

SIP Industrial Products Limited
Gelders Hall Road
Shepshed
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Leicestershire
LE12 9NH
United Kingdom

Bench & Floor Mounted Pillar Drill Range



SIP Code: 01710 / 01711 / 01712 / 01713 / 01714 /
01715 / 01716 / 01717 / 01718

For help or advice please
contact your distributor, or sip
directly on: Tel.: 01509 500400
Email: sales@sip-group.com or
technical@sip-group.com
www.sip-group.com

The logo for SIP Industrial Products Limited, featuring a stylized 'S' icon followed by the lowercase letters 'sip' in a bold, sans-serif font.

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SAFETY INSTRUCTIONS



Danger / Caution: This image indicates risk of personal injury and/or the possibility of damage.



Warning: This image indicates risk of electrical injury or damage!



Note: This image indicates supplementary information.



Important: Please read the following instructions carefully, failure to do so could lead to serious personal injury and / or damage to the item.

When using the pillar drill, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury.

Read all these instructions before operating the drill and save this user manual for future reference.

The pillar drill should not be modified or used for any application other than that for which it was designed.

It was designed to be fitted with a cutting tool attachment or driving tool attachment, usually a drill bit or driver bit, to be used for drilling holes in various materials.

If you are unsure of its relative applications do not hesitate to contact us and we will be more than happy to advise you.

General Safety Instructions

- **KNOW YOUR PILLAR DRILL:** Read and understand the owner's manual and labels affixed to the drill. Learn its applications and limitations, as well as the potential hazards specific to it.
- **KEEP WORK AREA CLEAN AND WELL LIT:** Cluttered work benches and dark areas invite accidents. Floors must not be slippery due to oil, water or sawdust etc.
- **DO NOT USE THE DRILL IN DANGEROUS ENVIRONMENTS:** Do not use the pillar drill in damp or wet locations, or expose it to rain. Provide adequate space

SAFETY INSTRUCTIONS

surrounding the work area. Do not use in environments with a potentially explosive atmosphere.

- **KEEP CHILDREN AND UNTRAINED PERSONNEL AWAY FROM THE WORK AREA:** All visitors should be kept at a safe distance from the work area.
- **STORE THE PILLAR DRILL SAFELY WHEN NOT IN USE:** The pillar drill should be stored in a dry, locked cupboard wherever possible and out of the reach of children.
- **WEAR THE CORRECT CLOTHING:** Do not wear loose clothing, neck ties, rings, bracelets, or other jewellery, which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll long sleeves up above the elbow.
- **USE SAFETY CLOTHING / EQUIPMENT:** Wear CE approved safety goggles at all times, normal spectacles only have impact resistant lenses, they are NOT safety glasses. A face or dust mask should be worn if the operation is dusty and ear protectors (plugs or muffs) should be worn, particularly during extended periods of operation.
- **PROTECT YOURSELF FROM ELECTRIC SHOCK:** When working with the pillar drill, avoid contact with any earthed items (e.g. pipes, radiators, hobs and refrigerators, etc.). It is advisable wherever possible to use an RCD (residual current device) at the mains socket.
- **STAY ALERT:** Always watch what you are doing and use common sense. Do not operate the pillar drill when you are tired or under the influence of alcohol or drugs.
- **DISCONNECT THE PILLAR DRILL FROM THE MAINS SUPPLY:** When not in use, before servicing and when changing accessories such as drill bits etc.
- **AVOID UNINTENTIONAL STARTING:** Make sure the switch is in the OFF position before connecting the drill to the mains supply.
- **NEVER LEAVE THE DRILL RUNNING / CONNECTED WHILST UNATTENDED:** Turn the drill off and disconnect it from the mains supply between jobs. Do not leave the drill until it comes to a complete stop.
- **DO NOT ABUSE THE MAINS LEAD:** Never attempt to move the drill by the mains lead or pull it to remove the plug from the mains socket. Keep the mains lead away from heat, oil and sharp edges. If the mains lead is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid unwanted hazards.
- **CHECK FOR DAMAGED PARTS:** Before every use of the drill, a guard or other part that is damaged should be carefully checked to determine that it will operate correctly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, and any other conditions that may affect its operation. A guard or other part that is damaged should be correctly repaired or replaced by an authorised service centre unless otherwise

SAFETY INSTRUCTIONS

indicated in this instruction manual. Have defective switches replaced by an authorised service agent. Do not use the drill if the switch does not turn it on and off.

- **KEEP ALL GUARDS IN PLACE:** And in full working order.
- **MAINTAIN THE PILLAR DRILL WITH CARE:** Keep bits sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories. All extension cables must be checked at regular intervals and replaced if damaged. Always keep the hand grip/s on the drill clean, dry and free of oil and grease.
- **USE ONLY RECOMMENDED ACCESSORIES:** Consult this user manual, your distributor or SIP directly for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards and will invalidate any warranty you may have.
- **REMOVE ADJUSTING KEYS AND WRENCHES:** Form a habit of checking to see that keys and adjusting wrenches are removed from the drill before every use.
- **SECURE THE WORK-PIECE:** Use clamps or a vice to hold the work-piece. This frees up both hands to operate the pillar drill.
- **DO NOT OVERREACH:** Keep proper footing and balance at all times.
- **USE THE RIGHT TOOL:** Do not use the drill or attachment to do a job for which it was not designed.
- **DO NOT FORCE THE PILLAR DRILL:** It will do the job better and more safely at the rate which it was designed.
- **DO NOT OPERATE THE PILLAR DRILL IN EXPLOSIVE ATMOSPHERES:** Do not use the drill in the presence of flammable liquids, gases, dust or other combustible sources. Drilling operations may create sparks which can ignite the dust or fumes.
- **DO NOT EXPOSE THE PILLAR DRILL TO RAIN OR USE IT IN WET CONDITIONS:** Water entering pillar drill will greatly increase the risk of electric shock.
- **HAVE YOUR PILLAR DRILL REPAIRED BY A QUALIFIED PERSON:** The tool is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.
- **DO NOT dismantle, tamper with or use the drill without all guards fitted as this may be dangerous and will invalidate the warranty.**

Specific Safety Instructions

- Keep hands away from the path of the drill bit, never reach around the drill bit.
- Make sure the drill bit is clear of the work-piece before the switch is turned on.
- Allow the drill bit to run up to full speed before drilling.
- Stop operation immediately if you notice anything abnormal.

SAFETY INSTRUCTIONS

- Wait for the drill bit to stop completely and remove the plug from mains supply before servicing or adjusting the drill or changing bits.
- Be alert at all times, especially during repetitive, monotonous operations. Don't be lulled into a false sense of security. Drill bits can be extremely unforgiving.
- Use of improper accessories may cause damage to the drill and surrounding area as well as increasing the risk of injury.
- Turn off the drill and wait for it to completely stop before moving work-piece or changing settings or bits etc.
- Do not modify the pillar drill to do tasks other than those intended.
- When drilling, particularly hard items such as metal, use clamps to hold the work-piece; To avoid injury, the work should never be held with the bare hands.
- Secure the base of the drill to a work bench or the floor before using the pillar drill. If the work is heavy or large and likely to cause the drill to tip over, use additional supports as appropriate under and around the work-piece.
- Remove the key from the chuck after adjustment.
- Use only the chuck key provided by the manufacturer or a duplicate of it.
- Appropriate personal protective equipment **MUST** be worn and **MUST** be designed to protect against all hazards created. Severe permanent injury can result from using inappropriate or insufficient protective equipment - Eyes in particular are at risk.
- Do not overload the tool. Allow the tool to operate at its optimum speed for maximum efficiency.
- Always ensure that the accessories such as drill bits, as well as the drill are rated / designed for use with required application, and are the bits are correctly and securely fastened before connecting the tool to the mains supply.
- The work must be clamped firmly while drilling. Any tilting, twisting or shifting results not only in a rough hole but also increases the hazard, which could result in injury or drill breakage. For flat work lay the piece on a wooden base and clamp it firmly down against the table to prevent it from turning. If the piece is of irregular shape and cannot be laid flat on the table, it should be securely blocked and clamped.
- Understand the operating environment; Before each use the operator should assess, understand and where possible reduce the specific risks and dangers associated with the operating environment. Bystanders should also be made aware of any risks associated with the operating environment.



When using the pillar drill for certain operations, particularly during extended periods; ensure the operator as well as those in the area wear ear protection.

SAFETY INSTRUCTIONS



When using the pillar drill always ensure the operator as well as those in the area wear eye protection.



Some materials have the potential to be highly toxic; always wear a face mask when operating the pillar drill.



Danger / Caution: The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be applied.

ELECTRICAL CONNECTION

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe.

You must inspect power cables, plugs, sockets and any other connectors for wear or damage.

You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices; A residual current circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a residual current device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician.

Connecting to the power supply:

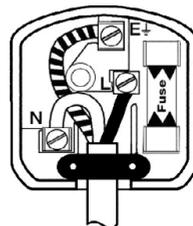
These items (01710-01717) are fitted with a standard 230v ~ 13 amp type plug. Before using the drill, inspect the mains lead and plug to ensure that neither are damaged. If any damage is visible have the drill inspected / repaired by a suitably qualified person. If it is necessary to replace the plug a heavy duty impact resistant plug would be preferable.

The wires for the plug are coloured in the following way:

Yellow - Green / Earth

Blue / Neutral

Brown / Live



As the colours of the wires may not correspond with the markings in your plug, proceed as follows: The wire which is coloured blue, must be connected to the terminal marked with N or coloured black. The wire which is coloured brown, must be connected to the terminal, which is marked L or coloured red. The wire which is coloured yellow / green should be connected to the terminal which is coloured the same or marked,



Always secure the wires in the plug terminal carefully and tightly. Secure the cable in the cord grip carefully.

ELECTRICAL CONNECTION

3PH Wiring: 01718 only.

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage.

You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices; A residual current circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a residual current device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician.

Connecting to the power supply:

The SIP 01718 pillar drill requires 400v 50hz supply. Before each use, inspect the mains lead and plug (where applicable) to ensure that neither are damaged. If any damage is visible have the pillar drill inspected / repaired by a suitably qualified person. If it is necessary to replace the plug a heavy duty impact resistant plug would be preferable.

The wires for the plug are coloured in the following way:

Yellow - Green / Earth

Blue - Grey / Phase

Brown / Phase

Black / Phase

Always secure the wires in the plug terminal carefully and tightly. Secure the cable in the cord grip carefully.



Warning: Never connect live, neutral or any phase wires to the earth terminal of the plug. Only fit an approved plug with the correct rated fuse. If in doubt consult a qualified electrician.

ELECTRICAL CONNECTION



Warning: Always use a qualified electrician to wire in the 3ph pillar drill, never wire the pillar drill without any knowledge of electrics, this is extremely dangerous and will cause personal injury or even death.



Note: Always make sure the mains supply is of the correct voltage and the correct fuse protection is used. In the event of replacing the fuse always replace the fuse with the same value as the original.



Note: If an extension lead is required in order to reach the mains supply; ensure that this too is rated for the correct voltage and fuse rating.



Note: The cross section of the extension lead should be checked so that it is of sufficient size so as to reduce the chances of voltage drops.

GUARANTEE

This item is covered by a 24 month parts and labour warranty covering failure due to manufacturers defects. This does not cover failure due to misuse or operating the item outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges Including, but not limited to parts, labour and carriage costs.

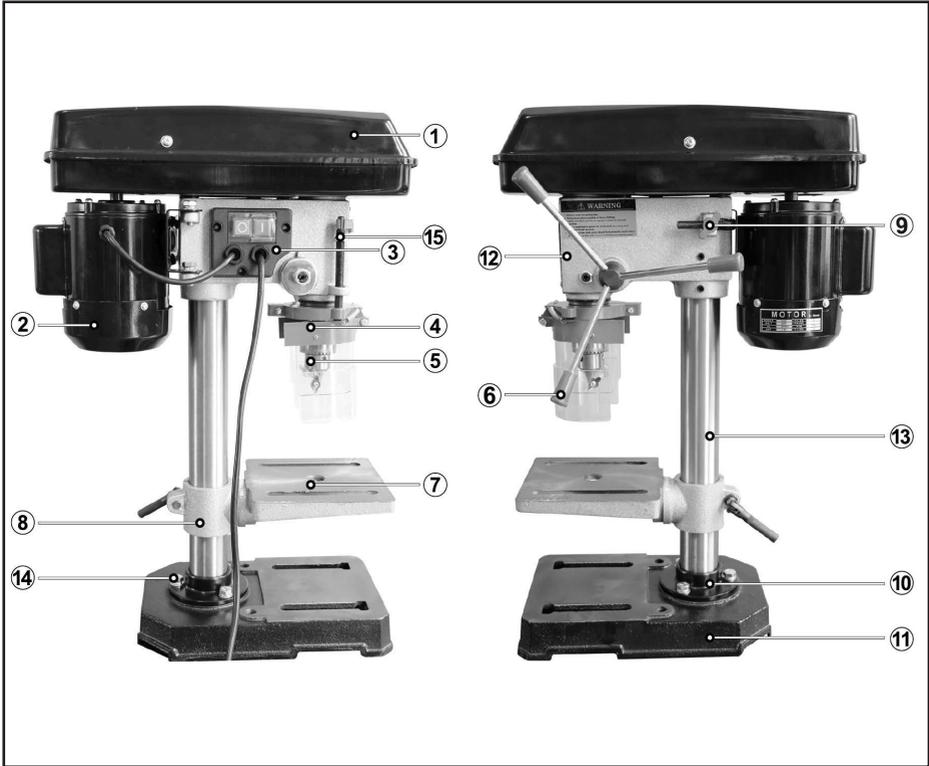
Consumable items such as drills are not covered by the warranty.



NOTE: Proof of purchase will be required before any warranty can be honoured.

YOUR PRODUCT

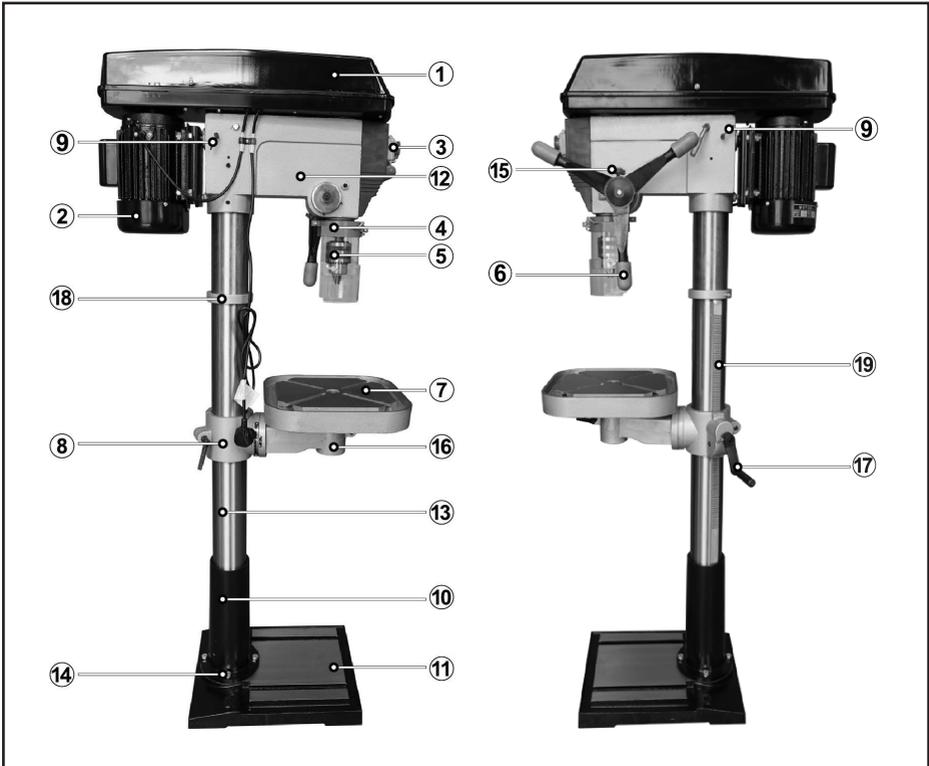
01710



Item No.	Description	Item No.	Description
1.	Pulley Cover	9.	Belt Tension Lock
2.	Motor	10.	Column Support
3.	NVR On/Off Switch	11.	Base
4.	Chuck Guard	12.	Main Drill Head
5.	Chuck	13.	Column
6.	Feed Handle	14.	Column Support Bolts
7.	Table	15.	Depth Stop
8.	Table Support Collar	NA	NA

YOUR PRODUCT

01711 - 01718



Item No.	Description	Item No.	Description
1.	Pulley Cover	11.	Base
2.	Motor	12.	Main Drill Head
3.	NVR On/Off Switch	13.	Column
4.	Chuck Guard	14.	Column Support Bolts
5.	Chuck	15.	Depth Stop
6.	Feed Handle	16.	Table Lock
7.	Table	17.	Table Height Adjust
8.	Table Support Collar	18.	Rack Collar
9.	Belt Tension Lock	19.	Rack
10.	Column Support	NA	NA

TECHNICAL SPECIFICATION

Model No.	01710 Bench	01711 Bench	01712 Bench
Input Voltage:	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz
Power	350W	450W	550W
Speed Range	580 - 2650rpm	300 - 2550rpm	220 - 2800rpm
Number of Speeds	5	12	16
Drill Bit Size (∅)	1.5 - 13mm	3 - 16mm	3-16mm
Max. Drilling Capacity (mild Steel)	13mm	16mm	16mm
Spindle Taper	B16	B16	MT2
Table Size	160*160mm	195*200mm	∅290mm
Base Size	290*182mm	340*205mm	410*245mm
Column ∅	46mm	58mm	72mm
Swing	210mm	260mm	325mm
Height	580mm	840mm	975mm
Spindle Travel	50mm	60mm	80mm
Collar ∅	NA	58mm	72mm
Max. Distance Chuck to Table	169mm	350mm	360mm
Max. Distance Chuck to Base	250mm	470mm	530mm
Net Weight	14Kg	28Kg	34Kg
Gross Weight	15Kg	29.6Kg	35.3Kg

TECHNICAL SPECIFICATION

Model No.	01713 Bench	01714 Floor	01715 Floor
Input Voltage:	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz
Power	750W	550W	750W
Speed Range	200 - 2800rpm	220 - 2800rpm	200 - 2800rpm
Number of Speeds	16	16	16
Drill Bit Size (∅)	3-16mm	3-16mm	5-20mm
Max. Drilling Capacity (mild Steel)	16mm	16mm	20mm
Spindle Taper	MT2	MT2	MT2
Table Size	285*285mm	250*250mm	285*285mm
Base Size	460*270mm	460*270mm	460*270mm
Column ∅	72mm	72mm	72mm
Swing	360mm	316mm	360mm
Height	1000mm	1570mm	1575mm
Spindle Travel	80mm	80mm	80mm
Collar ∅	72mm	72mm	72mm
Max. Distance Chuck to Table	320mm	663mm	588mm
Max. Distance Chuck to Base	510mm	1150mm	1075mm
Net Weight	48.5Kg	42.6Kg	52.3Kg
Gross Weight	50.5Kg	45Kg	56Kg

OPERATING INSTRUCTIONS

Model No.	01716 Floor	01717 Floor	01718 Floor
Input Voltage:	230V ~ 50Hz	230V ~ 50Hz	400V ~ 50Hz
Power	750W	1100W	1100W
Speed Range	320-2380rpm	150-2500rpm	150-2500rpm
Number of Speeds	12	12	12
Drill Bit Size (∅)	5-20mm	5-20mm	5-20mm
Max. Drilling Capacity (mild Steel)	25mm	32mm	32mm
Spindle Taper	MT3	MT4	MT4
Table Size	285*285mm	420*470mm	420*470mm
Base Size	460*270mm	570*425mm	570*425mm
Column ∅	80mm	92mm	92mm
Swing	350mm	506mm	506mm
Height	1575mm	1720mm	1720mm
Spindle Travel	80mm	120mm	120mm
Collar ∅	80mm	92mm	92mm
Max. Distance Chuck to Table	585mm	620mm	620mm
Max. Distance Chuck to Base	1075mm	1095mm	1095mm
Net Weight	58.5Kg	109.6Kg	107.4Kg
Gross Weight	62.2Kg	117Kg	118Kg

ASSEMBLY INSTRUCTIONS

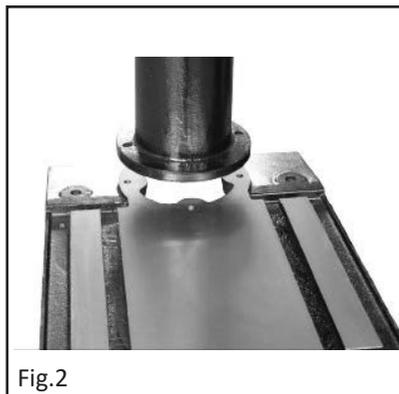
Fit The Column To The Base - Bench Drill

- Line up the 4 holes on the bottom of the column with those on the base.
- Screw the 4 bolts supplied through the column and into the base.
- Fully tighten to secure (Fig.1).

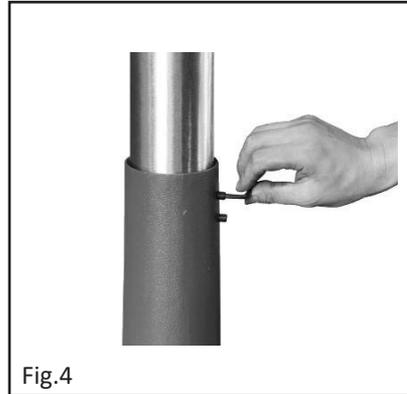
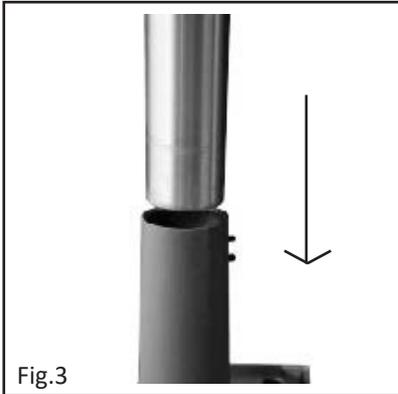


Fit The Column To The Base - Floor Drill

- Line up the 4 holes on the bottom of the column support with those on the base (Fig.2).
- Screw the 4 x bolts supplied through the column support and into the base.
- Fully tighten to secure.
- Slide the column into the column support (Fig.3).
- Secure in place by tightening the 2 grub screws (Fig.4).



ASSEMBLY INSTRUCTIONS

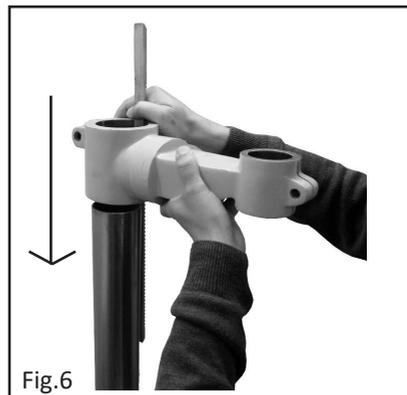
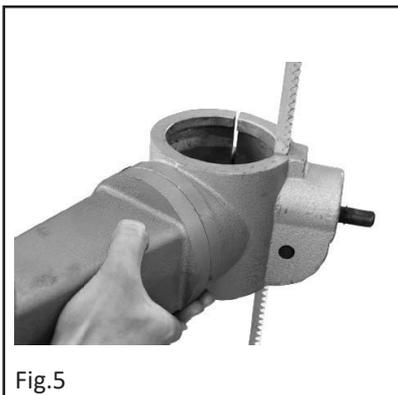


Fit The Table - 01710

- Ensure that the table support lock is loose.
- Slide the table support over the column until it is in position.
- Secure in place by tightening the table lock towards the rear of the table support.

Fit The Rack & Table - All Other Models

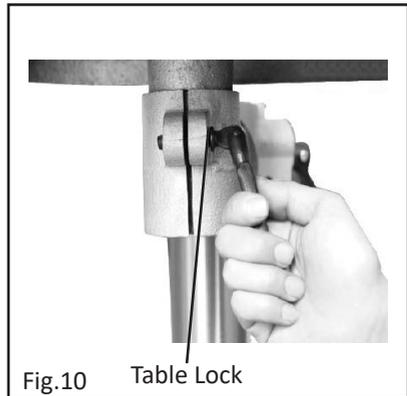
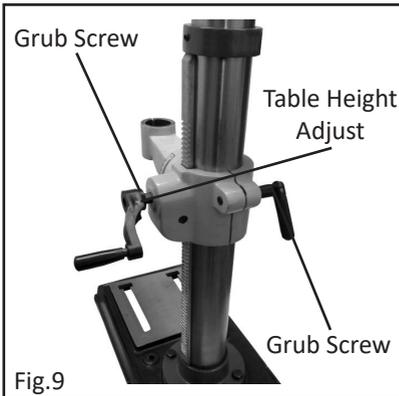
- Fit the rack inside the table support as shown (Fig.5).
- Fit the table support / rack assembly over the column (Fig.6) and slide down until the rack fits inside the column support (Fig.7).
- Slide the rack collar, tapered side facing down, over the column until it locates over the rack.
- Tighten the grub screw to hold in position (Fig.8).



ASSEMBLY INSTRUCTIONS



- Secure the table support arm in place by fitting the table height lock (Fig.9).
- Also fit the table height adjust lever as shown left.
- Secure in place by tightening the grub screw.
- Screw the table lock loosely into the table support.
- Fit the table into the table support.
- Tighten the table lock to secure in position (Fig.10).



ASSEMBLY INSTRUCTIONS

Fit The Head Onto The Column

- Carefully raise the head above the column.
- Ensure that the hole in the bottom of the drill head lines up with the column.
- Lower the drill head down the column taking care that the head and the column stay square with each other.
- Line up the spindle with the table and base (Fig.11).
- Secure in place by tightening the 2 x grub screws on each side (Fig.12).



Danger / Caution: Due to the weight of the head; at least 2 persons are required to safely fit it to the column.



NOTE: Ensure that any dust or debris left over from the manufacturing process is removed from inside the head and from around the column prior to fitting them together.



Fig.11

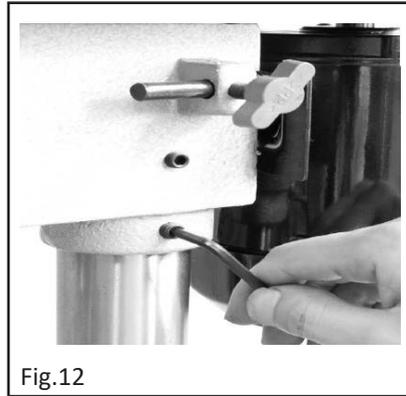
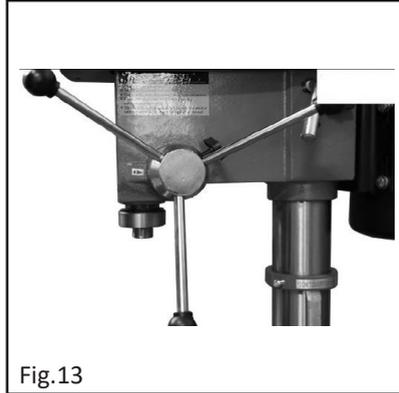


Fig.12

ASSEMBLY INSTRUCTIONS

Fit The Feed Handle - 01710 & 01711

- To fit the feed handles; simply screw them into the hub, as shown (Fig.13).



Fit The Feed Handle - 01712 & 01718

- Fit the cast feed handle over the hub.
- Secure in place by tightening the 3 x screws, as shown (Fig.14).
- Fit the cover and secure with the screw (Fig.15).

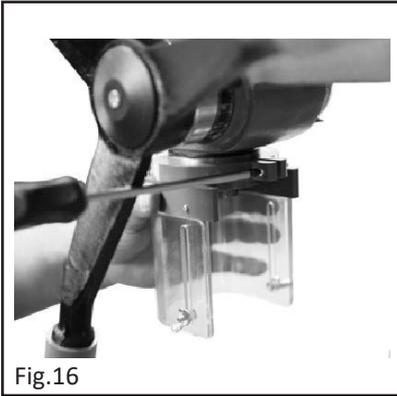


ASSEMBLY INSTRUCTIONS

Fit The Feed Handle - 01712 & 01718

Prior to fitting the chuck / arbor; Fit the chuck guard:

- Slide the chuck guard over the spindle collar ensuring that the 'open' part of the guard faces towards the back.
- Tighten the screw to secure in place (Fig.16).
- Ensure that the outside of the arbor and the inside of the chuck are clean and free of dust/debris.
- Slide the arbor into the chuck with reasonable force, as shown (Fig.17). Ensure that the chuck jaws are wound all the way in (inside the chuck) to prevent them from getting dam-aged (Fig.18).
- Slide the arbor and chuck into the spindle.
- Rotate the arbor with small upward pressure until it 'seats' correctly.
- Tap the arbor with a rubber mallet to ensure it stays in place (Fig.19).



OPERATING INSTRUCTIONS

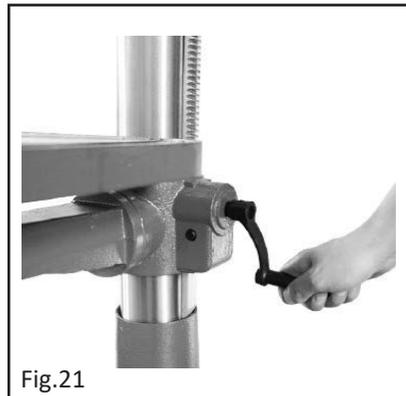
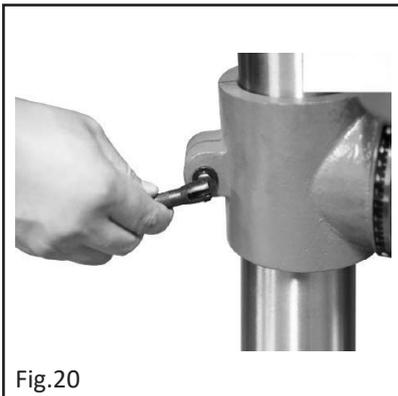


Danger: Before making any changes or adjustments, ensure that the drill is turned off, and the mains lead is removed from the supply socket.

Settings & Adjustments

Setting The Table Height:

- Loosen the table height lock (Fig.20).
- For the 01710, simply slide the table up/down to the desired height and re-tighten the table height lock.
- For all other models; Rotate the table height adjustment handle until the table is at the required height (Fig.21).
- Re-tighten the table height lock.



Setting The Table Angle:

- The table angle can be adjusted by loosening the table angle lock located underneath the table (Fig.22).
- Rotate the table to the desired angle (Fig.23).
- Re-tighten the angle lock.

OPERATING INSTRUCTIONS



On / Off (NVR) Switch

Once fully assembled and adjusted, and all safety precautions have been followed; the pillar drill is ready to be run.

Your SIP pillar drill is fitted with a safety NVR (No Volt Release) switch. This means that if the power is cut to the drill (such as in a power failure); the motor will not start to run once the power is returned without the operator following the instructions below to re-start the drill.

To start the drill - press the green (I) button.

To stop the drill - press the red (O) button or press down on the emergency stop cover.

Adjusting The Speed - 01710 & 01711

- Open the pulley cover.
- Slacken off the belt tension lock.
- Consult the chart inside the pulley cover, and position the belt on the pulley's according to the spindle speed required.
- When the belt has been correctly positioned, re-tension by levering the motor away from the head (Fig.24); Lever the motor with its bracket, away from the head, so that tension is applied to the belt.
- Tension is correct when the belt deflects by approx. ½" at its centre, when using reasonable thumb pressure.
- Lock the motor in this position using the belt tension lock.

OPERATING INSTRUCTIONS



Danger / Caution: Before making any changes or adjustments, ensure that the drill is turned off, and the mains lead is removed from the supply socket.



NOTE: The speed of the pillar drill can be changed by adjusting the position of the belt on the pulley system. See the chart inside the pulley cover for speed configurations.

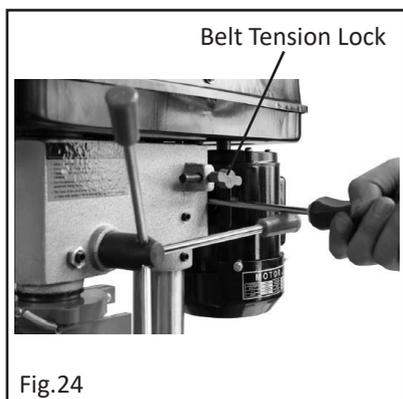
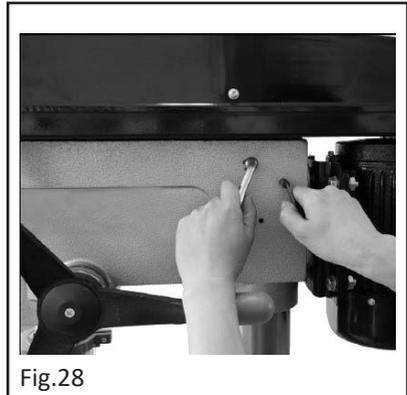
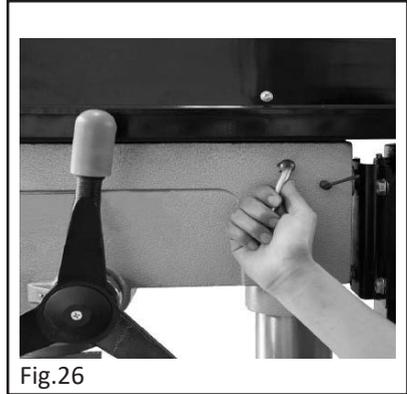
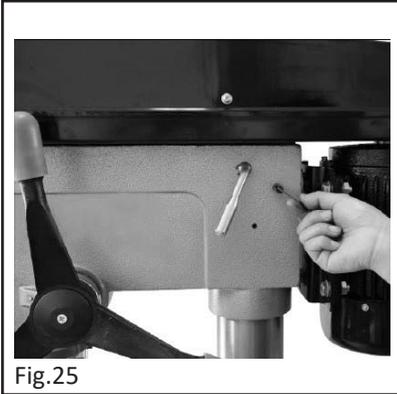


Fig.24

Adjusting The Speed - All Other Models

- Release the belt tension locks located on either side of the main housing (Fig.25).
- Once the tension is released, the belt tension handle can be used to move the motor pulley closer to the idler pulley (Fig.26).
- The belt is removed by lifting it over the lip of the pulley while rotating the pulley simultaneously (Fig.27).
- After re-adjusting the belts, use the belt tension handle to move the motor pulley further away from the idler pulley. When the desired position is achieved use the belt tension locks to secure the pulleys in place (Fig.28).
- Proper belt tension is achieved when the measured deflection (by pushing in the centre of the belt) is approx. $\frac{1}{2}$ " (Fig.29).

OPERATING INSTRUCTIONS



OPERATING INSTRUCTIONS

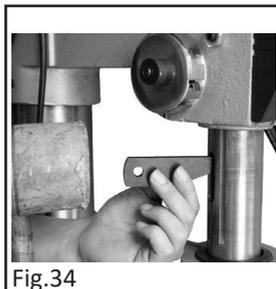
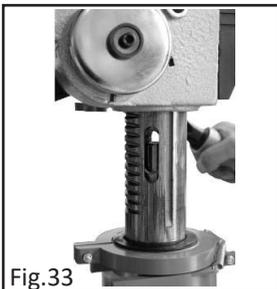
To fit a straight shank bit:

- Open the jaws of the drill chuck (fit the chuck key into the chuck and turn it anti-clockwise) enough to fit the required bit (Fig.30).
- Push the bit into the chuck (Fig.31).
- Secure the bit in place by tightening the jaws with the chuck key (Fig.32).



To fit a morse taper bit:

- Lower the chuck to its lowest position; Turn the chuck by hand until both slots align (Fig.33).
- Insert the drift key into the slot (Fig.34) and tap firmly with a metal hammer until it releases (Ensure the chuck jaws are wound all the way up to prevent damage).
- Place the taper bit into the spindle hole (Fig.35), twisting and pushing upward until the bit is correctly seated.



OPERATING INSTRUCTIONS

Operating The Depth Stop - 01710

To set the depth of the hole, adjust the depth stop as follows:

- Lower the chuck with the power OFF, until the drill bit touches the surface of the work-piece, and hold in that position.
- Spin down the adjuster nut so that the gap between its underside and top of bracket is the depth of the hole required.
- Screw down the lock nut and lock it against the adjuster nut.

The drill is now set to drill holes to your pre-determined depth from that particular start point. i.e. Providing the surface of your work-piece is flat and level, you may drill a series of holes, each to the same depth.

Operating The Depth Stop - All Other Models

To set the depth of the hole, adjust the depth stop as follows:

- Loosen depth stop lock knob by turning in an anti-clockwise direction (Fig. 36).
- Rotate depth scale to the desired depth, then tighten half wing bolt (Fig. 37).



OPERATING INSTRUCTIONS

Drilling Operations

- Set the table to the required height; the drill bit should be set just above the work-piece, but not touching it.
- Clamp the work-piece to the table.
- Set the required speed.
- Turn the drill on.
- Allow the drill to reach that speed.
- Turn the feed handle anti clockwise to lower the spindle towards the work-piece.
- Once the operation is complete; guide the feed handle clockwise to raise the spindle.

*For full **Exploded Drawing, Parts List & Wiring Diagram** contact:

- <https://www.sip-group.com/>
- SIP Customer Service: 01509 500400
- Email: customerservice@sip-group.com

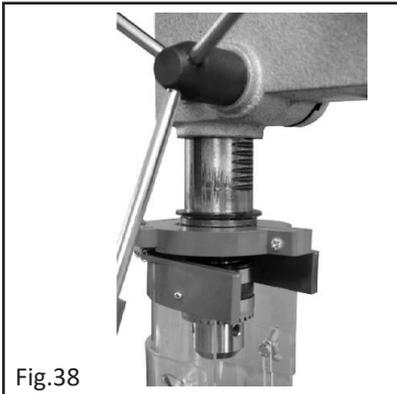
MAINTENANCE

Cleaning and maintenance of this drill is mainly common sense some points for guidance are as follows:

- Regularly check that all the fixing screws are tight.
- The mains lead of the drill and any extension cord used should be checked frequently for damage. If damaged, have the mains lead replaced by an authorised service facility. Replace the extension cord as necessary.
- Regularly check and clean out any dust etc. that may have gathered in the fan housing of the motor.
- After each use brush off any chippings etc. with a soft brush.
- Regularly check the drive belt for wear; Replace if frayed or worn.

Lubrication:

- All bearings are packed with grease at the factory and require no further lubrication.
- Periodically grease or oil all moving parts.
- Periodically apply a thin coat of wax paste or light oil on the column, table and base for lubrication and to help prevent corrosion.
- Occasionally, lubricate the quill shaft assembly and rack with light oil if required (Fig. 39 & Fig. 40).



TROUBLESHOOTING

FAULT	CAUSE	SOLUTION
Noisy operation (under load).	<ul style="list-style-type: none"> • Incorrect belt tension. • Dry spindle. • Loose pulley. • Loose belt. • Worn bearing. 	<ul style="list-style-type: none"> • Adjust tension. • Remove spindle and quill assembly and lubricate. • Tighten pulley. • Adjust belt tension. • Replace bearing.
Excessive drill wobble.	<ul style="list-style-type: none"> • Loose chuck. • Worn spindle or bearing. • Worn chuck. • Bent drill bit. 	<ul style="list-style-type: none"> • Tighten by pressing chuck down on to a block of wood against the table. • Replace the spindle shaft or bearing. • Replace chuck. • Renew drill bit.
Motor won't start.	<ul style="list-style-type: none"> • Power supply. • Motor connection. • Switch connection faulty. • Faulty switch. • Motor windings burned. • Pulley cover not closed. • Micro-switch on cover faulty. 	<ul style="list-style-type: none"> • Check mains lead/fuse. • Check motor connections. • Check switch connections. • Replace switch. • Replace motor. • Close pulley cover. • Check operation of micro-switch and renew/adjust as necessary.
Drill binds in work-piece.	<ul style="list-style-type: none"> • Excessive feed pressure. • Loose belt. • Loose drill. • Incorrect bit speed. • Drill angles incorrect for type of material. 	<ul style="list-style-type: none"> • Apply less pressure. • Check belt tension. • Tighten drill with key. • Adjust the drill speed reasonably. • Consult a technical manual dealing with materials drills and cutting angles and sharpen drill accordingly.
Drill bit burns or smokes.	<ul style="list-style-type: none"> • Incorrect speed. • Swarf is not discharging. • Dull drill or not proper clearance for material. • Needs coolant. • Excessive feed pressure. 	<ul style="list-style-type: none"> • Adjust drill speed accordingly. • Clean drill. • Check sharpness & taper. • Use coolant whilst drilling. • Apply less pressure.
Table difficult to raise.	<ul style="list-style-type: none"> • Needs lubrication. • Table lock tightened 	<ul style="list-style-type: none"> • Lubricate with light oil. • Loosen clamp.

PILLAR DRILL SPEED CHART

Drill Size	Cutting Speed (ft./min)														
	Stainless Steel	Forged Steel	High Carbon Steel	Mild Steel	Mod. Hard Cast Iron	Soft Cast Iron	Malleable Iron	High Nickel Steel or Monel	High Tensile Bronze	Comer. Brass or Bronze	Aluminum	Magnesium	Plastics & Bakelite	Wood	Titanium Alloy Steel
1/8"	30-40	40-50	70-80	80-110	70-100	110-150	80-90	40-50	70-150	200-300	200-300	250-400	100-150	300-400	50-60
	1050	1360	2260	2860	2600	3800	2600	1360	3300	7600	7600	9800	3800	10600	1660
3/16"	700	900	1500	1900	1700	2500	1700	900	2200	5000	5000	6500	2500	7000	1100
	520	680	1130	1430	1300	1900	1300	680	1650	3800	3800	4900	1900	5300	830
5/16"	420	540	900	1100	1000	1500	1000	540	1300	3000	3000	3900	1500	4200	660
	350	450	750	950	850	1250	850	450	1100	2500	2500	3250	1250	3500	550
7/16"	300	390	640	820	740	1070	740	390	950	2200	2200	2800	1070	3000	470
	260	340	560	720	650	950	650	340	830	1900	1900	2500	950	2650	410
9/16"	240	300	510	640	580	850	580	300	740	1700	1700	2200	850	2400	370
	210	270	450	560	500	750	500	270	650	1500	1500	1950	750	2100	330
3/4"	180	230	380	480	430	630	430	230	550	1250	1250	1600	630	1800	280
	150	200	320	410	370	540	370	200	480	1100	1100	1400	540	1500	240
7/8"	130	170	280	360	320	480	320	170	420	960	960	1250	480	1330	210

NOTE: The above table is for use with high speed steel bits only. Carbon Steel bits should run 40-50% of the speeds listed.

UK - DECLARATION OF CONFORMITY

Declaration of Conformity

We

SIP (Industrial Products) Ltd
Gelders Hall Road
Shepshed
Loughborough
Leicestershire
LE12 9NH
England

As the manufacturer within the UK, England, Scotland & Wales,
declare that the

SIP B13 5 Speed 350w Bench Pillar Drill - SIP Part No. 01710
SIP B16 12 Speed 450w Bench Pillar Drill - SIP Part No. 01711
SIP Pro B16 16 Speed 550w Bench Pillar Drill - SIP Part No. 01712
SIP Pro B16 16 Speed 750w Bench Pillar Drill - SIP Part No. 01713
SIP Pro F16 16 Speed 550w Floor Pillar Drill - SIP Part No. 01714
SIP Pro F20 16 Speed 750w Floor Pillar Drill - SIP Part No. 01715
SIP Pro F20 12 Speed 750w Floor Pillar Drill - SIP Part No. 01716
SIP Pro F20 12 Speed 1100w Floor Pillar Drill - SIP Part No. 01717
SIP Pro F20 12 Speed 1100w 400v Floor Pillar Drill - SIP Part No. 01718

Conforms to the requirements of the following regulation(s), as indicated.

Electromagnetic Compatibility Regulations 2016
Supply of Machinery (Safety) Regulations 2008
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment
Regulations 2012

And the relevant harmonised standard(s), including

BS EN 62841-1:2015	BS EN 61000-3-3:2013
BS EN 62841-3-13:2017	BS EN 61000-3-2:2014
BS EN 12717:2001/A1:2009	BS EN 62321-1:2013
BS EN 60204-1:2018	BS EN 62321-2:2013
BS EN 55014-1:2017/A11:2020	BS EN 62321-3-1:2013
BS EN 55014-1:2021	BS EN 62321-5:2013
BS EN 55014-2:1997/A2:2008	BS EN 62321-4:2013
BS EN 55014-2:2021	BS EN 62321-7-2:2017
BS EN 61000-3-2:2019/A1:2021	BS EN 62321-7-1:2015
BS EN 61000-3-3:2019/A2:2021	BS EN 62321-6:2015

Signed:



Mr P. Ippaso - Managing Director - SIP (Industrial Products) Ltd
Date: 07/06/2022



EU - DECLARATION OF CONFORMITY

Declaration of Conformity

We

SIP (Machinery Europe) Ltd
ASM Chartered Accountants
First Floor Block One
Quayside Business Park
Dundalk
County Louth
Republic of Ireland

As the manufacturer's authorised representative within the EC
declare that the

SIP B13 5 Speed 350w Bench Pillar Drill - SIP Part No. 01710
SIP B16 12 Speed 450w Bench Pillar Drill - SIP Part No. 01711
SIP Pro B16 16 Speed 550w Bench Pillar Drill - SIP Part No. 01712
SIP Pro B16 16 Speed 750w Bench Pillar Drill - SIP Part No. 01713
SIP Pro F16 16 Speed 550w Floor Pillar Drill - SIP Part No. 01714
SIP Pro F20 16 Speed 750w Floor Pillar Drill - SIP Part No. 01715
SIP Pro F20 12 Speed 750w Floor Pillar Drill - SIP Part No. 01716
SIP Pro F20 12 Speed 1100w Floor Pillar Drill - SIP Part No. 01717
SIP Pro F20 12 Speed 1100w 400v Floor Pillar Drill - SIP Part No. 01718

Conforms to the requirements of the following directive(s), as indicated.

2014/30/EU - EMC Directive
2006/42/EC - Machinery Directive
2011/65/EU & 2015/863/EU - RoHS Directive

And the relevant harmonised standard(s), including

EN 62841-1:2015	EN 61000-3-3:2013
EN 62841-3-13:2017	EN 61000-3-2:2014
EN 12717:2001/A1:2009	EN 62321-1:2013
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EN 55014-1:2021	EN 62321-5:2013
EN 55014-2:1997/A2:2008	EN 62321-4:2013
EN 55014-2:2021	EN 62321-7-2:2017
EN61000-3-2:2019/A1:2021	EN 62321-7-1:2015
EN61000-3-3:2019/A2:2021	EN 62321-6:2015

Signed:



Mr P. Ippaso - Managing Director - SIP (Industrial Products) Ltd
Date: 07/06/2022





Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.

Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised recycling agent. This will allow the recycling of raw materials and help protect the environment.

**FOR HELP OR ADVICE ON THIS
PRODUCT PLEASE CONTACT
YOUR DISTRIBUTOR, OR SIP
DIRECTLY ON:**

TEL: 01509 500400

EMAIL: sales@sip-group.com or

technical@sip-group.com

www.sip-group.com

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Ref: 04AUG2023 Revision 3