

# INVICTUS

DRIVING THE EXCELLENCE



CAETANO



# WHEN EXCELLENCE MEETS EXCELLENCE

Life makes more sense with perfect relations.

Meet **INVICTUS**, a coach that reflects its excellence in the double-decker land.

Come on board, appreciate the world from a higher dimension and experience our ability to perfectly balance beauty and technology.









# PRESENTATION

**INVICTUS** sets the difference in the world of premium passenger coaches. Combining two different chassis modules, this innovative solution results in a comfortable coach for passengers, with an unique accessibility for wheelchair users that is unique and differentiating in this segment.

We want you to enjoy your coach for a long time. Our main focus is therefore to ensure that the most demanding quality standards are met: robustness and reliability. Some examples are the anti-corrosion protection, high quality paint and interior finished to the highest standards.

In addition to this, there is the development of CAETANO aluminum body, an advantage in terms of corrosion resistance and weight reduction, reducing fuel consumption and allowing greater energy efficiency.

**INVICTUS** was developed in order to offer our customers the maximum flexibility and customization. It differentiates itself by its Comfort, Accessibility, Safety, Driving Ergonomics, Functionality and Design.



# CHARM AND CHARISMA ON THE ROAD

Travelling has its own purpose. It's about experiencing the moment, grasp what is different in every single mile.

**INVICTUS** has been designed following the main features of the CAETANO brand - the generous front and rear and the integrated design of the headlights and the rear lights of the vehicle.





# WIDE ACCESS





# SAFETY



# DRIVING ERGONOMICS



# COMFORT AND ACCESSIBILITY

Our Customers are at the heart of everything we do. Passengers will travel with maximum comfort in a pleasant interior space, with all functionalities adapted to their needs.

**INVICTUS** was born to focus on mobility and accessibility.

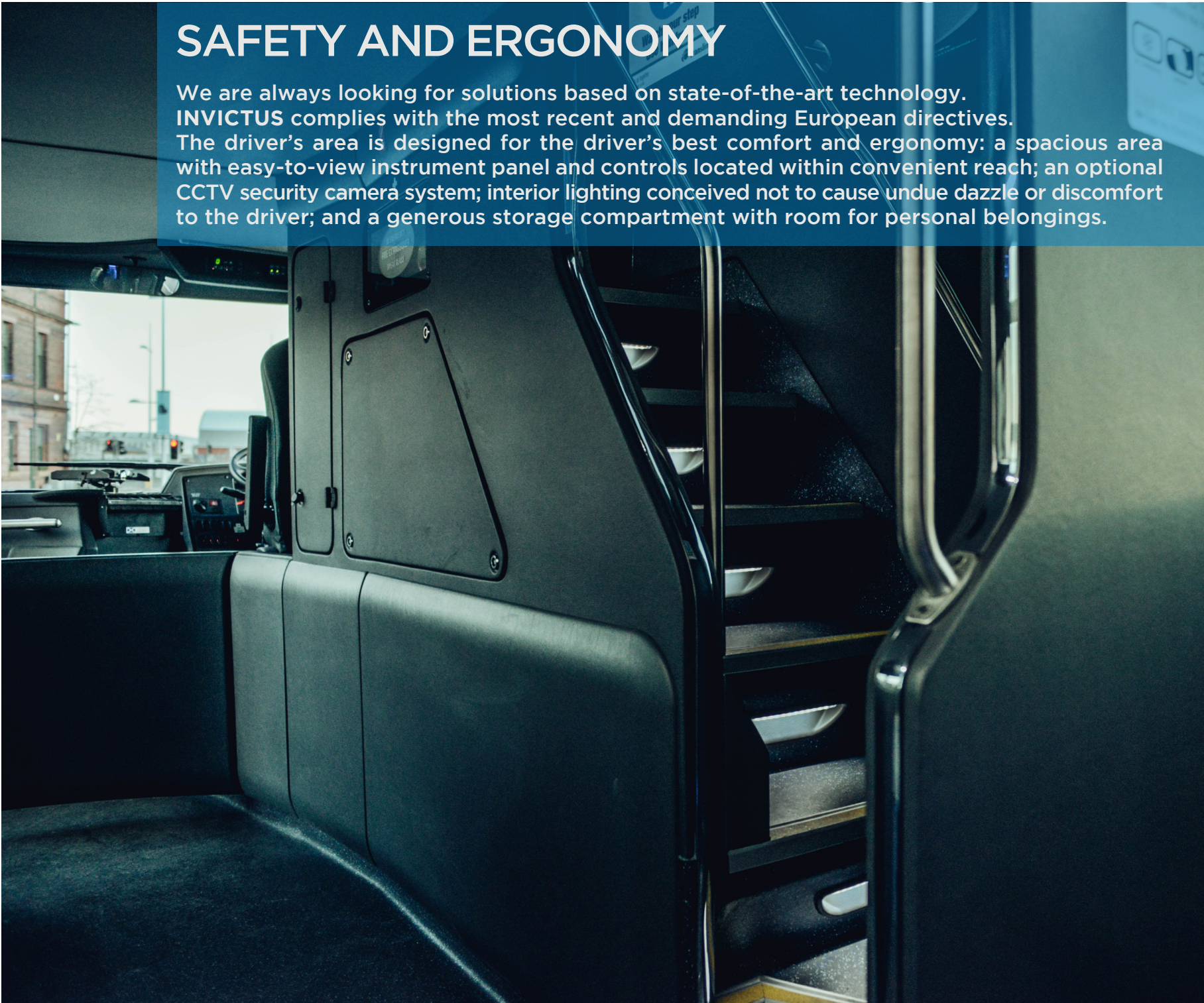
The control of the lift platform with access through the front door is easily done by the driver. Entrance of the wheelchair passenger into the saloon can be executed within seconds, with evident advantages in time and comfort for all passengers.





# SAFETY AND ERGONOMY

We are always looking for solutions based on state-of-the-art technology. **INVICTUS** complies with the most recent and demanding European directives. The driver's area is designed for the driver's best comfort and ergonomics: a spacious area with easy-to-view instrument panel and controls located within convenient reach; an optional CCTV security camera system; interior lighting conceived not to cause undue dazzle or discomfort to the driver; and a generous storage compartment with room for personal belongings.





# FUNCTIONALITY AND DESIGN

Preserving an exclusive design, the coach was designed for easy service and maintenance: access to the front box and wiper system through the front swing out flaps; easy access for fuel and liquids top up through the nearside panel; easy access to batteries carrier; rear inged panel for wide access to AC unit above engine bay; user-friendly electric switchboard; luggage compartment with fixed stepwell and powerflaps; panic button and infrared camera; exterior cameras for rear view of entrance and luggage area and interior camera to check staircase and wheelchair area and upper saloon.





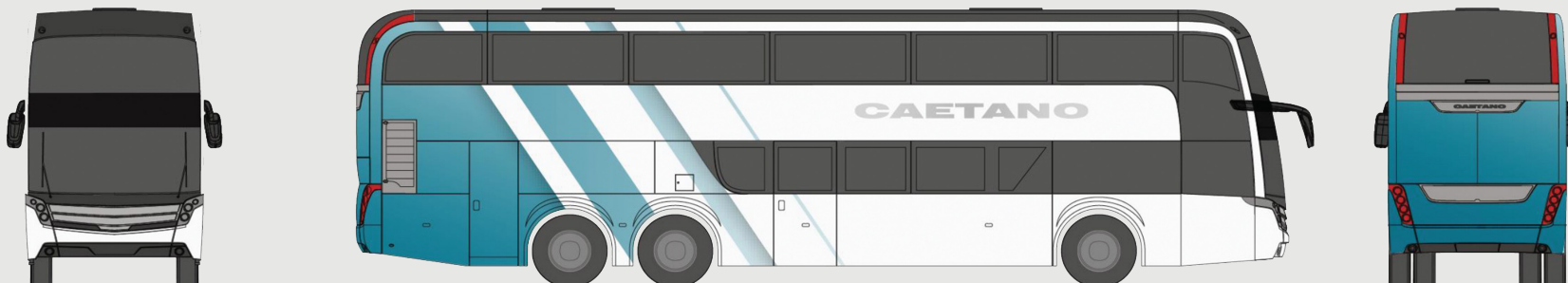
## DIMENSIONS

VERSION	LENGTH [mm]	WHEELBASE [mm]	FRONT OVERHANG [mm]	REAR OVERHANG [mm]	WIDTH [mm]	SEAT CAPACITY	LUGGAGE CAPACITY m3	WHEELCHAIR SPACE	DOORS
13.2m One staircase STD	13.250	6.015	2.700	3.035	2.530	76	7.7	0	1 + 1
13.2m One staircase STD	13.250	6.015	2.700	3.035	2.530	74	7.7	1	1 + 1
14.3m One staircase STD	14.300	7.058	2.700	4.200	2.530	79*	9.5	0	1
14.3m One staircase STD	14.300	7.058	2.700	4.200	2.530	77**	9.5	1	1

\*It's possible to increase the 14.3m version capacity up to 81 seats.

\*\*Higher capacity under consultation.

Other versions under consultation.

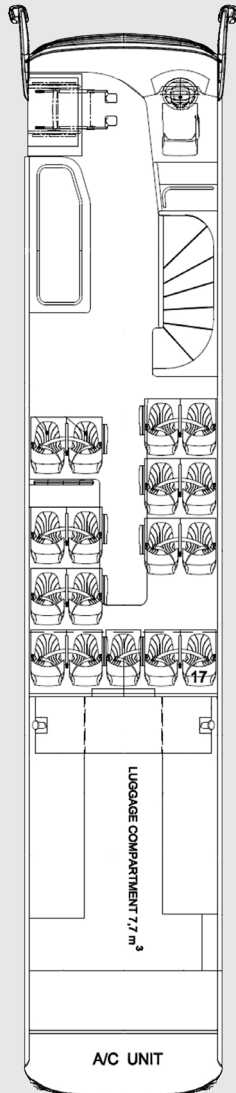




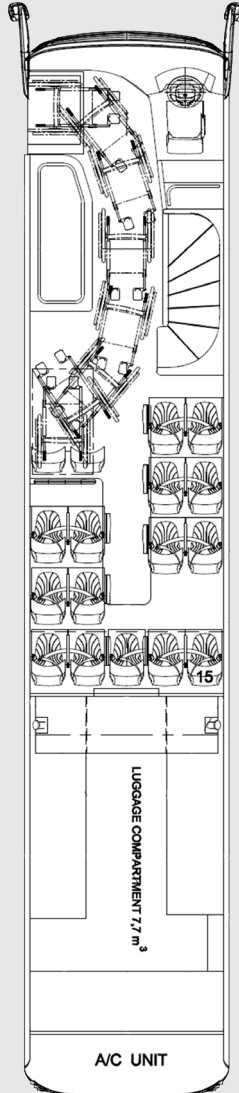
## BODY SPECIFICATION

VERSION 13.2m

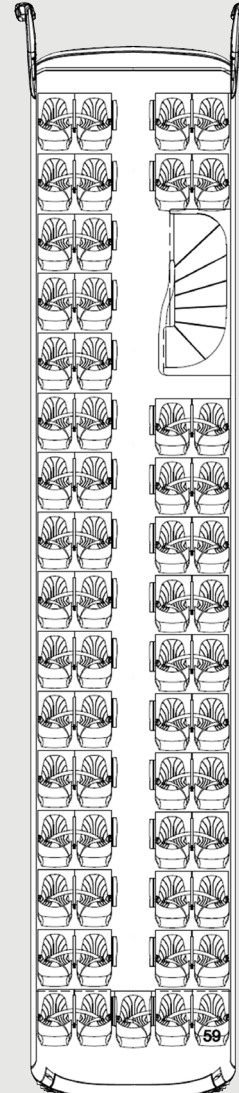
Lower Deck:  
17 seats



Lower Deck:  
15 seats (with wheelchair)



Upper Deck:  
59 seats



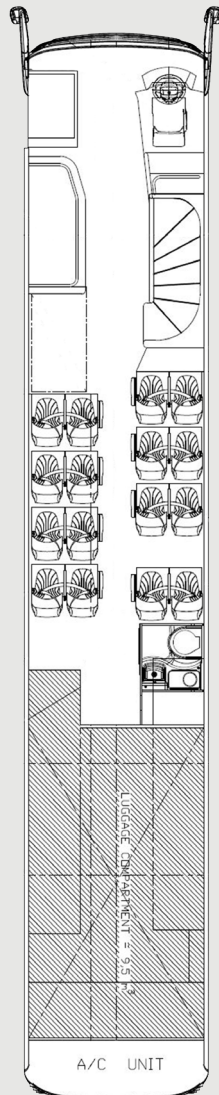
The manufacturer reserves the right to modify the technical specifications indicated.  
Other versions under consultation.



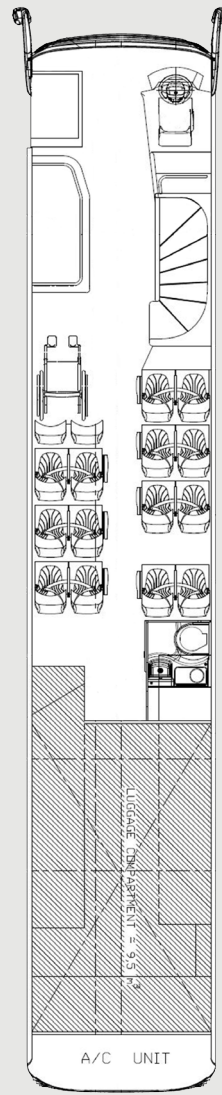
## BODY SPECIFICATION

VERSION 14.3m (with WC)

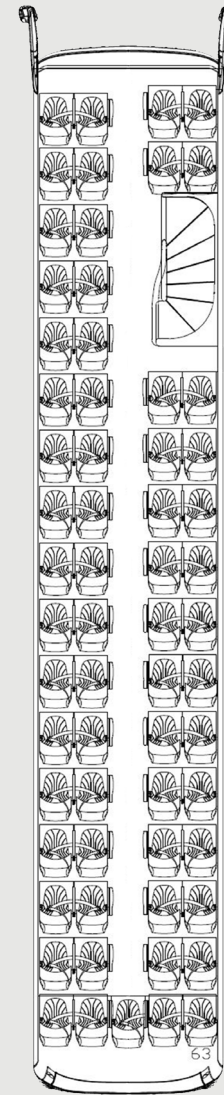
Lower Deck:  
16 seats



Lower Deck:  
14 seats (with wheelchair)



Upper Deck:  
63 seats



The manufacturer reserves the right to modify the technical specifications indicated.  
Other versions under consultation.  
Higher capacity under consultation.











## WEIGHT DATA



### 13.2 m Version

UNLADEN WEIGHT	
FRONT AXLE	4.600Kg
REAR AXLES	12.800 Kg
<b>TOTAL</b>	<b>17.400 Kg</b>
GROSS VEHICLE WEIGHT	
FRONT AXLE	6.400 Kg
REAR AXLES	17.100 Kg
<b>TOTAL</b>	<b>23.500 Kg</b>
TECHNICAL CHASSIS WEIGHT	
FRONT AXLE	7.100 Kg
REAR AXLES	19.000 Kg
<b>TOTAL</b>	<b>26.100 Kg</b>

### 14.3 m Version

UNLADEN WEIGHT	
FRONT AXLE	5.000 Kg
REAR AXLES	13.000 Kg
<b>TOTAL</b>	<b>18.000 Kg</b>
GROSS VEHICLE WEIGHT	
FRONT AXLE	7.000 Kg
REAR AXLES	17.900 Kg
<b>TOTAL</b>	<b>24.900 Kg</b>
TECHNICAL CHASSIS WEIGHT	
FRONT AXLE	7.100 Kg
REAR AXLES	19.000 Kg
<b>TOTAL</b>	<b>26.100 Kg</b>







## CHASSIS SPECIFICATION

CHASSIS & MOTOR	
CHASSIS	K 410 UB6x2*4
MOTOR	SCANIA DC13 115 K01 - Euro 6
DISPLACEMENT	13 Litres
POWER	302 kW (410 hp) at 1,900 r/min
MAX. TORQUE AT R/MIN.	2,150 Nm at 1,000-1,300 r/min
GEARBOX	SCANIA GR875R 8-speed gearbox with SCANIA integral retarder and SCANIA Opticruise 2 pedal fully automated gear changing system
AXLES	
FRONT AXLE	SCANIA AMA780 low floor Axle - Capacity: 7.100Kg
REAR AXLE	SCANIA ADA1300 rear axle housing of cold pressed steel with magnetic oil filler plug - Capacity: 12.000 Kg
TAG AXLE	ARA860, Type - Steerable - Capacity: 7.500 Kg
BRAKES	
AXLES	Disc
BRAKES	ABS, EBS, Traction Control, Downhill Speed Control Lane Departure Warning Supplied by SCANIA with the Chassis
WHEELS AND TYRES	Michelin 295/80 R22.5 Rim Size - 22.5" x 8.25"
STEERING	
POWER STEERING GEAR	ZF 8098
STEERING GEAR RATIO	17.0-20.0:1
STEERING WHELL ANGLE	22- 44 deg



## CHASSIS SPECIFICATION

FRONT AXLE SUSPENSION	2 x Air Bags
DRIVE AXLE SUSPENSION	4 x Air Bags
TAG AXLE SUSPENSION	2 x Air Bags
SUSPENSION	Full Kneeling Function; Raise and Lower Function Level Control - Electronic; Anti Roll Bar - Front, Rear and Tag

ELECTRICAL SYSTEM	
VOLTAGE	24 V
ALTERNATORS	150V + 150V
BATTERIES	2 x 12V 225 Ah - Griptone battery charging socket type
SYSTEM	CAN Bus

FEATURES	
	Ergonomic Driver Instrument Panel
	Adjustable Steering Column for tilt and reach
	Fleet Management System prepared
	26,100 Kg technical capacity chassis
	Cruise Control
	Tacograph - Digital Stoneridge
	Speed Limitation- 100 km/h acc. to EU Regulations





## INVICTUS

**The warranty covers Caetano bus body for a 3 year period.**

Less maintenance: Recognised CAETANO quality guarantees a higher longevity of the bodywork and better return on investment.

Improved access to components for easier repair or replacement.

CAETANO extranet for direct access to the manufacturer warranty submission and after sales assistance.

Local UK based parts and service provided by Caetano UK, using original parts and recognised repair methods, mobile and workshop based service.







### CLIMATISATION

Compact Unit Twin Cycle Denso GD4 AC unit with independent front box with heating and cooling functions.  
Floor heating and option for park heater.

### INTERIOR TRIM

The interior comprises of wipe-clean GRP trimmed with artificial leather.  
Luggage Racks incorporate individual service sets.

### FLOORING AND CARPETS

Light weight composite floor with trimmed with carpet vinyl.

### SEATS

Driver seat - ISRI air suspended seat.  
Passenger seats Politecnica Relax GTV.

### STRUCTURE

Aluminium Co-Bolt structure in steel 355J2H metalized.

### EXTERIOR TRIM

Front and rear are trimmed with GRP parts. Side panels in composite of aluminium. Side vertical opening flaps in aluminium.

### DOORS

LHS Electro-pneumatically operated double glazed outward swinging door.  
The Emergency Door, half height double glazed manual door.

### GLAZING

Lower Windscreen is a bonded clear laminated glass.  
Upper Windscreen is a bonded tinted laminated glass. Without Rear Glass. On the sides, dark tinted double glazing, without hopper windows.







### **ELECTRICAL SYSTEM**

The 24 volt electrical system is fully multiplexed.  
Reverse sensors.  
Exterior LED lighting.

### **WHEEL CHAIR ACCESS**

Wheelchair area on the LHS forward facing, fixed by 3 point seat belt retained in 2 NMI seats  
Access through the front door using a manual ramp Compak 9.

### **INTERIOR LIGHTING**

Continuous LED saloon lighting  
LED down lights fitted above door access and in the driver's area  
Gangway floor lighting as an option.

### **EXTERIOR MIRRORS**

Electrical and Heated.

### **DRIVER'S CABIN AREA**

Access to Driver's area via low height cab door  
Ergonomic Driver Instrument Panel  
Adjustable Steering Column for tilt and reach.

### **FUEL TANK AND ADBLUE TANK**

Fuel Tank with capacity for 500 litre of fuel and AdBlue Tank with capacity for 45 litre.



# YOU JUST WON'T FORGET

To be part of the double decker world is something that is as old as CAETANO history. Made in the most important Portuguese bus and coach manufacturer to the world, **INVICTUS** is the result of decades of know-how in double decker bodybuilding designed around people's needs.

More than a trip from one place to another, this optimised coach appeals to each passenger senses, making each journey unique.









## NOTES









**CAETANOBUS**  
GRUPO SALVADOR CAETANO

Av. Vasco da Gama, 1410  
4431-956 Vila Nova de Gaia | PORTUGAL  
Tef: +351 227 867 000 | Fax: +351 227 867 171

[www.caetanobus.pt](http://www.caetanobus.pt)  
[sales@caetanobus.pt](mailto:sales@caetanobus.pt)  
Check CAETANO products on youtube.

Mill Lane, Heather, Coalville, Leicestershire,  
LE67 2QE  
Phone: 01530 263333

[office@caetano.co.uk](mailto:office@caetano.co.uk)