

# Product Guide



From the leading manufacturer of perimeter security equipment



# FRONTIER PITTS





Frontier-Pitts, as the acknowledged leader in perimeter security equipment, can offer a complete range of products and services.

Our expertise in design and manufacture is the result of many years of experience. In the early 1960s Frontier Gate Systems and Pitts Security were founded and began to revolutionize the industry. In 1991 these well established and highly respected companies merged and became Frontier Pitts, which continues to meet perimeter security needs throughout the UK and the rest of the world. More

than 20% of the production is exported around the world and our office in Nimes, France, ensures that Frontier Pitts is at the cutting edge of the European marketplace.

From the UK headquarters in Crawley, Sussex, Frontier-Pitts can provide full project management capabilities, combining design, manufacture, civil and electrical services, site surveys, installation, spares and refurbishment, all backed up by a fully comprehensive customer service programme. A policy of continued product research and development is

linked to an ongoing programme of quality improvement in manufacturing and customer services.

Frontier-Pitts has been accredited with ISO 9000 and we are committed to maintaining our position in the perimeter security industry by pioneering new ideas and in a changing marketplace, providing exactly what the customer wants.



# Frontier Pitts

We offer an extensive product portfolio that can fully match the sophisticated operational demands of today's specifier and end-user. Our specialist personnel are skilled in guiding customers through their technical requirements from initial enquiry to installation and after-sales support.

Each product is based upon a standard design principle that can be tailored to a customer's unique specification. This can range from a simple change in a manual product's boom length to complete fabrication of a custom-specified gate including all peripheral security measures.



UK Head Office



French Office



Hong Kong Office

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In accordance with Frontier Pitts policy of continual development, we reserve the right to make changes, improvements or amendments to any product at any time without prior notice. All items are offered subject to availability.

## 4 Sliding Gates

Whether the requirement is for a simple, manually operated gate, only used a few times a day, or a completely automated system used continuously, Frontier-Pitts will manufacture and install a sliding gate designed to meet your needs exactly.

Frontier Pitts sliding gates are produced and supplied in accordance with the latest Health & Safety Guidelines BS EN 12453:2001 & BS EN 12445:2001.

LoTRACKER sliding gate with pedestrian guard rail and traffic light control.



### LoTRACKER

A cantilevered sliding gate which requires no track or support across the roadway – the gate leaf is supported by a main bottom beam, which slides 100mm above the road surface. The balance is provided by a unique enclosed runback track, which enables the gate to be fully projected across the roadway without tipping. Maximum width 15000mm.

A special adaptation of the LoTRACKER, installed at a major UK airport. These are the longest gates in Europe, with a gate span of over 70 metres.



A special sliding gate designed to look like a 5-bar gate.

LiteTracker with pedestrian guard rail to protect run-back area.



### LiteTRACKER

A low-cost version of the LoTRACKER, engineered to a high industrial specification, unlike other light industrial gates, and embodying the results of experience gained in the manufacture of heavy-duty LoTRACKER.

### Sliding Gates – Specifications

#### Height

Standard height 2400mm but any height up to 5500mm available (except for LiteTracker).

#### Construction

Frames of low carbon steel rectangle hollow section to BS4848 part 2, with fully welded construction. Standard infill vertical ERW rectangular tube, pitch approximately 180mm, fully welded to frame. Comprehensive factory testing prior to installation keeps site work to a minimum.

#### Safety

Gates incorporate built-in protection for personnel by means of enclosed runback area/pedestrian rail. Safety edges, photo-electric cells and vehicle detection loop systems can also be incorporated. In accordance with the Workplace (Health, Safety and Welfare) Regulations 1992, BS EN 12453:2001 and BS EN 12445:2001 it is highly recommend that these safety options are fitted to the gate.

#### Optional Accessories

There is a full range of accessories available. Please contact the Technical Sales Department or visit our website for further information.

#### Gate Apertures

Special widths available on request for LoTrackers and Tracked Gates.

#### Finish

To prevent corrosion, gates are shot blasted and sprayed with 100 microns of pure zinc, followed immediately by a sprayed filler primer and finally by electro statically applied abrasion-resistant alkyd paint. This process provides 20 years corrosion protection for exterior applications. Galvanised and powder coatings are also available. In a wide range of colour finishes in line with the BS and RAL colour spectrums.

#### Controls

Products can be supplied with various different control systems. Please refer to Page 16 & 17.

## HiTracker

A unique, top supported double cantilevered sliding gate, which requires no ground-track. Recommended for sites where windborne debris may cause problems, since the support and drive mechanisms are raised high above ground level. The double cantilever reduces the run-back area required for larger gates or conventional cantilevered gates. The bottom of the gate leaf can be profiled to match the slope of the roadway. Maximum width 16000mm.



Our patented HiTRACKER (drive unit at high level).

## Special Gates

Frontier Pitts can manufacture gates to suit customer requirements.



LoTracker sliding gate with skirt to accommodate the slope on this particular site.

## Tracked Sliding Gates

Frontier-Pitts tracked gates are modelled on either the LoTracker or LiteTracker gates and incorporate similar design features. They are designed to run on a track installed into the roadway and are available in manual or automatic versions. Maximum aperture 16000mm.



Frontier Pitts Tracked Gate

## Barricade Beam

The Barricade Beam is a fully cantilevered, impact resistant sliding beam that requires no ground track or intermediate support across the roadway. The beam traverses the roadway at a centre-line height of 900mm. It engages with a framework mounted on the far side of the roadway. The degree of impact resistance required should be discussed upon enquiry and quoted when ordering as this may vary significantly from site to site. It is recommended that the beam be installed at an angle to the roadway so that the force of an intruder is deflected away from the entrance as well as being absorbed by the beam. Maximum beam length 8000mm.



Heavy duty Barricade Beam designed to withstand high impact. Maximum beam length 8 metres.

## Controls

Products can be supplied with various different controls. Please refer to page 16 & 17.

## HINGED GATES & BI-FOLDING/SPEED GATES

Hinged gate at entrance of underground car park, with adjacent Pedestrian gate.



Hinged gates are designed to provide a high degree of security, controlling access in a wide range of styles to compliment both contemporary and traditional architectural designs and can also be custom-designed to match a company's specific requirements.

Bi-folding and speed gates are available with electrical or hydraulic operation. They are fast acting, up to 1200mm/sec and provide a high level of security.

Manufactured for apertures of up to 12000mm and heights of 6000mm as standard, the gates have an overhead gantry to guide the individual gate leaves (or a special underground track).

The underground track unit allows a high speed of operation and any height of vehicle to pass through the aperture.

All gates have a variety of safety options including electronic safety edges, vehicle detector loops and traffic light systems.

A Bi-folding tracked Speedgate with no overhead gantry. Traffic light system included.



6000mm high Speed gate with an operating speed of 3 seconds operated by dual-height card readers or the security control.



Hinged gate securing entrance at High Security site. High visibility band included.

### Hinged Gates – Specifications

Available as a single leaf up to 10000mm wide and 20000mm for a pair of gates. Standard gate-leaf height is 2400mm, but gates are available up to 5000mm.

Anti-tamper devices prevent gateleaf being lifted off the pivot point.

Standard infill is vertical ERW rectangular section, pitched at approximately 180mm and is fully welded to frames.

#### Finish

To prevent corrosion, gates are shot-blasted and sprayed with 100 microns of pure zinc, followed immediately by a sprayed filler primer and finally by electrostatically applied abrasion-resistant alkyd paint (or equivalent) to the clients choice of colour in line with BS and RAL spectrums. Alternatively, galvanised and powder coatings are also available.

#### Alternative Infills

Weldmesh fitted between frames or backed behind vertical bars and secured by stainless steel clips; PVC coated galvanised sheet steel riveted to gate frame.

## ACTUATORS

### 'Trojan' Underground Actuator

A range of powerful motive units for large, heavy gates. 100% duty cycle designed for continuous operation with standard operating speeds of 300mm/sec. The actuator is completely contained below the surface directly under the gate leaf hinge-point creating minimal visual impact.



Our heavy duty Trojan actuator designed to move 2000Kg at exceptional speeds (dual drive unit).

### Gate-back Actuators

A small but powerful motive unit, which provides a low cost solution for powering small hinged gates (maximum width 5000mm). Designed for continuous operation, it has a standard operating speed of 4-12 seconds. Supplied with Frontier-Pitts hinged gates or alternatively retro-fitted to existing gates.



Heavy duty gate back actuators with cover removed (100% rated).

### 'Dutyman' Actuators

A surface mounted electro-mechanical industrial gate actuator suitable for the operation of large heavy gates up to 5000mm wide. Operating speed 15-20 seconds. The 'Dutyman' can be supplied complete with a mechanical bolting arm for improved security.



Single-leaf gate with Dutyman actuator.

### Electrical Locking Bolt

Designed for frequent and arduous operation. The bolt only requires electrical operation to release the gate leaf. When the gate leaf reaches the locking position the mechanical design allows the drop-bolt to engage automatically.



Heavy ornamental gates powered by Frontier-Pitts actuators

### Controls

Products can be supplied with various different control systems. Please refer to page 16 & 17.

## 8 Automatic Barriers

Automatic Barriers play an essential role in regulating and restricting the flow of traffic so their reliability is key. Barriers are often the visitor's first contact with a company so appearance is also important. Whether the requirement is for a simple, low cost barrier for relatively low volume usage or a heavy-duty barrier for frequent operation, Frontier Pitts will supply a system designed to meet your needs exactly. All barriers operate through 90° movement.

FBX Barrier with Fixed end rest.



### FBX Barrier

Designed for unlimited usage in applications such as car parks on light industrial and commercial premises.

In particular, the FBX utilises simplified controls within a modern square housing which gives a much neater appearance.

**Specification:** Boom available in lengths up to 6600mm, or 4500mm with skirt. It can be raised through 90 degrees in 2.8 seconds and is instantly reversible. Continuously rated.

FB Barrier with Fixed end rest.



### FB Barrier

A rapid-action torque motor barrier suitable for high volume usage in applications such as car parks in hospitals, airports, local authority buildings and industrial and commercial premises, the torque motor increases the reliability of the barrier as there are no limit switches to be adjusted.

A major feature is its speed of operation. A raise/lower time of 9 seconds for a barrier spanning up to 9000mm, whilst shorter span barriers can be raised in less than 2 seconds.

**Specification:** Barriers are available with booms up to 9000mm or 7500mm with lower folding skirts.

HB Barrier with Removable end rest over rail way lines.



### HB Barrier

A hydraulically operated barrier, which features an exceptionally heavy-duty boom designed to withstand high stress levels and vandalism, and is therefore recommended for sites requiring a greater level of security. It is particularly suitable for unlimited duty cycles, closing off large entrances, especially on exposed sites where high wind conditions are experienced.

**Specification:** Boom available in lengths of up to 10000mm without a skirt and 6000mm with rigid skirts above and below the boom. Supplied as standard with end-rest. All metal cathodic corrosion protected.

Bi-parting pair of FBX barriers with lower folding skirts.



## Swivel-Skirt Barriers

Swivel-skirted barriers are available in both torque motor or hydraulic models – up to 5500mm for torque motor and up to 7500mm for hydraulic.

With collapsible upper and lower skirts, they combine the speed and flexibility of a rising arm barrier with the deterrent value of a gate, but at a much lower cost.



Bi-parting pair of Swivel skirted barriers in operation.

## Controls

Products can be supplied with various different control systems, please refer to page 16 & 17.

## Accessories



Articulated boom



Fixed end rest



Pogo end rest



Upper and lower skirts



STOP sign



HGV STOP sign



Boom lights



Magnetic lock



Lower folding skirt

## Control Cabinet – Specifications

The cabinet is manufactured from 14 SWG mild steel which also forms the structural framework of the barrier. The base plate is fitted with mountings for four expansions fixings. The removable rear door of the barrier cabinet is fitted with a security lock for easy maintenance access.

The enclosure is protected by a finish system comprising; de-greasing, shot blasting to clean metal, zinc rich powder priming and polyester powder coat. The coating system provides superb impact and cathodic corrosion protection. The drive shaft is mounted on two sealed-for-life bearings, which require no maintenance in service. A series of counter-balance springs are fitted which offset the boom weight.

# 10 Roadblockers

Roadblockers and Rising Kerbs are designed to offer an impact-resistant barrier to vehicle access and are well suited to 'High Security' sites. Such installations may range from car parks through to anti-terrorist protection of defence installations.

SMT Roadblocker



### 'SMT' Surface Mounted Traffic Kerb

Provides a simple solution to car park security where vandalism is a problem. Can be installed with the minimum amount of civils work.

### 'Parking' Rising Kerb

Provides a higher lift height of 353mm, with a permanent installation.

### 'Security' Rising Kerb

Comes in an option of two heights; 533mm and 800mm lift. These provide higher levels of protection with built in stopping power.

### 'Special lift Height' RoadBlockers

These are available for the ultimate protection of any site, and are built to suit customer requirements.

All Roadblockers and Rising Kerbs have built-in safety logic to stop the unit rising under an authorised vehicle, roll back logic for all traffic and a light bulb failure sensor that can provide indication of the filament failure and if necessary shut down the unit, or bring up an alarm.

Parking Height 353mm

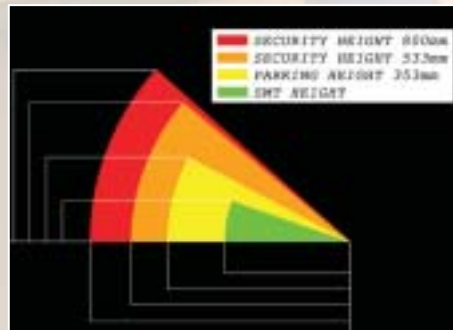


Security Height 533mm



Roadblockers used to secure entry and exit from site.

'High Security' 800mm RoadBlocker interlocked with a LiteTracker Sliding Gate.



### Construction

RSC frame supporting heavy-duty chequer pattern anti-skid top plate gives a 17 tonne axle loading capacity when lowered (British Lloyd Test Certificate). Available in 1500, 2000, 2500, 3000, 3500, 4000 and 5000mm widths.

Crash linkage bars help protect the mechanism; cushioned cylinders power the blocker up as it pivots on multi-sealed bearings.

Manual ball valves enable the lowering of the blocker during power failure.

### Options

Extra powered locking bolts to hold the unit when raised and power failure occurs. Emergency hand pump to raise and lower the unit during power failure.

Frontier Pitts hydraulic rising bollards provide automated heavy-duty vehicle access control or protection against ram raiding. These units bridge the gap between automatic barriers and Roadblockers in terms of security and cost.

### Hydraulic Rising Bollards

A heavy duty hydraulically operated rising bollard, suitable for high security applications such as providing retail stores and cash dispensing machines outside banks with protection against 'ram-raiding'.

Standard unit has lifted height of 600mm, up to 900mm lifted height available for special applications. Allows rapid traffic flow with adjustable operating speeds. Standard raise/lower time –2.6 seconds. Heavy-duty hoses and cables connect the bollard to the control cabinet. Manual ball valves enable lowering of the bollard during power failure.



Plain Yellow Hydraulic Bollard securing the exit to a high security public sector building.



Hydraulic Bollard with Traffic Light signal.

Hydraulic bollards used to secure a major credit card company's site.



Ornamental hydraulic bollards used to secure a popular tourist attraction in London.

### Construction

200mm dia. Fabricated from rolled steel box section. The surrounding road surface is provided with a removable heavy-duty chequer plate. Will withstand 17 tonne axle when in lowered position and will lift up to 200kg without stalling. When fully raised, the hydraulic system 'locks' the bollard so that it will resist a downward force of up to 2000kg.

### Finish

The steel component of the bollard and cabinet are protected by 'scratch resistant' alkyd paint. Standard colour is black with yellow bands. Alternatively, any colour is available from the BS and RAL ranges.

### Controls

Products can be supplied with various different control systems. Please refer to page 16 & 17.

### Safety

All Roadblockers and Rising Bollards may be configured to fail safe or fail secure. Fail safe will enable free passage in the event of mains failure. Fail secure will keep the unit raised in the event of power failure.

Not all Frontier Pitts gates and barriers require automation. If the requirement is to control vehicle access at low-cost, our simple but effective, manually operated products can offer a cost-effective solution to your needs.

Garrison Manual Barrier with no end rest required under 4000mm. Maximum boom length 7500mm.



Standard Manual Barrier with fixed end rest. Maximum boom length 10000mm.



Roadcloser with horizontal opening. Maximum boom length 10000mm.



Wagon RoadCloser. Both booms are hinged independently. Latch back post available to secure either in the open position.



## Manual Barrier

An easy to operate, counter-balanced manual barrier to obstruct or permit vehicle access, with lifting handle and locking bar at the pivot point.

### Specification

Boom (extruded aluminium section) up to 10000mm with heavy duty Standard Barrier model, and Garrison Manual Barriers with boom lengths manufactured up to 7500mm. The Standard model can also be fitted with a lower folding skirt with boom lengths up to 9000mm. Pedestal welded steel plate with RHS section. Counter-balance cast iron or steel tube with base plate and saddle. End rests not required with booms under 4000mm. Pogo-stick end rest also available.

## Road Closers

An inexpensive barrier designed to control infrequent traffic flow where there is sufficient room for horizontal opening. The boom swings through 180 degrees and can be padlocked onto the closing post.

### Specification

Welded RHS hinge and bracing section supports special extruded aluminium boom up to 10000mm as standard. Support brace for larger models. Hinge post constructed from RHS welded to base plate. Base fixing or root fixing versions available.

### Finish

Shot-blasted to clean metal, zinc sprayed to BS 5493, epoxy primed and finished with white acrylic paint. Boom section powder coated white with red warning flashes. Other colours available at additional cost.



Heavy duty, fully welded RoadCloser manufactured from round steel tubular section, available in any RS/RAL colours.

## Wagon Stopper

A simple barrier designed to allow access to cars and light vans but control entry of higher vehicles by means of a height adjustable nudge bar, which warns if a vehicle is too high. If entry is required by higher vehicles, the boom can be unlocked, pushed through 180°, and pad-locked onto the latch back post.

### Specification

Welded RHS hinge and bracing section supports special extruded aluminium boom section (up to 10000mm as standard). Support brace for larger models. Below the boom arm, an aluminium section nudge bar is suspended by galvanised steel wire. Posts RHS steel fitted with base plates.



WagonStopper maximum aperture 10000mm. Nudge bar set at 2000mm as standard.

## Traffic Flow Plates

These provide low-cost single direction traffic control and are available in two sizes; a standard version directs the flow of cars and vans (up to 1750kg) while the heavy-duty model controls commercial vehicles (up to 3500kg).



If, at any time, traffic needs to flow in both directions, this can be achieved by installing flow plates with a special key-operated 'lock-down' facility.

### Specification

Construction from folded and welded mild steel plate. Manufactured in an octagonal design to minimise tyre damage and inhibit contra-flow. 12mm steel top plate is textured for increased grip. Replaceable rubber buffers and vibration proof socket head screws offer noise insulation.

### Speed Restrictions

It is important that speed restraints and warning notices are installed in conjunction with traffic flow plates. A maximum speed of 5 mph is recommended.

### Speed Ramps

Moulded from high impact rubber composition with surface channels for good drainage and grip. Strongly recommended for use with Traffic Flow Plates.



Traffic Flow Plates available in Standard or HGV models. Recommended to be used in conjunction with speed bumps.



Rubber composite Speed Bumps (Sleeping Policeman).



Telescopic Parking post available round or square with a 5mm wall thickness. Posts come acid-dipped and galvanised as standard, or painted as required.



Speed bumps installed at a busy shopping park to ensure vehicles remain at a slow speed.

# 14 Pedestrian Gates

A manual Wicket Pedestrian Gate. This example is fitted with a hydraulic closer.



Powered Qwicket Pedestrian Gate. Here with ornate finish.



'Bouncer' Pedestrian Sliding Gate.



FPT3 steel tripod turnstile with pedestal rail.



FPT5 half-height interior turnstile.



FPT4 waist height tripod unit.

## Wicket –Manual Pedestrian Gate

A manually operated version of the Qwicket, which can be custom-designed to meet customers' specific requirements. The gate can also be operated using a hydraulic closer and an electric strike release mechanism. Construction and finish are the same as for the Qwicket. (please see below)

## Qwicket – Powered Pedestrian Gate

The Qwicket is a motorised version of the Wicket, which cannot be left in the open position or unlocked unless it is intended to be. On receipt of a signal from a push button, card reader etc, the gateleaf unbolts (if specified), opens automatically 90°, closes, rebolts and switches off in a standard 15 second operating cycle. The overhead motor is fully enclosed, reducing the risk of wind blown debris or weather affecting its operation.

## 'Bouncer' Sliding Pedestrian Gate

The Frontier Pitts sliding pedestrian gate is a high-security unit, which is used to provide secure control of pedestrian access. The gate is based on the larger LiteTracker design, which is a fully cantilevered gate with no track or intermediate support across the roadway. The leading edge of the gateleaf locates and is supported by a receptor post.

All mild steel components are finished by shot blasting, hot zinc spraying, priming and spraying with a polyurethane topcoat (Tri-protection).

The motorised gate leaf is driven by means of a motor/gearbox combination, which is offered in a range of speed options. The standard speed of operation is 200mm/sec.

## Construction

Frame of low carbon steel rectangular hollow section to BS4848 Part 2, with fully welded construction. Standard infill vertical ERW rectangle tube, pitch approximately 180mm, fully welded to frames.

## Stainless Steel Interior Turnstiles

The Frontier Pitts range of tripod and half height turnstiles are recommended for internal use or for sites where a high level of security is not necessary. Powered and manual versions are available finished in stainless steel and supplied as bolt down or wall mountable. Corresponding pedestal rails and disabled swing gates also supplied if required.

## Construction & Finish

Stainless steel casing and rotors with a heavy section steel pedestal. The lockable mechanism cover is also stainless steel. Minimum floor requirements for bolt down versions: 300mm concrete.

## Controls

Products can be supplied with various different control systems, please refer to pages 16 & 17.

## Turnstiles

Designed for perimeter use, Frontier Pitts turnstiles are normally used adjacent to sliding or hinged gates in order to provide pedestrian as well as vehicle control. Full height turnstiles are available in single and twin-cage versions and can be supplied flat packed or delivered to site fully assembled and factory tested for immediate installation. The rotor is manufactured in stainless steel and is available in either four section (90°) or three section (120°) forms. Passage may be controlled in each direction using any control system (refer to pages 16 & 17) or alternatively free passage may be allowed on entry or exit. Options include Steel or GRP canopy, non-slip flooring and walkway illumination.

## Specification

Fully welded from low carbon steel section to BS4848 Part 2. Manufactured from 30mm x 20mm columns between floor and head sections. The canopy of the rotor can be either coated mild steel or Glass Reinforced Plastic. Hydraulic clamping units are fitted which prevent the slamming of the rotors, enhancing operation and increasing reliability.

In an emergency the turnstiles can be set to either fail safe or fail secure. The fail safe option will allow free access or exit, while the fail secure option will not allow passage in either direction.

## Finish

To prevent corrosion, Frontier Pitts gates and turnstiles are all shot blasted and sprayed with 100 microns of pure zinc followed immediately with a sprayed filler primer and finally by electro statically applied abrasion resistant alkyd paint or equivalent to client's choice of colour. This process provides 20 years corrosion protection for exterior, industrial, polluted inland sites to BS5493-1977. (Revised January 1984). Galvanised and powder coatings are also available on request.



The FPT1 Turnstile. Suitable for access through a perimeter fence line.



FPT2 'Security Style' full height turnstile with GRP non-drip lid, lighting and non-slip flooring.



A half height manual turnstile with trombone rotor (coated)



High Security turnstile with bi-directional disabled access featuring video intercom & card reader access.

A console to simultaneously control many entrances with complex monitoring of each entrance, featuring liquid crystal display.



A raise/lower push button



A raise/lower mechanical key switch

A touch card reader with programmable cards.



Digital key pad finished in stainless steel with built in micro controllers.



Dual channel VHF (DTI-approved) transmitter key fob.



Proximity card reader with mini printer. We can provide a range of on-line and standalone card readers.



## Controls

With perimeter security gates and barriers playing such an essential role in regulating and restricting the flow of traffic, reliable operation of these and their associated controls systems is a key requirement. Usually processed through programmable logic controllers, our control systems offer a high degree of reliability and flexibility of operation, and enable the interface of many systems.

## Remote Push Button Control System

Used mainly on 'manned' premises. A number of methods of operation are available. These include a raise/lower twist switch, raise/lower push button or desktop consoles. Control units are supplied pre-wired for ease of installation.

## Card readers

Card reader systems are numerous and varied. Ranging from basic magnetic key readers, to fully programmable touch-card/proximity readers where each card has its own individual number. Swipe, Wiegand and full on-line management systems are available with the option of full anti-pass back and timed anti-pass back if required.

## Digital Keypads

Ideal for numerous applications, these are made of stainless steel and are vandal-resistant. The digital front panel is fully programmable with a master code and four separate users. Codes can be changed by authorised personnel.

## VHF Radio Control Systems

These have a range of between 20 and 1000 metres and operate on DTI approved working frequencies. Transmitters are battery operated and available in three versions –hand-held, key-fob or industrial type.

A simple magnetic key reader.



## Intercom Systems

The user panel is made from weatherproof stainless steel and a single call button. Standard operating ranges for optimum speech quality are 50, 100 and 300 metres – amplification is necessary for longer distances. Standard systems operate on a one-to-one basis but multi-point operation is available and all systems are fully expandable.

## Product Communication Interface

This user-friendly graphical interface may be used to monitor and control any of Frontier Pitts automated products. The program will keep a complete log of all operations performed by the equipment and monitor the status of the system, providing an alarm if required. This software eliminates the need for push button consoles and enables the user to control our products using a PC. With the use of a wireless link, no cables are required between the PC and our equipment; alternatively, a serial cable can be used to link the access control to the specified PC.

## HMI – Human Machine Interface (Graphical Touch Screen)

This user-friendly touch screen may be used to monitor and control any of Frontier Pitts automated products in place of push button consoles. It continually monitors the status of the system, providing an alarm if required. The unit is self-contained and stand-alone. With the use of a wireless link, no cables are required between the HMI and our equipment; alternatively, a serial cable can be used to link the access control to the specified HMI.

## Coin operated machines

These use an internal keypad to set the required 'vend' amount, which can be anything between 1p and 9999p, while an on-board counter is provided to indicate the total amount of money which has passed through the machine. There is also an optional LCD display showing the amount due and other messages. Coins are stored in a strong box within the machine until collected.

## Token operated machines

These operate in the same way as coin-operated machines, but using profile security tokens.

## VEHICLE SAFETY SYSTEMS

### Induction Loops

A cable loop installed in the road surface produces a magnetic field, which alters when a vehicle passes over it. The loop amplifier microprocessor registers this change, and generates a signal, which is sent to the control equipment to activate the gate or barrier.

### Photocells

Normally fitted across the aperture of a gate or barrier, used to provide vehicle and pedestrian monitoring. Most often utilised for safety applications in conjunction with safety induction loops, or occasionally where the laying of induction loops is not possible, photocells can provide the safety.

### Safety Edge

Fitted from top to bottom on the leading edge of powered gates. Comprising a fail-safe rubber profile which when activated will "STOP" the gate operation. Can also be fitted on the gate motor posts or rear of the gate leaf to provide full pedestrian protection. In accordance with the Workplace (Health, Safety and Welfare) Regulations 1992, BS EN 12453:2001 and BS EN 12445:2001 it is highly recommended that this item is fitted to any automated gate.

### Other control equipment available includes

Infrared detection systems, Automatic vehicle recognition systems, Timers, Traffic Lights etc.



New range of 'Dual Wire' video and audio intercoms finished with aluminium on high impact plastic.



Product Communication Interface.

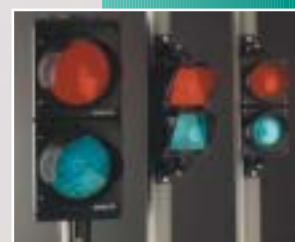


HMI Interface.



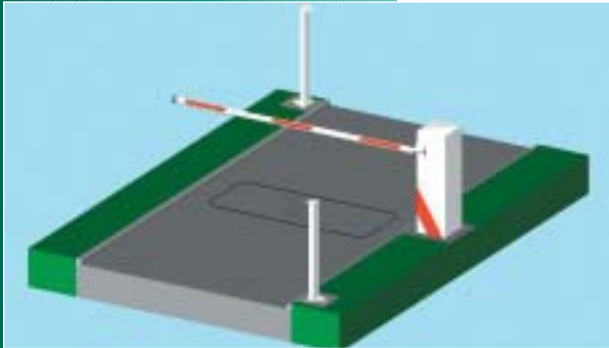
A mechanical token unit with profile coins.

Infra red photocell unit used to provide safety.  
Automatic Loop Amplifiers  
Car Park "FULL" Illuminated sign



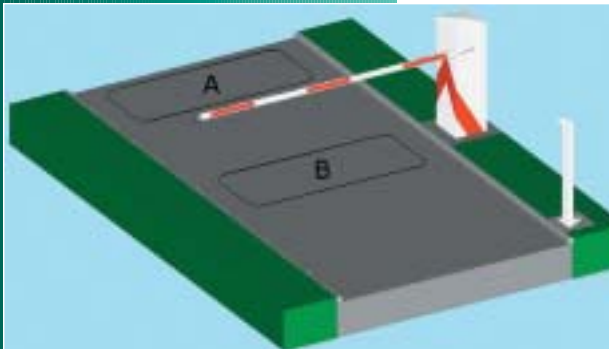
Various styles of red over green traffic light. Special security 'Cage' and different fixing methods available.

Need a gate or barrier or something in between? Don't know what is suitable for the site? Whatever your requirements, whether you require a highly visible deterrent or a discreet but effective system, Frontier Pitts has the solution to your problem.



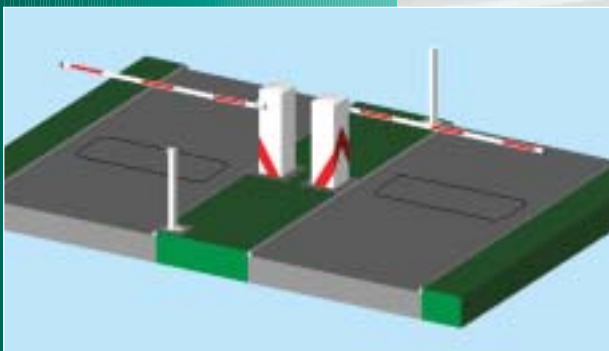
### Example A – Automatic Barriers

Single lane with controlled entry and exit. Drivers will approach the barrier and insert their card/token, etc. The safety/autoclose loop installed in the road will ensure that the vehicle has passed through safely before the boom closes.



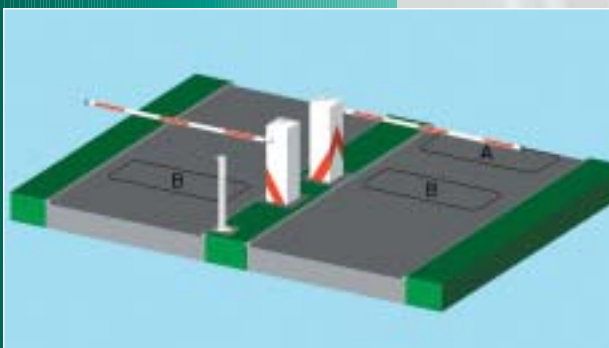
### Example B – Automatic Barriers

Single lane with controlled entry and free exit system. Drivers will approach the barrier and insert their card/token etc. Once they have passed through, the safety/autoclose loop (B) will lower the boom. To exit, vehicles will pass over the free exit loop (A), which will raise the boom and safety/autoclose loop (B) will lower it.



### Example C – Automatic Barriers

Dual lane system. Each lane will be controlled in the same way. Drivers will approach the barrier and insert their card/token etc. Once they have safely passed through, the safety/autoclose loop in the road surface will lower the boom automatically.



### Example D – Automatic Barriers

Dual Lane system. Similarly to the system described in Example B, however the system has separate entry and exit lanes. Drivers will approach the entry barrier and insert their card/token etc. Once they have passed through, the safety/autoclose loop (B) will lower the boom. To exit, vehicles will pass over the free exit loop (A) on the exit barrier, which will raise the boom and safety/autoclose loop (B) will lower it.

The breadth of our product range from simple speed ramps or bollards to sliding gates and impact-resistant roadblockers, means we can supply perimeter security equipment for virtually any situation.

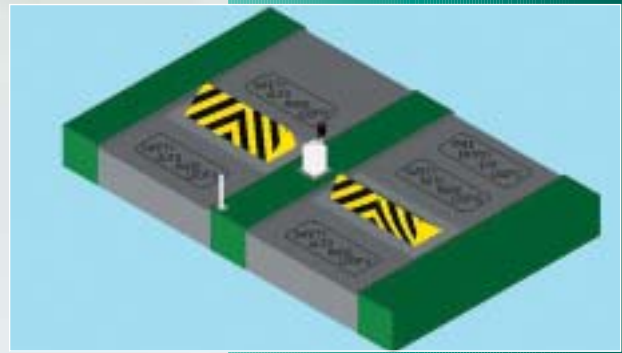
### Example E – Sliding Gates

Single lane secured by sliding gate. On both entry and exit, vehicle drivers will present their card to the reader, which will instruct the gate to open. The safety/autoclose loops laid in the road surface will ensure that the gate remains open until the vehicle has safely passed through before closing.



### Example F – Roadblockers

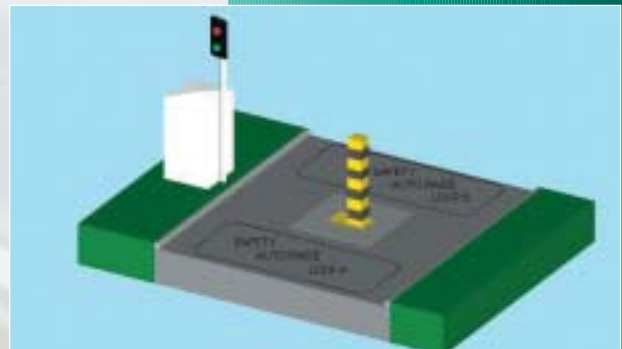
Dual lane arrangement secured by hydraulic roadblockers. Entry lane controlled by vehicle loops. 'Free entry' loop will lower the roadblocker on approach and safety/autoraise loops will ensure unit remains lowered until vehicle has crossed safely over. Exit lane controlled by card reader, which will lower blocker and safety/autoraise loops as before.



### Example G – Hydraulic Bollard

Single lane secured by hydraulic bollard. Lowering of bollard may be instigated remotely either by push button or VHF radio control system.

Safety/autoraise loops in road surface will ensure bollards remain lowered until vehicle has crossed safely over.



### Example H – Barricade Beam

Barricade beams can be manufactured to operate manually or automatically. Automatic configurations may operate with any control system as above. The ideal equipment for securing premises overnight.

These are just some examples of typical site layouts but we can tailor make a system to suit any requirements. Please contact our Technical Sales Dept for further information.



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