



Illuminated signals

ROADWORKS

VEHICULE

ON-BOARD PERMANENT

www.ttsys.eu

Your contacts illuminated signals :

Our team has the answers to your queries... +33(0)492082999



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The world changes and TTS innovates.

With over thirty years commitment to the development of new safety and signaling solutions, we continue to maintain standards whilst ensuring that innovation plays its full part. We have the resources to provide you with innovative and proven solutions for traffic management, with over 90% of the added-value achieved using manufacturing facilities in France.

Rémo CHIAVELLI Chief Executive Officer









Signaling



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VEHICLE

Signaling



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ON-BOARD

Signaling



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PERMANENT

Signaling



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Design office



Integrated welding workshop



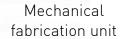
Digital graphic conception workshop



Assembly workshop



The human resources, the means and the technology to ensure your safety.





Electronics boards manufacturing unit



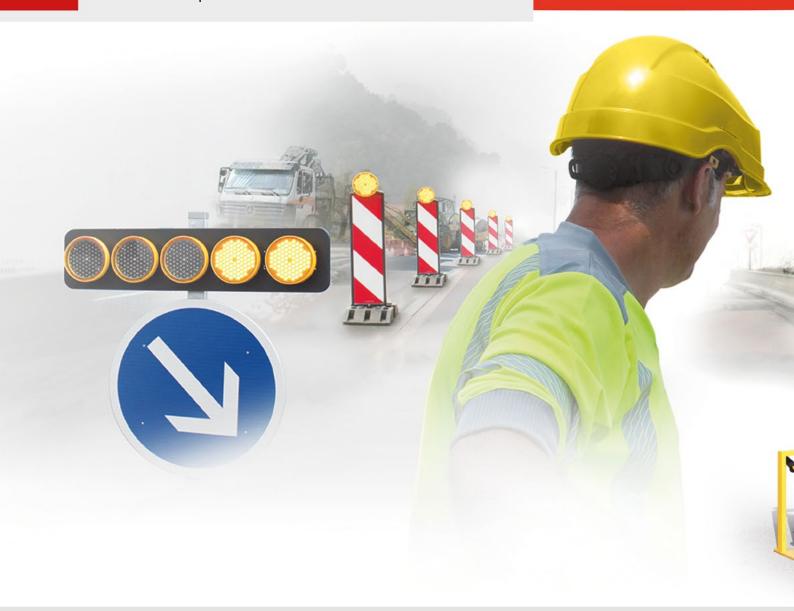
Numerical plastic and steel plate processing unit



Commissioning and After-Sales unit



General points



We have developed a range of optics suitable for all intervention configurations.



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© Sign lighting equipment

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THE STANDARD

Norme NF EN 12352

This standard specifies the requirements for individual electrical lighting devices known as warning lights. It specifies requirements in terms of visual, structural and functional performance levels.

• Dormanant signals

are fixed to a sign.

 Permanent signals
 Danger, 1 optic of diameter 180 mm or more, placed above the signal.

Technical guide - Traffic guidance and warning lights

Specifies the dimensions and types of optics when these

- Prohibition (type B), indication (type C and CE), direction (type D, the use of optics with this type of signal is prohibited).
- Guidance equipment (type J), 2 optics of diameter 200 mm or more, placed above the signal.

- Temporary signals
- Triangular sign, the diameter of the optics is not greater than 0.15 times of the theoretical dimension of the triangle.
- KD and K8 sign, 2 synchronised optics of diameter 200 mm or more, placed above the sign.
- K5C sign, optic of diameter 180 mm or more: these optics may be synchronised or streamed.

Tempo mobile traffic light



options

Options are available for all uses.

Learn more about the Tempo options on pages 12-13.

with optional extras

Solar power Tempo mobile traffic light



INNOVATION AWARD !!



Tempo changes to Green!

As part of its continual search for innovation, we are now applying its know-how in the field of photovoltaic power for three-colour site signals.



The solar panel increases the operational autonomy of the battery, safely and at no

Its tempo traffic light results in considerable savings for you in maintenance costs.

there is no ecological consideration that is too small!

The technique:

- The 20 W photovoltaic panel supplies the battery through a charge regulator.
- Photovoltaic module unit protected by polycarbonate.

The structure:

- Painted steel case.
- · Lifting handles.
- Telescopic mast.

Set of 2 solar-powered Tempo mo<mark>bile</mark> traffic light

31175 Set of 2 solar-powered Tempo temporary traffic lights with remote control

Single solar Tempo mobile traffic light

30878

Single solar Tempo temporary traffic light (without remote control)

Rechargeable battery

The use of a 200 Ah battery provides optimum ballast for the light. It also allows the available power levels to be smoothed out over periods where there are lower levels of sunlight.

376

Rechargeable battery 12 V 200 Ah Allow for one rechargeable battery per light

Specific spare parts

Spare parts for the solar-power Tempo on pages 12-13.





Tempo mobile traffic light



Reliability, technology and unique know-how.

The electronics:

- Programming and management interface using an infrared link with mobile synchronisation panel.
- Module protected by a polycarbonate surface.
- Alpha-numeric display of 2 x 16 characters, of all cycle, programming and check information.
- Waiting time display.

The structure:

- Wheel-barrow box with ABS cover.
- Lifting handles.
- Telescopic mast: closed 1.55 m, open 2.50 m.

Set of 2 Tempo mobile traffic light

21698

Set of 2 Tempo temporary traffic lights with remote control

Single Tempo mobile traffic light

22563

Single Tempo temporary traffic light without remote control

Power Supplies and accessories

The 100 Ah rechargeable battery range facilitates handling whilst ensuring that a one-month operational autonomy is achieved.

1992

Rechargeable battery 12 V 100 Ah Allow for one rechargeable battery per light

The 200 Ah rechargeable battery range give the Tempo an operational autonomy of two months. Perfectly suited for use on long-term sites.

376

Batterie 12 V 200 Ah Two belts per battery are required

Battery straps

9322

Set of 2 straps

Two belts per battery are required

Our battery chargers offer quality of charge regulation, guaranteeing battery protection and a long battery operating life.

Charger for batteries from 100 Ah to 250 Ah

Charger for batteries 12 V/25 A / 300 W

Charger for batteries from 50 Ah to 100 Ah

26758

Charger for batteries 12 V/8 A / 96 W

230 V supply

Allow for one power supply per light.

Power supply 230 /12 V

Protection cage for Tempo box

41186

Protection cage for Tempo box

Tempo mobile traffic light - spare parts



Tempo mobile traffic light - options



Keeping up the tempo!



Detection of vehicle movement in a priority direction activates switch-over of the lights cycle (e.g. site exit, fire and rescue etc.) The lights must be synchronised using the radio link communication option or the cabled option.



Traffic regulation

Management of traffic flow time as a function of the traffic density in both traffic directions. The lights adjust to match the traffic flow (e.g. large numbers of cars in one direction in the morning, and in the other direction in the evening). The lights must be synchronised using the radio link communication option or the cabled



K10 traffic paddle regulation poles are nowadays insufficient for proper protection of working personnel on the road because of increased accident risk and anti-social behavior.

As like K10 trafic paddle, our remote controlled trafic lights are constantly adapting to the road construction movements, while assuring the security of the employees inside the protection range of the mobile traffic lights, using a radio





The operation of the lights is controlled by sending a simple SMS. After the SMS has been sent, the user receives a confirmation that the SMS has been received, and that the light has turned red. This option, especially useful on long distance worksites, allows a real communication with the traffic lights.





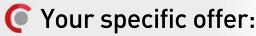
Tempo mobile traffic light - options











Tempo adapts itself to the specific configurations of your construction sites. Send us a description of your requirements. We'll develop the solutions that you need...



Control Options

Radio remote control Remote control panel Call push-button





Radar Options

Movement Detection Radar Waiting time regulation radar Speed detection radar Magnetic loop detection



Communications Options

Radio link, Cabled link Dry contact GSM / SMS



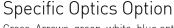
Supply Options

Battery, Solar, 230 V, Public Lighting Source



Software development options

Non-standard cycles, customised functions etc.



Cross, Arrows, green, white, blue optics etc.







For 20 years we've been ensuring that our lights meet your specific needs.

...they have trusted us with their projects: : Atlante construction, Demathieu et Bard, Dodin Campenon, DTP Terrassement, Eiffage TP, Entreprise Girard, GTS Guintoli, Razel Bec, Roessel, SFTRF, Sobeca, Spie Fondations, Vinci Construction Terrassement, Loxam etc...

Sign lighting equipment

AK Signs with accessories

Lighting equipment composed of: 3 optics of Ø130mm/30 LEDs or Ø 70 mm/30 LEDs and a control panel.

The length of the optics leads are 1.5 m. Extensions of 5m are possible. Power-up using a 3-position sealed switch (24-hours, off, night).

1000 mm triangle sign, class 2 symbol of choice, fitted with an integral stand completely foldable.

Power supply using 4-battery housing (type 4R25).

Operational autonomy 280 hours Triangle 1000 mm.

17836 Triangle 1000 Ø 130mm/30 LEDs - classe2 4-battery housing (batteries not supplied)

Rechargeable battery power supply.

Operational autonomy 1500 hours with one 12 V 75 Ah rechargeable battery.

20238

Triangle 1000 Ø 130mm/30 - classe 2 Rechargeable battery (Rechargeable battery not supplied)



Lighting kit, battery power supply

Power supply using a 4-battery housing (type 4R25). Operational autonomy 280 hours.

19601	3 optics Ø 70mm/30 LEDs 4-battery housing kit
	(batteries not supplied)
15702	3 optics Ø 70mm/30 LEDs 4-battery housing
	(batteries not supplied)





·Lighting kit, rechargeable battery power supply

Rechargeable battery power supply.

Operational autonomy 1500 hours with a 12 V 75 Ah battery

19602	Kit 3 optics Ø 70/30 LEDs Rechargeable battery (Rechargeable battery not supplied)
16891	Kit 3 optics Ø 130/30 LEDs Rechargeable battery (Rechargeable battery not supplied)





Universal attachment "clip" option

The option includes 3 clips pre-installed on optics diameter 130 mm.

29815

option includes 3 clips pre-installed



Sign lighting equipment

Connect using one movement...

All of our optics are connected to their power supply by a jack plug





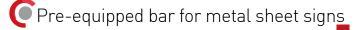


Ø 70/30 LEDs

Ø 130/30 I FDs

Ø 200/80 LEDs





Bar 1m50.

Operational autonomy 175 hours.

1532

Fast-fit bar for K8 sign

4-battery housing (batteries not supplied)

Bar 1m50.

Operational autonomy 937 hours with one rechargeable battery (12 V 75 Ah).

CDual-flash kit for sheet-metal signs

Power supply by 4-battery housing (type 4R25).

Lighting accessories made up of 2 optics of diameter 200mm/80 LEDs and a control panel. The length of the optics lead is 1.5m. Extension option available. Power-up using 3-position sealed switch (24-hr, off, night).

23659

Fast-fit bar for K8 sign

4-battery housing (batteries not supplied)





→ 1532





--> 16894

16894

16893

Rechargeable battery power supply.

Dual-flash kit Ø 200mm/80 LEDs 4-battery housing (batteries not supplied)

Operational autonomy 937 hours with one rechargeable

battery (12 V 75 Ah).

Fixing brackets supplied.

Operational autonomy 175 hours.

2 optics kit Ø 200/80 LEDs

Rechargeable battery (Rechargeable battery not supplied)

Lighting kit options

Jack lead extension.

22279

For optics Ø 130 mm or Ø 200 mm length: 5 m









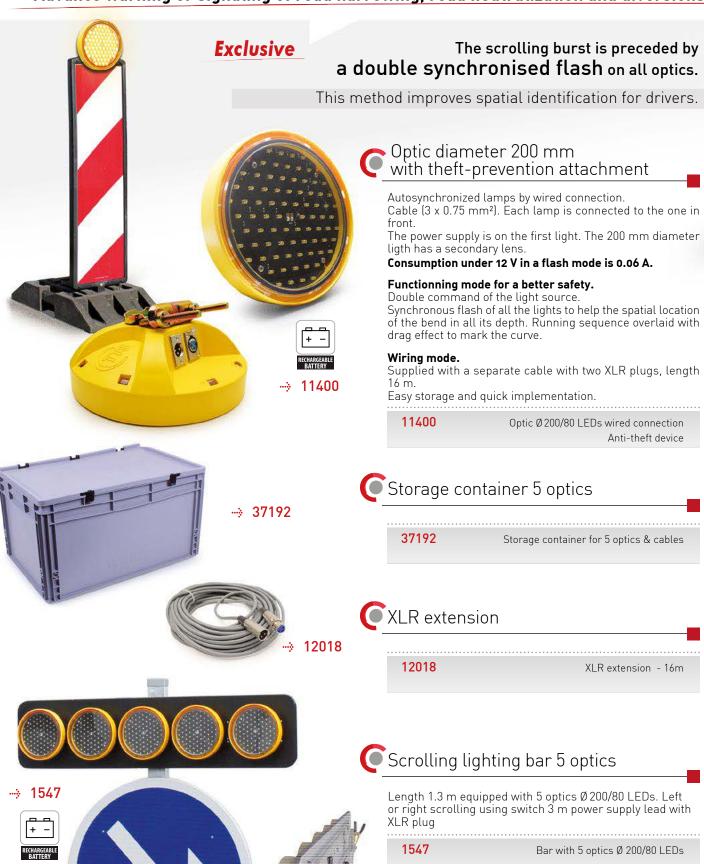






Traffic guidance

Advance warning or signaling of road narrowing, road neutralization and diversions.



37121

37121

Clamp option for universal mounting

Radio synchronisation



Ease of installation: simply switch on the optics.

The radio system can operate up to 20 heads. There is no pilot panel or master and slave lights. **Each element is automatically connected to the system when power is switched on.** Its position in the cascade is linked to the order in which the optics are switched on. Synchronisation is achieved by sending a signal which acts as a time base. 2 modes available: scrolling or synchronised double flash.

Radio-synchronised optic Ø 200/80 LEDs

Lighting accessories made up of 1 optic Ø200 mm /80 LEDs and a 4-battery power supply housing and its spiral cable. *Scrolling mode recommended.*

29895 Radio-synchronised Optic 200mm/80 LEDs
& 4-battery housing (batteries not supplied)

34338 Radio-synchronised Optic 200mm/80 LEDs
+ spiral cable and XLR plug

Radio-synchronised light Ø 210/80 LEDs telescopic mast

Lighting equipment composed of a telescopic lamp Ø200 mm/80 LEDs and a 4-battery power supply housing (batteries not supplied). Scrolling mode recommended.

29896 Radio-synchronised Optic 200 mm /80 LEDs telescopic mast / 4-battery housing

Radio-synchronised light Ø210/80 LEDs

Lighting equipment composed of a lamp diameter 210 mm/80 LEDs and a 4-battery power supply housing (batteries not supplied). Scrolling mode recommended.

29897

Radio-synchronised light Ø 210/80 LEDs 4-battery housing (batteries not supplied)

Case of 5 radio-synchronised lights of Ø 210/80 LEDs

Set of 5 lights \emptyset 210 mm /80 LEDs and 4-battery power supply housing, in their transportation container.

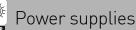
5 radio-synchronised lights in their transportation container.











Traffic guidance



KR44 lighted arrow (8 chevrons)

The KR44 arrow is composed of an aluminum sheet with double flanged edges, matte black colored, with dimensions 1200 x 400 mm, which serves as a contrast screen for the 8 chevron LEDs.

The chevrons are 320 mm height.

The KR44 arrow is fitted with a 3 meter cable, with XLR plug connector.

The chevrons are composed of LEDs, with life spans above 100 000 hours.

The LEDs are assembled in groups of 5 elements, which greatly improves the fault tolerance of the overall lighted sign (a faulty LED only extinguishes a group of 5 LEDs maximum).

The scrolling direction, left or right, is determined by the mounting direction of the KR44 arrow.

The power supply can be delivered by a battery or a mains 230/12V power supply (power supply is not included).

The device can be mounted on its 2 holders (included), or mounted with straps fixed on its back rail (not included - the fixing dimensions are determined by your holder).

The KR44 arrow conforms to the French Interministerial Instruction.

38996

Lighted KR44 arrow 8 scrolling chevrons



KR42 Lighted arrow (11 optics)

This KR42 arrow is composed of 11 optics Ø 70 mm which are simultaneously turned on in a flashing mode.

Each Ø70mm optic contains 30 yellow high intensity LEDs, molded in a polyurethane potting.

This process makes the lighting part completely waterproof, and offers a perfect protection against corrosion and

The scrolling direction, left or right, is determined by the mounting direction of the KR42 arrow.

The sign is fitted with a 3 meter long cable, with an XLR connector termination.

The power supply can be delivered by a battery or a mains 230/12 V power supply (power supply is not included).

The device can be mounted on its 2 holders (included), or mounted with straps fixed on its back rail (not included the fixing dimensions are determined by the application's holder).

The KR42 arrow conforms to the French Interministerial Instruction.

40098

Lighted KR42 arrow Blinking mode

Power supplies

Mobile VMS



Mobile VMS

The Variable Message Sign mounted on a mobile trolley delivers a clear signal and information to the road users. Its flexibility and ease of installation, as well as its compact overall dimensions on the roadway, allows the sign to be used in all cases.

With the use of its control unit, the sign can display a text selected from a complete listing of prerecorded messages, or any other user edited message.

Variable Message Sign specifications:

- •140 mm matrix display, for up to 10 characters.
- Yellow LEDS.
- •Sun cap.
- Polycarbonate UV-resistant protection.
- •Standard RAL matte black colored.
- •Enclosure fitted with toggle locks.
- Fixing gear included.

Control unit specification:

- Backlighting
- Direct short keys (auxiliary, triangle, VMS).
- •99 preprogrammed messages.
- •Editable text messages with the programming software (included)
- •Connection with USB port for message modification

General specifications:

Voltage: 12 V.

Dimensions: 1360 x 275 x 335 mm.

Overall height: 1533 mm.

The mast can be detached from the battery compartment for transport means.

40099

Site mobile VMS H140 matrix, 10 characters



Mobile battery box Option

NEW

The mobile battery box option facilitates the implementation of the light signaling on your site.

It is compatible with various devices such as the KR41 scrolling light bar, the KR44 and KR42 arrows, and so on. The battery can be transported over long distances without effort.

The mobile housing protects the battery against damage or theft. It can also be associated with the protective cage to enhance the security against theft.

For easy transport the battery holder is detached from the mast on which is mounted the signaling.

Mobile battery box Option

45801

Mobile battery box Option

Protection cage for mobile battery box

41186

Protection cage for mobile battery box

Site lighting



CLight with 200 mm diameter optic

Single-face light with transportation handle, LED optic diameter 210 mm. Power-up using a 3-position sealed switch (24-hr, off, night).

4-battery housing, type 6 V 4R25 (batteries not supplied) Operational autonomy in double flash mode: 255 hours

One wrench for theft-prevention fitting for 2 lights purchased.

14386

Lamp Ø 210/80 LEDs

Telescopic model

Model with telescopic arm from 70 to 120 cm.

14387

Lamp Ø 210/80 LEDs Télescopic

CLight with optic diameter 180 mm

Double-face light with transportation handle. LED optic with Ø 180 mm (1 LED per face). Power-up using a protected switch.

2-battery power supply housing (6V 4R25) (batteries not supplied)

Standard model

Operational autonomy in flashing mode: 250 hours. Theft prevention fixing. **Night operation only.** One wrench for theft-prevention fitting for 4 lights purchased.

1535

Light Ø 180/2 LEDs



Wireless LEDs worksite projector

Up/down and Left/right Directable projector with a waterproof switch. Internal battery with up to 5 hours run life. Supplied with a 230/12 V battery charger and car charger.

38061

LEDs wireless portable Projector 20 W 1300 lumens with charger











Power supplies

Maintenance Equipment



→ 26386







700 mm Triangle equipped with 3 LED optics with Ø70 mm. Folding front/rear stand.

Stands locked using self-tightening strap. Choice of symbol.

Power supply using rechargeable battery built into box. Supplied with mains-charger power supply. Operational autonomy in double flash mode: 35 hours.



26386 Intervention triangle 700 classe 2 With built-in rechargeable battery

6035 Class 2 road sign 400 x 150 Single face

35265 Class 2 road sign 400 x 150 Double face



Tripode

700mm floor standing tripod with 3 sides AK5 TZ in retroreflective diamond grade film. Delivered with its storage bag.

For other decor, please contact us.

AK5 700 Tripod T2 retro-reflective diamond grade + PVC case



Emergency Traffic Guidance Kit

Set of 6 LED lights (allows emergency traffic guidance to be created) in their own storage and re-charging case. Mains and cigarette-lighter recharge included. 9 operating modes (fixed, flashing, turning etc.) Rechargeable blue Emergency Traffic Guidance Kit.

30096	Blue Emergency Traffic Guidance Kit Rechargeable
30107	Amber Emergency Traffic Guidance Kit Rechargeable

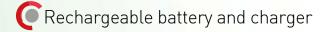
Power Supplies

there is no ecological consideration that is too small!



Less waste, working life in excess of five years





34853

Rechargeable battery 6 V 4R25 5 Ah

Battery charger for 4R25 type batteries, for simultaneous charge of up to 8 batteries.

35094

Rechargeable battery charger 4R25 1 to 8 battery

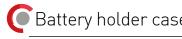












Battery holder case

PVC battery holder case allowing a rechargeable battery of up to 75 Ah to be included. External connection using XLR 3 point plug.

1555

Rechargeable battery holder case





Rechargeable battery

Rechargeable battery 12 V - 200 Ah range 1992 Rechargeable battery 12 V - 100 Ah range 1953 Rechargeable battery 12 V - 75 Ah range

Rechargeable battery 12 V - 40 Ah range

Power supply and battery housing

4-battery power supply housing.

(6V 4R25 batteries not supplied).

Model with control electronics in double flash mode Powerup using a 3-position sealed switch (24-hr, off, night). Connection using 3 jack points.

15700 4-battery power supply housing jack Double flash mode

Saline battery 6 V 4R25 7 Ah

385 battery 6 V 4R25

7 Ah

Alkaline battery 6 V 4R25 9,5 Ah

390 battery 6 V 4R25 9,5 Ah

Alkaline battery 6 V 4R25 45 Ah

36029 battery 6 V 4R25

Power Supplies



Courant Tension Boost Absorption Floating





--- 29577

Battery charger

Charge your batteries safely.

There is a suitable charge curve for each type of battery technology. Our chargers can be used to recharge you batteries in accordance with the manufacturers' instructions

Regain your batteries' initial capacity whilst maintaining them in good condition.

BOOST/rapid charge - ABSORPTION/équalisation - FLOATING/maintenance. These three curves are applied automatically in turn.

Our battery chargers provide high quality charge regulation which guarantees protection and a long battery operating life. Charger for batteries from 100 Ah to 250 Ah

21551 Charger for batteries 12 V / 25 A / 300 W

Charger for batteries from 50 Ah to 100 Ah

26758 Charger for batteries 12 V/8 A / 96 W

Mains supply

Power supply 230 V / 12 V - 3 A in PVC housing. This housing is compatible with all safety equipment.

1522 Mains supply 230/12 V

Supply using public lighting

Case used to connect to the public lighting system. Public lighting source case.

34577	Public lighting source 7 Ah Rechargeable battery included
1694	Public lighting source 7 Ah Rechargeable battery included

Solar power site supply

Assembly made up of a solar panel and an accumulator case which contains the regulation electronics and the battery.

29577	Solar power kit 20 W 17 Ah
29578	Tri-flash control panel for solar power kit 17 Ah

Day/night control panel

Allows night-time only power-up to be achieved.

1556	Day/night control panel

General points



Pre-assembled, ready to install.

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- Control panels
- Work and searchlights
- Rotating beacon
- C Light bars & Light head
- © Scrolling light bars
- C Lighted directional traffic arrows
- Mini Variable Message Signs
- The Triangles
- The Integral Classic
- The streamlined Integral Classic
- Fittings
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Our human/equipment interface

The control system for the equipment has been completely redesigned. It is based on more ergonomic elements which are truly easy to use.

Control panels, which are more compact and with an improved ergonomic design. Fully configurable, they incorporate all functions.

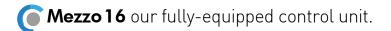




Control panels



Control panels



The Mezzo16 is a complete control panel. It is equipped with a microphone and has a special intelligent "sound" input. The keys can be customised. They are also back-lit and therefore indicate what equipment is active.

The single-voltage power module can be used to control up to 12 on-off self-protected outputs and 8 other sequential outputs. With its very high power rating it can be connected to large-scale, power-hungry equipment.





The sound management modules

26457	Sound generator - siren
25688	Grille loudspeaker 100 W
28463	Hands free microphone
28464	Mic/mp3 connection interface

Searchlights





To efficiently light up a working zone with the possibility of remotely directing the light beam in various desired places (from a distance of more than 25m). Our searchlights are studied to be able to give you a large use and installation flexibility.

Wireless remote control included.

41414	LED searchlights 30 W / 12 V
33898	Halogen searchlights 65 W / 12 V

Working lights



This range of lights will guarantee low energy consumption with high light intensity (on average: 80 Lumens /1 Watt). Professional model suitable for extreme conditions.

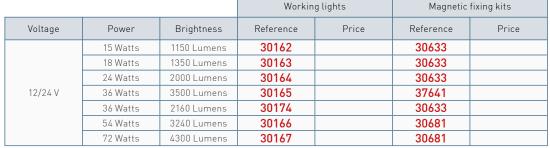


30163 30164 30165 30174 30166 30162 30167













All our LED working lights are also available with magnetic fixings

Move your lights, not your vehicle!

Using our magnetic kit you can position the spotlight anywhere you wish on your vehicle. 5m extension supplied. Connection on cigarette-lighter plug.

37641

30633

-- 30681

Rotating beacon



Rotating lights range Efficient and economical

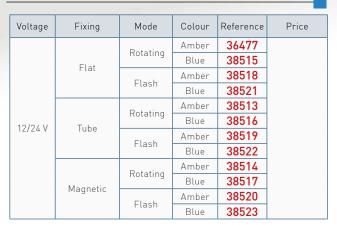
Available with different fixings, flat base, tube or magnetic (supplied with spiral cable and cigarette lighter base), our LED rotating lights have all the current benefits available on the market:

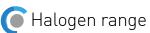
- Dual voltage 12/24 V.
- Resistant (Polycarbonate dome).
- to be used with engine off.
- Very long life.
- No maintenance

(no change of bulb, belt or engine...)

• Ultra quiet.



























-- 1712

			Tube	3	
Voltage	Fixing	Mode	Colour	Reference	Price
			Amber	1590	
	Flat		Blue	40721	
12 V *	Tube Magnetic	Rotating	Amber	1586	
			Blue	5998	
			Amber	1588	
			Amber	1586	
			Amber	+2354	
			Dl	5998	
			Blue	+2354	
			Amhar	1712	

Amber

Blue

Amber

Blue

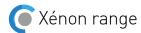
1712 1589

1592

6375

--> Flat

→ Magnetic



Contact us



1595	Screw-on tube
1597	Vertical fixing tube
1598	Horizontal fixing tube







··· 1597



→ 1595

^{*} For 24 Volts : please contact us

Light bars





D.I.R



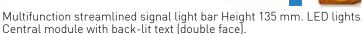
--⇒ 35594



POLICE MUNICIPALE



·· 35604



,							
Voltage	Length	Number of lights	Colour of lights	Text	Reference	Price	
		2	Amber	Yes	35594		
12/24 V	970 mm	0 mm 4	Amber	Yes	35598		
				No	35592		
		2	Amber	Yes	35596		
	1400 mm		Amber	Yes	35600		
		4	Amber / Blue	Yes	35604		



INTERVENTION



·· 35597

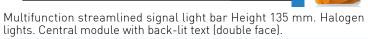


POLICE MUNICIPALE



→ 35603





Voltage	Length	Number of lights	Colour of lights	Text	Reference	Price	
		2	Amber	Yes	35593		
970 m	970 mm	4	Amber	Yes	35597		
		4		Non	35590		
12 V .	1400 mm	V	2	Amber	Yes	35595	
			Amber	Yes	35599		
		4	Amber / Blue	Yes	35603		

^{*} For 24 Volts: please contact us



MAGNETIC OPTION AND CUSTOMISED LIGHT BARS:

Contact us 🖫 🖾

Light head



LED light head careened, bi-tension 12-14 Volts.

21149	light head 113x28 amber 12-24 V (1 light)
43398	light head 113x28 blue 12-24 V (1 light)
43397	light head 133x45 bicolor amber/blue 12-24 V (1 light)



--> 21149









Ultra thin



Bicolor - amber / blue

Light bars







Standard flat lightbars : EPSILON

This ultra low profile light bar, length 1080mm, is composed of 36 yellow power LEDs.

A blank central text space (448mm), on both sides, with editable application defined text.

39953 Flat lightbars 59 mm 36 LEDs length 1080 mm

Synchronized flash

12 blocks of 3 LEDs, 18 LEDs on the front panel and 18 LEDs on the rear panel. As well as 4 blocks of 6 wide-angle yellow LEDs (2 on each side)

42121 Flat lightbars 59 mm 60 LEDs length 1252 mm

Control panel not included (to be select from page 26)



HERETE TEREST TERES TERES TERES







We can modulate our lightbars to your needs. Consult us for specific requirements.

We can adapt the size of our lightbars for a better fit into the vehicle, and offers you specific functionning mode, colors and polycarbonate lenses that suits your requests.

Example :

LED bicolore

2 in 1 : a scrolling bar at the rear of the vehicle, a lightbar on the font and on the sides. 12 blocks of 3 yellow LEDs, 18 LEDs on the front and 18 LEDs on the back. 2 blocks of 6 wide-angle yellow LEDs on each side.

39954 Flat lightbars 59 mm 60 LEDs length 1252 mm



Scrolling light bar



3 position switch on cigarette lighter plug



Scrolling light bar

A streamlined scrolling light bar 1180 mm long, with magnetic fixing kit, composed of 5 scrolling LED lights + 2 rotating LEDs lights.

Supplied with cable and 3 positions cigarette lighter switch.

37091

LED scrolling light bar + 2 rotating LEDs lights.



→ 23324



23324

7-LED light arrowbar Supplied with its control box.



→ 30222



30222

LED scrolling light bar and 2 LED beacons

With triangle AK5 500 or 700 class 1 on lift (electric) and 2 LED beacons.

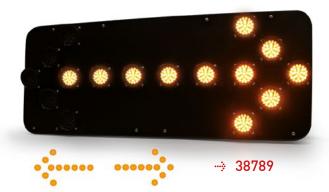
27473	LED scrolling light bar Triangle 500
21968	LED scrolling light bar Triangle 700

Control panel not included (to be select from pages 26-27) (switches not compatible)





Lighted directional traffic arrows





--> 1585



These arrows are composed of 2 aluminum panels, assembled with a rubber watertight gasket. Fixing with back rails. Magnetic fixture is optional.

Control unit is not included (see pages 26-27):

The arrows can be controlled by the 2 switch pack (reference 30217, not included).

Opt for control panel Mezzo 8 (reference 26453) when a complete solution is required, with added triangles and rotating lights.

Lighted directional traffic arrows (16 lights)

Blinking arrow (1000x400x50mm), 16 lights of Ø70 mm. Arrow with low consumption LEDs, single sided.

38789

LED blinking arrow

Lighted directional traffic arrows (14 lights)

Blinking arrow (720 x 720 x 50 mm), 14 lights of Ø70 mm. Arrow with low consumption LEDs, single sided.

1585

LED blinking arrow



Directional light arrow flashing and magnetic (8 lights)

Directional light flashing 8 lights Ø 70.

The traffic direction, right or left, is determined by the direction of installation of the luminous arrow. Supplied with 10m cable and cigarette lighter plug. Warning, this product cannot be used on a driving vehicle.

24006

LED flashing arrow

12 V

Mini Variable Message Signs



Mini VMS

Mini Variable Message Panel for Car Rear Range, 9 characters H110 mm.

Supplied with control box and programming software.

44940

Mini VMS 9H110 mm

Triangles







1570	Triangle AK5 500 Classe1 - With rails fixed on the back
1571	Triangle AK5 700 Classe1 - With rails fixed on the back

Intégral™Classic





→ 1957 Triangle 700

2 elements configuration

Pre-equipped assembly including:

1 roof rack. 2 halogen rotating beacons with connection tubes. 1 LED triangle 500 or 700.

1956	Configuration n°2 Triangle 500
1957	Configuration n°3 Triangle 700

Control panel not included (select from page 26)



→ 1959 Triangle 700

3 elements configuration

Pre-equipped assembly including:

1 roof rack. 2 halogen rotating beacons with connection tubes. 1 LED triangle 500 or 700.

2 LED lights.

1958	Configuration n°4 Triangle 500
1959	Configuration n°5 Triangle 700

Control panel not included (select from page 26)





Choice of options for your Integral system

Choice of options for your integral system	
1576	Manual kit
35341	Two amber halogens beacons.
	(For other beacons please contact us)
37866	8-LED arrowbar

Intégral™ Streamlined Classic



Painted metal body

Colour (RAL) of your choice!

All painted work have a professional finish with a powder coating. The use of a polyester powder paint allows us to offer the best features of resistance to atmospheres.

© Intégral™ Streamlined Classic

Manual Lift

1 triangle 500 or 700 LEDs. 1 power supply cable length 10 m with cigarette-lighter plug 1 magnetic fixing kit.

29112	With triangle AK5 500
29113	With triangle AK5 700

Electric Lift

1 triangle 500 or 700 LEDs. 1 power supply cable length 10 m 1 magnetic fixing kit.
Supplied with a 1 switch pack
It is necessary to add the optional adhesive fixings for the

streamlined integral – reference 29053.

29963	With triangle AK5 500 Electric Lift
29964	With triangle AK5 700



Intégral[™] Streamlined Classic









Create your own Intégral™system

Intégral™ Streamlined Classic options

2 LEDs beacons kit.

29030

Optional 2 rotating beacons with amber LEDs. (For other beacons please contact us)

2 halogen beacons kit.

29061

Optional 2 halogen beacons. 21 Wamber

2 lights kit

30223

Optional 2 15 W LED spotlights (For other lights please contact us)

Manual kit

1576

Manual kit.

Optional roof rack fixings

38492

Optional roof rack fixings

Adhesive fixings kit

29053

Optional adhesive fixings (Manual / Electrical)

Removable: Magnetic

Fixed: Adhesive



Fittings



Adhesive fixing kit for Streamlined Integral

System without need of drilling

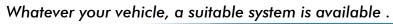
Fits all brands and types of vehicles.

Adhesive fixing kit for Integral Classic 3M adhesive tape

System requiring drillingRoof bar with drilled fixing system.

4765

Drilled fixing kit K1P1 rack



Contact us a





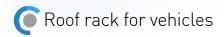












Complete kit (pair of fastenings + roof bar) Please specify the correct vehicle type and its year of manufacture (fixings may vary from one year to another).

Renault Master / Mascotte



1614





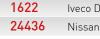












1615	Renault Clio
1616	Renault Kangoo
2232	Renault Master Mascotte (Benne)
5283	Renault Trafic / Opel Vivaro
1617	Peugeot Boxer / Citroën Jumper
1618	Peugeot Expert / Citroën Jumpy
1620	Peugeot Partner / Citroën Berlingo
24568	Fiat Doblo
20998	Fiat Fiorino
2231	Mercedes Vito
23077	Mercedes Sprinter / VW Crafter
14301	Opel Combo
1622	Iveco Daily
24436	Nissan Cabstar / Renault Maxity

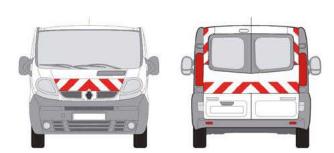
Vehicles with roof gutters

Complete kit for vehicles equipped with roof gutters. 1 pair of adaptors and a 1750 mm roof bar.

1607	Standard gutter-system roof-rack

Vehicle screen printing

A cut perfectly adapted to the vehicle







Minimum lateral

Maximum lateral







Order of 6 November 1992 published in the journal officiel of 3 January 1993

Article 2: approves the new requirements in book 1 of the inter-ministerial instructions on road signals shown under the heading "Part 8": temporary signals."

Article 122C booklet part 8e: mobile equipment.

Mobile equipment forms an obstacle which must be made particularly obvious. Vehicles which regularly work on the roadway must carry signals in accordance with the requirements of the order of 20 January 1987.

Requirements of the Order of 20 January 1987:

Minimum surface area per vehicle, 0.80 m².

Front: 0,16 m² - Rear: 0,32 m². Right side +left side : 0.32 m².

Homologated by DSCR, under the TPESC number shown on

each white stripe.

Pre-cut kit

Appropriate for the vehicle, available in class 1 and class 2. Please contact us.

Box of 2 rolls

Includes the left side and right side roll. Red and white traffic guidance.

1966	Rolls Classe1 2 rouleaux 9 m / largeur 0,14 m
1967	Rolls Classe 2 2 rouleaux 9 m / largeur 0,14 m

Magnetic strip

1972	Magnetic "service" strip Class 1 50x15 cm
1973	Magnetic "service" strip Class 2 50 x 15 cm

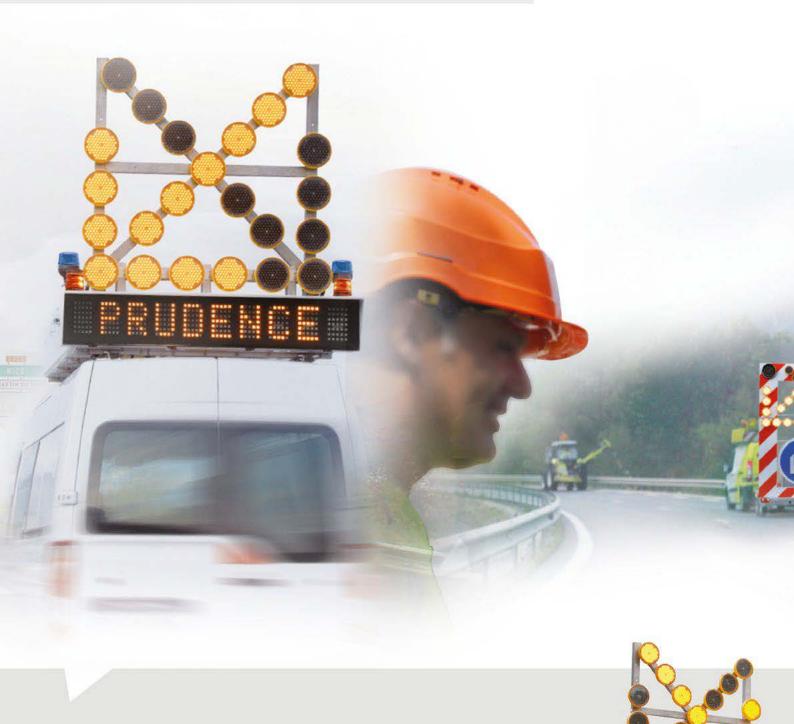
Municipal Police vehicle screen-print

Decree no.2005-425 of 28 April 2005 (published in the journal officiel of 7 May 2005).

- Front: 800 x 400 mm 'Police Municipale' with red margin and blue text screen printed on 2 lines.
- Rear: 3-colour badge 96 x 120 mm. Strip 720 x 90 mm 'Police Municipale' with red margin and blue text screen printed on 1 line, class 2.
- Side: : Blue strip 14 x 120 mm. Triple 'Gitane' stripe 120 x 14 mm. Triple 'Gitane' stripe with red 'Z' 14 x 120 mm. 3-colour badge 240 x 300 mm.

12866 VL Kit 'Police municipale'

General points



A major development in on-board equipment...

- HIGH SPEED raising (3 sec)
- **ULTRA HIGH STRENGTH Structure (stainless steel)**
- For use at HIGH SPEEDS (150 km/hr)



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PICTOGRAM Trailers

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Intégral™ Dynamic

The Dynamic Integral, is a concept: all our safety equipment are integrated in a coherent and customized signaling device.

The Dynamic Integral, it is the insurance to get the equipment you need. Our control units and our interfaces will allow you to easily integrate all of your vehicle and on-board signaling projects.

Our compact and ergonomic control units are fully configurable. The keys are backlit. Two sizes of control units: 4,3" and 7" in diagonal, suitable for light or heavy duty vehicles. OS embedded Linux, C/C++, reliability and stability of software. Dialogues with secure high-speed CAN bus.



Control panels



ALTO 4.3"

The ALTO 4.3", 11 cm diagonal control panel is particularly suitable for light goods vehicles: Kangoo, Nemo, Berlingo, Jumpy, Partner, Expert, Doblo, Fiorino, Scudo etc. It has a 16/9 screen - 480x272 pixels – high luminosity 400 cd/m², +/-60° angle for unmatched ease of use. Guaranteed to operate between -30°C and +75°C the ALTO 4.3" is made for use in all difficult environments. It includes all commands for VMS, triangles, lifting, gyro auxiliaries, working lights, scrolling light bars etc.

32702

Control panels ALTO 4.3"

















🕜 80 Amp BUS, reliability, modular design

The Intégral™ Dynamic is the first signal system to have a complete modular BUS with

electrical and data connection. With no more hard-toextract cables, the BUS 80A provides guaranteed reliability and ease of maintenance. This expandable BUS on one hand distributes electrical supplies of up to 80A and on the other hand high flow CAN. It incorporates a general cut-out relay. There are two configurations available: 2 slots and 4 slots.

Management boards

The Intégral™ Dynamic is the first signaling system to have a set of management boards which meet the needs of all

applications in a standard and modular manner. Functions relating to VMS, lifting, auxiliary, scrolling light bars, FLU and analogue and digital inputs can all be combined thanks to the three base boards of the Integral Dynamic.





Control panels



The Alto 7", 18 cm diagonal control panel is particularly suitable for heavy goods

vehicles: Trafic, Master, Jumper, Boxer, Ducato etc. It has a 16/9 screen - 800x480 pixels – high luminosity 400 cd/m², +/-60° angle for unmatched ease of use.

Guaranteed to operate between -30°C and +75°C the ALTO 7» is made for use in all difficult environments.

It includes all commands for VMS, triangles, lifting, gyro auxiliaries, working lights, scrolling light bars, FLU etc.

The $\pmb{\mathsf{Alto}}\ \pmb{\mathsf{7''}}$ has, as standard, a dual port for front and rear cameras. With a GSM modem, you will even be able to transit real-time images to your regulation PC.





USB Connection

General description

Our Dynamic Intégral concept includes our entire range of certified displays in 7x5 matrix form or as a continuous matrix. The certification requires full control over photometric and thermal parameters and makes our displays the highest performance displays on the market.



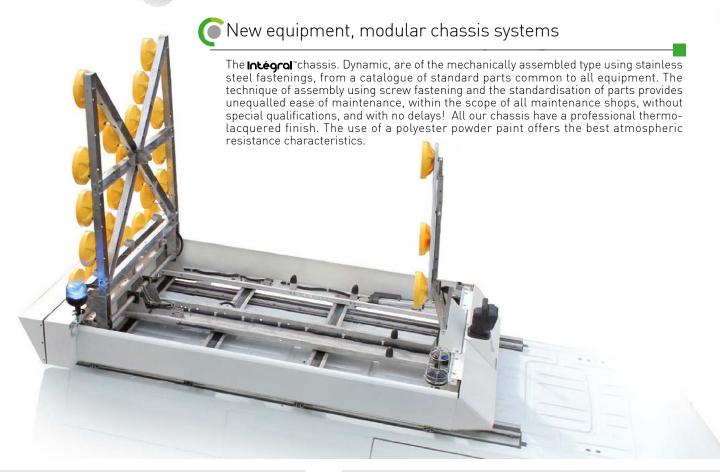
VMS for light goods vehicles

For equipping your light goods vehicles, we recommend character heights: H160 and **H200 mm** as 8 to 10 characters with spacing or 12 characters as a **continuous matrix**.



🕝 VMS for heavy goods vehicles

For equipping your heavy goods vehicles, we recommend character heights: **H200 and H250 mm** as 9 to 10 characters with spacing or 12 characters as a **continuous matrix**.





EC certified to standard EN12966

Please visit the website: www.ascquer.fr



Our Integral Dynamic concept offers you the **(** equipment guarantee Range of displays certified by ASCQUER to standard EN12966. Photometric testing, colorimetric testing, EMC, vibration testing, severe testing regimes: all to ensure your safety: demand this compliance

For equipping your goods vehicles, we recommend character heights:

H160, H200 and H250 mm of 8 to 10 characters, regulatory spacings. Or continuous matrix characters for optimised display.

General description



Match Speed with Safety

High speed lifting

Ultra-rapid deployment of the illuminated Emergency arrow and the ability to do this at high speed!
Gone are the times when patrol units had to slow down and stop to deploy its signal system.

- Deployment of the high-speed FLU takes less than 3 seconds.
- Deploy your equipment at high speed (up to a relative speed of 150 km/hr).
- Reinforced chassis and fastenings, stainless steel and aluminium materials

A 1250 triangular dynamic matrix sign: Triangle pictogram lifting system ____

For the larger triangular signs of 1250 mm, we offer you a matrix panel that can display the complete range of type A Signs.

Designed on the basis of a dual color matrix, the dynamic panel gives the road users the right information according to the road situation.















VMS - Variable Message Sign

Our variable message signs installed directly on-board vehicles are equipped with high light intensity LED displays. Created to provide temporary mobile signaling on roads and motorways, they provide road users with information on traffic conditions.

- VMS: new generation energy-saving displays, choice of various sizes H160, 200, 250 mm (4 to 5 LEDs per point) from 8 to 12 characters.
- Automatic luminosity switch-over by Day-Night cell.
- Standard RAL paint finish of choice
- Latest generation ALTO control panel with update via USB
- Options available on request (beacon, spotlight, rearview camera etc.).

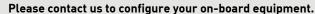


VMS + Triangle 500 / 700

- VMS: new generation energy-saving displays, choice of various sizes H160, 200, 250 mm (4 to 5 LEDs per point) from 8 to 12 characters.
- Automatic luminosity switch-over by Day-Night cell.
- Triangle 500 700 double face:
 - Aluminium sign, turned over dropped edge.
 - Adhesive class 2, symbol of choice.
 - Equipped with 6 optics diameter 70 mm with 30 LEDs.
- Lifting using electrically operated cylinder with integral end-of-travel sensor.
- Standard RAL paint finish of choice.
- Latest generation ALTO control panel with update via USB key.
- Option available on request (beacon, spotlight, rearview camera etc.).

Safety auxiliaries available as options

A wide range of additional accessories allowing you to create equipment that fully meets your requirements: Beacons, spotlights, anemometer, rearview camera, siren etc.









VMS + Triangle 1000 / 1250

- VMS: new generation energy-saving displays, choice of various sizes H160, 200, 250 mm (4 to 5 LEDs per point) from 8 to 12 characters.
- Automatic luminosity switch-over by Day-Night cell.
- Triangle 1000 1250 double face:
 - Aluminium sign, turned over dropped edge. Adhesive class 2, symbol of choice
- Equipped with 6 optics of diameter 200 mm with 80 LEDs, protected by polycarbonate lens.
- Lifting using electrically operated cylinder with integral end-of-travel sensor.
- Standard RAL paint finish of choice.
- Latest generation ALTO control panel with update via USB
- Options available on request (beacon, spotlight, rearview camera, anemometer etc.).



VMS + 16 optics Arrow

- VMS: new generation energy-saving displays, choice of various sizes H160, 200, 250 mm (4 to5 LEDs per point) from 8 to 12 characters.
- Automatic luminosity switch-over by Day-Night cell.
- Triangle 500 700 double face:
- Aluminium sign, turned over dropped edge.
- Adhesive class 2, symbol of choice.
- Equipped with 6 optics diameter 70 mm with 30 LEDs.
- Arrow type KR42: 16 optics of diameter 70 mm with 30 LEDs, in networks of 5, moulded in resin, making it fully water-tight.
- Lifting using electrically operated cylinder with integral end-of-travel sensor.
- Standard RAL paint finish of choice.
- Latest generation ALTO control panel with update via USB
- Options available on request (beacon, spotlight, rearview camera, anemometer etc.).









PMV + 1250 Triangle Pictogram

- VMS: new generation energy-saving displays, choice of various sizes H160, 200, 250 mm (4 to5 LEDs per point) from
- Automatic luminosity switch-over by Day-Night cell.
- Two-colour graphic matrix. For the display of type A "large" signs.
- Lifting using electrically operated cylinder with built-in
- Standard RAL paint finish of choice.
- Latest generation ALTO control panel with update via USB
- Options available on request (beacon, spotlight, rearview camera, anemometer etc.).



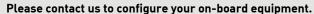


FLU - Illuminated Emergency Arrow

- VMS: new generation energy-saving displays, choice of various sizes H160, 200, 250 mm (4 to 5 LEDs per point) from 8 to 12 characters.
- Automatic luminosity switch-over by Day-Night cell.
- FLU type KR43: 23 optics of diameter 200 mm with 80 LEDs, protected by polycarbonate lens.
- Lifting using electrically operated cylinder with built-in end-of-travel sensor.
- Standard RAL paint finish of choice.
- Latest generation ALTO control panel with update via USB
- Options available on request (beacon, spotlight, rearview camera, anemometer etc.).

Safety auxiliaries available as options

A wide range of additional accessories allowing you to create equipment that fully meets your requirements: Beacons, spotlights, anemometer, rearview camera, siren etc.









FLU + Triangle 500/ 700

- VMS: new generation energy-saving displays, choice of various sizes H160, 200, 250 mm (4 to 5 LEDs per point) from 8 to 12 characters.
- Automatic luminosity switch-over by Day-Night cell.
- Triangle 500 700 double face:
- Aluminium sign, turned over dropped edge.
- Adhesive class 2, symbol of choice.
- Equipped with 3 or 6 optics of diameter 200 mm with 80 LEDs, as networks of 5, protected by polycarbonate
- FLU type KR43: 23 optics of diameter 200 mm with 80 LEDs, protected by polycarbonate lens.
- Dual independent lifting using electrically operated cylinder with built-in end-of-travel sensor.
- Latest generation ALTO control panel with update via USB
- Standard RAL paint finish of choice.
- Options available on request (beacon, spotlight, rearview camera, anemometer etc.).



Briefcase FLU

- VMS: new generation energy-saving displays, choice of various sizes H160, 200, 250 mm (4 to 5 LEDs per point) from 8 to 12 characters.
- Automatic luminosity switch-over by Day-Night cell.
- Triangle 1000 1250 double face:
- Aluminium sign, turned over dropped edge.
- Adhesive class 2, symbol of choice
- Equipped with 3 or 6 optics of diameter 200 mm with 80 LEDs, protected by polycarbonate lens.
- FLU type KR43: 23 optics of diameter 200 mm with 80 LEDs, as networks of 5, protected by polycarbonate lens.
- Dual independent lifting using electrically operated cylinder with built-in end-of-travel sensor.
- Standard RAL paint finish of choice.
- Latest generation ALTO control panel with update via USB key.
- Options available on request (beacon, spotlight, rearview camera, anemometer etc.).







FLR Trailers





The 750 kg chassis made entirely of galvanised steel can be towed by a light vehicle with no special licence required. It is equipped as standard with an adjustable-height drawbar and a self-braking system.

Long operational autonomy

With its 2 batteries each of 200 Ah, the FLR Trailer can achieve a record operational autonomy of 150 hours.

100% LED technology

The optics of diameter 200 mm are made up of a lighting element with 80 high-luminosity yellow SMC 5 mm LEDs. This lighting element is integral with an ABS bowl.

The front part is protected by a transparent lens made of polycarbonate (high impact resistance).

There is guaranteed water-tightness between the polycarbonate lens and the bowl provided by a circular seal. The assembly is fully dismountable.

The control cabinet

Our local control cabinet. A digital display enables a clear real time communication between the user and the

LED indicators are displaying the actual message at the back of the trailer, even from long distance.

FLR Trailers



FLR Trailer

New generation trailer with LED optics, specifically designed for traffic guidance of mobile sites and urgent work on roads and motorways.

Structure:

- Single axle chassis 750 kg.
- Manual stabilisers Parking brake, adjustable draw-bar.
- Large capacity service chest.
- 25 flashing optics of diameter 200 mm.
- 2 flash optics of diameter 300 mm.
- 1 B21 sign of diam 1250 class 2, motorised and disengageable.
- Red and white chevrons class 2.

Operational autonomy:

- Long operational endurance:
- 150 hours with 2 batteries 12 V 200 Ah.

Low maintenance costs:

Due to LED optics, no bulbs to change.

Simplified controls:

The control module provides one-touch control of your signals.

Modular design:

- Generator set.
- Charger for 12 V battery.
- Electrically operated stabilisers.
- Control panel on unit or remote operation using a radio or cable link.
- Inertial braking.

Power:

Batteries / charger for 12 V batteries / mains lead reel / generator set available as option.

25878

Single axle trailer.







29178

Radio control panel





4 electric stabilisers, located under the trailer, allowing full and easy access to the upper plate.

10305

4 electric stabilisers kit

VMS Trailers







This variable message sign on-board a trailer is equipped with high light intensity LED displays. Created to provide temporary mobile signaling on roads and motorways, they provide road users with information on traffic conditions.

Structure:

Self-braking chassis / single axle 750 kg (Towable weight 830 kg) made of galvanised steel / manual stabilisers / parking brake / adjustable draw-bar.

Display:

1, 2, 3 or 4 lines of 12 characters. Characters Hc200-4, matrix 7 x 5 / 4 yellow LEDs per point / Red and White chevrons class 2.

Simplified controls:

In local mode messages are selected using the ALTO 4.3" control panel.

In remote mode, communication using GSM network, radio etc.

Automatic luminosity management.

Programming:

Programming using a laptop PC / software provided on CD ROM. No connecting cable between the PC and the trailer. Messages updated via the USB key.

Access code to ensure security of your message programming.

Modular design:

Generator set / charger for 12 V battery / electrically operated stabilisers / inertial braking / GSM modem.

Batteries / charger for 12 V batteries / mains lead reel / generator set available as option.

Single axle trailer 750 kg

Single axle trailer, 4 lines of 12 characters, character height 200 mm, 4 LEDs per point.



PICTO Trailers



Assembly of a fixed part (A14 steel panel with warning arrows, and a matrix panel with a high intensity LED display), on-board a trailer.

Structure: Single axle chassis of 750 kg.

Manual stabilizers / Parking brakes / Inertial breaking / Adjustable height drawbar.

4 stands for manual stabilization.

Hot-galvanized steel structure, chassis and mechanisms. Semi-automated jockey wheel lifting, spring blocking, and reinforced tyre wheel.

Picto Bichrome display: Bichrome matrix display box, size 1550x1550 mm.

56x56 points resolution (3136 yellow LEDs and 3136 red high intensity LEDs).

Display of panel codes A, B and KD in 1250 mm.

Energy: 12 V operation.

Electricity generators. Plug for charging on mains voltage. Electricity distribution panel with circuit breaker and fuse.

Control electronics: Coating protected control board, mounted in waterproof cabinet.

Control unit: Message selection with thumb wheel. Automatic light intensity adjustment (day/night cell).

Programming: : With portable computer (not included). Software is provided on CD ROM with a linking cable.

39767

Picto Bichrome trailer, single axle



Assembly of 2 variable message signs, equipped with high light intensity LEDs, on-board a trailer.

Structure:

Single axle chassis 1300 kg.

Manual stabilisers / Parking brake / Inertial braking / Adjustable height draw-bar.

Fixed lower part display

Monochrome graphic 128 x 96 point matrix. Used to display text, KD signs, animations.

Moving upper part display:

Two-colour graphic 48 x 48 point to 64 x 64 point matrix. Used to display "normal to very large" range signs of type A, B and KD.

Control:

On site, by laptop PC or thumb-wheel. Remotely, by GSM link, radio etc.

Programming from a PC:

Software provided on CD ROM.

Files backed-up on hard disk.

Programming of messages, animations, signs from a library. Multi-level access code for security of programming.

Modular design:

Generator set / batteries charger / electrically operated stabilisers / GSM modem...

Power:

230 V.

13763

Pictographic single axis trailer



General points



Ever more economic and environment friendly equipment & power supplies

Supply using public lighting:

Connection to a public lighting pylon with differential protection. Little civil engineering work required.

There is no ecological consideration that is too small!

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Sign lighting equipment

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© Curve light-signaling

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Enhanced signaling

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Dynamic enhanced signaling

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Permanent signal options

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Power supplies

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Adaptive traffic lights

p. 66 - 67

Radar speed sign

p. 68

Short Stop Terminal

p. 69

Traffic control lights

- p. 70
- Island point warning lights: Eclipse
- p. 70

Stand-alone photovoltaic power supply

This is an independent and low-cost method of power supply. **No civil engineering, connection or subscription costs.**

Example of economic and environmental summary for two 1000 mm LED triangles over 10 years:



850 KW/h not saved, 5000 € saving on electricity consumption and subscription costs.



390 Kg of CO² not emitted



Sign lighting equipment

Intensify all Danger, Prohibition and , Information signs.

NEW

Inert signals are not always enough for passing on information to road users. Increasingly either illuminated enhancements or one or more «flashing» lights are used in association with these signals in order to attract the attention of road-users.





Optic Ø300 mm with 225 yellow LEDs, (others colors on-demand). Fixing on double rail on front surface Polycarbonate protection lens. Integrated contrast screen (500x500 mm / epoxy powder coated paint).

1684	Optic Ø300 mm/225 LEDs 230 V Flashing mode
1686	Optic Ø300 mm/225 LEDs 230 V Double-flash mode
3156	Optic Ø300 mm/225 LEDs 12V Model for Public Lighting Source or solar power supply
5559	Shield for Ø300mm optic



Optic Ø 200

Optic Ø200 mm with 80 yellow LEDs. Fixing using rear plate (mast of diameter 60 to 168 mm).

1665	Optic Ø 200mm/80 LEDs 230 V Flashing mode
1666	Optic Ø 200mm/80 LEDs 230 V Double-flash mode
1660	Optic Ø 200 mm/80 LEDs 12V Model for Public Lighting Source or solar power supply
879	Shield for Ø 200 mm optic
35629	Contrast screen for Ø 200 mm optic * 350 x 350 mm

^{*}Designed for ø76 mm mast maximum, for larger size please specify on order.



Kit with 2 optics Ø130 mm with 30 yellow LEDs. Doubleflash operating mode.

2306	Bi-flash kit Ø 130 mm/30 LEDs - 230 V Equipped with a control / 230/12V power supply box.	
35837	Bi-flash kit Ø 130/30 LEDs - 12 V	

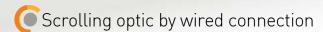


Options

Speed or presence detection radar, timer etc. Adapt equipment to meet your needs, options pages 62 and 63.

Curve light-signaling

Specific signaling solutions: **DANGEROUS CURVE**



Optic Ø 200 mm with 80 yellow LEDs. Functionning mode for a better safety.

Synchronous flash of all the lights to help the spatial location of the bend in all its depth. Running sequence overlaid with drag effect to mark the curve.

Automatic luminosity switch-over by Day-Night cell. Power supply + electronics integrated in the optic.

35932	Optic Ø 200/80 LEDs scrolling 230 V Wired connection
3511	Optic Ø 200/80 LEDs scrolling 12V Wired connection

Mains power supply or solar power supply: Contact-us.

Chevron PPRF BTR synchro

The enhanced Police sign (PPRF) in the BTR range, has a low thickness and is made up of two aluminium signs with folded dropped edges, assembled using an elastomer seal.

The symbol is reinforced with yellow LEDs

Double command of the light source.

Synchronous flash of all the lights to help the spatial location of the bend in all its depth. Running sequence overlaid with drag effect to mark the curve.

Contact us:

All sizes (600x600 / 800x800/...).

Different power supplies (230 V, Public lighting, Solar power). Communication of your choice (wireline, radio, GPS).

Spacecurv

Spacecurv is the dedicated solution for signaling and ensuring safety at dangerous bends. Some bends possess specific characteristics associated with the roadway, the environment and alignment which make them hazardous

Spacecurv is a dual illuminated signal with an optic Ø300 mm (370 LEDs) and J4 Chevron enhanced with LEDs. Control cabinet which allows adjustment of all sequence settings associated with the site: illumination mode and

time, cyclic offset, scrolling speed.

1693 Spacecurv



Power supplies

To power your equipment see the various power supplies available on pages 64 and 65.



Enhanced signaling



The enhanced Police sign (PPRF) in the BTR range, has a low thickness and is made up of two aluminium signs with folded dropped edges, assembled using an

elastomer seal.

Epoxy paint finish, silver-grey colour (metal). It is equipped with 3 m of cable.

Rear fixing using double rail.

The adhesive is class 2.

The border is enhanced by two rows of red LEDs (for C signs: one row of blue LEDs).

The symbol is enhanced by yellow LEDs on the border (for C signs: one row of white LEDs).

The sign may be powered by a 230 V or a 12 V supply.

12 V panels must be linked to a solar power supply or supplied using public lighting.





	Small	Normal	Large	
△ A category	700	1000	1250	
B category	650	850	1050	
C category	500	700	900	

All sizes and formats:

Contact us







Options

Speed or presence detection radar, timer etc. Adapt equipment to meet your needs, options pages 62 and 63.

Enhanced signaling

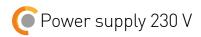


Advantages

- Low-thickness box (5cm) in the shape of the sign.
- No savings on the number of LEDs.

 Border formed of 2 rows of LEDs.

 The symbol is enhanced as standard by LEDs.
- 3M certified class 2 film.
- Optional extras may be added at any time.
- High output 5mm LEDs.
- Less and simpler maintenance required.
- Visible: Prevents familiarisation effects.
- Reliable: Operational life in excess of 100,000 hours.



38312

Power supply 230 V for PPRF BTR

Power supplies

To power your equipment see the various power supplies available on pages 64 and 65.

Dynamic enhanced signaling



1 panel for 1 symbol

Flashing mode



1 panel 2 symbols

Alternating Operating mode

We ensure that the information displayed to road users if the most accurate, while optimizing visual impact thanks to continuous alternance of symbols.



Symbol sign	Dimensions (mm)	△ and	d/or O and	/or 🔲	Text
	700 x 700	700	650	700	—
	900 x 900	1000	850	900	-
	700 x 900	700	650	700	1 line (8 letters)
	900 x 1150	700	650	700	2 lines (2 x 8 letters)
	900 x 1150	1000	850	900	1 line (8 letters)
	700 x 350	-	-	-	2 lines

All sizes and formats:

Contact us



PPDY BTR range

The Dynamic sign (PPDY) in the BTR range, has a low thickness and is made up of two aluminium signs with folded dropped edges, assembled using an elastomer

Epoxy paint finish, silver-grey colour (metal). It is equipped with 3 m of cable. Rear fixing using double rail.

The symbol is outlined with red LEDs on the outside and yellow LEDs on the inside.

The lifetime of a LED is greater than 100 000 hours. Red and yellow LEDs are connected in networks of 5 LEDs, ensuring continuous operation of the lighting element.

The road sign must be equipped with a power supply: 230V, street lights or solar power.

This type of sign can be manufactured with the road symbol of your choice, and can be supplied with 2 alternating symbols.

Flash mode operation



Options

Speed or presence detection radar, timer etc. Adapt equipment to meet your needs, options pages 62 and 63.

Dynamic enhanced signaling



Our range of LEDs illuminated reinforced Road signs is expanding With the dynamic BTR Sign

Innovative design, new features

Let's not make any savings on security!

This is the reason why we had the idea of creating the Dynamic BTR sign. Today the LED illuminated reinforced road signs range expands with the "PPDY BTR".

Single or double symbols

This type of sign is entirely adaptable to your needs. Up to 2 alternating symbols of your choice.

Superior visual impact

The reinforcement of the symbol by LEDs, and its square /rectangular shape on a black background allow for a better visual impact of the symbol.

Low Case thickness (50mm)

It is made for a better integration in urban areas. The rim and the symbol are reinforced by LEDs on a matt black background.



38312

Power supply 230 V for PPRF BTR

Power supplies

To power your equipment see the various power supplies available on pages 64 and 65.



Permanent signal options



The most suitable equipment for the highest levels of safety!

Speed Detection Radar

Radar detects an approaching vehicle. Detection of excessive speed triggers operation of the sign.

Common application: Entering a built-up area.



Remote control start-up

Operation of the sign is initiated manually using a remote control. This system results in optimum impact of the sign when it is of greatest use.

Common application: School areas.



Ensuring safety of moving pedestrians

Activation of the pedestrian control initiates the illuminated enhancement on both signs. Pedestrians are therefore safe to move, safe in both directions of traffic.



Outline detector

An outline detector is placed on the side of the road, before the sign. If the height limit is reached, the illuminated enhancement of the maximum dimensions sign is activated.

Common application: Tunnels.



Permanent signal options

N°1 in terms of Modular design Options for creating special signals









Customised specifications...



Clock

Radar	_
Speed Detection Rada	ar
35485	Low power consumption radar 230 V Max range 80 m
24221	Low power consumption radar 12 V Max range 80 m
Movement Detection	Radar
29395	Movement Detection Radar Max range 40 m max, 12 and 230 V

22018	Weekly timer 230 V
445	Weekly timer 12 V
31840	Weekly timer 12 V Pour kit solaire 20 W 17 Ah
On quotation (to be adapted to the po	Annual timer wer supply) + programming kit

We have been adapting our illuminated signals to meet your specific needs for 20 years

Our design bureau monitors the latest technological developments daily so that we can create the best signal systems to meet your needs.

Power supplies using public lighting

Alternative power supply solutions.



Public Lighting Source Power Standard

Supply using public lighting

The Public Lighting Source power supply is a panel which is used for charging (at night, when public lighting is operational) a Rechargeable battery which provides the equipment with power.

34577	Public Lighting Source Box 7 Ah Rechargeable battery included
1694	Public Lighting Source Box 17 Ah Rechargeable battery included
1695	Public Lighting Source Box 34 Ah Rechargeable batteries included

Differential circuit breaker

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	3	1	1	7										3	0	1	Υ	n/	4	C	ib	ff	fe	er	`E	r	ıt	ia	ıl	C	i	۲(cı	J.	t	b	r	е	а	k	e	r		

Clock* Radar Permanente optic Optic 200/80 (réf.1660) 7 Ah (réf. 34577) Optic 300/225 (réf. 3156) Enhanced signaling BTR Triangle 700 Triangle 1000 Round 650 7 Ah ' operational for 4h per day (réf. 34577) Round 850 C20 700 C20 900

Attention: Some towns for energy saving concern, turn off streetlights at night.

Dynamic BTR Sign Contact us

In this case, the SEP (public lighting system) sizing has to be subject to a specific study.

Solar power supplies (photovoltaic)

Economy :

Ease of installation, no major civil engineering required, no administrative procedures, no meter connection costs, no overall power consumption.

• Preservation of the environment:

Clean and renewable energy, no CO2 emissions.

Reliability:

The operating life of solar panels is estimated to be 20 years.

• Energy Independence :

The sun is a reliable and constant source of power.



There is no ecological consideration that is too small



Solar power supply (photovoltaic)

The solar panel is used to charge a battery which powers the equipment. The solar power kit includes the solar panel and the rechargeable battery housing.

35637	Solar Power 10 W 7 Ah Battery supplied
23278	Solar Power 20 W 17 Ah Battery supplied
28616	Solar Power 40 W 34 Ah Batteries supplied
28664	Solar Power 60 W 60 Ah Battery supplied
32692	Solar Power 100 W 60 Ah Battery supplied
33402	Solar Power 150 W 120 Ah Batteries supplied
30872	Solar Power 200 W 120 Ah Batteries supplied

Table of power supply options:

Solar power supply									
	Standard	Clock*	Radar						
Permanent optic									
Biflash kit 130/30 (réf.35837)	10 W	10 W 7 Ah							
Optic 200/80 (réf.1660)	(réf. 3	35637)	(réf. 23278)						
Optic 300/225 20 W 17 Ah 40 W 3 (réf. 3156) (réf. 23278) (réf. 280									
Enhanced signaling BTR									
Triangle 700	20 W 17 Ah (réf. 23278)								
Triangle 1000	40 W 34 Ah (réf. 28616)								
Round 650	20 W 17 Ah (réf. 23278)	20 W 17 Ah	40 W 34 Ah						
Round 850	40 W 34 Ah (réf. 28616)	(réf. 23278)	(réf. 28616)						
C20 700	20 W 17 Ah (réf. 23278)								
C20 900	40 W 34 Ah (réf. 28616)								
	Dynamic B	TR Sign							
	Contac	t us							

Adaptive traffic lights

Increased security for all!

For inhabitants of sensitive areas. Stop speed exceedings! Create the better behaviours!

> The traffic lights are permanently on red, and switch to the green light when a vehicle arrives at the authorized speed.

> This operating mode incites a virtuous driving behavior, and encourages prudent attitudes on the road.

> They are installed at a zebra crossing or near a school area.

Pedestrian movement behavioural lights

Includes: 2 three-colour lights of diameter 200 mm, 2 three-colour lights of diameter 100 mm, 2 pedestrian push-button boxes, 2 radars, 1 control panel, 2 masts.

25009	Bi-directional stop-light with pedestrian movement control
29883	Bi-directional stop-light Public Lighting Source with pedestrian movement control
32408	Bi-directional stop-light solaire with pedestrian movement control



→ 35389



Options

35389	Class 2 sign C50 500 x 500mm «within speed limit = green light»
40610	Optic Ø 210 Red cross 12 V
1678	Optic Ø 210 Red cross 230 V



Behavioural Mobile lights

A mobile version of the behavioural adaptative light.

- Module protected with a polycarbonate face.
- Telescopic mast: closed 1,55 m, open 2,20 m.
- Wheel-barrow box with ABS cover.
- · Lifting handles.

38512	One behavioural Mobile lights Battery operated
37744	C700 Class 1 Sign «Speed restriction is respected» = green light»

STOP at excessive speed

the only effective solution to dangerous drivers.



Make your town safe

To counter excessive speeds and to produce a change in drivers' behaviour, the use of three-coloured lights controlled by speed is shown to be a particularly effective solution. When a high speed is detected upstream, this type of light punishes dangerous behaviour and, of course, likewise encourages careful attitudes.

They are to be installed on a main road, perhaps only on a pedestrian crossing or at the entrance to a school.

Operating mode

Safety mode: whilst awaiting detection the lights are on red. In the event of excessive speed being detected the radar activates the system to keep the lights at red. If non-excessive speeds are detected they change to green. This modes accentuates the encouragement of acceptable

These equipments can be powered on 230 V, solar energy or street lighting system.

Radar speed sign







The solution is simple and compact



Front panel protected by a polycarbonate face. Rear rail mounting for 140 mm maximum masts (fixings not supplied). Speed display in a «fixed» mode, with 250 mm high characters, in red and green LEDs. Possible speed display from 1 to 99 km/h. Dimensions: 425 x 380 x 127 mm.

The panel can be powered with 230 volts, with street lighting system or with solar energy.

• • • • • • • • • • • • • • • • • • • •	•••••
43415	Radar speed sign 2H250 12V Easy LEDs R/V - box 425 x 380 x 127 mm
43662	Option: Easy supply 230 V
43663	Option: Easy supply SEP(public lighting) Battery supplied
43665	Solar kit 40W 34Ah fixed mode Batteries supplied
9317	Option: radar speed sign mobile panel

For any other informational radar option (data collection, matrix text)

Contact us







These equipments can be powered on 230V, solar energy or street lighting system.

Short Stop Terminal



The Short Stop Terminal is the ideal solution for the management of limited-time parking places.

- Favours the local business.
- Perfectly identified.
- Very visible due to its big size.
- Put into service without major civil engineering work.
- Proven technology.
- In the colors of your city.

TTS Short stop terminal

This device allows a large number of vehicles «rotation» on the same parking place. Short stop terminals contribute to reduce the traffic of vehicles searching for a place, which also reduces noise and pollution.

Our terminals authorize the parking for a limited time, ranging from 10 to 40 minutes.

They can be with or without count down time, manage a simple or a double place, and function on 230 V ou public lighting system.

These terminals can be equipped with an optional clock, or with an «SMS sending» option (after the authorized parking times is exceeded).

Our minute short stop terminals are customized with the logo, the text and the town chosen colors.

The detection and management system does not require complex programming. With a single setting requiring no adjustments, the desired parking time is easily set either in the factory or by the client themselves.

The short-stay terminal is equipped with the latest design of electromagnetic detector.

Standard version or simple count down or double place

Voltage	Number of places	With time count-down	Single-sided	Reference
230 Volts	1	No		23372
230 Volts	2	No		38336
230 Volts	1	Yes		31330
230 Volts	2	Yes	Yes	31331
12 Volts*	1	No	res	24458
12 Volts*	2	No		36124
12 Volts*	1	Yes		40932
12 Volts*	2	Yes		40933

^{*}It is necessary to add the adequate power supply to the terminal.

Crossing traffic light





Polycarbonate assembly equipped with 2 optics \emptyset 200 mm: one red, one green.

Crossing traffic light - LEDs light

1706	Crossing traffic light Ø 210 - LEDs 12 V
2329	Crossing traffic light Ø 210 - LEDs 230 V

Crossing traffic light - E27 Light bulb.

2331	Crossing traffic light Ø 210 - E27 Light bulb 12 V
2330	Crossing traffic light Ø 210 - E27 Light bulb 230 V
38525	E27 Light bulb LEDs 230 V

Crossing traffic light Ø100

Polycarbonate assembly equipped with 2 optics of diameter 100 mm: one red, one green. LED light source, E27 230V bulb. Fixing system using inserts.

42531	Crossing traffic light Ø 100 LEDs 12 V
15856	Crossing traffic light Ø 100 LEDs 230 V

Specifics crossing traffic light

Bicolor crossing traffic light. ABS optic Ø210 mm. Optic built of 80 red LEDs and 81 green LEDs.

33950	Bicolor optic Ø 210/12 V
	Red / Green
30915	Bicolor optic Ø 210/230 V
	Pod / Groop

Red cross / green arrow

ABS optic Ø 210 mm. Cross built of 53 red LEDs. Arrow built of 60 green LEDs.

37679	Optic Ø 210mm/12 V Red cross / Green arrow
24718	Optic Ø210/230 V Red cross / Green arrow
1678	Optic Ø210/230 V Red cross
1677	Optic Ø 210/230 V Green arrow





·· 2330









·> 15856

→ 24718

Eclipse





The rows of LEDs on the circumference operate as fixed locating lights. The central part operates as a flashing light during bad weather.

Bowl diameter 250 mm made of grey-painted aluminium, IP55. 300 yellow LEDs arranged in 2 parts (crown ring and central part).

1707 Eclipse lights

GENERAL SALES CONDITIONS

Article 1 - General points

The present sales conditions apply to all our sales except for public contracts and sales to local authorities, which, due to their nature or measures that are in force, are the subject of specific conditions.

Article 2 - Orders
All orders must be confirmed in writing (letter, email or fax). Confirmed orders cannot be subsequently modified. Any later modification will be invoiced as an addition. Duly recorded orders can only be cancelled with our written agreement.

Article 3 - Prices - Lead-times and delivery

- Our reference prices are set each year in our catalogue.
 Our lead-times are given for indication only. Delays which might occur will not give rise to any indemnity on our part, nor will they be the motive to
- Unless otherwise stated, our tariffs are excluding departure taxes, packaging and transport

packaging and transport invoiced as additions. Goods are dispatched in accordance with the standard conditions of the transport service providers. Urgent or special deliveries are to be the subject of a specific agreement and the purchaser will be invoiced for these as an additional service.

• Our goods, even those dispatched «free», whether delivered by ourselves or third parties, always travel at the risk and peril of the receiving party to

- whom they belong. In the event of apparent defects or missing items, make all necessary observations, check the consignments on arrival and if necessary take recourse against the transport service provider who alone has responsibility.

has responsibility.

• As a result, the consignee must, at the time of acceptance, check the products and formulate precisely on the carrier's voucher any defects or deficiencies found and, if necessary, refuse the goods.

Any unspecified reserves such as «Subject to unpacking, damaged boxes, or damaged goods» will not be accepted.

The recipient must also confirm by registered mail these reservations to the carrier no later than 48 business hours after receipt of the goods, and send a copy of this letter to: Traffic Technologie Système, Quality Department, ZI 1 avenue 2ème Rue BP594 06516 Carros Cedex, recalling the references on the delivery note. the references on the delivery note

Article 4 - Conditions for settlement

• For all our «account» client, the payment deadlines are set at

- *5 days from the invoicing date.
 No discount for early payment.
 During the completion of an order or contract, we reserve the right to demand any guarantee of payment in the event of new information about the situation of our client being brought to our attention (non-payment by due date to ourselves or to a third party, negative opinion following an examination of financial documentation etc.).
- All sales to clients without an account with us are payable with the order.

Article 5 - Penalties

Late payment interest equal to the official lending rate plus 7 points will be applied as a penalty once the due payment date has passed. This will apply to the full amount remaining due.

In the event of failure to pay on one or more of the due instalments, bills of exchange, promissory notes, the other instalments will become immediately payable, even if they have given rice to hills of exchange. given rise to bills of exchange. • One-off indemnity for recovery costs 40 € (ART D441-5 of the

French Commercial Code)

Article 6 - Warranty

• Before installation or use, the delivered product must be stored

Before installation or use, the delivered product must be stored in their original packaging under cover, protected from water or humidity, corrosive products, excessive heat or cold temperatures.
Our clients expressly agree to scrupulously follow the advice for use provided for each type of product in our catalogue. We will not accept any responsibility and will not implement any warranty in the event of the advice for use not being followed.
The warranty commences on the day of delivery. Equipment must be returned carriage paid, with all references relating to the fault as well as the invoice number. The re-dispatch of equipment after repair is made carriage-paid for equipment under warranty. The warranty ceases to be applicable if the equipment has undergone any non-authorised intervention, or if elements disturb the normal operation of the equipment.
The standard warranty is for 12 months.
Our warranty is strictly limited to the replacement of equipment deemed to be defective.

deemed to be defective.

Article 7 - Retention of title

Products are sold with retention of title

Products are sold with retention of title.

The seller retains title to the products until the payment of the purchase price made effectively and in full by the purchaser. In the event of default of payment at the due date, the seller may reclaim the products and cancel the sale. Cheques and bills of exchange are only considered to be payments once they have been effectively.

deposited. Until that time the retention of title clause is to apply in deposited. Only that time the reletition of title clause is to apply in full. These arrangements are not to be an obstacle to the transfer, on delivery, of the risk to the products that are sold. The purchaser agrees not to transform or incorporate the said products or re-sell them, or use them as collateral, until the purchase price is paid in full, on pain of immediate reclamation of the products by the seller.

Article 8 - Derogations
No derogation to the general sales conditions may be made without written confirmation on our company's headed paper

All disputes relating to our sales, even in the case of warranty related claims or multiple defendants, are to come under the exclusive competence of the French Commercial Court within whose jurisdiction the registered office of Trafic Technologie System falls.

Other activites of TTS



TTS



Intelligent Transport Systems





Innovative supervision solutions for city parking





Parking Systems Signaling





Digital Display Systems



www.ttsys.eu

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