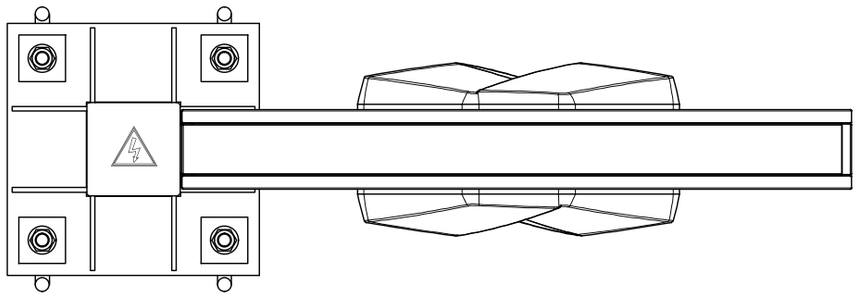
Weight of the mast and flag insignia assembly:

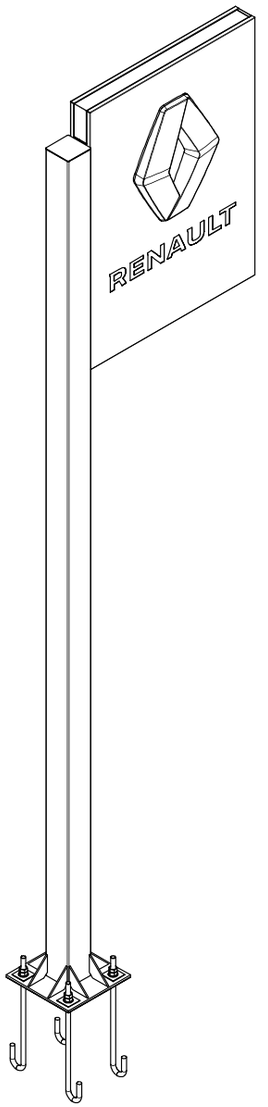
320 kg

Key

1. Galvanized steel attachment plate
2. 200 x 200 x 6,500 mm galvanized steel mast
3. Gusset plates
4. M30 x 870 anchoring rods
5. Power supply inlet







Wall mount for 1,400 mm flag insignia

Wall attachment system

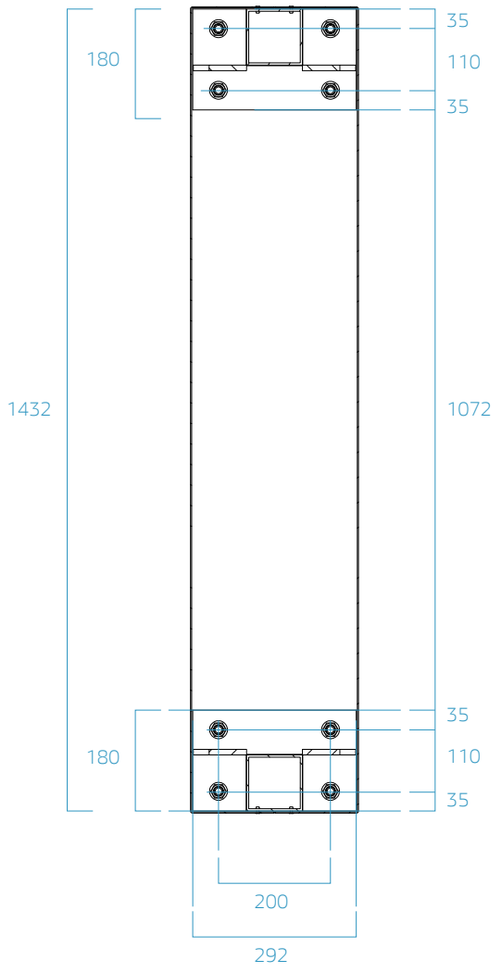
The flag insignia is anchored to the wall via plates with 8 drilled holes. These plates are welded to brackets attached to the flag insignia structure.

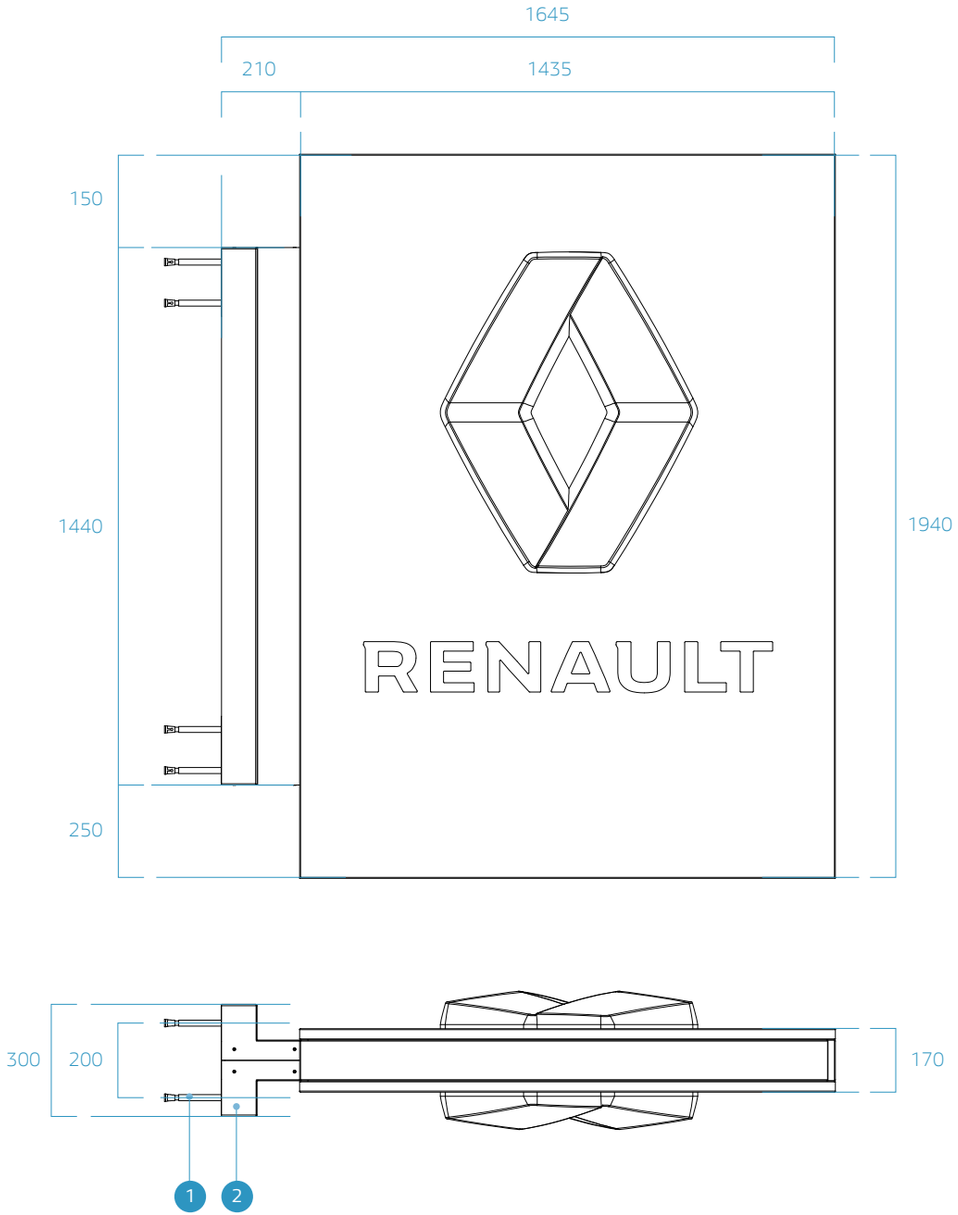
The assembly is completed by a attachment plate concealer.

Weight of the flag insignia: 100 kg

Key

1. M12 anchor studs for attachment to wall
2. Attachment plate concealer, RAL 7021 grey in pre-lacquered aluminium sheeting, 15/10 mm thick, satin finish

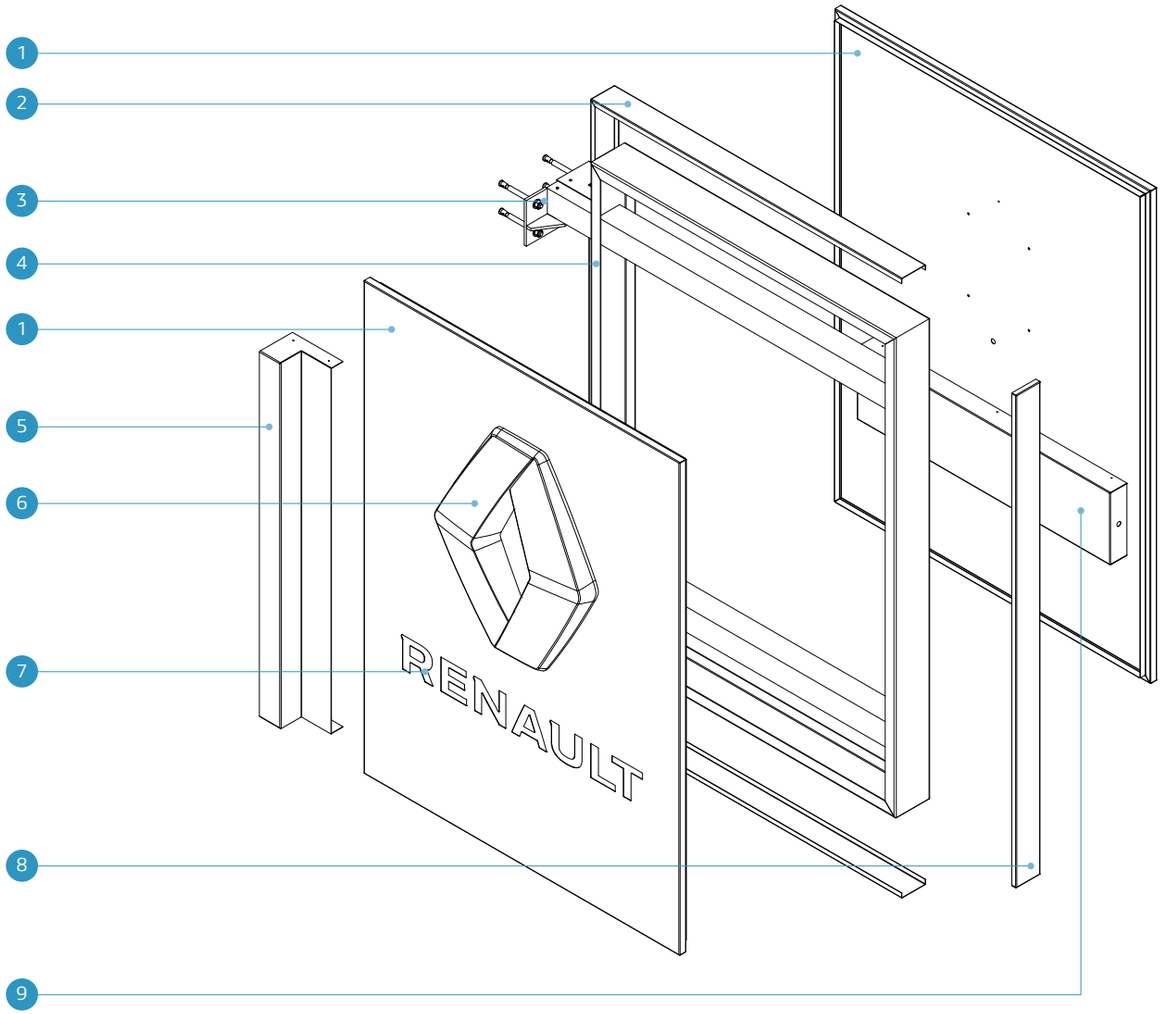




Schematic exploded view of flag insignia

Key

1. Front panel with raised edges in aluminium pre-lacquered Pantone 7408 EC yellow sheeting
2. Cover in pre-lacquered aluminium sheeting, Pantone 7408 EC Yellow
3. Aluminium plate welded to bracket
4. Welded aluminium structure
5. Attachment plate concealer in pre-lacquered aluminium sheeting, RAL 7021 grey
6. 3D diamond with built-in lighting
7. Renault word in Black & White PMMA pasted on the back of the front panel
8. Edge in pre-lacquered aluminium sheeting, Pantone 7408 EC yellow
9. Light box with raised edges in pre-lacquered white sheeting



Lighting of flag insignia

3D diamonds

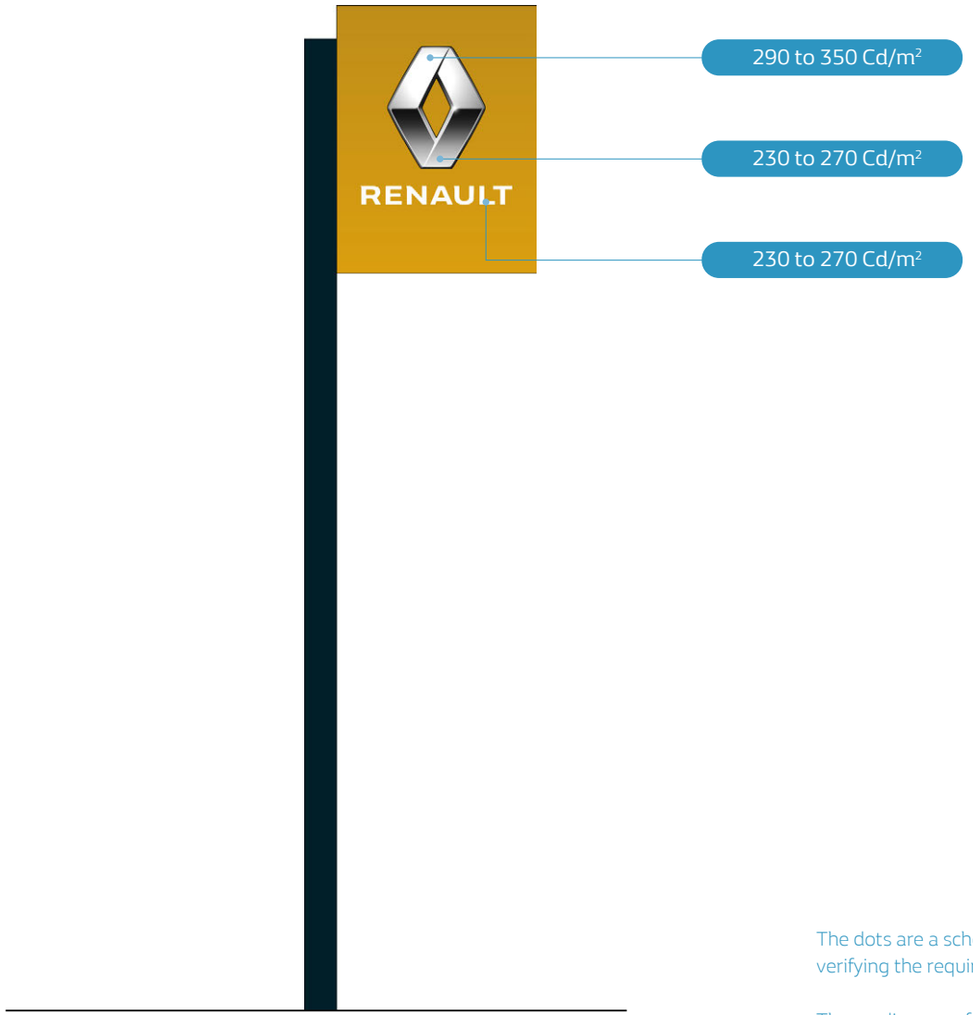
The lighting principles and methods of manufacture of the different sizes of 3D diamonds are covered by another specification.

Required performance levels

Supply: 220 volts.

12 volt converter with regulated voltage, IP 68 protection.

- Renault letters: 230 to 270 Cd/m^2
- Diamond: 230 to 270 Cd/m^2 for the lower part and 290 to 350 Cd/m^2 for the upper part.



The dots are a schematic representation of the measurement points for verifying the required light intensity values.

The readings, performed with a calibrated luminance meter, should ideally be performed without light interference and at a distance of between 1 and 2 m from the letter face.