



**SHIFTEC**

## **Shiftec Controls**

Introduction | 2025

# Electrical Power Assisted Steering (EPAS)

The EPAS systems have been designed for Motorsport and autonomous vehicle applications. It comes with a separate, be-spoke, high-power controller, which is an inline, column-mounted electric motor that converts the driver input torque into steering assistance.

Able to accept and export CAN data demands allowing use on autonomous platforms. The unit packaging is compact, allowing an easy retro fit on to existing installations.

## Custom EPAS

Compact, lightweight design.

High torque output with fail safe disconnect

Integrated redundant torque and steering angle sensor

Supplied both column and rack mounted designs

Contact us for be-spoke and compact EPAS design solutions



[Complete  
Feedback Form](#)

# Steer-by-Wire H-Bridge Electronic Controller

**CAN enabled and include fully  
configurable motor drive**

**PWM H-Bridge motor control for brushed  
DC motors.**

**Fully configurable control parameters  
including max current limit and duty**

**Operates across 12-24V**

**Provides configurable speed & demand -  
based control.**

£1,918.00



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# Cable Blipper

Used to raise engine RPM when a down shift | Requires Air-Feed.

**Powerful Action**

**10mm Stroke Option**

**&**

**15mm Stroke Option**

**Direct Action On Throttle Cable**

£323.00



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# Side Mount Throttle Blipper

**Blips the engine on down changes to ensure a smooth and efficient change | Requires Air-Feed.**

**Powerful action  
10mm stroke  
Adjustable, hard-wearing end  
nudger**

£446.00



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# Self Centering Device

**Predominantly used on systems which retain a physical cable driven gear stick/selector mechanism.**

**Required in situations where the gearbox return mechanism needs assistance to self-center the gear selector lever.**

£492.00



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# Gear Shift Servo

**Sequential Gearbox Selector**

**Including Shift Valves/Block**

**A significant improvement in system response time.**

**Valve on actuator design**

**Quick response**

**Low air consumption**

**Powerful action**

**Simplified vehicle installation**

**34mm total stroke**

**Weighs only 364 grams**

**Sub 10ms valve response time**

£2,065.00



[More info](#)

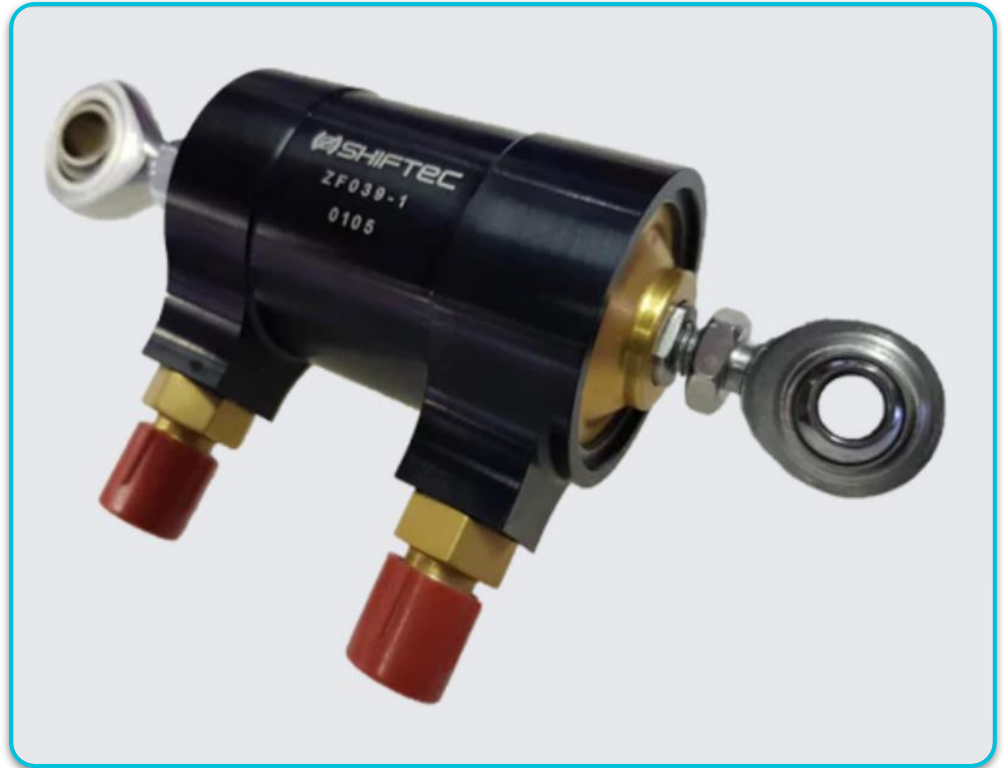
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# Actuator 34

The Shiftec Actuator 34 is designed to provide powerful and reliable actuation of sequential gearbox selector.

**Compact design**  
**Powerful action**  
**34mm total stroke**

£641.00



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# Standard Accumulator

**Pressure Storage Vessel – Rated to 10 Bar.**

**The Accumulator Pro has been designed for ease of use. It has two uncapped standard fittings. These are normally used as a feed in from an air compressor.**

**The Accumulator Pro has been designed for ease of use. It has two uncapped standard fittings.**

**These are normally used as a feed in from an air compressor (dash 4 JIC) and a feed out to a valve block (dash 6 JIC).**

**The third fitting is capped and is used as a drain to remove moisture from the accumulator after a race weekend**

£242.00



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# Accumulator with Integrated Pressure Sensor

**Pressure Storage Vessel – Rated to 10 Bar:**  
The pressure sensor can be connected to a GCU to allow accurate compressor control and system pressure monitoring.

**Integrated pressure sensor.**  
**Integrated particle filter.**  
**Precision CNC machined billet end cap.**

£541.00



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# Twin Boost Valve

**Precise Control to Maintain Turbo Boost Control.**

**The ZD160-1 valve block is designed to allow efficient and precise control over two sides of a waste gate diaphragm to maintain turbo boost control.**

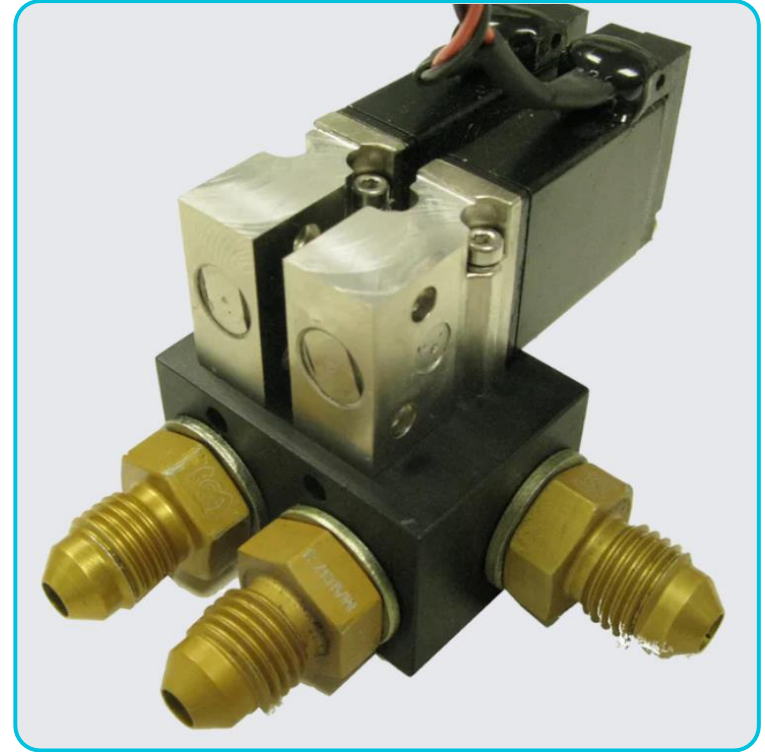
**The Shiftec bespoke control valves offer a rapid response time and high flow rate, giving greater control and accuracy than many other similar products.**

**A single block design allows for streamlined packaging and installation, with a single shared air feed and side by side outlets to feed to the wastegate.**

**The valve block is CNC machined from high grade aluminium billet and is protected with a black anodised finish.**

**It incorporates two mounting holes, Pneumatic fittings are JIC standard.**

£534.00



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# Fresh Air Switching Valve

Switch Air Flow in Turbo Control Applications.

The ZD179-1 valve block is a four port, two state design allowing a single air feed to be switched between two outlet ports with an exhaust to atmosphere. This can power both sides of a pneumatic actuator or switch air flow in turbo control applications.

The switching control valves feature a rapid response time & high flow rates. An inline design allows for streamlined packaging & installation.

The CNC machined block has a black anodised finish and incorporates two mounting lugs. Pneumatic fittings are JIC standard.

£534.00



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# Wastegate Control Unit

**Allows Precise & Accurate Control of Waste Gate Pressure.**

- CAN communication**
- High speed processor**
- Fast response**
- Self calibration**
- High flow rate**
- Precise pressure control**
- Simple set up tables**
- Lightweight**
- simple vehicle installation**

£1,353.00



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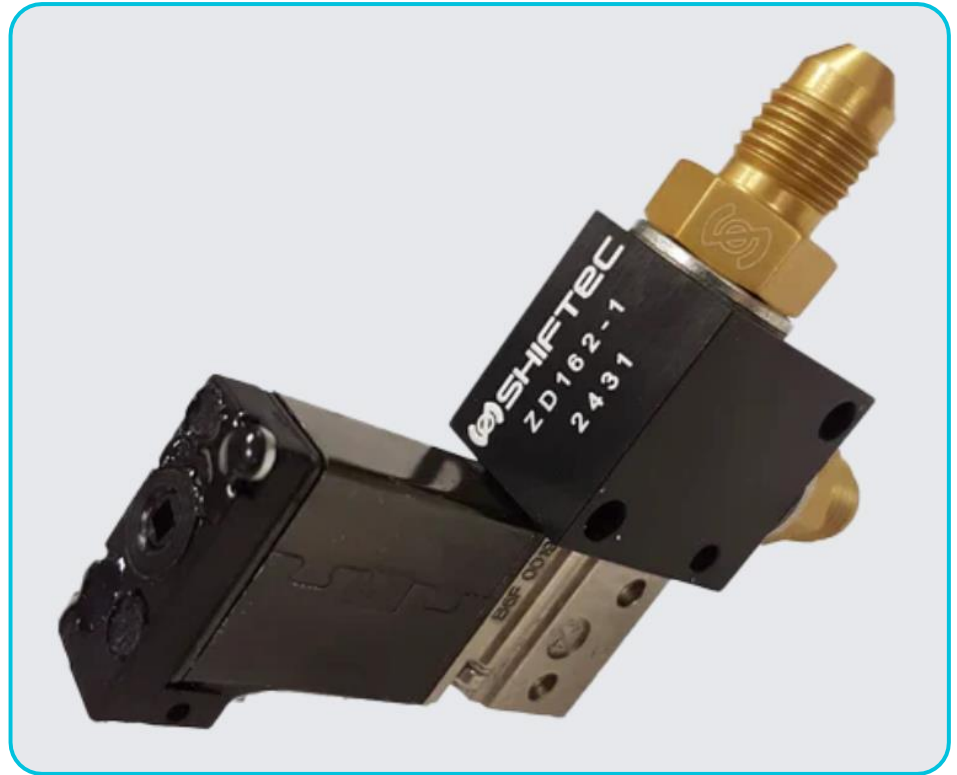
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# Control Valve

**Single Wastegate to Maintain Turbo Boost Control.**

**The Shiftec bespoke control valves offer a rapid response time and high flow rate.**

£330.00



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# Air Power Source

**Combines an Air Compressor with an Accumulator & Integrated Control Unit.**

- Low current consumption**
- Lightweight**
- Simple vehicle installation**
- Data logging**
- CAN communication**
- User programmable parameters**
- Easy interface**
- Dash 4 JIC air feed fitting**
- Auto-sport power connector**
- Mounting feet**
- Designed in cooling vanes**
- Optional remote filter kit**

£3237.00



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# Air Power Source – Remove Filter Kit

## High Filtration Filter Element

It may be desirable to mount this filter away from the APS in an area of fresher air, or there may be a requirement for extra fine filtration if there are particularly dusty or sandy conditions.

£227.00



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# Compact Compressor – Billet

**Compact Modified Compressor which  
provides a reliable air supply of up to 10bar**

**Four mounting holes for easy installation**

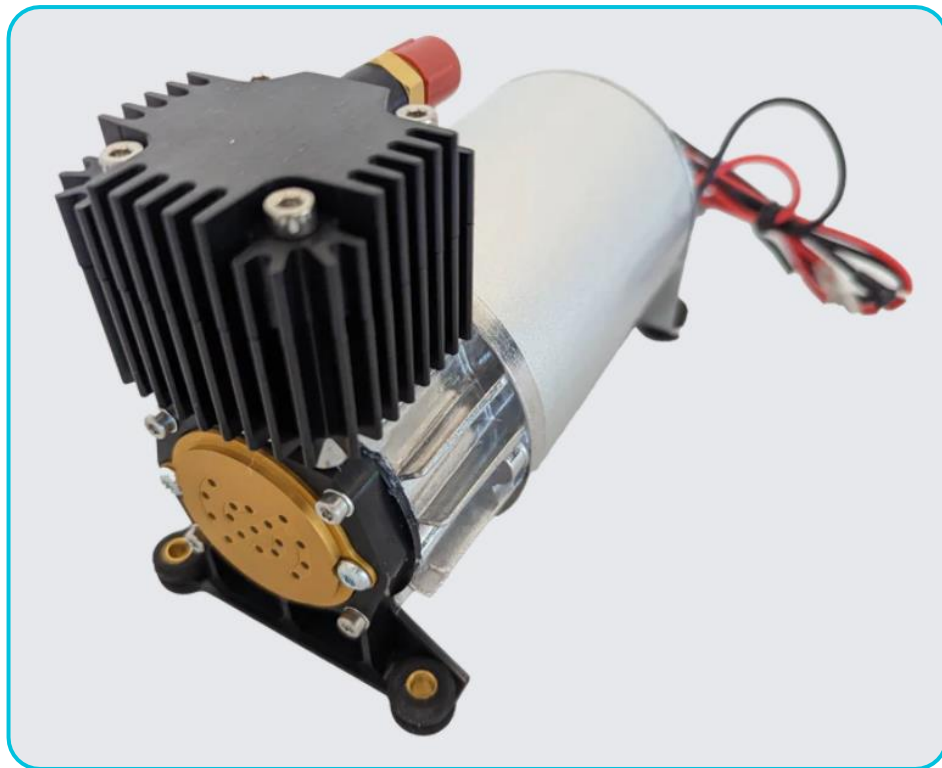
**Reliable pressure supply up to 10 bar**

**Runs off a 12V vehicle power system**

**Air outlet is a standard dash 4 JIC**

**Flying lead or DTP connectivity offered as  
standard**

£466.00



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# CAN / USB Analyser

Reading CAN Information & Converting to Engineering Units for Live Display & Data Analysis Purposes

An essential device for any vehicle or electronic engineer, the Shiftec CAN analyser is a powerful and user-friendly analysis tool for automotive CAN systems (2.0B compliant)

£431.00



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# CAN Input Expander

Allows the user to take in up to 8 analogue inputs or 8 speed inputs and transmit them out over the vehicle CAN Bus.

This allows easy logging of position, temperature, pressure and other parameters

Convert analogue (0-5V) signals to CAN data.  
Translate CAN data to new message / format / scaling  
8 x 12bit A to D inputs  
Speed signal capability on all inputs  
Inputs can be run as either 8 analogue, 8 speed or a combination of both  
1KHz sampling frequency rate  
User defined CAN transmit and receive  
Scale raw analogue inputs via 2D calibration tables.  
10 x CAN receive channels available  
6 x CAN transmit channels available  
User selectable CAN format  
Channel status LED display  
Software selectable pull up/downs

£431.00



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# CAN Output Expander

Allows a user to take CAN input signals and convert them to output drive signals

These can be used for powering external relays, lights and even motors. This allows for greater simplification of wiring looms and vehicle layouts.

Choice of either 7 low side drivers or 5 low and 2 high side drivers

3 Amp individual capacity

20 Amp total capacity

H bridge functionality

Simple On & off requests & LED

Choice of either 7 Low side drivers or 2 High & 5 Low Drivers

Outputs Mapped to CAN messages,

2D Table of PWM vs Input Signal

£431.00



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# Solid State Relay

**Can Control Power Flow To Our Compressors**

**Can Control Power Flow To,  
Our Compressors  
Easily Mountable With one,  
M4 Mounting Point  
Easy To Use  
Different Connectors Available  
IP68 Environmental Protection  
Compact Design**

£104.00



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# Emergency Clutch Release

Designed to work as a standalone installation to enable emergency actuation of a vehicle clutch | Requires Air supply

Does Not Influence  
Normal  
Clutch Operation  
Can Run From  
Standalone  
High Pressure Reservoir  
Operated With A  
Latching  
Switch From A 9V PP3  
Battery  
Driver Retains Full  
Control Over  
Clutch Paddle  
Requires Air Supply And  
9-14V  
Power Supply

£1,039.00



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# Emergency Clutch Release

**A complete standalone assy to enable emergency actuation of a vehicle clutch system**

**Does Not Influence Normal Clutch Operation**

**Driver Retains Full Control Over Clutch Paddle**

**Inbuilt cylinder Air Supply & Battery 12V Power Supply**



£1,200.00

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# Moog Valve Controller

A powerful closed loop controller for precision hydraulic control systems. With capability for redundant feedback sensors to allow reliable and safe control.

**Recommended Working Temperature: -40C to 85C**

**Electrical Supply: 8 - 42V**

**Environmental Protection: IP65**

£971.00



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# GCU 800

**Extremely lightweight and compact transmission controller and logger. Connectivity is through a rugged 37 way Auto-sport connector – USB connection.**

**GCU800 allows sophisticated closed loop 3 stage control over the shift strategy and the ability to cope with 'off condition' shifts as well as options to suit different gearbox lay outs. Inbuilt burst enabled data logging allows GCU800 to maximise data storage space**

**Outputs for valves / compressor / blip – cut signal / shift lights etc  
10 analogue inputs including 2 differential inputs  
3 dedicated speed inputs | 8 outputs  
Direct USB communication  
Full closed loop 3 stage shift control  
Auto upshift strategy  
Off condition shifts (on throttle down shift, off throttle up shift)  
On board burst data logging with built in 2GB capacity**

£1,353.00



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# GCU 500

**A cost effective yet powerful transmission controller & logger  
CAN system. GCU500 allows sophisticated  
Closed loop 3 stage control.**

**Outputs for valves / compressor / blip – cut signal / shift lights  
6 analogue inputs including 2 differential inputs  
Dedicated Speed input / Direct USB communication  
Full closed loop 3 stage shift control  
Auto upshift strategy  
Off condition shifts (on throttle down shift, off throttle up shift)  
On board burst data logging  
Sophisticated diagnostics and state machines  
CAN link enabled  
Torque controlled shift functionality  
Fully featured safety features and fail- safe parameters  
Fail/manual mode  
CAN analyser functionality with direct PC logging, transmit,  
Clutch interface  
Supports FBW and pneumatic blip  
Reverse battery, over-voltage and load dump protection**



£926.00

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# GCU 501

**A cost effective yet powerful transmission controller and logger  
CAN system. GCU500 allows sophisticated  
Closed loop 3 stage control.**

**The GCU501 provides identical functionality to the GCU500  
With the addition of TPS Input/Output control**

**Outputs for valves / compressor / blip – cut signal / shift  
lights**

**6 analogue inputs including 2 differential inputs**

**Dedicated Speed input / Direct USB communication**

**Full closed loop 3 stage shift control**

**Auto upshift strategy**

**Off condition shifts (on throttle down shift, off throttle up  
shift)**

**On board burst data logging / CAN link enabled**

**Sophisticated diagnostics and state machines**

**Torque controlled shift functionality**

**Fully featured safety features and fail- safe parameters**

**Fail/manual mode / Clutch interface**

**CAN analyser functionality with direct PC logging, transmit,**

**Supports FBW and pneumatic blip**

**Reverse battery, over-voltage and load dump protection**

£1,211.00



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# Clutch Control Unit

Allows the use of a two pedal race car where clutch control is via progressive paddles on the steering wheel



£5,626.00

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# Brake Control Unit

**Allows brake control via progressive paddles on the steering wheel or for use within autonomous applications**

**Low current consumption**

**Low air consumption**

**High accuracy of control**

**Fast response**

**Lightweight**

**Easy bleeding**

**Simple vehicle installation**

**Dash 4 JIC air feed fitting**

**Air supply | 8 - 9.5 bar**

**Ambient working temperature | 10 to +70 °C**

**Voltage range | 10-16 V**

**Maximum current | 4.5 A at 12v, 20°C**



£4,860

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# GCU 700 – Integrated Valve Block | 2 or 3 Way

Pneumatic valve block with a built-in sophisticated transmission controller and logger. Connectivity is through a commonly available and durable 26-way connector. Communication link is via a simple direct USB

Full closed loop 3 stage shift control  
9 analogue inputs including 2 differential inputs  
1 dedicated speed input  
3 valve driver outputs | Direct USB communication  
Auto upshift strategy  
Off condition shifts (on throttle down shift, off throttle up shift)  
On board burst data logging with built in 2GB capacity  
Sophisticated diagnostics and state machines  
Fully detailed safety features and fail-safe parameters  
Fail/manual mode  
CAN analyser functionality with direct PC logging, transmit, engineering conversion for all formats and bit packing,  
dbc' import, user friendly interface, user configurable gauges/dials etc, CAN statistic/error analysis  
Clutch interface  
Reverse battery, over-voltage and load dump protection.

£2,493.00



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# Club-sport Shift Kit

Shiftec Shift Kits are designed to allow easy installation of Paddle Shift onto most vehicles fitted with a sequential gear box & drive by wire throttle.

## Includes:

**Gear Shift Servo**  
**Pair Of Single Paddles**  
**Integrated Accumulator**  
**Compact Compressor Modified for Durability**  
**Generic Wiring Loom With DTM Connectors**  
**Dash 4 Air Hose & Fittings**  
**USB key with quick start guide, manual & applicable software.**

£3,885.00



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# Pro-Sport Shift Kit

The Pro-Sport Shift Kit has been developed for pro-motorsport applications and features auto-sport connectors, Air Power Source (APS) and the class leading Shiftec GCU800 gear controller as well as our, Sequential Gearbox Selector, Including Shift Valves/Block  
A significant improvement in system response time

**Includes:**

**Gear Shift Servo with Auto-sport Connector**  
**Pair Of Single Paddles**  
**Air Power Source**  
**Pro-Motorsport Wiring Loom With Auto-sport Connectors**  
**Dash 4 Air Hose**  
**Dash 4 Fittings**  
**USB key with quick start guide, manual and applicable software.**

£7,593.00



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# **Gear Shift Paddle – Dual 2 Way Action**

The two-way paddle allows up and down shift demands to be made from a single lever with an easy push/pull action

Lightweight compact design  
Positive feel in both directions  
Rapid return to central rest position  
Large carbonfibre pad  
IP67 weather proof  
Easy mounting with two M5 threaded mounting holes  
Can be steering wheel or column mounted  
High repeatability and durability  
No switch 'bounce'

£605.00



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# Gear Shift Paddle – Single

The rugged paddle frame and lever are CNC machined from a high-quality aluminium billet and black anodised

A "Large Carbon Pad" option is available which provides a 125mm tall carbon pad for applications which require greater pad surface

Lightweight, compact design

Positive feel

Carbonfibre pads – optional large size

IP67 weatherproof

Easy mounting with two 4mm clearance holes

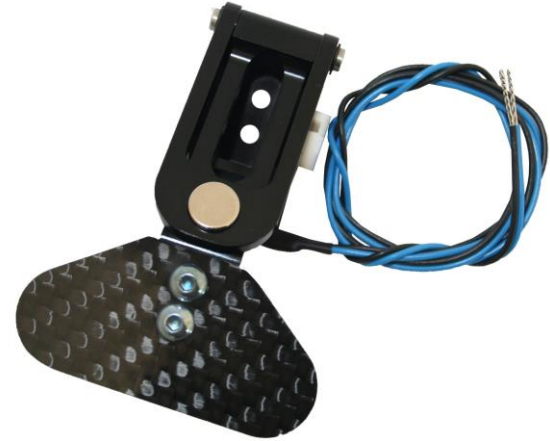
High repeatability and durability

No switch 'bounce'

Wiring handed for easy and tidy installation

Tie down saddle for securing wiring

£356.00



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# Gear Shift Paddle – Pair

The rugged paddle frame and lever are CNC machined from a high-quality aluminium billet and black anodised

A "Large Carbon Pad" option is available which provides a 125mm tall carbon pad for applications which require greater pad surface

Lightweight, compact design

Positive feel

Carbonfibre pads – optional large size

IP67 weatherproof

Easy mounting with two 4mm clearance holes

High repeatability and durability

No switch 'bounce'

Wiring handed for easy and tidy installation

Tie down saddle for securing wiring

£605.00



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# Clutch Paddle

The Shifttec clutch demand paddle uses proportional sensor technology to provide a fully linear output signal across the full range of travel

Linear output across actuation range  
Positive feel and carbonfibre pad  
Easily mountable with two M3 tapped holes  
Sprung return to rest position  
IP67 environmental protection  
Can be used for any application requiring, a variable control signal

£384.00



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# Two-Way & Three-Way Valve Blocks

Pneumatic valve blocks featuring a built-in pressure sensor and air filter. Designed to be driven and controlled by an external GCU or an ECU with transmission control ability.

This valve block is ideal for gearboxes which have inbuilt paddle shift actuators such as Hewland's TMT gearbox as well as for use with the Shiftec Actuator 34

**Built in pressure sensor**

**Built in air filter**

**Rapid response time**

**High flow rate**

**AV mountings fitted**

**CNC billet body**

**AS connector**

**Proven durability**

£1,182.00 (2-Way)

£1,396.00 (3-Way)



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# SHIFTEC

**All prices are exclusive of VAT and carriage  
Shiftec is looking for regional dealers! Ask for details...**

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