

# 2021 EDITION



 **DEEBAR** (Pty) Ltd  
DEEBAR ELECTRICAL & MECHANICAL ENGINEERING  
*"ENSURING YOUR SAFETY"*

## STANDARD PRODUCT CATALOGUE



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**ALL YOUR SHAFT  
SIGNALLING  
AND SAFETY  
REQUIREMENTS**

**".. safely transporting thousands of mine workers underground for over 40 years."**

Deebar's core business has always been Shaft Signalling Systems that the majority of the mines in Southern Africa are using as their standard products. Deebar designs and manufactures revolutionary shaft signalling and station safety products to satisfy all shaft communication requirements.

**DRIVERS CONSOLE**



The Winder Engine Driver typically operates from a Drivers Console which is fitted with two Deebar Drivers Signalling Units, one for signalling between the Driver and the Banksman and the other for signalling between the Driver and the Onsetter.

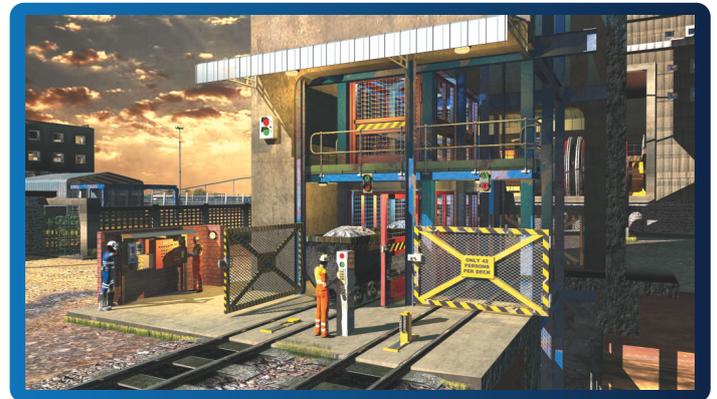
The drivers console is also equipped with either a Deebar Sounder or a Deebar Bell for the identification of signals rung.

Lockbell signalling is used for the interchange of coded signals between the Driver and the Banksman and the Driver and the Onsetter at the various stations. Either the Banksman or the Onsetter being specifically authorised and in possession of a key, which has to be inserted into the lockbell unit known as the Deebar Belltronic™ Unit before signals can be transmitted.

The Deebar Relay Panel electrically interlocks the signals rung between the Driver, Banksman and the Onsetters Belltronic™ Units. The Deebar Bell Event Recorder is situated in the winder house and is designed to record and log all signalling events that take place in the shaft area.

Deebar offers a comprehensive solution to shaft equipping for surface and underground levels. The Signalling Combination Panel includes a Distribution Box, Belltronic Lockbell, Callbell Unit, Digital Display Unit, Wallcomm, Deecom 101 elephones, Pneumatic and Interlocking Panel for station stopping devices.

**SURFACE LEVEL**



**SIGNALLING COMBINATION PANEL**



On the bank and all underground levels, Lock and Clear Lights are fitted to indicate whether the cage is in position and it is safe. The Lock and Clear Lights can be supplied in different units such as D-Lites, Robot Boxes, either incandescent or LED type.

The Belltronic Digital Display Unit will visually show the last signals rung on the LCD display.

## UNDERGROUND LEVEL



The Call Bell Unit is an emergency signalling unit as required by the MHSR Reg 16.43.6 and is designed with two buttons both behind a breakable glass. One button to be used for accident to person, the other for an accident to shaft, both signals are followed by a station ID. An option to trip the winder after activating the accident to shaft button can be included.

The Distribution Box is used to terminate and distribute shaft bell cables on the bank and on each level.

The Wallcomm “Biza Khuluma”, is a 2 wire intercom system with a battery backup (10 hour standby time), in the case of a power outage to enable voice communication.

The Deecom 101 is a robust PABX/auto type telephone communication unit manufactured from stainless steel, powder coated and fitted with a neoprene handset.

Deebar, known for its shaft safety products in mining, designed and manufactured the Deebar slam-It Station Gate Lock which is specifically designed to prevent a double operation and can, in addition, be electrically interlocked to the winder safety circuit via a integrated interlocking magnetic switch.

Deebar has various combinations of Station Stopping Devices with the option to mechanically couple and interlink to a Centre Column which incorporates the Belltronic Signalling Unit and the Deelock Safety Lock to provide safety when moving rolling stock in and around the station area.

This system both electrically and mechanically interlocks the shaft bells to the Deebar Station Stopping Devices and ensures the ultimate in safety.

The interlocking station stopping devices with electronic bell signalling, together with the Slam-It are covered by Deebar patents.

Another option is that Deebar Station Stop Blocks, Huizens Device or the Technopost Stopping Devices can be fitted and operated pneumatically via the Pneumatic Panel and Interlocking Panel this is also interlocked to the shaft bell signalling system.

The Deelock and Interlocking Panel has been designed to ensure that the responsible person (Onsetter or Banksman) follows a set procedure when operating safety devices on the specific station.

The system also ensures that the responsible person cannot leave the station if the safety devices are not in a safe position.

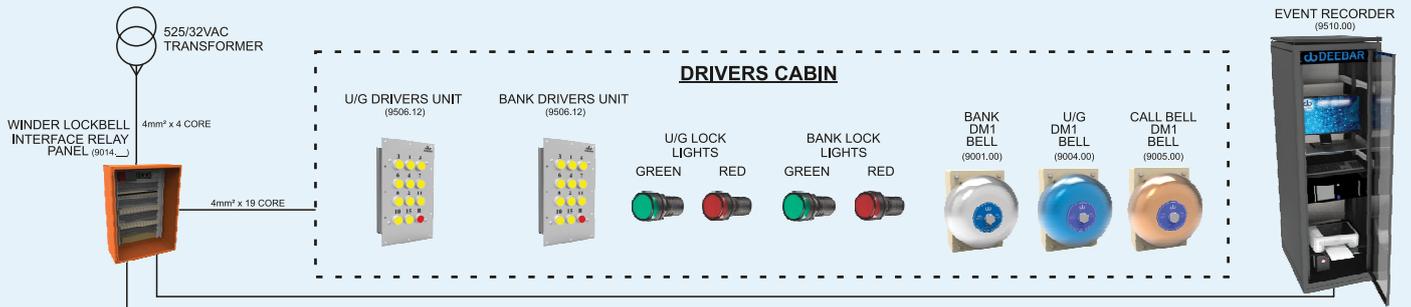
All Deebar products are manufactured under strict quality controls. Deebar are certified and conform to the ISO 9001:2015 quality management system to guarantee customers reliable products at the highest level of quality.

## CENTRE COLUMN

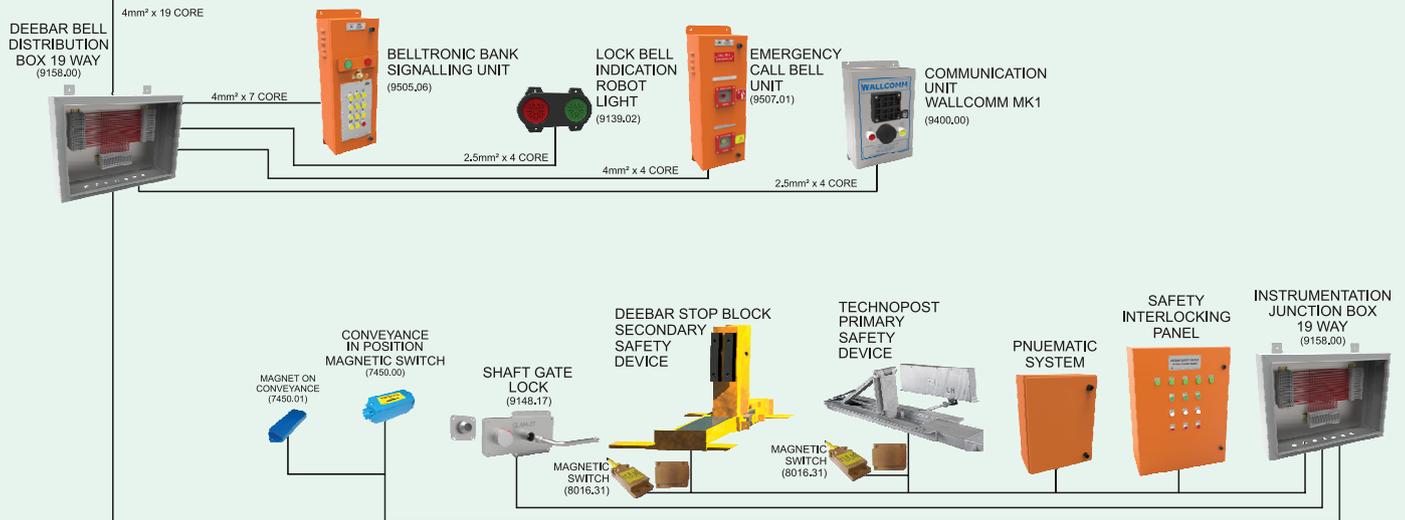


# PRINCIPAL REQUIREMENTS FOR STATION AREA SAFETY

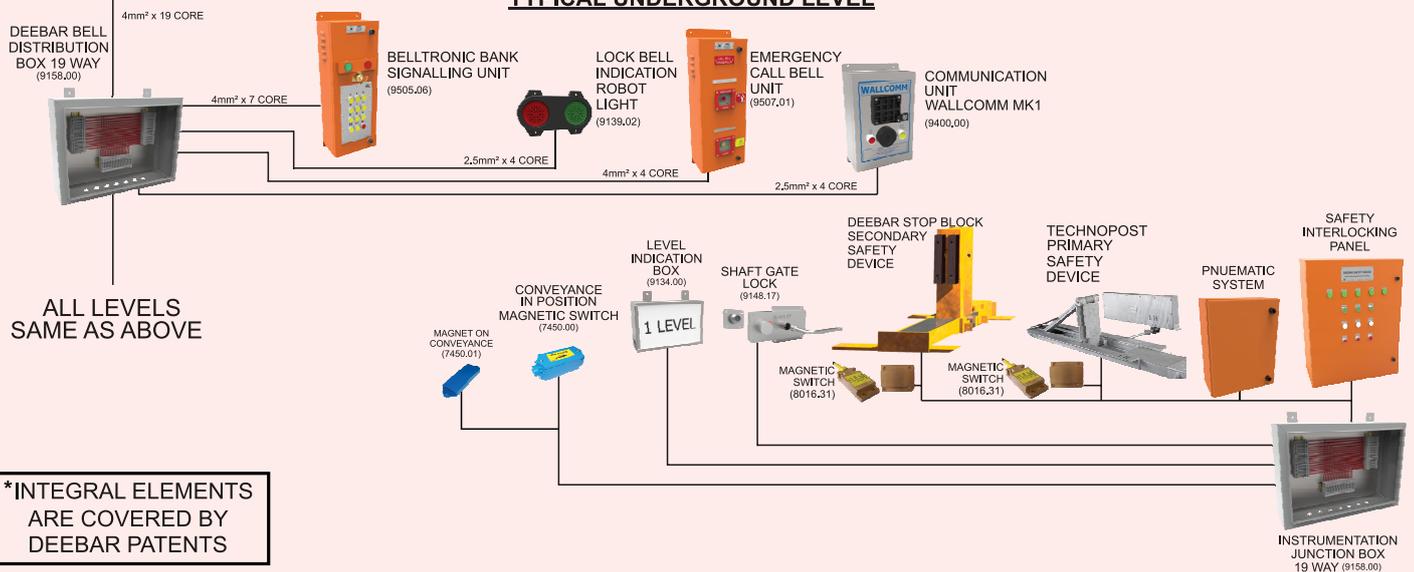
## WINDER HOUSE



## BANK



## TYPICAL UNDERGROUND LEVEL



ALL LEVELS  
SAME AS ABOVE

\*INTEGRAL ELEMENTS  
ARE COVERED BY  
DEEBAR PATENTS

The D-Matrix System, monitors and records events taking place in and around a Mine Shaft Station area and displays these events on a screen on the wider engine drivers desk.

The D-Matrix System consists of:

- Standard Lock bell unit fitted with DBS44 PC Board
- Interface Cards
- Monitoring Devices
- Graphical Display

The D-Matrix System is built on the standard shaft bell signalling system using a Lockbell Interface Relay Panel connected to Bell Distribution Boxes on the bank and various underground levels.

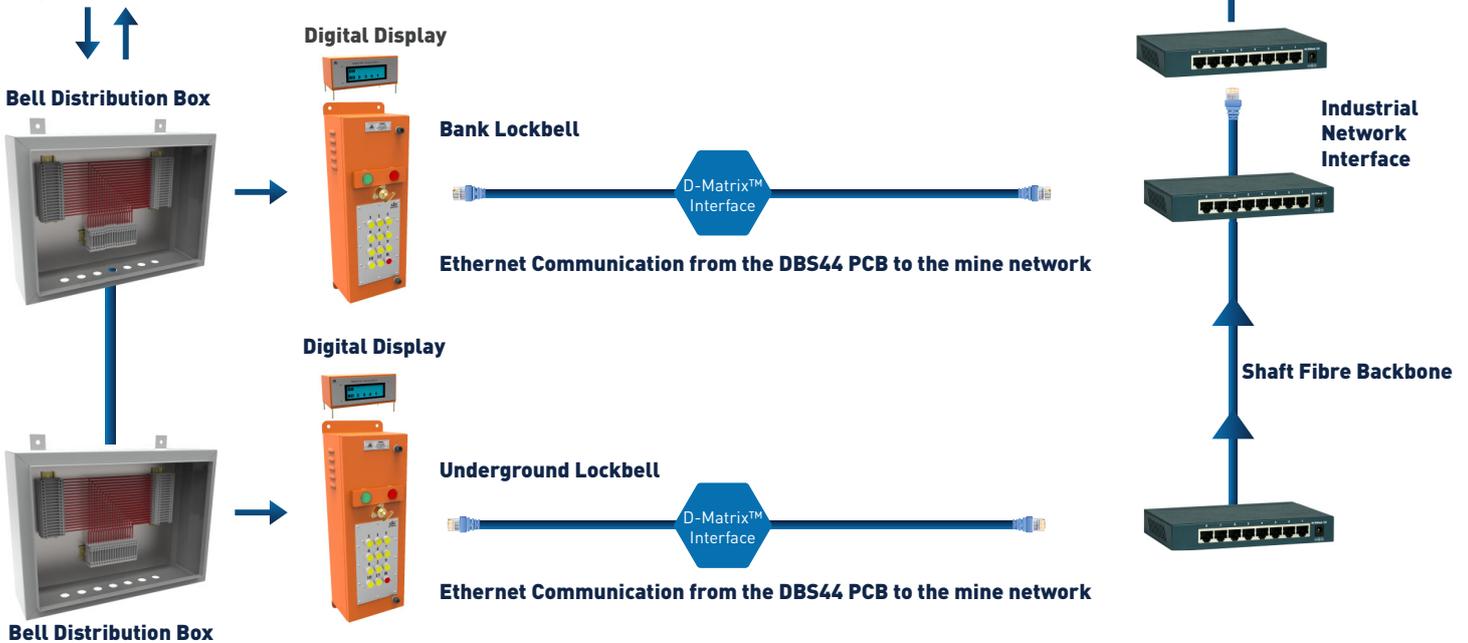
**Lockbell Relay Panel**



These Distribution Boxes are connected to the relevant Lockbells on the levels, which will allow the standard signalling operations to take place.



**Scada Computer situated in the Winder House**



Deebar's latest DBS44 PC Board with intelligent ethernet capabilities is fitted inside the standard Deebars Lockbell unit to allow communication with the mines existing fibre optic backbone.

The shaft fibre backbone data will be transmitted between the levels, bank and D-Matrix unit. The D-Matrix unit as well as the D-Matrix graphical interface (monitoring) computer are typically situated inside the Winder House.

The D-Matrix Monitoring System will display real time graphics of the events taking place in and around the shaft bank and stations.

These events include, monitoring the bell status, the cage position from proximities or magnetic switches on the station, last bells rung, station stopping devices, shaft gates and the various alarm signals.

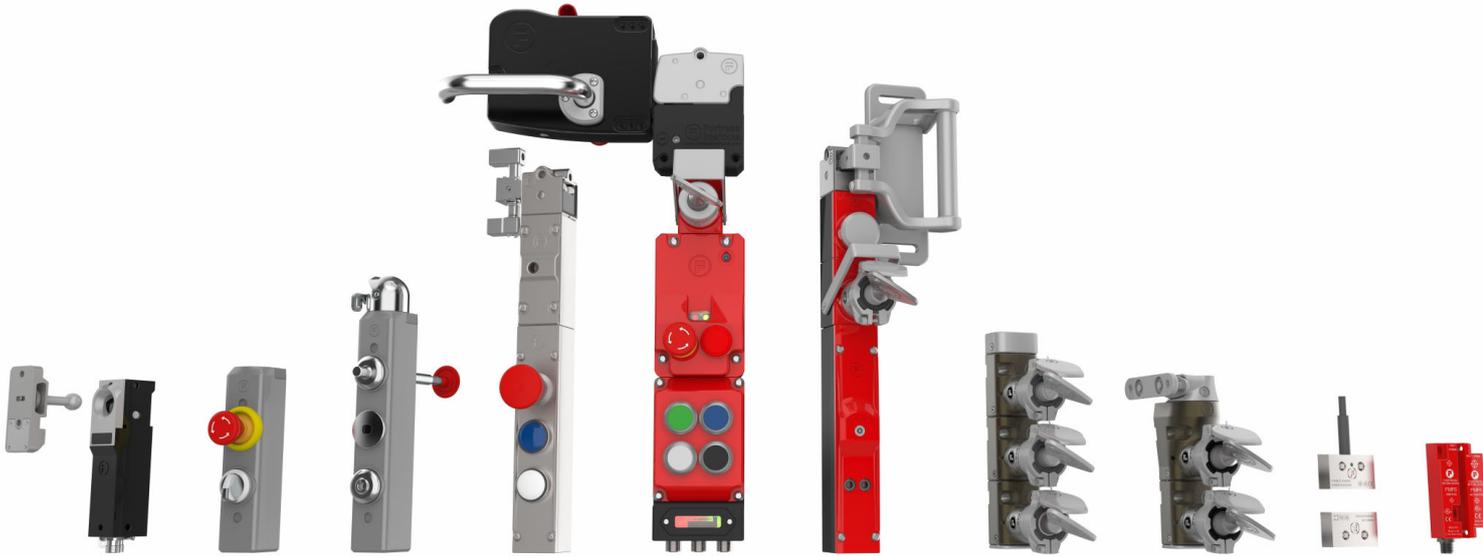
All of the above mentioned monitoring, recording and displaying of the various events makes up the D-Matrix System to ensure complete shaft monitoring and recording ensuring safety at all times. The D-Matrix monitoring system is client configurable.

## INTERLOCKING

As a leader in Trapped Key Interlocking, Deebar design and manufacture Safety Interlocking Systems for the Mining, Steel, Motor, Power Generation, Food, Drink and Automotive Industries.

The Fortress range of products with its unique lock mechanism ensures the integrity of the Inter-Locking System and provides personnel with unmatched protection.

Installing Fortress Interlocks eliminates the potential for human error and ensures that the desired operation is performed in a safe manner every time machines/equipment is used.



## SWITCHGEAR

Deebar market and supply the well known IMO range of switchgear products to all industries. IMO is focused on providing Industrial Automation, Motion Control and Electronic components which, when combined with superior service, offers customers significant competitive advantage.

From a single product to complete application solutions, the IMO Automation and Controls range fully address the sense, control and switch demands of today's factory automation and control environment. In term of choice IMO is at forefront of the switchgear industry, offering everything to meet the needs of today's OEM's, panel builders and end users.

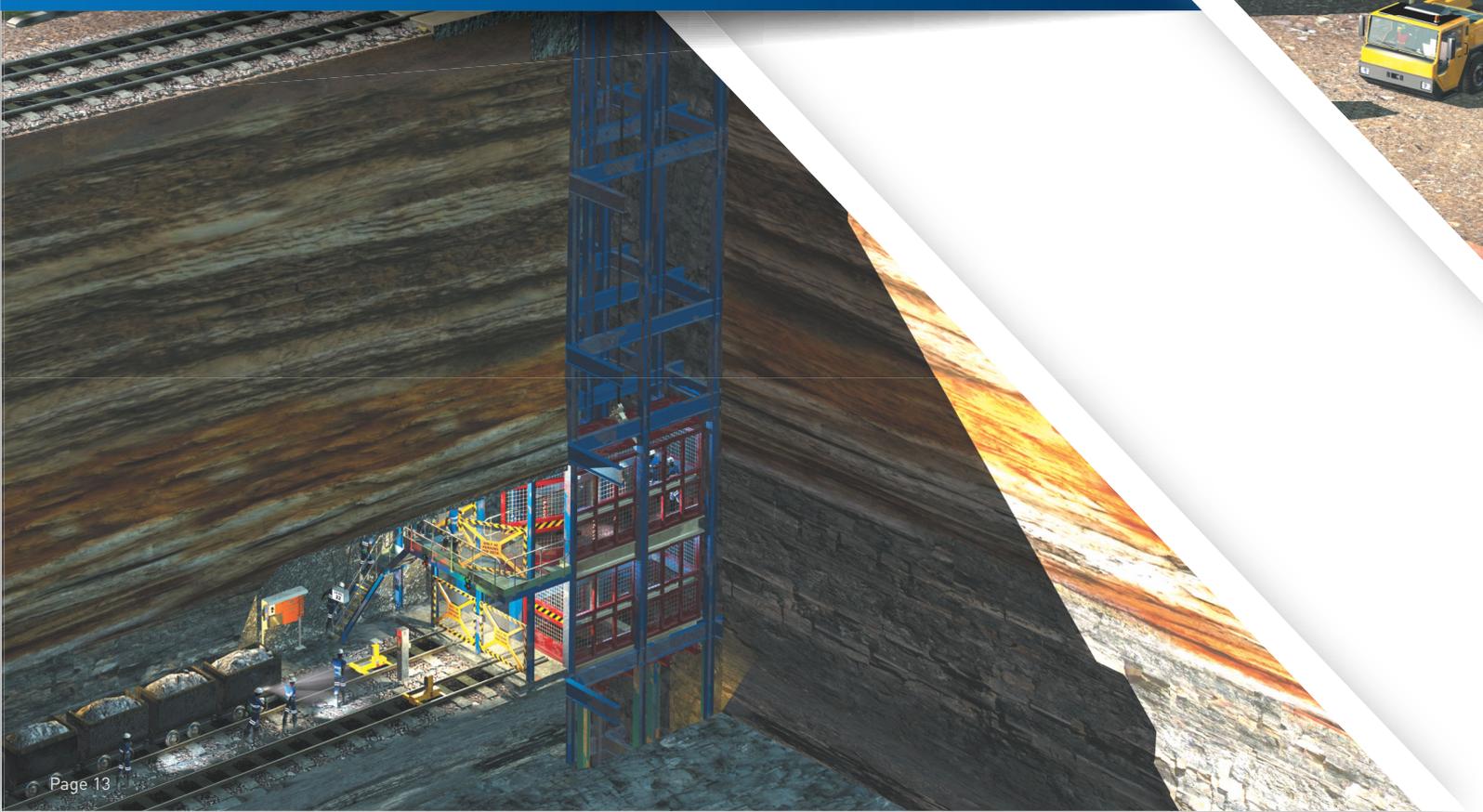
In addition, Deebar also market the Benedict range of Rotary Switches, such as On/Off switches, change over, motor switches, ammeter, voltmeter, step switches etc. An extensive range of Switch Disconnectors is also supplied.







# MINING DIVISION



In the early days, prior to 1956 the miners came up with a code of signals in order to haul men and ore up and down the mine shafts safely, the hoister, or man in charge of raising and lowering the buckets and cages, had to be able to communicate with the miners below.

For that purpose, a signal code using knocks and rings was adopted in each mine.

Because the signal system was one of the many mining practices that was developed in South Africa the codes used by the different mines were basically the same. To ensure uniformity, however, each Mine eventually adopted a Code of Signals in its Mining regulations. Products used were the reliable Martco No.70 and Martco S101 type Bell ringers.



**DM1 BELL / DB2 BELL**

The DM1 bell is fitted with a 150mm gong and is available in various voltages. Suitable for use with alternating current (AC).

The unit can be supplied with either chrome, copper, brass or painted gongs to emit different tones.

The DB2 bell is generally the same as the DM1 but is suitable for use with direct current (DC).

The unit can be supplied with either chrome, copper, brass or painted gongs to emit different tones.

**NB:** Plug in feature for easy adjustment or replacement.  
**Sound Output 96 DB**

**DEELEX BELL**

The Deelex bell is generally the same as the DM1 but is suitable for use with alternating current (AC).

The unit can be supplied with either chrome, copper, brass or painted gongs to emit different tones.

The bell housing is manufactured from aluminium alloy.

**Sound Output 100 DB**

**S100 SIDE LEVER BELL RINGER**

The S100 type ringer is used for call bell signalling.

The unit operates by pulling the lever which closes a set of N/O contact to ring a remote bell.

The housing is manufactured from a dough moulded compound (DMC).

Product Code:	Description:
*9001.00	DM1 8-32V AC Chrome Gong
*9002.00	DM1 110V AC Chrome Gong
*9003.00	DM1 220V AC Chrome Gong
*9004.00	DM1 8-32V AC Painted Gong
*9005.00	DM1 8-32V AC Brass Gong
*9006.00	DM1 8-32V AC Copper Gong
*9007.00	DB2 8-32V DC Chrome Gong

Product Code:	Description:
*9008.00	Type "M" 8-32V AC Chrome Gong
*9009.00	Type "M" 110V AC Chrome Gong
*9010.00	Type "M" 220V AC Chrome Gong

Product Code:	Description:
*9044.00	S100 Bell Ringer



### S101 SERIES KEY BELL RINGER

The S101 range of ringers is used for lock bell signalling. These units operate by inserting a key into the side of the unit and turning it, thus closing a N/O contact to ring a remote bell.

The unit can be supplied in various key configurations such as : triangle, half moon, square, oblong, hexagon and small triangle.

The housing is manufactured from a dough moulded compound (DMC).

Product Code:	Description:
*9045.00	S101 Triangle Bell Ringer
*9046.00	S102 Square Bell Ringer
*9047.00	S103 Small Bell Ringer
*9048.00	S104 Hexagon Bell Ringer
*9049.00	S105 Half Moon Bell Ringer
*9050.00	S108 Oblong Bell Ringer



### BELL RINGER KEYS

Keys are used to operate S101 bell ringers and are available in the following configuration:



Product Code:	Description:
*9061.00	S101 Triangle Bell Ringer
*9062.00	S102 Square Bell Ringer
*9063.00	S103 Small Bell Ringer
*9064.00	S104 Hexagon Bell Ringer
*9065.00	S105 Half Moon Bell Ringer
*9066.00	S108 Oblong Bell Ringer



### NO. 70 BELL PULL

The No. 70 bell pull is suitable for use in a call bell application.

By pulling the handle in a downward motion a wiping contact closes operating a remote audible device. The unit can be supplied with a standard or extended shaft.

This housing is manufactured from a dough moulded compound (DMC) and on special request can be manufactured in a cast iron housing.

Product Code:	Description:
*9037.00	No. 70 Bell Pull Standard Shaft
*9038.00	No. 70 Bell Pull 9" Ext Shaft
*9036.00	No. 70 Bell Pull Cast Iron



### NO. 72 Bell Pull

No. 72 bell pull is suitable for use in a lock bell application. By inserting a key into the bottom of the unit a mechanism is unlocked. This allows the handle to be pulled in a downward motion, closing a contact that then operates a remote audible device.

The unit can be supplied with a standard or extended shaft and key.

Manufactured from a dough moulded compound (DMC).



Product Code:	Description:
*9040.00	No. 72 Bell Pull (Lock) c/w Key
*9041.00	No. 72 Bell Pull Ext Shaft c/w Key
*9067.00	No. 72 Standard Key
*9068.00	No. 72 9" Key



**180 BELL PULL COMBINATION**

The Bell Pull Combination is a robust signalling device that is used mainly when shaft sinking is done. The unit is supplied as a Call Bell unit without a key or a Lock Bell unit with a key.

**Call Bell** - This unit operates by pulling the handle.

**Lock Bell** - This unit operates by inserting and turning the key and then pulling the handle.

Both units ring the bell on the level that it is activated on and a "common" wire ensures that all the bells in the system ring.

See schematic diagram for shaft bell systems.

Product Code:	Description:
*9101.00	180 Bell Pull Combination (Call) 8-23V
*9103.00	180L Bell Pull Combination (Lock) 8-32V



**BELL BOX W1 (WITH LIGHTS)**

This Bell Box is used when manual signalling is performed.

The unit can be equipped with various bells and bell ringer configurations.

This unit is generally utilized for Lock Bell applications.

The housing is manufactured in stainless steel and fitted with a lock and clear lights (red and green).

\* All the below mentioned DM1 bells are available in 110V

Product Code:	Description:
*9820.02	S101 Bell Ringer & DM1 8-32V AC Bell
*9821.00	S102 Bell Ringer & DM1 8-32V AC Bell
*9822.00	S104 Bell Ringer & DM1 8-32V AC Bell
*9823.00	S105 Bell Ringer & DM1 8-32V AC Bell
*9824.00	S108 Bell Ringer & DM1 8-32V AC Bell
*9826.00	No. 72 Bell Pull & DM1 8-32V AC Bell
*9826.03	No. 70 Bell Pull & DB2 32V DC Bell
*9826.05	No. 72 Bell Pull & DB2 32V DC Bell



**BELL BOX W1 (NO LIGHTS)**

This W1 Bell Box is used when manual signalling is required.

The unit can be equipped with various bells and bell ringer configurations. This unit is generally utilized for Lock Bell applications.

The housing is manufactured in stainless steel.

\* All the below mentioned DM1 bells are available in 110V

Product Code:	Description:
*9820.00	S100 Bell Ringer & DM1 8-32V AC Bell
*9820.01	S101 Bell Ringer & DM1 8-32V AC Bell
*9821.02	S102 Bell Ringer & DM1 8-32V AC Bell
*9822.01	S104 Bell Ringer & DM1 8-32V AC Bell
*9823.01	S105 Bell Ringer & DM1 8-32V AC Bell
*9824.01	S108 Bell Ringer & DM1 8-32V AC Bell
*9826.01	No. 70 Bell Pull & DM1 8-32V AC Bell
*9826.08	No. 72 Bell Pull & DM1 8-32V AC Bell
*9826.02	No. 72 Bell Pull & Deelex Bell 32 V
*9826.04	No. 70 Bell Pull & DB2 32V Bell
*9826.06	No. 72 Bell Pull & DB2 32V Bell



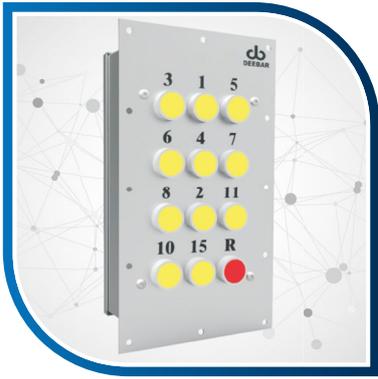
**JG/W1 MANUAL CALL BELL UNIT**

This emergency Call Bell unit is used in the event of an accident in a mine shaft. To activate, break glass and push the emergency button. A signal will be transmitted to the drivers cabin as well as to all levels.

JG/W1 - The unit is equipped with an emergency push button (behind glass) with a DM1 bell or electronic sounder.

Product Code:	Description:
*9829.00	JGW1 c/w Sounder
*9829.01	JGW1 c/w Bell

Manual Signalling had serious limitations and risks, thus an electrical solution was implemented with the use of an electric bell and PC Boards to control the sequence of rings . This greatly increased safety on mines.

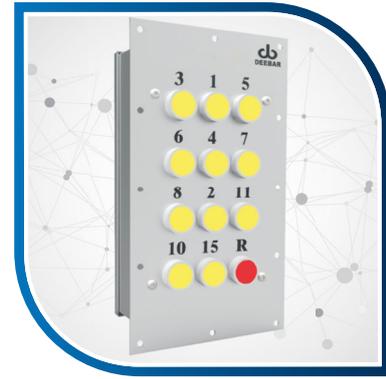


**DRIVERS UNIT - 12 WAY**

The Drivers Unit is used to communicate between the driver and banksman and the driver and onsetter.

- Evolution or D-Tronic PC Board.
- Robust push buttons mounted on stainless steel engraved fascia.
- Contact facilities for brake locking / drivers indication.
- Built-in inhibit circuit and material mode interlocks.
- The unit is available in either 32V / 110V AC or 32V DC.

This Drivers Unit is also available in a smaller, more compact unit called the No.2.



**SIGNALLING UNIT - 12 WAY**

The Signalling Unit is a replacement that fits into the Belltronic Lockbell Bank or Underground Unit.

- Stainless steel engraved fascia plate
- Mild steel back box
- Equipped with various pc boards

This Signalling Unit is also available in a smaller, more compact unit called the No.2.

Product Code:	Description:	Product Code:	Description:
<b>DRIVERS UNIT STANDARD - 12 WAY:</b>			
*9506.12	32V, D-Tronic PCB	*9506.04	32V, D-Tronic PCB
*9506.13	110V, D-Tronic PCB	*9506.15	110V, D-Tronic PCB
*9506.06	32V, Evolution PCB	*9506.16	32V, Evolution PCB
*9506.14	110V, Evolution PCB	*9506.17	110V, Evolution PCB
*9506.63	32V, DBS44 PCB	*9506.65	32V, DBS44 PCB
*9506.64	110V, DBS44 PCB	*9506.66	110V, DBS44 PCB

Product Code:	Description:	Product Code:	Description:
<b>SIGNALLING UNIT STANDARD - 12 WAY:</b>			
*9506.00	32V, D-Tronic PCB	*9506.02	32V, D-Tronic PCB
*9506.01	110V, D-Tronic PCB	*9506.31	110V, D-Tronic PCB
*9506.29	32V, Evolution PCB	*9506.32	32V, Evolution PCB
*9506.30	110V, Evolution PCB	*9506.33	110V, Evolution PCB
*9506.67	32V, DBS44 PCB	*9506.69	32V, DBS44 PCB
*9506.68	110V, DBS44 PCB	*9506.70	110V, DBS44 PCB



**SIGNALLING UNIT - 13 WAY**

The Signalling Unit is a replacement that fits into the Belltronic Lockbell Bank or Underground Unit.

- Stainless steel engraved fascia plate
- Mild steel back box
- Equipped with various pc boards

This Signalling Unit is also available in a smaller, more compact unit called the No.2.

Product Code:	Description:	Product Code:	Description:
<b>SIGNALLING UNIT STANDARD - 13 WAY:</b>			
*9506.34	32V, D-Tronic PCB	*9506.38	32V, D-Tronic PCB
*9506.35	110V, D-Tronic PCB	*9506.39	110V, D-Tronic PCB
*9506.36	32V, Evolution PCB	*9506.40	32V, Evolution PCB
*9506.37	110V, Evolution PCB	*9506.41	110V, Evolution PCB
*9506.71	32V, DBS44 PCB	*9506.73	32V, DBS44 PCB
*9506.72	110V, DBS44 PCB	*9506.74	110V, DBS44 PCB



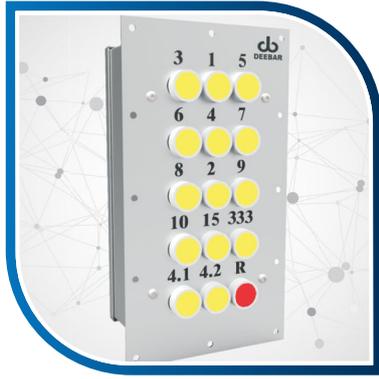
**SIGNALLING UNIT - 15 WAY**

The Signalling Unit is a replacement that fits into the Belltronic Lockbell Bank or Underground Unit.

- Stainless steel engraved fascia plate
- Mild steel back box
- Equipped with various pc boards

This Signalling Unit is also available in a smaller, more compact unit called the No.2.

Product Code:	Description:	Product Code:	Description:
<b>SIGNALLING UNIT STANDARD - 15 WAY:</b>			
*9506.42	32V, D-Tronic PCB	*9506.46	32V, D-Tronic PCB
*9506.43	110V, D-Tronic PCB	*9506.47	110V, D-Tronic PCB
*9506.44	32V, Evolution PCB	*9506.48	32V, Evolution PCB
*9506.45	110V, Evolution PCB	*9506.49	110V, Evolution PCB
*9506.75	32V, DBS44 PCB	*9506.77	32V, DBS44 PCB
*9506.76	110V, DBS44 PCB	*9506.75	110V, DBS44 PCB



### MONITORING TYPE SIGNALLING UNIT

This Signalling Unit communicates between the driver and banksman, driver and onsetter and is equipped with 3 additional buttons, namely 4.1, 4.2 and 3.3.3 for ease of signalling.

This unit has been designed to interface with the D-Matrix Station Monitoring System.

Product Code:	Description:
*1151.01	15 Way, 32V D-Tronic
*1151.02	15 Way, 110V D-Tronic



### BELLTRONIC BANK UNIT

This unit is to communicate between the banksman and the driver. The unit is manufactured in stainless steel and equipped with:

- A push button signalling device to communicate to the driver.
- Evolution DBS44 or D-Tronic PC Board.
- Fitted with either a PP, Castell or Fortress key switch.
- Various audible devices, such as bell, sounder, cybertone, etc.
- The unit is available in either 32V / 110V AC or 32V DC.
- This unit is fitted with a "Telltale" sounder.

**Note:** The unit has a switch off facility feature and always completes every signal rung.

Product Code:	Description:	Product Code:	Description:
*9505.00	D-Tronic & Castell	*9505.98	DBS44 - 32V & Castell
*9505.01	D-Tronic & PP	*9505.99	DBS44 - 110V & Castell
*9505.06	D-Tronic & Fortress	*9505.100	DBS44 - 32V & Fortress
*9505.08	Evolution & Castell	*9505.101	DBS44 - 110V & Fortress
*9505.24	Evolution & PP	*9505.102	DBS44 - 32V & PP
*9505.22	Evolution & Fortress	*9505.103	DBS44 - 110V & PP



### BELLTRONIC UNDERGROUND UNIT

This unit is to communicate between the onsetter and the driver. The unit is manufactured in stainless steel and equipped with:

- A push button signalling device to communicate to the driver.
- Evolution DBS44 or D-Tronic PC Board.
- Fitted with either a PP, Castell or Fortress key switch.
- Various audible devices, such as bell, sounder, cybertone, etc.
- The unit is available in either 32V / 110V AC or 32V DC.

**Note:** The unit has a switch off facility feature and always completes every signal rung.

Product Code:	Description:	Product Code:	Description:
*9504.00	D-Tronic & Castell	*9504.99	DBS44 - 32V & Castell
*9504.01	D-Tronic & PP	*9504.100	DBS44 - 110V & Castell
*9504.06	D-Tronic & Fortress	*9504.101	DBS44 - 32V & Fortress
*9504.07	Evolution & Castell	*9504.102	DBS44 - 110V & Fortress
*9504.10	Evolution & PP	*9504.103	DBS44 - 32V & PP
*9504.60	Evolution & Fortress	*9504.104	DBS44 - 110V & PP



### NO.2 BELLTRONIC BANK UNIT

This unit is smaller, more compact and has the same features as that of the Standard Bank Unit. The purpose of this unit is to communicate between the banksman and the driver and is situated on the bank (surface).

- A push button signalling device to communicate to the driver.
- Evolution DBS44 or D-Tronic PC Board.
- Fitted with either a PP, Castell or Fortress key switch.
- Various audible devices, such as bell, sounder, cybertone, etc.
- The unit is available in either 32V / 110V AC or 32V DC.
- This unit is fitted with a "Telltale" sounder.

**Note:** The unit has a switch off facility feature and always completes every signal rung.

Product Code:	Description:	Product Code:	Description:
*9505.02	D-Tronic & Castell	*9505.110	DBS44 - 32V & Castell
*9505.03	D-Tronic & PP	*9505.111	DBS44 - 110V & Castell
*9505.07	D-Tronic & Fortress	*9505.112	DBS44 - 32V & Fortress
*9505.09	Evolution & Castell	*9505.113	DBS44 - 110V & Fortress
*9505.10	Evolution & PP	*9505.114	DBS44 - 32V & PP
*9505.23	Evolution & Fortress	*9505.115	DBS44 - 110V & PP



**NO.2 BELLTRONIC UNDERGROUND UNIT**

This unit is smaller, more compact and has the same features as that of the standard onsets unit. The purpose of this unit is to communicate between the onsetter and the driver and is situated on all the levels. The unit is manufactured in stainless steel and equipped with:

- A push button signalling device to communicate to the driver.
- Evolution, DBS44 or D-Tronic PC Board.
- Fitted with either a PP, Castell or Fortress key switch.
- Various audible devices, such as bell, sounder, cybertone, etc.
- The unit is available in either 32V / 110V AC or 32V DC.

Note: The unit has a switch off facility feature and always completes every signal rung.

Product Code:	Description:	Product Code:	Description:
BELLTRONIC UNDERGROUND UNIT NO.2 - 12 WAY:		BELLTRONIC UNDERGROUND UNIT NO.2 - 15 WAY:	
*9504.03	D-Tronic & PP	*9504.13	D-Tronic & Castell
*9504.02	D-Tronic & Castell	*9504.41	Evolution & Castell
*9504.11	Evolution & Castell	*9504.42	D-Tronic & PP
*9504.12	Evolution & PP	*9504.43	Evolution & PP
*9504.28	D-Tronic & Fortress		
*9504.61	Evolution & Fortress		
*9504.105	DBS44 - 32V & Castell		
*9504.106	DBS44 - 110V & Castell		
*9504.107	DBS44 - 32V & Fortress		
*9504.108	DBS44 - 110V & Fortress		
*9504.109	DBS44 - 32V & PP		
*9504.110	DBS44 - 110V & PP		



**BELLTRONIC UNDERGROUND UNIT** MEN & MATERIAL UNIT 15 WAY

The Belltronic Underground Men & Material unit is the same as the Standard Underground Unit except that it has an additional safety feature which will only allow 4/1, 4/2, 1, 2 and long ring to be transmitted when the unit on the station is in the material mode. This prevents the station gates from being overridden and the conveyance being rung away at full speed. The Unit is equipped with:

- A push button signalling device to communicate to the driver.
- Evolution, DBS44 or D-Tronic PC Board.
- Fitted with either a PP, Castell or Fortress key switch.
- Various audible devices, such as bell, sounder, cybertone, etc.
- The unit is available in either 32V / 110V AC or 32V DC.
- This unit is fitted with a "Telltale" sounder.

Note: The unit has a switch off facility feature and always completes every signal rung.

Product Code:	Description:	Product Code:	Description:
*9504.29	D-Tronic & Castell	*9504.112	DBS44 - 110V & Castell
*9504.47	D-Tronic & PP	*9504.113	DBS44 - 32V & Fortress
*9504.48	Evolution & Castell	*9504.114	DBS44 - 110V & Fortress
*9504.49	Evolution & PP	*9504.115	DBS44 - 32V & PP
*9504.111	DBS44 - 32V & Castell	*9504.116	DBS44 - 110V & PP



**BELLTRONIC BANK UNIT** MEN & MATERIAL UNIT 15 WAY

The Belltronic Bank Men & Material unit is the same as the Standard Bank Unit except that it has an additional safety feature which will only allow 4/1, 4/2, 1, 2 and long ring to be transmitted when the unit on the station is in the material mode. This prevents the station gates from being overridden and the conveyance being rung away at full speed. The Unit is equipped with:

- A push button signalling device to communicate to the driver.
- Evolution, DBS44 or D-Tronic PC Board.
- Fitted with either a PP, Castell or Fortress key switch.
- Various audible devices, such as bell, sounder, cybertone, etc.
- The unit is available in either 32V / 110V AC or 32V DC.
- This unit is fitted with a "Telltale" sounder.

Note: The unit has a switch off facility feature and always completes every signal rung.

Product Code:	Description:
*9504.98	D-Tronic & Castell
*9504.44	D-Tronic & PP
*9504.45	Evolution & Castell
*9504.46	Evolution & PP
*9504.104	DBS44 - 32V & Castell
*9504.105	DBS44 - 110V & Castell
*9504.106	DBS44 - 32V & Fortress
*9504.107	DBS44 - 110V & Fortress
*9504.108	DBS44 - 32V & PP
*9504.109	DBS44 - 110V & PP



**POLYCARBONATE BANK UNIT**

The purpose of this unit is to communicate between the Banksman and the driver and is situated on the bank. The unit is manufactured in polycarbonate and equipped with:

- Push button signalling device to communicate to the driver.
- Evolution, DBS44 or D-Tronic PC Board.
- Fitted with a PP, Castell or Fortress key switch.
- Various audible devices, such as bell, sounder, cybertone, etc.
- Lock & clear lights are fitted behind the lid of the enclosure ensuring its IP65 rating.

The unit is available in either 32V / 110V AC or 32V DC.

Note: The unit has a switch off facility feature and always completes every signal rung.

Various Signalling Units can be manufactured in Polycarbonate as per customer specifications.

Product Code:	Description:
*9504.04	c/w Castell K/Switch
*9504.05	c/w PP K/Switch



**POLYCARBONATE UNDERGROUND UNIT**

The purpose of this unit is to communicate between the Onsetter and the driver and is situated on every level. The unit is manufactured in polycarbonate and equipped with:

- Push button signalling device to communicate to the driver.
- Evolution DBS44 or D-Tronic PC Board.
- Fitted with a PP, Castell or Fortress key switch.
- Various audible devices, such as bell, sounder, cybertone, etc.
- Lock & clear lights are fitted behind the lid of the enclosure ensuring its IP65 rating.

The unit is available in either 32V / 110V AC or 32V DC.  
Note: The unit has a switch off facility feature and always completes every signal rung.

Various Signalling Units can be manufactured in Polycarbonate as per customer specifications.

Product Code:	Description:
*9504.04	c/w Castell K/switch
*9504.05	c/w PP K/Switch



**ELECTRONIC CALL BELL UNIT (ECB)**

This emergency signalling device is situated on every level in a shaft. Fitted with two buttons each behind glass, labelled person and accident to shaft. Breaking the glass and activating the "Accident to shaft" button will immediately stop the winder. The driver will only be able to proceed with operations once the accident has been investigated and cleared by the shaft engineer.

Operation: The unit transmits the following signals:  
Accident to person = 10 Rings, followed by the station (level) ID and repeated.  
Accident to shaft = a long ring, followed by the station (level) ID and repeated.  
A LED light indicates which unit was activated and must be reset at that particular level.  
The unit also has a test facility when doing regular maintenance.

Product Code:	Description:	Product Code:	Description:
*9507.08	32V, D-Tronic PCB	*9507.40	32V, DBS44 PCB
*9507.05	110V, D-Tronic PCB	*9507.41	110V, DBS44 PCB
*9507.00	32V, Evolution PCB		
*9507.01	110V, Evolution PCB		



**ELECTRONIC CALL BELL UNIT (ESCB)**

The ESCB Call Bell Unit is generally the same as the Call Bell (ECB) with an added feature, an additional push button. Once the glass is broken and the button activated, after a 10 second delay a signalling button can be used for signalling the driver. Fitted with two buttons each behind glass, which are labelled accident to person and accident to shaft. Breaking the glass and activating the "Accident to shaft" button will immediately stop the winder.

The driver will only be able to proceed with operations once the accident has been investigated and cleared by the shaft engineer.

Operation: The unit transmits the following signals:  
Accident to person= 10 Rings, followed by the station (level) ID and repeated.  
Accident to shaft= a long ring, followed by the station (level) ID and repeated.  
A LED light indicates which unit was activated and must be reset at that particular level.  
The unit also has a test facility when doing regular maintenance.

**WITH SPECIAL SIGNALLING BUTTON**

Product Code:	Description:	Product Code:	Description:
CALL BEL UNIT (ESCB) DP2:		CALL BELL UNIT (ESCB) DP3:	
*9507.03	32V, D-Tronic PCB	*9507.06	32V, D-Tronic PCB
*9507.23	110V, D-Tronic PCB	*9507.26	110V, D-Tronic PCB
*9507.21	32V, Evolution PCB	*9507.24	32V, Evolution PCB
*9507.22	110V, Evolution PCB	*9507.25	110V, Evolution PCB
*9507.42	32V, DBS44 PCB	*9507.44	32V, DBS44 PCB
*9507.43	110V, DBS44 PCB	*9507.45	110V, DBS44 PCB



**NO.2 ELECTRONIC CALL BELL**

This unit is smaller, more compact and has the same features as that of the Standard Call Bell Unit. This emergency signalling device is situated on every level in a shaft. Fitted with two buttons each behind glass, labelled accident to person and accident to shaft. Breaking the glass and activating the "Accident to shaft" button will immediately stop the winder. The driver will only be able to proceed with operations once the accident has been investigated and cleared by the shaft engineer.

Operation: The unit transmits the following signals:  
Accident to person= 10 Rings, followed by the station (level) ID and repeated.  
Accident to shaft= a long ring, followed by the station (level) ID and repeated.  
A LED light indicates which unit was activated and must be reset at that particular level.  
The unit also has a test facility when doing regular maintenance.

**SMALLER COMPACT UNIT**

Product Code:	Description:
*9507.02	32V, D-Tronic PCB
*9507.17	110V, D-Tronic PCB
*9507.09	32V, Evolution PCB
*9507.04	110V, Evolution PCB
*9507.46	32V, DBS44 PCB
*9507.47	110V, DBS44 PCB



**REMOTE CALL BELL UNIT**

The Remote Call Bell Unit is an extension of a Standard Call Bell Unit (previous page) that is situated at the shaft gate. The unit allows for activation from a position outside of the station area that is behind a traditional shift control gate.

Operation: The unit transmits the following signals:  
 Accident to person = 10 Rings, followed by the station (level) ID and repeated.  
 Accident to shaft = a long ring, followed by the station (level) ID and repeated.  
 A LED light indicates which unit was activated and must be reset at that particular level.  
 The unit also has a test facility when doing regular maintenance.

The Remote Call Bell Unit will only operate if the main Call Bell is equipped for remote facility.

Product Code:	Description:
*9508.00	Remote Call Bell Unit



**VISUAL BELLTRONIC DISPLAY**

The Digital Signalling Display Unit can be retrofitted to any of Deebars's standard Belltronic signalling units.

When a signal is transmitted in addition to the audible sound, the Digital Display Unit will visually show the last signals rung on the LCD display, it also identifies where the signal has come from.

Due to the human element, signals (sounds) can be misinterpreted and often do, causing the operator to inadvertently not act in accordance with the law, which has caused many fatal accidents, this can assist in preventing these.

**VISUAL BELLS**

Product Code:	Description:
*9507.12	Lockbell Display 32V
*9507.15	Lockbell Display 110V
*9507.13	Drivers Display 32V
*9507.16	Drivers Display 110V



**MINE SHAFT EVENT RECORDER**

The Event Recorder is designed to monitor and record various activities pertaining to Shaft Signalling and Safety Devices on all Shaft Stations and at the Winder.

Every signal and activity is monitored and recorded by the Event Recorder. This information can be graphically displayed, archived and printed out as required, thus providing a full history of all shaft station activities.

The Event Recorder can also be fitted with a Tachograph, e-mail and sms facilities as an optional extra.

Product Code:	Description:
*9510.00	1 Winder
*9511.00	2 Winder
*9512.00	3 Winder
*9513.00	4 Winder



**ELECTRONIC SHAFT SIGNALLING SPARES**

A range of additional spares that is available for the Electronic Shaft Signalling, such as:

- Cybertone.
- D-Tone Sounder.
- Buzzer c/w Box and Bracket.
- Range of Switches.
- Solid State Relay

Product Code:	Description:
*9505.33	Buzzer c/w Box & Bracket 32V
*9505.32	Buzzer c/w Box & Bracket 110V
*9517.01	Cybertone 24V DC
*9517.03	Cybertone 32V AC/DC
*9517.02	Cybertone 110V
*3555.00	CR-0202 Switch
*3555.03	CR-0211 Switch
*3555.04	CR-0212 Switch
*3555.05	CR-0213 Switch
*9505.35	D-Tone Sounder 32V
*9505.36	D-Tone Sounder 110V
*9505.38	D-Tone Sounder 220V
*0163.22	Solid State Relay (SSR) 110V



**LOCKBELL RELAY PANEL**

The Deeban Relay Panel's function is to interface between the Winder and the Bell Communication System.

Available either as a:  
- PLC Control Solid State Type  
- Heavy Duty Relay Type

Functions:  
- The relay drives the Lock and Clear Lights on the Bank and on various Levels  
- Brake Interlocking with Bell System  
- Winder brake delays are:  
- Men Mode - 15 Sec delay  
- Material Mode - 5 Sec delay  
- Relocking of Bells if Driver does not respond - 80 Sec delay  
- Adjustable to suit Mine requirements

Product Code:	Description:
*9014.____	Lockbell Relay Panel



**DBS44 PC BOARD**

- The DBS44 PCB is an intelligent signalling card used in Lock and Call Bell units.  
- Increased Ground Plane added to suppress any undesirable noise spikes.  
- Compatibility to existing Deeban PC Boards.  
- Additional external IO available.  
- Robust soldered in CPU, ensures stability.  
- Robust RS485 communication port for programming.  
- Enhanced capacitor value to insure voltage stability during power dips.  
- Bell Type (Lockbell or Callbell) to be selected with jumpers.  
- Switch mode power supply to improve efficiency and to accept a broader range

Product Code:	Description:
LOCKBELL / CALL BELL:	
*0163.34	32V PCB
*0163.35	110V PCB



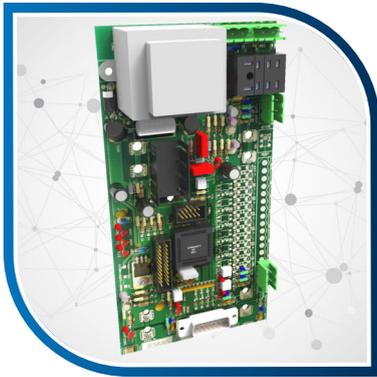
**D-TRONIC PC BOARD**

The D-Tronic PCB is an intelligent signalling card used in Lock and Call Bell units.

The PCB is fitted with an Integrated Circuit (IC) and is factory set to be used either as a Lock or a Call bell card.

Material mode - a safety feature only allows 4/1, 4/2, 1, 2 and long ring.  
Inhibit Circuit - built in safety feature prevents over-ringing of signals.  
Millisecond Spacing - PCB are factory pre-set to the industry standard.  
Switch off facility - designed to ensure that the signal rung is completed.

Product Code:	Description:
LOCKBELL:	
*0163.02	32V PCB
*0163.04	110V PCB
MEN-MATERIAL	
*0163.03	32V PCB
*0163.05	110V PCB
CALL BELL:	
*0163.02	32V PCB
*0163.04	110V PCB



**EVOLUTION PC BOARD**

The Evolution PCB, an intelligent signaling device, is microprocessor based and as a result can be changed from a Lock Bell card to a Call Bell PCB by utilising a portable programming device; this can be done on site if necessary.

Due to its versatility, the Station ID of the Card can also be changed to suit

Product Code:	Description:
LOCKBELL / CALLBELL:	
*0163.07	32V PCB
*0163.08	50V PCB
*0163.09	110V PCB



**DBS44 PROGRAMMER**

The DBS44 Hand Held Programmer is used to program the DBS44 PC Board to meet the mines specifications for example.

From Lock Bell to Call Bell.  
Changing a number, i.e 11 to ring 13.

Product Code:	Description:
*0163.30	DBS44 Programmer



**EVOLUTION PROGRAMMER**

The hand held Programmer is used to program the Evolution Card to meet the mines specifications for example:

- From Lock Bell to Call Bell.  
- Changing a number, i.e. 11 to ring 13.  
- Adding another button will require the PC Board to be re-programmed.

Product Code:	Description:
*0163.19	Evolution Programmer

Underground communications with the surface was an urgent factor when considering the isolation and other problems with which the miners could be confronted. Deebbar developed its own range of PABX and Intercom type telephones.

"ENSURING YOUR SAFETY"



**WALLCOMM MK1**

Robust IP65 rated, 2 Wire Intercom System with Battery Backup designed for arduous conditions.

- Available in Mild Steel or Stainless Steel
- The PCB and Battery is enclosed in a internal enclosure
- Built in charger with NiCad Batteries, Standby time ±10 Hours
- Transmit and Receive Levels adjustable
- Unlimited number of intercoms on a system
- Tone calling & Paging facility
- Supply Voltage 24V DC, 110V/220V AC
- Suggested Cable: Single or Individually Screened Twisted Pair Cable

Product Code:	Description:
*9400.00	MK1 Mild Steel 110/220V
*9401.00	MK1 Stainless Steel 110/220V



**WALLCOMM MK2 - INTRINSICALLY SAFE**

Robust ,IP65 rated, 2 Wire intrinsically safe Intercom System for gases such as methane, petrol gases, ethylene group gases and hydrogen group gases, Also suited for Class 1 division 1 or 2 and Class 2 division 1 or 2 situations.

- Each unit has a Battery Backup, Standby time ±10 Hours
- Available in Mild Steel or Stainless Steel
- The PCB and Battery is enclosed in a internal enclosure
- Built in charger with NiCad Batteries
- Transmit and Receive Levels adjustable
- Unlimited number of intercoms on a system
- Tone calling & Paging facility
- Supply Voltage 24V DC, 110V/220V AC
- Suggested Cable: Single or Individually Screened Twisted Pair Cable

Product Code:	Description:
*9403.00	MK2 Mild Steel Intrinsically Safe
*9404.00	MK2 Stainless Steel Intrinsically Safe



**WALLCOMM HIGH OUTPUT**

High Output, IP65 Intercom Unit is fitted with a Flashing Beacon and an Audible Siren and used mainly in noisy environments where the flashing beacon and siren indicates the call.

- The unit is fitted with Battery Backup, Standby time ±10 Hours
- Available in Mild Steel or Stainless Steel
- The PCB and Battery is enclosed in a internal enclosure
- Built in charger with NiCad Batteries
- Transmit and Receive Levels adjustable
- Unlimited number of intercoms on a system
- Tone calling & Paging facility
- Supply Voltage 24V DC, 110V/220V AC
- Suggested Cable: Single or Individually Screened Twisted Pair Cable

Product Code:	Description:
*9425.01	Mild Steel (High Output)
*9425.05	Mild Steel (High Output) c/w Flashing Beacon & Siren
*9425.04	Stainless Steel (High Output)
*9425.06	Stainless Steel (High Output) c/w Flashing Beacon & Siren



**POLYCOMM**

A two Wire Intercom System with Battery Backup. Manufactured in a DMC Enclosure which is IP65 Rated.

- The Intercom can also be fitted with a Handset
- Built in charger with NiCad Batteries, Standby time ±10 Hours
- Transmit and Receive Levels adjustable
- Unlimited number of intercoms on a system
- Tone calling & Paging facility
- Supply Voltage 24V DC, 110V/220V AC
- Suggested Cable: Single or Individually Screened Twisted Pair Cable

Product Code:	Description:
*9402.01	Polycomm with Handset
*9402.00	Polycomm without Handset



**WINCH-COM**

A two Wire Intercom System with Battery Backup. Manufactured in a DMC Enclosure which is IP65 Rated and then fitted in a s/steel housing with a canopy.

- Built in charger with NiCad Batteries, Standby time ±10 Hours
- Transmit and Receive Levels adjustable
- Unlimited number of intercoms on a system
- Tone calling & Paging facility
- Supply Voltage 24V DC, 110V/220V AC, 525V AC

Product Code:	Description:
*9407.02	Winch-com



**DEECOM 104**

Robust and Tamperproof Intercom System. A two Wire Intercom System with Battery Backup designed for arduous conditions.

- Manufactured in Stainless Steel and epoxy powder coated.
- Fitted with Neoprene Handset & stainless steel cord
- Built in charger with NiCad Batteries, Standby time ±10 Hours
- Transmit and Receive Levels adjustable
- Unlimited number of intercoms on a system
- Tone calling & Paging facility
- Supply Voltage 24V DC, 110V/220V AC
- Suggested Cable: Single or Individually Screened Twisted Pair Cable

Product Code:	Description:
*9407.01	Deecom 104 with handset
*9407.00	Deecom 104 without handset



**DEECOM 101**

The Deecom 101 is a Robust PABX/Auto type Telephone.

- Stainless Steel powder coated enclosure
- Concealed mounting to eliminate vandalism.
- Fitted with a Neoprene Handset.
- Stainless Steel Robust cord.
- Push Button in place of switch-hook to eliminate the possibility of the instrument being left inoperative.
- Recessed keypad and button to eliminate abuse.

Product Code:	Description:
*9414.00	Push Button Telephone c/w Handset

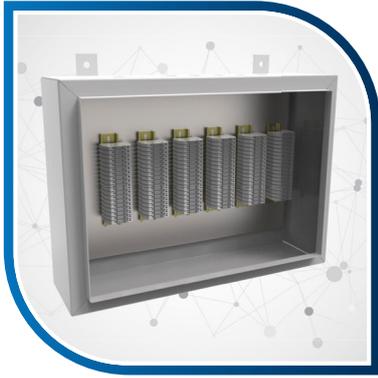


**TELEPHONE SPARES**

A range of additional spares that is available for the Wallcomm and Deecom range of products, such as:

- PC Boards for the Wallcomm / Polycomm / Deecom104 / Deecom 101.
- Speakers 5Watt 8 Ohm.
- Transmitter / receiver.
- Power Supplies.
- Nickel Cadmium Battery.

Product Code:	Description:
*0710.00	PC Board for Wallcomm MK1
*0710.02	PC Board for Wallcomm High Output
*0710.00	PC Board for Deecom 104
*0746.00	PC Board for Deecom 101
*0704.00	Speaker 4" 5W 8 Ohm
*0705.00	Microphone Grill
*0706.00	Speaker Grill
*0711.00	Transmitter / Receiver
*0712.00	Power Supply 110/220V DC
*0728.00	Nickle Cadmium Battery



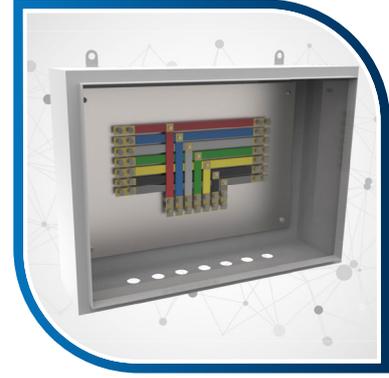
**TELEPHONE DISTRIBUTION BOX**

Telephone Distribution Boxes with Disconnect Terminals.

- Enclosure manufactured in stainless steel.
- Supplied as 10/20/30/40/50 pair or to suit customer's specification.
- Fitted with Knife action Din Rail Disconnect Terminals or
- Krone terminals

NB Door removed for display purposes

Product Code:	Description:
*9163.00	10 Pair c/w Din Rail Terminals
*9162.00	20 Pair c/w Din Rail Terminals
*9164.00	30 Pair c/w Din Rail Terminals
*9165.00	40 Pair c/w Din Rail Terminals
*9167.00	50 Pair c/w Din Rail Terminals



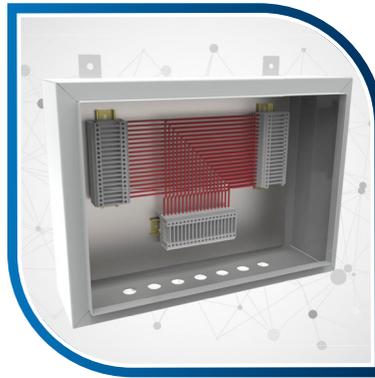
**BELL DISTRIBUTION BOX - BUSBAR**

Busbar type Used to terminate shaft bell cables on each level in a mine shaft.

- Enclosure manufactured in stainless steel.
- Insulated colour coded Bus bars.
- Brass slide link terminals fitted to disconnect line for testing.
- Supplied in 7/9/12 and 19 way or to customer's specification.

NB Door removed for display purposes

Product Code:	Description:
*9152.00	7 Way, c/w Busbars & Slide Links
*9156.00	12 Way, c/w Busbars & Slide Links
*9160.00	19 Way, c/w Busbars & Slide Links



**BELL DISTRIBUTION BOX - WIRED**

Wired type Used to terminate shaft bell cables on each level in a mine shaft.

- Enclosure manufactured in stainless steel.
- Din Rail mounted terminals fitted to disconnect line for testing.
- Insulated wires. Pre-numbered
- Supplied standard 7/9/12/19/27 and 37 way or to customer's specifications.

NB Door removed for display purposes

Product Code:	Description:
*9150.00	7 Way, in-out-local, wired to terminals
*9154.00	12 Way, in-out-local, wired to terminals
*9158.00	19 Way, in-out-local, wired to terminals

Illumination plays a critical role in mining because miners depend on proper illumination to safely perform their work and to see various mine and machinery-related hazards. Deebbar offers various forms of mine lighting and indication as required in today's mining environments.



### D-LITE SINGLE LENS

This single Lens D-Lite is used for indication, mainly in a mining or harsh environment.

This energy efficient unit is available in various colours and is IP68 rated and robust in its design, being:

- Waterproof, shockproof and corrosion proof
- Maintenance free.
- Range of Switches.

Other colours available on request.

Product Code:	Description:
*9139.11	LED Red 24V / 48V
*9139.14	LED Red 110V - 220V
*9139.12	LED Green 24V / 48V
*9139.15	LED Green 110V - 220V
*9144.03	LED White 24V / 48V
*9139.77	LED White 110V
*9144.04	LED White 220V



### ROBOT D-LITES

Used mainly in mines or in harsh environments for Robot Indication. The LED PCB is encapsulated into the Terluran ABS housing with an epoxy resin making the product IP68.

This D-Lite is robust, waterproof, shockproof, corrosion proof and energy efficient.

This unit can be supplied in the following format:

- Standard red & green lens - cross & tick (Cross in red and tick in green)
- Stop & Walk (Stop in Red and Walk in Green)

Two units bolted together make up a double aspect (front & back). Both the cross & tick and the stop & walk can be supplied in a vertical format with a protection hood.

Product Code:	Description:
*9139.01	Single Aspect (LED) 24V / 48V
*9139.04	Single Aspect (LED) 110V - 220V
*9138.01	Double Aspect (LED) 24V / 48V
*9139.02	Double Aspect (LED) 110V - 220V

Electrical Specification 21mA @ 110V

Current Consumption 25mA @ 220V



### LED CLUSTER LIGHTS

This 16 LED cluster is used for illumination on Belltronic Lockbell signalling units in the Deebbar Pilot Light

Available in either a B22 bayonet base or E27 screw base.  
Available in either red, green or amber LED.

Product Code:	Description:
*0106.02	32V Red B22
*0106.03	32V Green B22
*0105.05	110V Red B22
*0105.04	110V Green B22
*0106.06	220V Red B22
*0106.07	220V Green B22



### MINI INDICATION LIGHTS

This single Lens indication light is used on Lockbell units for mine signalling.

This energy efficient unit is available in various colours and is IP68 rated and robust in its design, being:

- Waterproof, shockproof and corrosion proof
- Maintenance free.
- Available in 24-48V, 110V, 220V.

Product Code:	Description:
*0105.08	MIL Red 24-48V
*0105.09	MIL Green 24-48V
*0105.07	MIL Red 110V
*0105.06	MIL Green 110V
*0105.10	MIL Red 220V
*0105.11	MIL Green 220V



**BEACON SCATTER LIGHTS - c/w STUD**

Fully encapsulated in a polycarbonate transparent housing, the unit is visible at 360°.

The unit can be supplied in flashing or non-flashing. Fitted with a 16mm stud and lock nut ensures robust mounting.

The LED PCB is encapsulated into the housing with a clear epoxy resin ensuring IP68 status. Available in various colours and voltages.

Product Code:	Description:
*9139.32	220V AC Flashing Red (Big)
*9139.34	220V AC Flashing Green (Big)
*9139.72	220V AC Flashing Red (Small)
*9139.38	220V AC Flashing Green (Small)

[Other voltage on request](#)



**BEACON SCATTER LIGHTS - ES TYPE**

Fully encapsulated in a polycarbonate transparent housing, the unit is visible at 360°.

The unit can be supplied in flashing or non-flashing. Fitted with a E27 screw base. The LED PCB is encapsulated into the housing with a clear epoxy resin ensuring IP68 status.

Available in various colours and voltages.

Product Code:	Description:
*9139.81	Scatter Light ES Type



**REFUGE BAY LIGHT**

The unit consists of an Enclosure with the word REFUGE BAY engraved on an Opaque Perspex.

In the case of an emergency, the remote emergency switch which can be situated in the Refuge Bay can be activated, lighting up the Refuge Bay Light, this will also activate the siren and beacon flashing light. In the event of a power failure, the units automatically lights up with a siren and flashing lights. The unit will visually and audibly indicate the position of the Refuge Bay to any rescuers. The unit is fitted with a battery backup of up to 10 hours in the event of a power failure.

Product Code:	Description:
*9503.02	110V AC Unit
*9503.00	220V AC Unit



**DANGER INDICATION BOX**

The Danger Box enclosure is manufactured in stainless steel and fitted with E27 ES porcelain lamp holders wired to a terminal lock to accommodate 3 x ES lamps.

Danger/Gevaar/Ingozi is silk screened on to an opaque perspex.

Product Code:	Description:
*9134.00	Single Aspect
*9135.00	Double Aspect



**LEVEL INDICATION BOX**

The Level Indication Box enclosure is manufactured in stainless steel and fitted with E27 ES porcelain lamp holders wired to a terminal block to accommodate 3 x ES lamps.

Any inscription to suit customer's specification can be silk screened on to the opaque perspex

Product Code:	Description:
*9134.00	Single Aspect
*9135.00	Double Aspect



**ROBOT BOX - LED**

**Single Aspect**

This Robot Box is manufactured in stainless steel and fitted with a red & green lens on either side. Behind each lens the unit has two LED, PC Boards.

**Double Aspect**

This unit is similar to the above single aspect but has two additional lenses on the opposite side of the enclosure making it visible from both sides.

Product Code:	Description:
*9122.00	Double Aspect (LED) 24V / 48V
*9123.01	Double Aspect (LED) 110V
*9123.18	Double Aspect (LED) 220V
*9123.00	Single Aspect (LED) 24V / 48V
*9123.02	Single Aspect (LED) 110V
*9123.03	Single Aspect (LED) 220V



**ROBOT BOX - INCANDESCENT**

**Single Aspect**

This Robot Box is manufactured in stainless steel and fitted with a red & green lens on either side. Behind each lens the unit has E27 porcelain holders to accommodate 2 incandescent lamps or energy saving lamps.

**Double Aspect**

This unit is similar to the above single aspect but has two additional lenses on the opposite side of the enclosure making it visible from both sides.

Product Code:	Description:
*9128.00	Single Aspect Incandescent
*9129.00	Double Aspect Incandescent



**VML LIGHTING**

The VML fittings operate with an Electronic Ballast and suitable for 4 pin 13Watt energy saving compact fluorescent lamps and is available as follows:

- VML-ES for use on Existing Fittings
- VML-NI for use in new installations

Product Code:	Description:
*9703.01	VML - ES
*9703.02	VML - NI



**RUBBER HAULAGE LIGHTING HOLDER**

The Haulage Lighting Holder is manufactured from hard moulded, non-toxic and flame proof rubber and can be supplied with either:

- ES Lamp Holder to accommodate an energy saving/ standard lamp or
- 5 Amp or 16 Amp 3 Pin Socket to plug in an alternative fitting

These holders can be fitted to make up lengths of lighting cable with holders fitted at any specified spacing to suit customer's exact specification.

The armouring of cable is not cut which ensures earth continuity and overall mechanical strength throughout the length of the cable.

Product Code:	Description:
*9700.11	Holder c/w Edison Screw
*9700.12	Holder c/w 5 Amp Socket
*9700.13	Holder c/w 16 Amp Socket



**ALUMINIUM HAULAGE LIGHTING BOX**

The Haulage Lighting Box is a cast aluminium holder and is fitted with an E.S Lamp Holder to accommodate an energy saving / standard lamp.

The Haulage Lighting Box has a mechanical gland on each end for terminating to cable.

These holders can be fitted to make up lengths of lighting cable with holders fitted at any specified spacing to suit customer's exact specifications.

Product Code:	Description:
*9700.00	2 Way
*9701.00	3 Way
*9702.00	4 Way



**THRU BOX - HAULAGE LIGHTING BOX**

The Haulage Lighting Holder is a cast aluminium holder and is fitted with either:

- E.S Lamp Holder to accommodate an energy saving / standard lamp or
- 16 Amp 3 Pin Socket.

These holders can be fitted to make up lengths of lighting cable with holders fitted at any specified spacing to suit customer's exact specifications.

The armouring of cable is not cut which ensures earth continuity and overall mechanical strength throughout the length

Product Code:	Description:
*9713.00	Aluminium Thru Box - ES
*9713.01	Aluminium Thru Box - 16 Amp Socket



**ALUMINIUM BLASTING BOX**

The Blasting Box is used as a connection box when doing blasting underground. The unit is manufactured in cast aluminium with 2 mechanical glands for cable termination and an insulated lid with "quick connecting" spring loaded brass or stainless steel terminals.

Product Code:	Description:
*9711.00	c/w Glands
*9710.00	w/o Glands



**CCG BLASTING BOX**

This Blasting Box is also used as a connection box when blasting underground. The unit is manufactured in cast aluminium with 2 mechanical glands for cable termination with the "quick connecting" spring loaded brass or stainless steel terminals fitted through insulated bushes in the side of the unit.

Product Code:	Description:
*9711.04	Blasting Box c/w Stainless Steel Terminal

A key switch is a switch that can be activated only by the use of a key. They are usually used in situations where access needs to be restricted to the switch's functions. Deebbar offer 3 ranges of standard keyswitches; Castell, Fortress and PP Keyswitches.



**CASTELL KEYS**

Manufactured in brass making it ideally suited to use in harsh or corrosive environments.

[Other Series on Request](#)



**CASTELL LOCK - C/W SWITCH**

Suitable for insulating power to equipment or machinery.

Manufactured in brass for use in corrosive areas, this lock can be fitted with a variety of switch configurations. Standard with 1 x NO Contact.

[Other Series on Request](#)



**CASTELL LOCK - C/W SWITCH & KEY**

Suitable for insulating power to equipment or machinery.

Manufactured in brass for use in corrosive areas, this lock can be fitted with a variety of switch configurations. Standard with 1 x NO Contact.

[Other Series on Request](#)

Product Code:	Description:
*0109.02	L1 Castell Key
*0110.02	L2 Castell Key
*0111.02	L3 Castell Key
*0112.02	L4 Castell Key
*0113.02	L5 Castell Key

Product Code:	Description:
*9519.00	L1 Castell Key c/w Switch
*9519.01	L2 Castell Key c/w Switch
*9519.02	L3 Castell Key c/w Switch
*9519.03	L4 Castell Key c/w Switch
*9519.04	L5 Castell Key c/w Switch

Product Code:	Description:
*9519.00	L1 Castell Key c/w Switch & Key
*9519.01	L2 Castell Key c/w Switch & Key
*9519.02	L3 Castell Key c/w Switch & Key
*9519.03	L4 Castell Key c/w Switch & Key
*9519.04	L5 Castell Key c/w Switch & Key



**PP KEYS**

Brass plated keys for use on PP Locks used in Shaft Signalling Units. Key directly drives the Switch Shaft.

Product Code:	Description:
*0193.01	PPA Key
*0193.03	PPB Key
*0193.05	PPC Key
*0193.07	PPD Key
*0193.09	PPE Key
*0193.11	PPF Key
*0193.13	PPG Key
*0193.15	PPH Key



**PP LOCKS - C/W SWITCH**

The PP Locks are manufactured in brass and are electro plated and is supplied as a standard with a switch with a N/O contact, however the key switch can be supplied with special switch ratings and/or contact arrangement.

Product Code:	Description:
*9518.24	PPA Lock c/w Switch
*9518.25	PPB Lock c/w Switch
*9518.26	PPC Lock c/w Switch
*9518.27	PPD Lock c/w Switch
*9518.28	PPE Lock c/w Switch
*9518.29	PPF Lock c/w Switch
*9518.30	PPG Lock c/w Switch
*9518.31	PPH Lock c/w Switch



**PP LOCKS - C/W SWITCH & KEY**

The PP Locks are manufactured in brass and are electro plated and is supplied as a standard with a switch with a N/O contact, however the key switch can be supplied with special switch ratings and/or contact arrangement.

Due to it's design, the key drives the switch shaft directly.



**CL FORTRESS KEYS**

**Standard Keys**

Fortress Keys are manufactured from 316 Stainless Steel and have over 200 000 different combinations. Each different key combination is allocated with an engraved code onto the lock & key, of up to 30 characters (3 lines of 10 characters). Low profile configuration keys are also available.

**Low Profile Keys**

Low profile configurations are also available.



**CL FORTRESS LOCK - C/W SWITCH**

Fortress Key Switch is suitable for Isolation, Switching Current or Isolating power to machinery. Direct Drive Operation – positively opens contacts. Special switching rating and / or contact arrangements available on request.

Product Code:	Description:
*9518.16	PPA Lock c/w Switch & Key
*9518.17	PPB Lock c/w Switch & Key
*9518.18	PPC Lock c/w Switch & Key
*9518.19	PPD Lock c/w Switch & Key
*9518.20	PPE Lock c/w Switch & Key
*9518.21	PPF Lock c/w Switch & Key
*9518.22	PPG Lock c/w Switch & Key
*9518.23	PPH Lock c/w Switch & Key

Product Code:	Description:
STANDARD KEY	
*3600.00	Standard CL Key
LOW PROFILE KEYS	
*3600.05	Low Profile CL Key

Product Code:	Description:
*3903.08	Key switch 4 Pole 2N/O & 2N/C - CR-0213



**CL FORTRESS LOCK - C/W SWITCH & KEY**

Fortress Key Switch is suitable for Isolation, Switching Current or Isolating power to machinery. Direct Drive Operation – positively opens contacts. Special switching rating and / or contact arrangements available on request.

Product Code:	Description:
*3903.01	Key switch 1 Pole Off/On - CR-0202
*3903.02	Key switch 2 Pole Off/On - CR-0211
*3903.03	Key switch 2 Pole 1N/O & 1N/C - CR-0212
*3903.04	Key switch 4 Pole 2N/O & 2N/C - CR-0213



**GATE INTERLOCKS**

The Gate Interlock Key Switch is a Castell Lock which operates both clock & anti-clockwise. Fitted with a switch with varying contacts used in Belltronic shaft signalling for Men-Material Switching.

See technical write up on Men-Material Switching.

Product Code:	Description:
*9518.13	L11 Gate Interlock c/w Switch & Key
*9518.14	L12 Gate Interlock c/w Switch & Key
*9518.15	L13 Gate Interlock c/w Switch & Key

Deebar have developed a range of Station Stopping Devices as well as shaft gate locks which electrically and mechanically interlock the Shaft Bells to the Safety Devices, this system is covered by Patents and ensures complete safety.



**SLAM-IT GATE LOCK** (PATENT NO. 2005/07038)

The "Slam-It" Station Gate Lock is designed specifically to prevent a double operation e.g. Once the Onsetter / Banksman has rung the conveyance away he can enter the conveyance and pull the Station Gate closed which then automatically locks the Station Gate. The Slam-It lock can be interlocked to the Winder Safety Circuit by means of the integrated magnetic switch. Additional contacts on the magnetic switch can be used to monitor the status of the gate i.e. open or closed.

- The entire lock is manufactured from stainless steel.
- Avoids unauthorised entry.
  - Tamperproof.
  - Access from both sides.
  - Low Maintenance.

Product Code:	Description:
*9148.15	Slam-It Gate Lock w/o Reed Switch
*9148.17	Slam-It Gate Lock c/w Reed Switch
*9148.02	Slam-It Gate Lock Key
*9148.20	Reed Switch for Slam-It



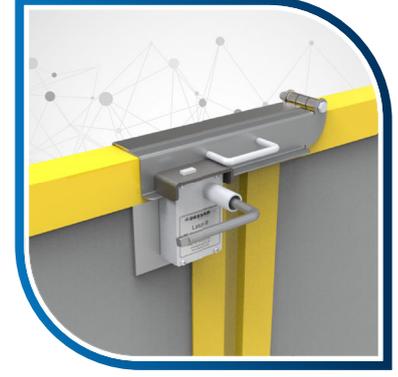
**LOCK-IT GATE LOCK**

The "Lock-It" is similar to the Slam-It. It has the facility to interlock the station gate with the Belltronic lockbell unit, thus increasing the safety in the shaft area.

Additional contacts can be used to monitor the status of the Gate i.e. open or closed.

Various key options available.

Product Code:	Description:
*9148.07	Lock-It c/w PP Lock & Key
*9148.25	Lock-It c/w Fortress Lock & Key



**LATCH-IT GATE LOCK**

The Latch-It Gate Lock is designed specifically for applications where there are two gates each hinged on a post, without a centre post. Operation: Align the two gates up and "drop" the Latch-It Gate Lock over the two gates which then automatically locks the gates. The Latch-It Gate Lock can be interlocked to the winder safety circuit by means of an integrated Magnetic Switch.

Additional contacts can be used to monitor the status of the Gate i.e. open or closed

Product Code:	Description:
*9148.08	Latch-It Gate Lock



**SLIDE-IT GATE LOCK**

The "Slide-It" is similar to the Slam-It except that it is used for sliding gates. It has the facility to interlock the station gate with the Belltronic lockbell unit, thus increasing the safety in the shaft area.

Product Code:	Description:
*9148.11	Slide-It Gate Lock c/w Fortress Lock & Key



**DEELOCK UNIT** (PATENT NO. 98/8180)

This Unit interlocks the Bell System with various Station Safety Devices to prevent the unintentional opening and closing of safety devices to the shaft, thus providing safety when moving underground vehicles in the shaft area. The Deelock Safety System has been designed to ensure that the responsible person (Onsetter/Banksman) follows a set procedure when operating safety devices on the specific Statio. The system also ensures that the responsible person cannot leave the Station if the safety devices are not in a safe position.

When ordering quote 9000... followed by the key number required

Product Code:	Description:
*9000.02	Single Unit (N)
*9000.01	Double Unit (N)
*9000.__	Standard (A)



**LOCK N LOAD**

The Lock N Load consists of a power pack and clamps which holds a cage steady during the transfer of men and / or material. The clamps release their grip at a controlled rate to allow the rope stretch to be taken up smoothly.

Product Code:	Description:
TBA	TBA



**D.AM GARD**

The new D.AM Gard Farm Gate Lock can be fitted to mining Farm Gates and can be interlocked to the Shaft Signalling Unit and the Interlocking Panel to provide the ultimate in safety.

The lock is a heavy-duty Fortress Amgard lock that has been tested to over 1 million operations and is rated Ip67. The heavy-duty tongue unit has a misalignment tolerance of +/- 12mm and locks into the head with a Retention Force of 10 000 N

The lock is encased in a robust steel housing for added protection.

The key to operate the D.AM Gard Farm Gate lock is the authorised Onsetter's key, which ensures that the gate is operated by the authorised person.

Product Code:	Description:
*9000.82	D.AM Gard



**DEEBAR STATION STOP BLOCK**

Station Stopping Devices can be installed on each underground level & bank providing safety when moving rolling stock in the shaft area.

The unit is extremely robust, manufactured from structural steel; the device can be coupled to a centre column or used independently.

The centre column incorporates Belltronics (shaft bells) which electro mechanically interlocks the Station Stopping Device to the Deelock Safety System for maximum shaft safety.

The Station Stopping Device can be operated manually or pneumatically.

This product is site specific and therefore each enquiry will require a detailed quotation.



**INTERLOCKING PANEL**

The Stop Blocks are interlocked with the lockbell system, and therefore the conveyance has to be positioned on the bank or underground stations to operate the Stop Blocks. The onsetter / banksman will only be able to operate the Stop Block system once the onsetter's / banksman's key is placed and turned on in the lockbell system.

A push button on the Deebor Interlocking Panel will activate the pneumatic solenoid switch which in turn will activate the direction control valve for up or down movement of the stop blocks. Additional contacts can be used to monitor the status of the Gate i.e. open or closed.

Various key options available.

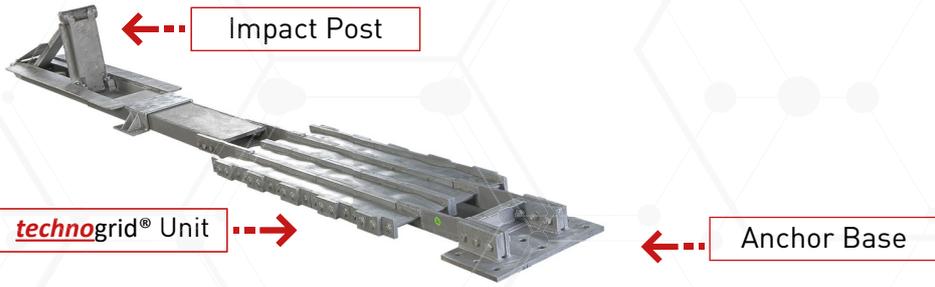


**PNEUMATIC PANEL**

The Deebor Stop Block shaft safety device is pneumatically operated, interlocked with the lockbell (Belltronics) and provides the ultimate in shaft safety during loading and off-loading operations as well as slinging operations. These operations are all controlled via the Deebor Interlocking Panel that is situated adjacent to the lockbells (Belltronics).

The Interlocking Panel activates the equipment in the Pneumatic Panel which consists of a Solenoid and a FRL (Filter / Regulator / Lubricator).

Deebar have officially been appointed the Distributor of the Technopost® Station Stopping Device.



120kJ **technopost**® - Station Stopper

At the heart of the station stopper device, is the **technogrid**® energy absorbing system. Each **technopost**® station stopper has one **technogrid**®.

The **technogrid**® is a strain energy absorption device that will absorb the kinetic energy a moving object (like a Loco or a hopper) by deforming a metal grid of known design and characteristics through a stroke deformation of predicted value.

The **technogrid**® unit is centrally mounted flush between the rails.

One end of the **technogrid**® is anchored to the footwall While the "impact post" is attached to the other end.

## FEATURES of the **technopost**®

- ✓ Minimal excavations
- ✓ Easy to install
- ✓ The **technopost**® is installed between the rails
- ✓ Minimal drainage requirements
- ✓ Controlled deceleration (less than 1g)
- ✓ Low maintenance
- ✓ Can be retrofitted
- ✓ Cost effective
- ✓ Impact energy is safely dissipated
- ✓ Only the **technogrid**® itself and the drive shaft need replacing after a full impact
- ✓ Over 200 units have been supplied throughout Africa
- ✓ Most Mining Houses in Southern Africa have approved **technopost**®
- ✓ 3 common options available:
  - 60kJ **technopost**®
  - 120kJ **technopost**®
  - 300kJ **technopost**®



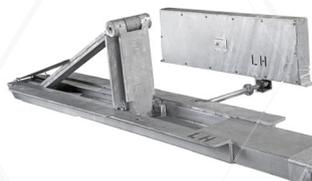
120kJ – 650mm Stroke **technogrid**®

The impact post is designed to fold flat between the rails to allow traffic flow. The control of the system can be interlocked into the existing station stopping devices and cage winder interlocking systems.

The impact post is always in the up position and has to be lowered by activating a solenoid valve to allow traffic to pass over the device. If the power source is interrupted while the impact post is in the lowered position, the impact post will automatically fail to the safe 'up position'.

During an impact, the drive shaft coupling will 'shear off' and allow the **technogrid**® to 'open up'.

Impact Post Default Position



Impact Post Lowered Position



Control Box



The impact post control can be achieved with pneumatic or hydraulic actuators driving the shaft coupled to the impact post through 90 degrees rotation.

Technopost® Option	Straight track length required for installation	Maximum width of Technopost®	Stroke length on impact	Installation depth from top to rail
120kJ	6.4m	690mm	500mm	120mm
300kJ	10.5m	540mm	1 500mm	120mm
120kJ short	4.1m	690mm	500mm	220mm

# LOCK N LOAD

CONVEYANCE CHAIRING SYSTEMS



**Left View**

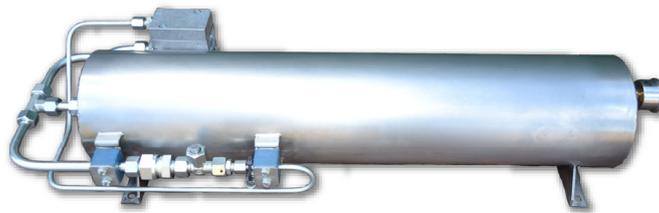


**Back View**



**Right View**

The Lock N Load consists of a power pack and clamps which hold a conveyance steady during the transfer of men and / or material. The clamps release their grip at a controlled rate to allow the rope stretch to be taken up smoothly.



**Power Pack**

## HOW IT WORKS

When the cage is in position, the station air supply quick coupler is connected to the Lock N Load connection on the conveyance. The power pack (air/oil intensifier) boosts the hydraulic pressure up to the required pressure. The pump stalls and clamp force is maintained indefinitely. This operation usually takes about 10 seconds for the pump to boost the pressure to full clamping force.

When loading or unloading of the conveyance is completed, the station air supply is removed, resulting in a rapid loss of air pressure in the power pack. This starts the decompression cycle, which takes about ten seconds. As the oil pressure drops, the clamps release their grip at a controlled rate and the conveyance slides smoothly to its new position in the shaft. The clamp arms will then fully retract, thus allowing the conveyance to be moved.

## BENEFITS

 Safe Transfer of men and material

 The system can be complemented with an EFA System

 Time saving, as re-decking of the cage will not be necessary during loading of men and material

 Quick and easy to use; single person operation

 Can be used equally well on steel, rope, rail and wood guides

 No Shaft obstruction

Deebar are fully equipped with a light steel fabrication department, specialising in producing quality mild steel and stainless steel enclosures, as well as any other specially designed product to meet the customers exact requirements.

Using mild steel, galvanized steel, 3CR12, stainless steel, Deebars sheet metal department manufactures Electrical Enclosures, Control Boxes, Cabinets, etc. Catering mainly for the Electrical Communication, Mining, Electrical and Associated industries.

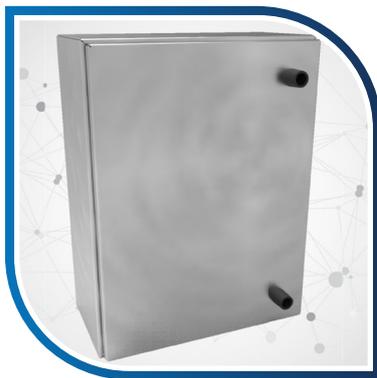
- Enclosures are manufactured either to IP55 or IP65 standards.

All products are manufactured from quality material, ensuring quality and strength throughout.

**Finishes include:** Powder Coating, Plain Stainless Steel or Brush finish.

**Enclosures and products made from**

- Mild Steel
- 3CR12 Stainless Steel
- 304 Stainless Steel
- 316 Stainless Steel



**STANDARD MILD STEEL ENCLOSURES**

The Standard IP55 Mild Steel enclosure is fitted with:

- Concealed hinges.
- Removable Gasket Gland Plate (Optional)
- Chassis
- Earth Studs
- 6mm<sup>2</sup> catches (25mm Ø mounting)
- Supplied with Accessory Kit which Includes Mounting Brackets
- Painted Electric Orange

**IP55 STEEL ENCLOSURE**

The IP55 enclosure is powder coated electric orange and is equipped with:

- Loose bolt on wall mounting brackets
- Concealed hinges
- Drive locks 6mm
- Earth stud
- 6mm<sup>2</sup> catches (25mm Ø mounting)
- Enclosures can also be supplied with a glass door and inner door kit (painted white).

**IP65 STEEL ENCLOSURE**

The IP 65 enclosure is powder coated electric orange and is equipped with:

- Loose bolt on wall mounting brackets
- Concealed hinges.
- Drive locks 6mm
- Earth stud
- Enclosures can also be supplied with a glass door and inner door kit (painted white).

**SPECIAL OFFER**

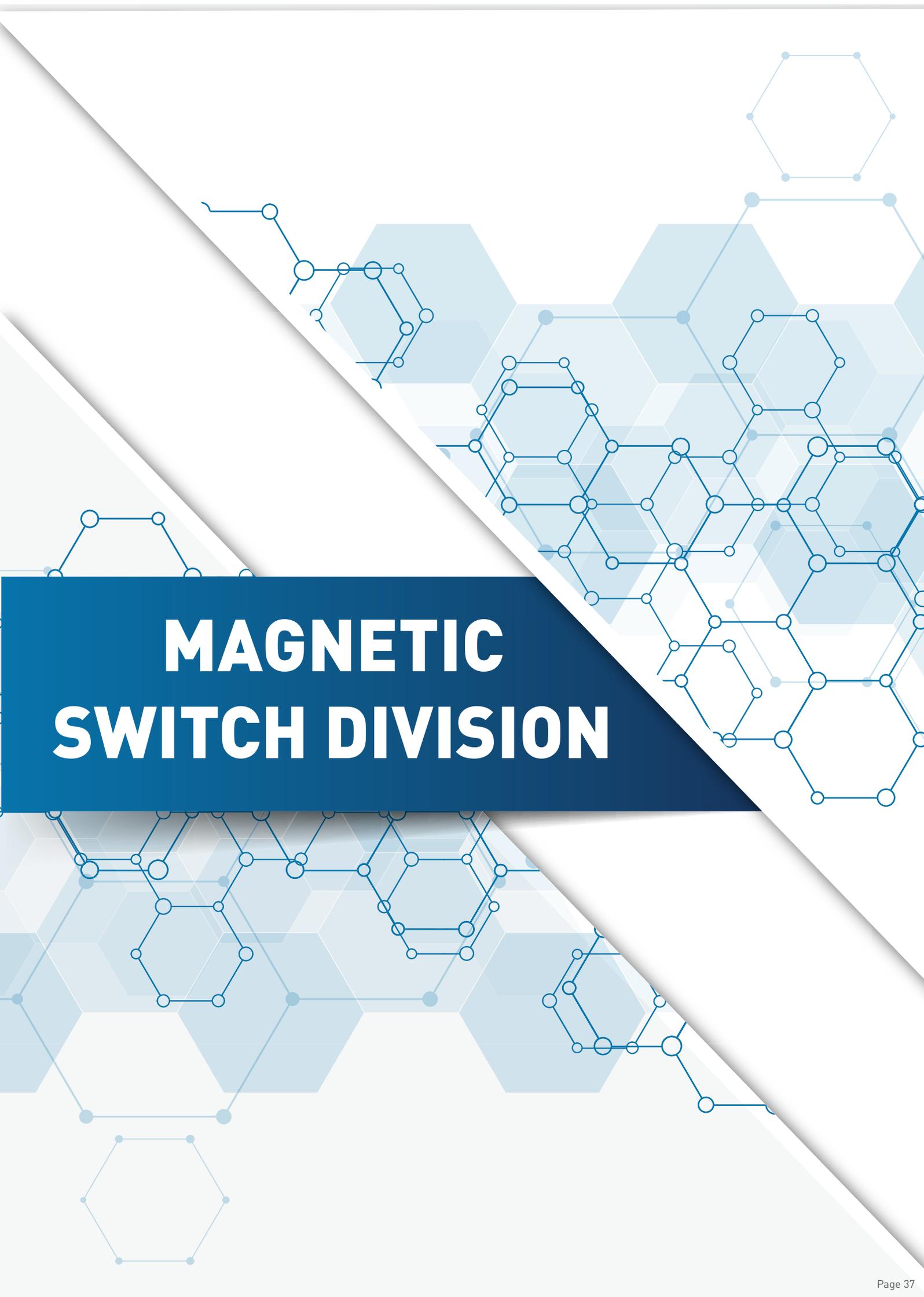
**MINI SPIT BRAAI**

600mm long x 400mm wide x 640mm high

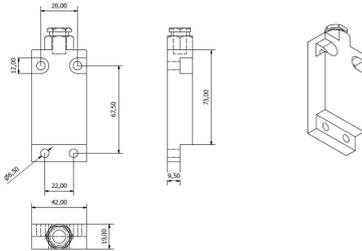
**ALL UNITS INCLUDE:**

- BURNER
- BATTERY MOTOR
- FORKS & SHAFT
- REGULATOR & HOSE
- HANDLES
- DRIP TRAY





# MAGNETIC SWITCH DIVISION



**864219 SWITCH**

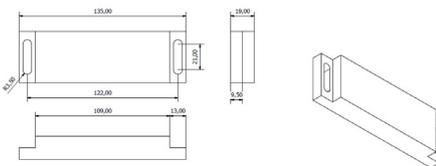
Available in Brass (B) and Aluminium (A)

PRODUCT CODE	CONTACT CONFIGURATION		CODE	COLOUR
	1 X N/O - N/C (RESET)	ALUMINIUM	864219/01/S/A	BLACK
8015.53	1 X N/O - N/C (RESET)	BRASS	864219/01/S/B	BLACK
	1 X N/O - N/C (LATCH)	ALUMINIUM	864219/02/S/A	ORANGE
7406.06	1 X N/O - N/C (LATCH)	BRASS	864219/02/S/B	ORANGE
	2 X N/O (LATCH)	ALUMINIUM	864219/04/S/A	BLUE
7406.09	2 X N/O (LATCH)	BRASS	864219/04/S/B	BLUE
	1 X N/O (LATCH)	ALUMINIUM	864219/05/S/A	RED
	1 X N/O (LATCH)	BRASS	864219/05/S/B	RED
	1 X N/O (RESET)	ALUMINIUM	864219/06/S/A	YELLOW
7406.01	1 X N/O (RESET)	BRASS	864219/06/S/B	YELLOW

Switching capacity	max.	W/VA	60
Switching voltage	max.	V AC/DC	230
Switching current	max.	A	1
Carrying current	max.	A	3

**SWITCHING DISTANCE**

25 - 30MM WITH 506019 MAGNET



**SIEMENS SWITCH**

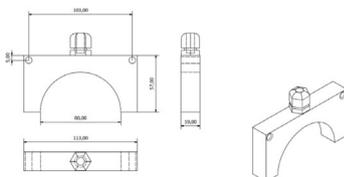
Available in Brass (B) and Aluminium (A)

PRODUCT CODE	CONTACT CONFIGURATION		CODE	COLOUR
	1 X N/O - N/C (RESET)		SIEMENS/01/S/A	BLACK
	1 X N/O - N/C (RESET)		SIEMENS/01/S/B	BLACK
	1 X N/O - N/C (LATCH)		SIEMENS/02/S/A	ORANGE
8029.62	1 X N/O - N/C (LATCH)		SIEMENS/02/S/B	ORANGE
	2 X N/O - N/C (RESET)		SIEMENS/03/S/A	GREEN
	2 X N/O - N/C (RESET)		SIEMENS/03/S/B	GREEN
	2 X N/O - N/C (LATCH)		SIEMENS/04/S/A	BLUE
	2 X N/O - N/C (LATCH)		SIEMENS/04/S/B	BLUE
	1 X N/O (LATCH)		SIEMENS/05/S/A	RED
	1 X N/O (LATCH)		SIEMENS/05/S/B	RED
	1 X N/O (RESET)		SIEMENS/06/S/A	YELLOW
8029.58	1 X N/O (RESET)		SIEMENS/06/S/B	YELLOW

Switching capacity	max.	W/VA	60
Switching voltage	max.	V AC/DC	230
Switching current	max.	A	1
Carrying current	max.	A	3

**SWITCHING DISTANCE**

35 - 40MM WITH SIEMANS SWITCH

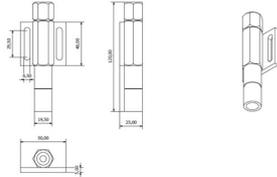


**80D SWITCH**

PRODUCT CODE	CODE
	80D/S

Switching capacity	max.	W/VA	30
Switching voltage	max.	V AC/DC	230
Switching current	max.	A	0.3
Carrying current	max.	A	0.5

THE SWITCH ONLY CONTAINS A 2 X N/O  
RESET IN PARALLEL 3 AMP 220 VOLTS

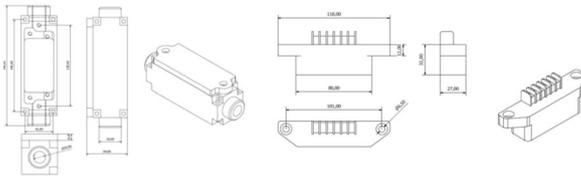


**MSM 20 SWITCH**

PRODUCT CODE	CONTACT CONFIGURATION		CODE	COLOUR	
8016.98	1 X N/O - N/C (RESET)	BRASS	20/01/S	BLACK	
	1 X N/O - N/C (LATCH)	BRASS	20/02/S	ORANGE	
	1 X N/O (LATCH)	BRASS	20/05/S	RED	
	1 X N/O (RESET)	BRASS	20/06/S	YELLOW	

Switching capacity	max.	W/VA	60
Switching voltage	max.	V AC/DC	230
Switching current	max.	A	1
Carrying current	max.	A	3

**SWITCHING DISTANCE**  
40-45MM WITH 506019 MAGNET



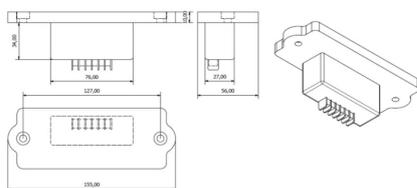
**209 SWITCH & 209 INSERT**

Available in Brass (B) and Aluminium (A)

PRODUCT CODE	CONTACT CONFIGURATION	CODE	COLOUR	
8022.77	BODY COMPLETE WITH INSERT LATCH OR RESET			
	BRASS	MSM209/S/B		
	ALUMINIUM	MSM209/S/A		
INSERTS ONLY				
	CONTACT CONFIGURATION	CODE	COLOUR	
8033.75	1 X N/O - N/C (RESET)	MSM209/01/B	BLACK	
	1 X N/O - N/C (LATCH)	MSM209/02/B	ORANGE	
8033.76	2 X N/O - N/C (RESET)	MSM209/03/B	GREEN	
8033.96	2 X N/O - N/C (LATCH)	MSM209/04/B	BLUE	
	1 X N/O (LATCH)	MSM209/05/B	RED	
	1 X N/O (RESET)	MSM209/06/B	YELLOW	

Switching capacity	max.	W/VA	60
Switching voltage	max.	V AC/DC	230
Switching current	max.	A	1
Carrying current	max.	A	3

**SWITCHING DISTANCE**  
110MM WITH M9/4 MAGNET AND 120MM WITH M9/6 MAGNET



Switching capacity	max.	W/VA	60
Switching voltage	max.	V AC/DC	230
Switching current	max.	A	1
Carrying current	max.	A	3

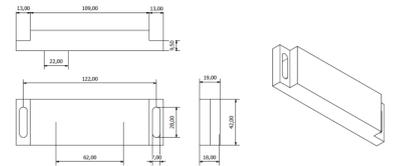
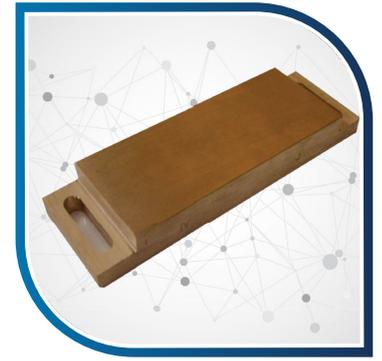
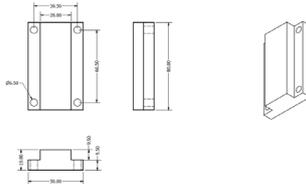
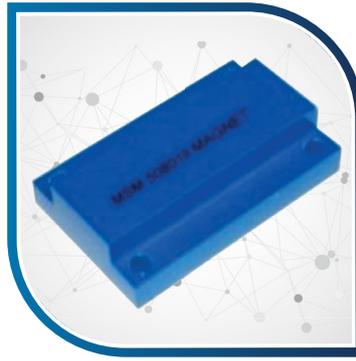
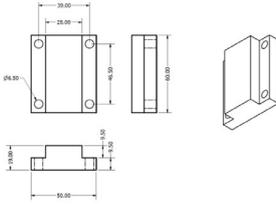
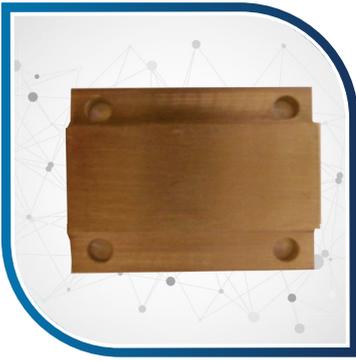
**SWITCHING DISTANCE**

110MM WITH M9/4 MAGNET AND 120MM WITH M9/6 MAGNET

**209 INSERT IN LID**

Available in Brass (B) and Aluminium (A)

PRODUCT CODE	CONTACT CONFIGURATION	CODE	COLOUR	
	1 X N/O - N/C (RESET)	ALUMINIUM	MSM209LS/01/A	BLACK
	1 X N/O - N/C (RESET)	BRASS	MSM209LS/01/B	BLACK
	1 X N/O - N/C (LATCH)	ALUMINIUM	MSM209LS/02/A	ORANGE
	1 X N/O - N/C (LATCH)	BRASS	MSM209LS/02/B	ORANGE
	2 X N/O - N/C (RESET)	ALUMINIUM	MSM209LS/03/A	GREEN
	2 X N/O - N/C (RESET)	BRASS	MSM209LS/03/B	GREEN
	2 X N/O - N/C (LATCH)	ALUMINIUM	MSM209LS/04/A	BLUE
	2 X N/O - N/C (LATCH)	BRASS	MSM209LS/04/B	BLUE
	1 X N/O (LATCH)	ALUMINIUM	MSM209LS/05/A	RED
	1 X N/O (LATCH)	BRASS	MSM209LS/05/B	RED
	1 X N/O (RESET)	ALUMINIUM	MSM209LS/06/A	YELLOW
	1 X N/O (RESET)	BRASS	MSM209LS/06/B	YELLOW



**506019 MAGNET**

Available in Brass (B) and Aluminium (A)

PRODUCT CODE	CONTACT CONFIGURATION		CODE
8034.84	506019 MAGNET (NORTH/SOUTH)	ALUMINIUM	MAG506019/S/A
7406.02	506019 MAGNET (NORTH/SOUTH)	BRASS	MAG506019/S/B

**508019 MAGNET**

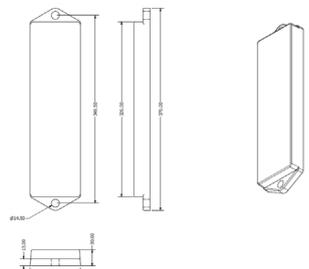
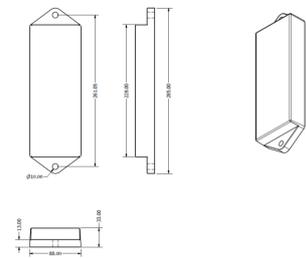
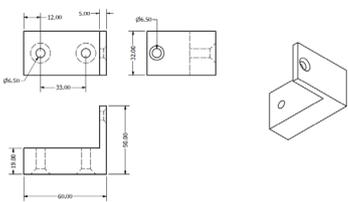
Available in Brass (B) and Aluminium (A)

PRODUCT CODE	CONTACT CONFIGURATION		ORDER CODE
	508019 MAGNET (NORTH/SOUTH)	ALUMINIUM	MAG508019/S/A
8043.82	508019 MAGNET (NORTH/SOUTH)	BRASS	MAG508019/S/B

**SIEMENS MAGNET**

Available in Brass (B) and Aluminium (A)

PRODUCT CODE	CONTACT CONFIGURATION		ORDER CODE
	SIEMENS MAGNET (NORTH/SOUTH)	ALUMINIUM	MAGSIEMENS/S/A
8029.59	SIEMENS MAGNET (NORTH/SOUTH)	BRASS	MAGSIEMENS/S/A



**"L" MAGNET**

Available in Brass (B) and Aluminium (A)

PRODUCT CODE	CONTACT CONFIGURATION		ORDER CODE
8043.79	L MAGNET (SOUTH)	BRASS	MAGL/S

**9/4 MAGNET**

Available in Brass (B) and Aluminium (A)

PRODUCT CODE	CONTACT CONFIGURATION		ORDER CODE
	9/4 MAGNET (NORTH/SOUTH)	ALUMINIUM	MAG9/4/N/A
8043.88	9/4 MAGNET (NORTH/SOUTH)	BRASS	MAG9/4/S/B

**9/6 MAGNET**

Available in Brass (B) and Aluminium (A)

PRODUCT CODE	CONTACT CONFIGURATION		ORDER CODE
	9/6 MAGNET (NORTH/SOUTH)	ALUMINIUM	MAG9/6/N/A
7406.10	9/6 MAGNET (NORTH/SOUTH)	BRASS	MAG9/6/N/B

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