A-FRAME TOWING

SmartBoxDUO Electronic Vacuum Power Braking System
& Car Transporter Trailers

Half Moon Bay (Leisure) Ltd
Monastery Lane, Storrington, RH20 4LR
Half Moon Bay (Leisure) Ltd are probably one of the leading specialists of small car towing solutions in Europe. With their brands of Smart-Tow.com for A-Frame flat towing and Smart-Trailers.co.uk for car transporter trailers they can advise and supply a solution for almost any situation.

Smart-Tow.com the lightest telescopic A-Frame solution in the current market - less than 8kg. Paired with its revolutionary SmartBoxDUO electronic vacuum power braking system it meets and exceeds all current UK and EU requirements. SmartBoxDUO’s unique Dual Sensing coupled with proportional braking means no dragging hot brakes down a long decline under engine braking whilst maintaining proportional braking – No binary ON/OFF!

Smart-Trailers.co.uk are the original small trailer that fits! No more oversize unbalanced trailer. With easy to use slide out ramps their trailers include many items as standard, such as Wheel Chocks, Spare Wheel, Jack Stands, Electrics etc, that most other suppliers consider cost+ extras. Designed from the outset to be forward loading for ease of use, Smart Trailers retain perfect weight distribution and balance for safe, easy and legal towing.

HMB Leisure are full professional members of the National Caravan Council and the National Trailer and Towing Association - they strive to maintain the very highest levels of customer care.

Find Smart-Trailers & Smart-Tow as towing advisors to Swift Group on their Motorhome Stand in Hall 3 - Stand 3040

Half Moon Bay (Leisure) Ltd.
Tel: 0333 335 1020
www.Smart-Trailers.co.uk – EU Type Approved Open & Covered trailers for ANY vehicle
www.Smart-Tow.com – Lightweight easy stow A-Frames & Electronic POWER & PORTABLE Braking
Have you ever parked your motorhome up and then wondered how you can tour the local area?

A small, light towed vehicle is the perfect answer, hitch it up to the back of your motorhome whilst travelling and then unhitch and tour around in comfort without having to manoeuvre a big vehicle through foreign narrow windy streets.

It is ideal for going to the local shops for your morning cooked breakfast or sightseeing with ease and enjoying that holiday sunshine.

More and more motorhomes have taken to towing a small car behind the ‘van so that they are able to visit those little hard to reach places, but often their choice of motorhome is limited by its towing capacity.

Smart-Trailers have worked together with the market leading Swift Group to improve the towing capability of their stunning range of coachbuilt motorhomes. With the help of HMB Leisure and Smart-Tow Swift Motorhome towing capabilities are now among the best in class.
The ONLY Dual Sensing Vacuum-Assisted Power Braking System in Europe that maintains the level of vacuum in your towed vehicle power brakes - No dead pedal.

One of the key problems with ordinary A-Frames, that use a manual overrun system to apply the towed vehicle's brakes, or use a Brake Buddy, or unpowered servo, is that it is invariably operating on a "Dead Pedal" and therefore may not meet the braking efficiencies required by law. If your towed vehicle has power assisted brakes, energised by vacuum from the engine inlet manifold to the master servo, then when the towed vehicle's engine is not running it is not providing vacuum to the brake's servo and is therefore unlikely to meet an effective braking capacity, according to the Construction and Use Regulations and EC Directives, without applying excessive brute force to the dead brake pedal.

**Cars We Do...**
Please see our Web Site www.Smart-Tow.com for a full list of the Cars currently suitable for Smart-Tow

**SmartBoxDUO** vacuum assisted braking provides both vacuum and air pressure. The **SmartBoxDUO** system energizes the towed vehicle's power assisted servo brakes without the engine running, so you have a soft and effective brake pedal. Once engaged, **SmartBoxDUO** replenishes the vacuum in the car's power assisted servo brake system. By replenishing the vacuum, gentle smooth pressure is applied to the towed vehicle's brakes. With the power assisted servo brakes active, only 10 - 12 pounds of pressure is required to apply the brakes effectively and provide a gentle smooth stop in compliance with EU Regulations and the requirements of the UK Construction and Use Regulations for braked trailers.
SmartBoxDUO requires two separate signals to activate the towed vehicle brakes. Deceleration from the G sensor plus a signal from the Motorhome brake light switch. Using two activation signals is the best method for eliminating complicated electronics, control unwanted or unnecessary activation of the towed vehicle brakes and allows for an automatic reverse facility as required by law.

No self contained power brake system applies brakes faster than SmartBoxDUO

Simple on/off towing, the gentleness of vacuum, the speed and power of air pressure, dual signal activation, and reliable motorhome notification all combine to provide the most powerful easy to use system available today that meets the braking capacity AND Auto Reverse requirements of the Construction & Use Regulations and EU Requirements.

One has to wonder, how many systems today are really easy to use? Many claims are made in advertising literature but is brand X really easy to use or do they just want you to think it is. SmartBoxDUO is REALLY easy to use, just turn it on. We make no inflated claims. This is the SmartBoxDUO difference, install once and always ready. It's that easy.
Why Dual Sensing?

Think about it.

If the system works ONLY on a brake light signal from the Motorhome then the slightest touch of the Motorhome brakes will activate 100% of the towed vehicle brakes. There is no proportionality, the towed vehicle brakes are either ON or OFF. Very binary I/O and unstable!

If the system works ONLY on a signal from the G Sensor then you will at least get 20% braking with 20% braking and 80% braking with 80% braking etc. But if you are going down a long hill or mountain pass under **Engine Braking** then the “trailer” will sense this and apply its brakes. Soon the towed vehicles brakes will overheat and you could arrive at the bottom of the hill with smoking, burnt out brakes!

Only with Dual Sensing do you solve the problem. Under engine braking, although the G Sensor is sensing deceleration, the brakes will not be applied until you touch the brakes in the motorhome and provide the second signal to the system. Under light braking on the flat a 12v signal may be sent to the brake system but with little or no deceleration sensed the G Sensor will keep any braking safely proportional.

![Diagram of Dual Sensing System](image-url)
Check List

It may be useful to check that the system you are considering meets or exceeds the following basic requirements :-

A-Frame

1. Superlight A-Frame <7.6kg
2. A-Frame that easily folds to fit neatly in boot
3. A-Frame of correct length to avoid Motorhome crushing towed vehicle wing in full lock turn
4. Fits to vehicle manufacturers tow point - no special mounting plates
   Vehicle reverts to standard homologated car when A-Frame disconnected - does not affect crash characteristics or Air Bag deployment

SmartBoxDUO

a. Brake System that is Fully Automatic and operates WITHOUT any manual intervention/adjustment from the Motorhome cab?
b. Proportional braking response, using only 10 pounds of pedal pressure?
c. Uses Vacuum Assisted Power Braking, as homologated by the vehicle manufacturer, and maintains the level of vacuum in the system – NO DEAD PEDAL?
d. Can be towed by ANY vehicle suitably equipped with a 50mm towball, not limited to just the designated Motorhome?
e. Dual Sensing Auto Reverse function?
f. Conforms fully to UK and EU Regulations?
g. 24 month Warranty as standard?
h. Nationwide Fitting Centres?
Am I Legal in Europe?

EU States like Spain & Germany have local laws that state you may not tow a motor vehicle with another motor vehicle unless you are an authorised break down vehicle. This is to avoid unsuitable towing by rope etc.

However, the UK Department for Transport consider you will not be towing a Class M1 motor vehicle, you will be towing a car that is converted to a Class O2 trailer and, provided it complies with all trailer legislation – being correctly braked and lit, it will be considered as a Class O2 Trailer and identified as such by reflective triangles and the number plate from the towing vehicle.

No EU member state has the power to reclassify a UK registered vehicle or combination of vehicles travelling in International Traffic.

Vienna Convention on Road Traffic 08Nov1968

A vehicle is said to be "in international traffic" in the territory of a State if:
1. It is owned by a natural or legal person normally resident outside that State;
2. It is not registered in that State; and
3. It is temporarily imported into that State;
provided, however, that a Contracting Party may refuse to regard as being "in international traffic" a vehicle which has remained in its territory for more than one year without a substantial interruption, the duration of which may be fixed by that Contracting Party.

A combination of vehicles is said to be "in international traffic" if at least one of the vehicles in the combination conforms to the above definition.

Subject to the exceptions provided for in Annex 1 to this Convention, Contracting Parties shall be bound to admit to their territories in international traffic motor vehicles and trailers which fulfil the conditions laid down in Chapter III of this Convention and whose drivers fulfil the conditions laid down in Chapter IV; they shall also be bound to recognize registration certificates issued in accordance with the provisions of Chapter III as prima facie evidence that the vehicles to which they refer fulfil the conditions laid down in the said Chapter III.

As a UK Resident staying less than 12 months in an EU State YOU ARE LEGAL provided your A-Frame system complies with the requirements of UK Construction & Use Regulations.
Welcome to Smart-Trailers. We have been specialist suppliers of car transporter trailers for the motorhome market since 2004.

We believe you wish to enjoy travelling in your “home away from home” in the most leisurely and uncluttered way possible. Without the burden of a large heavy rig making driving in quiet backwaters difficult and stressful. Therefore, although we can supply a car transporter trailer for almost any vehicle - our trailers range from 8ft bed to 20ft bed and from a carrying capacity of 960kg to over 2,500kg - we tend to specialise on the smaller lightweight trailers for small light cars suitable for towing behind your average motorhome – usually based on a Fiat Ducato or Mercedes Sprinter.

Brooklands Smart-Trailer
The following items come as standard on a Smart-Trailers: Spare Wheel, Wheel Chocks, Fully Braked, Full Lighting, Jockey Wheel, Jack Stands & Slide Out Ramps are included in the price. These are NOT extra cost options!
Most trailers are well made some not so. Our trailers are made from 3mm and 4mm pre-galvanised steel which gives an excellent chip free finish. We also use Al-Ko Kober* axles and hitches – a German manufacturer of perhaps the best axles in Europe with many service centres in most Countries.

Our car transporter trailers come complete as standard with a spare wheel, wheel chocks, slide out ramps, fully braked with full electrics and lights pre-wired in. There is a full size jockey wheel and jack stands at the back. All this together with European Wide Type Approval, a 17 digit unique VIN number, Certificate of Conformity and a 2 year Warranty.

Some products may use other components such as *Bradley/Knott
What can I tow? You will find a Vehicle Identification Number (VIN) plate fixed to your motorhome – usually, if you raise the bonnet, on the cross member where the bonnet locks down. This generally has four weight numbers stamped on it, from top to bottom it is usually Gross Vehicle Weight (GVW) (GVW – sometimes also known as Maximum Technically Permissible Laden Weight MTPLM) followed by Gross Train Weight and then two further weights usually numbered 1 and 2 (and 3 if you have a tag axle vehicle) these are the maximum weights allowable on the front and rear axle. Axle weights 1 and 2 will add up to slightly more than the GVW for obvious reasons. To know what your BASE vehicle is capable of towing you subtract the GVW weight from the GTW. For example if the GTW is 6,000kg and the GVW is 3,500kg then the BASE vehicle is capable of towing 2,500kg or 2.5 metric tonnes.

Note: I say BASE vehicle because you may find an additional VIN plate under the bonnet or inside the habitation unit that may reduce these numbers. This is very often the case where the motorhome converter has taken just a power cab unit and attached its own chassis and third party rear axle or added chassis extensions to the power unit standard chassis and axle. The length of any chassis extensions will affect the loading a trailer and its load throw on to the rear axle under braking. It is therefore essential, if you are planning to tow, to purchase a motorhome that has been designed and built from the ground up with the correct components and strength for the load you intend to tow plus, I would suggest, a reasonable margin – “just in case” If in doubt please question the company you intend to buy from and get clear assurances!
A-Frame Towing Compliant

Nationwide Install Centres

Super Light
Electronic Dual Sensing

POWERS Braking

SmartBoxDUO

Smart Trailers retain perfect weight distribution & balance
Designed from the outset to be forward loading for ease of use, we provide trailers for ANY car for fully legal towing

Half Moon Bay (Leisure) Ltd
Monastery Lane, Storrington RH20 4LR
T: 07950 968348
www.Smart-Tow.com
www.Smart-Trailers.co.uk