

NTTA trained approved Tow bar installation

Tow A Frame

A-FRAME TOWING

SMARTBOXDUO ELECTRONIC VACUUM POWER BRAKING SYSTEM

TOW BAR INSTALLATIONS



WATCH THE HOW-TO VIDEO

[Scan the QR code or click here](#)

TowGlide connection and operation

ABOUT US

Tow A Frame

We are a small but dedicated team involved with both TowAFrame Electronic braked A frame systems (since 2010) and Smart-Trailers (Since 2002), offering car trailers for all vehicles.

We have over 25 years combined experience in the towing and Automotive industry. Our first venture into supplying trailers was in 2002 and was our first entry into the market with the original Smart-Trailers XCountry (short for Cross Country) closely followed by the Brooklands Trailer with sliding ramps. We formed Half Moon Bay (Leisure) Ltd in 2004 as the holding company for Smart-Trailers (and Bantam trailers) and TowAFrame (Formerly Smart-Tow).

In 2010 We saw the advantages of the American Electronic braking systems for A frame towing and became the UK sole distributor for the Smartbox-DUO, power braking system manufactured by SMI manufacturing currently owned by Demco group USA.

We use trailers, caravans, motor-homes and A frame cars regularly and know what it is like to be the end user, and can offer good insight as we can offer both A Frame and Trailer solutions. In March 2020 we trained and are now NTTA approved tow bar installers and can quote for your motorhome Tow Bar requirements.

Our A frames, inserts and pins are proudly designed and manufactured in the UK. We have a close working relationship with our local suppliers and manufacturers and we are keen to support our local businesses as they support us. Some of our install centres are motorhome owners; most run their own business and we aim to maintain a great working ethos with integrity and pride with all of our partners.

*Mike Northeast
Director
TowAFrame Ltd.*

SmartBoxDUO BY DEMCO

Quick And Powerful
Dual Signal Activation
Proportional Braking



DOT approved OE spec
3/8" rubber hose

Electronic
emergency
breakaway unit

[Smartbox-DUO]
vacuum pump



DOT approved
200 psi
brake pipe

Diodes and
wiring
connectors

G force
motion sensor
(Unique Dual
Sensing design)

Pneumatic
brake actuator -
Fast and Powerful
actuation

[Tow GLIDE] AUTO ALIGN A-FRAME

Optional Locking
Hitch Rrp £34.99

FITTED PRICE

£3499.99

BAG AND SPARES DEAL

[Tow GLIDE] TELESCOPIC leg Self
aligning A frame
Included in Package:

Tactical carry bag and essential
spares kit
24-month warranty
(terms apply)

Comprehensive handover and
after-sales support

Telescopic Legs | Rated Up To 1300 Kg | Tested to 7100 Kg
Weighs Only 9.5 kg

Quality **AL-KO** type approved
hitch unit with Soft Dock – rated
up to 1600 kg

Soft grip
handle

3 process
powder coated
finish:
+ Shot blast
+ Primer
+ Oven baked
powder coat

[Double LOCK]

Conspicuity tape
for better visibility

Electrical cables routed through headstock
mounts – simple, neat and secure

Telescopic
stainless steel legs

Folded length
only 80cm

Extended length
110 cm

The sliding legs allow the Tow hitch to be movable. You simply move the tow hitch to the tow ball and connect. Once connected you pull away carefully and the legs will extend automatically and lock into the extended position, you need to stop and check to ensure legs are correctly locked in the extended position and insert double lock pins before towing.

*Note you can reverse with TowAFrame system but it is only for emergency use only –
extended reversing may cause non warranty damage the system*

Mandatory servicing requirements apply



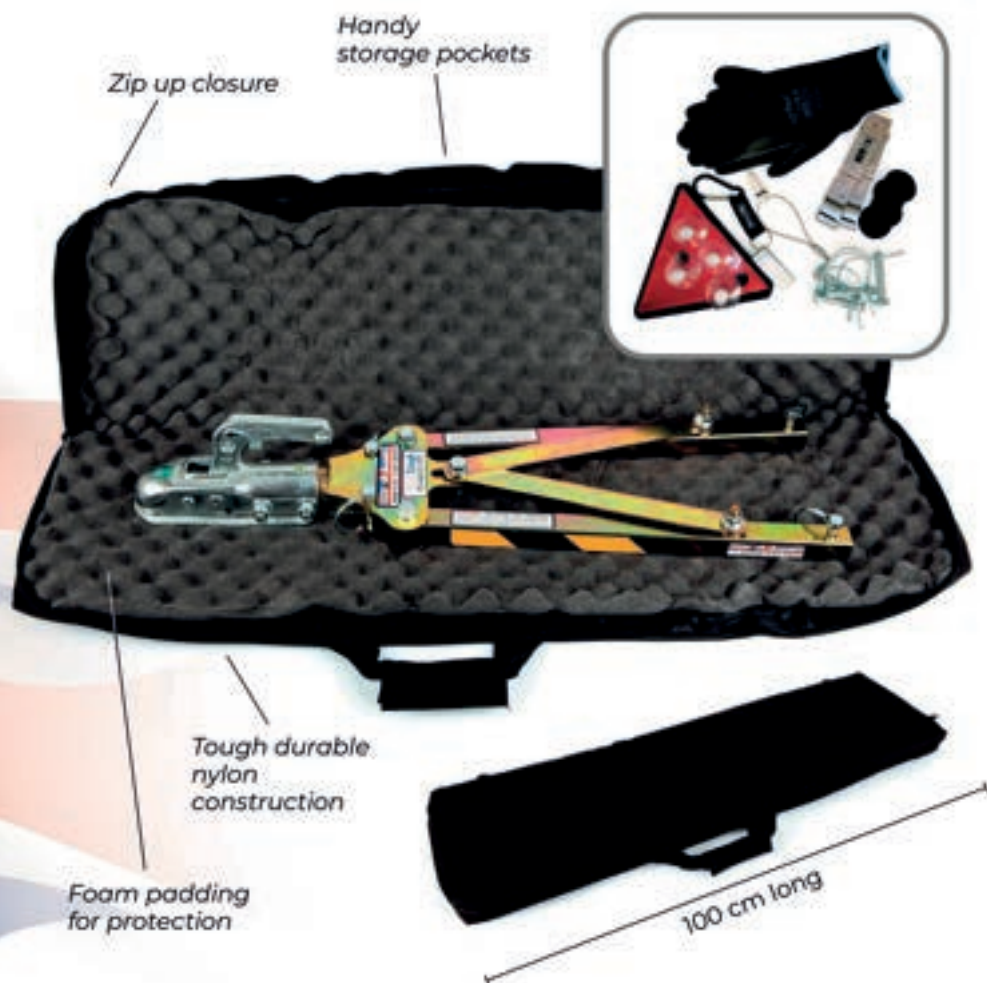
[Tow BAG]

£119.99

includes the following comprehensive spares and accessories set:

- The tactical bag and Comfort kit
- Spare D pins
- Spare Breakaway pin
- Number plate clips (Pr)
- Reflective triangles
- Grommets
- 20A fuse
- Gloves
- Tow WEDGIT (patent pending)

Durable Nylon Carry Bag And Essential Spares Kit



[Tow WEDGIT][®]

£19.99



Simple | Helping Hand | Patented Design

Introducing the [Tow WEDGIT] (Patented). It's a small device that locks the A frame joint in position holding the A frame about 20 degrees from horizontal allowing easier connection with one person. It is a simple block that locks the A frame in an elevated position – to allow you to drive up to the Towing vehicle with the A frame connected.

- To engage the lock horizontally – Slip the Tow WEDGIT[®] into the universal joint from underneath and release the weight on the A frame. The weight of the A frame in position will clamp the part in place holding the A frame about 20 degrees from horizontal, high enough for you to either drive up to the tow ball, or reverse the tow ball to the hitch.
- To release then simply lift the hitch up. Tow WEDGIT[®] will drop out – recover and store it ready for the next time.
- To Lock the A frame Vertically – disconnect any electrical leads and breakaway cable, lift the TOW hitch almost to vertical (12 O'clock) and insert the wedge from the top into the universal joint – release the weight of the hitch slowly ensuring the A frame



is locked at least 60 degrees from horizontal.

- To release lift the hitch a little and remove the Tow WEDGIT[®] and stow securely. You can either connect the A frame or remove the A frame.

TOW BAR INSTALLATIONS



Tow A Frame specializes in the supply and installation of towbars for motorhomes and campervans.

Please Note: Motorhomes registered after April 2012 are legally required to be fitted with EC Type approved towbars that are specifically designed for your vehicle make.

We offer top-quality towbars and electrical kits from leading UK and European manufacturers such as Watling Engineering, AL-Ko, Witter, Tow-Trust, SMV, and Memo. Our products are designed to fit all AL-Ko chassis motorhomes as well as those with chassis extensions. These towbars are compatible with popular models like Auto Trail, Bailey, Elddis, Swift, Rapido, Roller Team Tribute, and Hymer, among others.

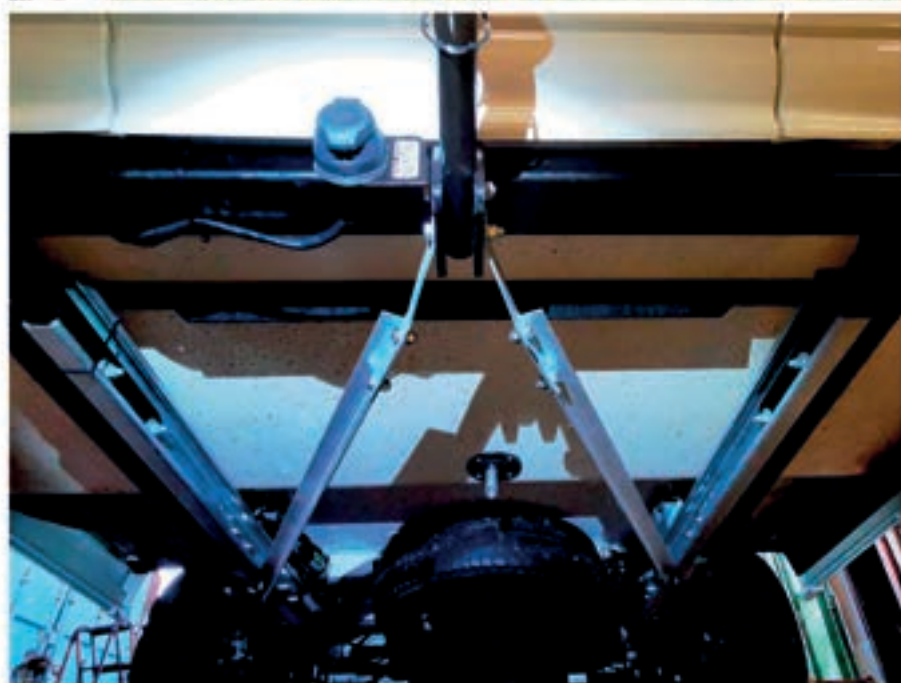
To ensure your vehicle is set up correctly for towing, we utilize vehicle-specific towbar wiring as recommended by manufacturers. This ensures all necessary lighting functions are activated and, where applicable, suspension and braking adaptations are engaged during towing, but only when using the appropriate wiring kits.

Upon request, we can also supply and install fabricated, non-approved towbars for motorhomes registered before April 2012.

NTTA QUALITY

We have been trained to the highest standards by the NTTA (National Trailer & Towbar Association), showcasing our expertise and commitment to quality in towbar installation.

Most common motorhome tow bar installations require chassis extensions, the rear tow bar and the tow ball itself, and vehicle specific wiring kit



A FRAME KITS AVAILABLE FOR THE FOLLOWING VEHICLES

Any vehicle not on the list please ask.

MAKE MODEL	YEAR	KERB WEIGHT (APPROX.)	MANUAL	AUTOMATIC
Citroen C1	2005-14	805	x	x
Citroen C1 ¹	2014 -	865	x	x
Citroen Nemo (Car derived van)	2007 -	1165	x	
Fiat 500 inc hybrid ^{3,4,5}	2007-	980	x	x
Fiat 500 Abarth ^{3,4,5} (inc special editions 595)	2007 -	1065	x	x
Fiat Panda ^{3,4,5}	2012 -	940	x	x
Fiat Panda inc hybrid ^{3,4,5}	2015 -	980	x	x
Fiat Panda Cross ^{3,4,5}	2015 -	1100	x	x
Fiat Panda 4 x 4 ^{3,4,5}	2015 -	1100	x	
Ford Ka ³	2008 - 13	980	x	
Honda Jazz ^{1,3,4,5}	2014 -	1095	x	
Hyundai i10 ^{3,4}	2007 - 13	1040	x	
Hyundai i10 ¹³	2013 - 2022	961	x	
Hyundai i10 ^{1,3,5} inc N Model	2022 -	980	x	
Hyundai i20 ¹³	2019 - 2020	1100	x	
Hyundai i20 ¹³	2020 -	1100	x	
Kia Picanto ³	2005 - 11	945	x	
Kia Picanto ¹³	2011 - 2017	960	x	
Kia Picanto ¹³	2017-	960	x	
Kia Picanto ¹³	2018 -	985	x	
Nissan Micra ¹³	2016-	1095		
Peugeot 107	2005 - 14	805	x	x
Peugeot 108 ¹	2014 -	865	x	x
Peugeot Bipper (Car derived van)	2007 -	1165	x	
Renault Twingo ^{3,4}	2015 -	1001	x	
Seat Mii	2011 -	929	x	
Skoda Citigo	2011 - 17	910	x	
Skoda Citigo	2017 -	910	x	
Smart For Two ¹³	1998 - 07	760		x
Smart For Two ¹³	2007 - 14	820		x
Smart For Two ^{1,3,4}	2014 -	880-1050	x	
Smart For Four ^{1,3,4}	2014 -	1001-1100	x	
Suzuki Ignis 2wd only ^{1,3}	2018 -	980	x	
Toyota Aygo	2005 - 14	810	x	x
Toyota Aygo	2014 - 17	910	x	x
Toyota Aygo ¹	2018 -	910	x	x
Toyota Aygo X ¹³	2022 -	1015	x	
Toyota Aygo X ^{1,3,4}	2022 -	1015	x	
Toyota iQ ³	2008 - 15	860	x	
Toyota Yaris ¹	2011 - 14	1100	x	
Toyota Yaris ¹³	2015 -	1100	x	
Vw UPI	2011 - 16	929	x	
Vw UPI	2017 -	960	x	
Vw UPI (Inc GTI)	2018 -	998	x	

1. Keyless entry models require steering lock bypass kit - **£149.99**

2. Brabus Models + 60kg

3. Offset (too wide or low) OE tow eyes may be unsuitable. If so the kit will require 2 holes to be made in the panels for the system to be installed

4. Requires non-standard beam to be used for flat towing purposes. Bespoke work supplement fee applies. HQ Hampshire for bespoke only.

5. Grill optional ornamental covers additional fee applies

6. Forward parking sensor model required additional modification fee **(£199.99)**

Note: Vehicles with forward facing radar/ adaptive cruise control/ collision avoidance (or similar radar operated features) may require re-calibration **+£299** to install on these models.

Important. The details were accurate at the time they were published, we recommend checking to ensure they are still correct for the vehicle you intend to tow before making a purchase.

INSTALLATION CENTRES

TOW A FRAME HQ

Authorised Tow A Frame installation centre & bespoke fabrication specialist

Copse lane
Hayling Island
PO11 0QB
07742667681 Mike
07742667682 Bobby
mike@towaframe.com

By prior appointment only
Location: Copse Meadow Farm, Copse Lane, Hayling Island PO11 0QB
W3W ///ownership.modifies.remark'



RETAILERS

City Tow Bars and Electrics

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Motabars

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01926 426382
sales@motabars.co.uk

MTec Project

Unit 2
Bromsberrow Heath Business Park
Ledbury
HR8 1PG
07842 681288
rossharmer@hotmail.co.uk

Towbar solutions South Wales

Wick van Centre
Waterton Lane
Bridgend
CF31 3YY
01656 470029
07846 410250
accounts@towbarsolutions.com

TOWAFRAME POWER BRAKING AND DUAL SENSING

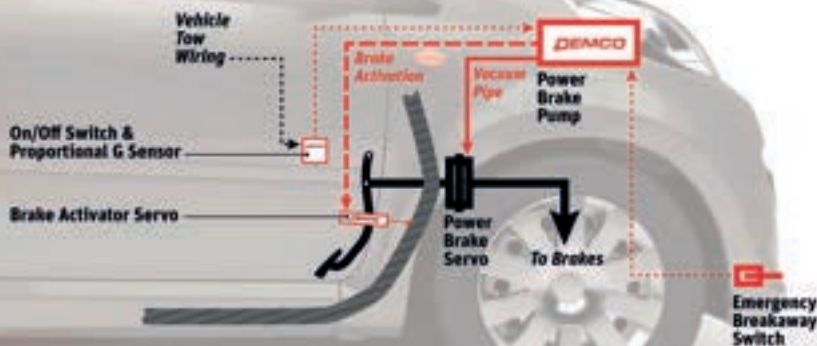
Unique **Dual Sensing** setup - brakes only when braking is required (both stop light actuation AND the G force (motion sensor) are required to actuate braking.

Inferior system that works ONLY on a brake light signal from the

Motorhome will function on the slightest touch of the Motorhome brakes and 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 cannot react for every given situation.

1. The Brake light signal AND deceleration force activate the [Smartbox-DUO] pump.
2. Pump creates vacuum for servo and activates the pneumatic brake actuator on the pedal with corresponding braking effort.
3. The brake actuator depresses the brake pedal with proportionate force until braking is no longer required.
4. System is ready for action when required offering intelligent braking.

Inferior systems working 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



vehicle's 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.

- Because our unique system features dual sensing – it offers proportionate braking effort. (Proportionate means it brakes as you do – gentle or hard it mirrors your braking effort.
- Pneumatic brake actuation means fast responsive braking response (1 second delay in braking at 60 mph = 88ft further travelled).
- DOT approved high pressure pipe AND large diameter 3/8 id Vacuum pipe (same as most vehicles) (Inferior systems with smaller ID pipe (1/8) reduces the volume of vacuum available for braking and the rate it can be replenished under load is diminished).
- Visible monitor in car optional.
- Tow A Frame braking system

tested on MOT brake test rollers passed the MOT brake efficiency test using only the TowAFrame emergency braking system.

- TowAFrame offer 24 month UK warranty as standard.
- The SmartboxDUO system has had many accolades from Motorhome Readers' choice Awards and substantiates our confidence in this product.
- 2014, 2015, 2016 Gold Award
- 2017 Silver Award



Our A frames, tow pins, threaded inserts, crash bar modifications fabrication and installations are all carried out in the UK – we value our suppliers as well as our customers.

Tow TOUGH tested to destruction at 5000kg, Tow GLIDE tested to Tow ball failure - testing halted at 7100kg Pull test

Calculating Towing rolling resistance, the formula for calculating pulling effort on the flat, on tarmac surface for a rolling vehicle is 1000kg car divided by 25, this formula gives = 40kg rolling resistance, this varies with gradient and how hard you accelerate, in addition surface type can make a big difference, Grass can be 1000kg / 4 = 250kg resistance. This product is designed solely for use on tarmac surfaces.

NOTES ON LEGALITY

The UK Department for Transport classifies a car on a suitable A-frame with appropriate braking and lighting system as a trailer for UK law.*

Therefore a tow car is classified as a trailer and must comply with European trailer legislation including UNECE Regulation 55 for couplings, UNECE Regulation 13 for braking and Statutory Instruments Road Vehicle Lighting Regulation 1989 No.1796 and its amending directives for lighting requirements. UNECE Regulation 13 was effective from November 2014.

Many non UK countries have local laws that state you may not tow a motor vehicle with another motor vehicle unless it is an authorised recovery vehicle, to avoid inappropriate towing practices.

With a vehicle and suitable A frame system you will not be towing another motor vehicle. You will be towing a trailer as defined by the UK Department for Transport.

TowAFrame System complies with all European trailer legislation. The vehicle is identified as a trailer by:

- Reflective triangles mounted at the rear of the trailer unit.
- The towing vehicles numberplate

displayed at the rear of the trailer unit.

- The brakes operating when braking is required and meeting or exceeding braking requirements for trailers.
- The lights mirror that of the towing vehicle and comply with all current trailer lighting regulations.
- Local laws (Not European Laws) apply if you are a resident abroad or have a car registered abroad. HOWEVER as a UK visitor to those countries in a UK registered vehicle – the legislation that applies is still UK legislation as the vehicle is deemed as being in international traffic.
- No member state has the power to reclassify a vehicle travelling from another state. As a visitor from another state you are legally deemed to be in international traffic as defined in the Vienna convention on Road Traffic 1968.
- Local police officers may not be familiar with international traffic law, they are more familiar with their local laws, and as such it is possible you may get stopped. We provide translated documents in multiple languages explaining what you are towing – how the system works and its legality as defined by UK law.

* www.gov.uk/government/publications/a-frames-and-dollies/a-frames-and-dollies



**TOWAFRAME WARRANTY
2 YEARS (24 MONTHS) AS STANDARD**

Tow A Frame

TOWAFRAME SERVICING

Full service must be carried out every two years
or 10000 towed miles whichever sooner.

Safety check and test must be carried out yearly
or 5000 towed miles whichever sooner

Tel 0333 335 1020, 0774 266 7681
Local call rate

Mike@TowAFrame.com
Whatsapp 0798 800 1282

www.towaframeltd.co.uk | www.towaframe.com



Prices correct at time of print – subject to change