

# TITAN®



**12** month  
Full  
Manufacturer's  
Warranty

## SAFETY AND OPERATING MANUAL

**9 SPEED BENCH PILLAR DRILL**

**SF16N-9**

# TITAN®

**Congratulations on your purchase of a TITAN power tool from Screwfix Direct Ltd. We want you to continue getting the best performance from it so this handbook includes information on safety, handling and care. Please retain this handbook in case you need to refer to any of the information in the future.**

**Your TITAN power tool comes with a 12-month guarantee, so should it develop a fault within this period contact Screwfix Direct Ltd on Freephone 0500 41 41 41.**

## **GUARANTEE**

This **TITAN** product carries a Screwfix Direct Ltd guarantee of 12 months. If your product develops a fault within this period, you should, in the first instance contact Screwfix Direct Ltd on Freephone 0500 41 41 41. If the fault occurs within the first 12 months, you may return the goods for a full refund or we will repair or replace the goods if you prefer. When repair is not practical or identical goods are not available, alternative goods of similar specification and quality will usually be provided but, failing this, you will be offered a partial or full refund depending on the time period since purchase.

This guarantee specifically excludes losses caused due to:

- Fair wear and tear
- Misuse or abuse
- Lack of routine maintenance
- Failure of consumable items (such as batteries)
- Accidental damage
- Cosmetic damage
- Failure to follow manufacturer's guidelines
- Loss of use of the goods
- Repairs attempted by anyone, unless authorized by Screwfix Direct Ltd.

This guarantee does not affect your statutory rights. This guarantee is only valid in the UK.

For further technical advice, spare parts or repair service (outside of guarantee) please contact the customer helpline number on 0845 607 6380.

## SAFETY INSTRUCTIONS



**WARNING!** Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

### SAVE THESE INSTRUCTIONS

**1. Keep the work area clean.**

Cluttered areas and benches invite injuries.

**2. Consider work area environment.**

Do not expose power tools to rain. Do not use power tools in damp or wet locations. Keep the work area well lit. Do not use tools in the presence of flammable liquids or gases.

**3. Guard against electric shock.**

Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).

**4. Keep persons away.**

Do not let persons, especially children, not involved in the work touch the tool or the extension cord and keep them away from the work area.

**5. Store idle tools.**

When not in use, tools should be stored in a dry, locked up place, out of reach of children.

**6. Do not force the tool.**

It will do the job better and safer at the rate for which it was intended.

**7. Use the right tool.**

Do not force small tools to do the job of a heavy-duty tool. Do not use tools for purposes not intended, for example, do not use circular saws to cut tree limbs or logs.

**8. Dress properly.**

Do not wear loose clothing or jewellery, they can be caught in moving parts. Non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.

**9. Use protective equipment.**

Use safety glasses. Use face or dust mask if working operations create dust.

**10. Connect dust extraction equipment.**

If the tool is provided for the connection of dust extraction and collecting equipment, ensure these are connected and properly used.

**11. Do not abuse the cord.**

Never yank the tool to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.

**12. Secure work.**

Where possible use clamps or a vice to hold the work. It is safer than using your hand.

**13. Do not overreach.**

Keep proper footing and balance at all times.

**14. Maintain tool with care.**

Keep cutting tools sharp and clean for better and safer performance. Follow instructions for lubrication and changing accessories. Inspect tool cord periodically and if damaged have them replaced by an authorised service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free of oil or grease.

### **15. Disconnect tools.**

When not in use, before servicing and when changing accessories such as blades, bits and cutters, disconnect tools from the power supply.

### **16. Remove adjusting keys and wrenches.**

From the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

### **17. Avoid unintentional starting.**

Ensure switch is in the "off" when plugging in.

### **18. Use outdoor extension leads.**

When tool is used outdoors, use only extension cords intended for outdoor use and so marked.

### **19. Stay alert.**

Watch what you are doing. Use common sense. And do not operate tool when you are tired.

### **20. Check damaged parts.**

Before further use of the tool, it should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorised service centre unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorised service centre. Do not use the tool if the switch does not turn it on and off.

### **21. Warning.**

The using of any accessory or attachment other than those recommended in this instruction manual may present a risk of personal injury.

### **22. Have your tools repaired by qualified person.**

This electrical tool complies with the relevant safety rules. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

## **HEALTH ADVICE**



**WARNING!** When drilling, sanding, sawing or grinding, dust particles will be produced. In some instances, depending on the materials you are working with, this dust can be particularly harmful to you (e.g. lead from old gloss paint).

You are advised to consider the risks associated with the materials you are working with and to reduce the risk of exposure. You should:

-- Work in a well-ventilated area.

-- Work with approved safety equipment, such as those dust masks that are specially designed to filter microscopic particles.

## **ADDITIONAL SAFETY INSTRUCTIONS FOR YOUR DRILL PRESS**

1. Only use lubricating oil on drill bits and not near to motor or electrical components. Never spray as a cooling agent. A fatal electric shock could occur.
2. Always use sharp drill bits.

3. Never use sub-standard or blunt drill bits.
4. Never use excessive force on drill handle.
5. Always secure the workpiece to be drilled.
6. Always ensure the machine is securely mounted to a solid workbench.
7. Never remove the guard.
8. Always wear suitable gloves when handling swarf.
9. Wear suitable clothing. Adjust all loose clothing and remove ties, neck chains rings and watches.
10. Tie long hair back or preferably wear a hair net.
11. Use correct speed for size of drill (see speed chart).
12. Care should be taken when drilling brass and copper as drill may jam and break if too much pressure is applied.

**Important note**

Remove the mains plug from socket before carrying out any adjustment or servicing. Ensure your mains supply voltage is the same as your tool rating plate voltage.

## SYMBOLS



Read the manual



Warning



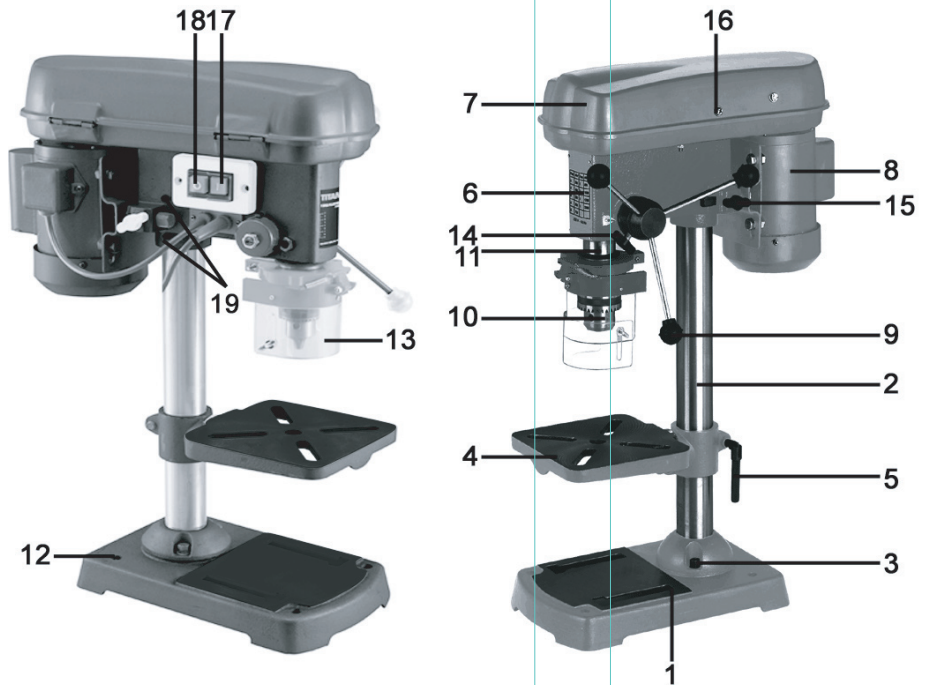
Wear gloves



Wear dust mask, eye & ear protection



Conforms to relevant safety standards



**Fig 1**

**1. MACHINE BASE**

**2. PILLAR**

**3. FIXING SCREW**

**4. DRILL TABLE**

**5. CLAMPING SCREW**

**6. MACHINE HEAD**

**7. PULLEY COVER**

**8. MOTOR**

**9. GRIP KNOBS**

**10. KEY CHUCK**

**11. SPINDLE**

**12. MOUNTING HOLES**

**13. HINGED CHIP GUARD**

**14. DEPTH SCALE LOCK**

**15. TIGHTENING SCREW**

**16. PULLEY COVER LOCK SCREW**

**17. ON SWITCH**

**18. OFF SWITCH**

**19. HEAD LOCK SCREW**

## **TECHNICAL DATA**

Voltage:	230V~50Hz
Input power :	500W(S2:15mm)
No load speed:	280-2350min <sup>-1</sup>
Chuck capacity:	Ø3 - Ø16
Spindle taper:	B16
Drilling capacity:	Ø16
Drilling depth:	50mm
Table size :	170 x170mm
Height:	620mm
Machine weight :	21kg

## **NOISE AND VIBRATION DATA**

Sound pressure level:	61.5dB (A)
Sound power level:	74.5dB (A)

## **ACCESSORIES**

**Chuck key:**

**Hexagon wrench:**

**1pc**

**3pcs**



## OPERATION INSTRUCTIONS

 **WARNING:** Before using your drill press, read the instruction manual carefully.

### 1. UNPACKING YOUR MACHINE

Carefully unpack all the content and lay them out on the floor. Check contents against check list below. Retain packaging until all parts are accounted for and assembly has been complete. Lift out base plate and remove protective paper and place on workbench.

Inside the small box you will find the chuck, three handles, three set bolts, three washers, two hexagonal keys and chuck key. Place on workbench.

Lift worktable out and remove protective paper. Put on workbench. Remove headstock and motor assembly and put on workbench. Remove column and plastic guard. Put plastic guard away for time being.

### 2. ASSEMBLY (See Fig 1-3)

**Assemble the machine as follows:**

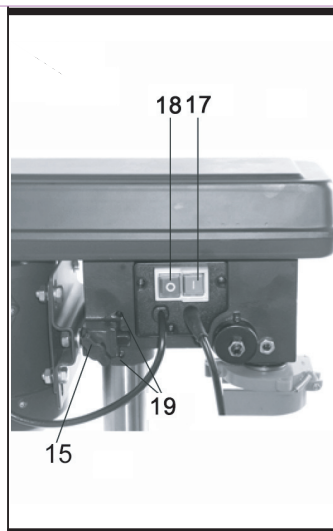
- Position the machine base (1).
- Fasten the pillar (2) to machine base (1) using three screws (3) and washers.
- Push the drill table (4) onto the pillar (2) (fig 3).
- Lock the drill table into the desired position using the clamping screw (5).
- Place the drill head (6) with pulley cover (7) and motor (8) onto the pillar and fasten using the head lock screw (19).
- Screw the three grip knobs (9) onto the feeder cross handle.

**Note:** All bare parts are greased in order to protect them from corrosion. Before mounting the drill chuck (10) onto the spindle (11), both parts must be completely degreased using an environmentally friendly solvent. This ensures optimal transmission of power.

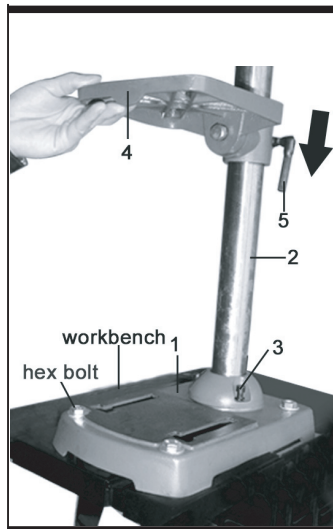
- Mount the drill chuck onto the spindle.

### 3. INSTALLING THE MACHINE (See Fig 3)

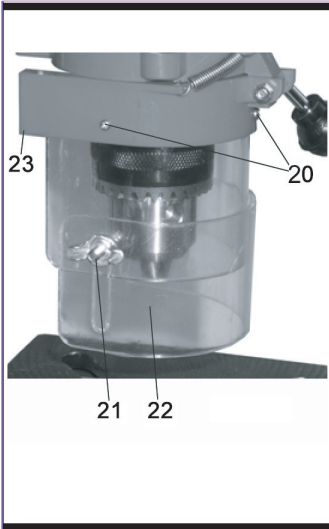
Before the drill is started for the first time, it must be solidly and fully mounted on the work area of a stable workbench. Select suitable length bolts, washers and nuts (not supplied). Use four mounting holes (12) in the base plate to do this. Ensure that the machine is freely accessible for



**Fig 2**



**Fig 3**



**Fig 4**



**Fig 5**

operation, adjustment and maintenance.

**Note:** The fixing screws may only be tightened to a point where they do not distort or deform the base plate. Excessive tension can lead to fracture.

#### **4.HINGED CHIP GUARD** (See Fig 4)

Unscrew the three-recessed head screws (20).

Push the transparent cover (22) into the groove of the red mounting frame (23) and fasten it again with the recessed head screws (20).

The height of the cover (22) is infinitely adjustable and can be locked using the two thumb screws (21).

The chip guard (13) can be flipped upwards to change drill bits; ensure, however, that the chip guard (13) is back in its initial position before restarting the machine.

#### **5.PRIOR TO STARTING**

Ensure that the voltage of the mains supply complies with the specifications on the rating plate. Connect the machine only to a socket with the properly installed earthing contact. The table drill is equipped with a no-volt trip that is designed to protect the operator from an undesired restart following a drop in voltage. Should this occur, the machine must be manually restarted.

#### **6.OPERATION GENERAL** (See Fig 2)

To switch on the machine, push in the green On button "I" (17); the machine starts up. To switch off, press the red Off button "o" (18); the device shuts down. Ensure that you do not overload the device. If the sound of the motor drops in pitch during operation, it is being overloaded. Do not overload the device to the point where the motor comes to a standstill.

The machine is designed for continuous operation with intermittent load (S2 :15 min).

The machine may be operated under a full load for a maximum of 15 minutes, at which time the machine needs to idle for 15 minutes. This prevents the motor from overheating.

#### **7.INSERTING THE TOOL** (See Fig 1)

Make sure that the power plug is removed from the socket-outlet before changing tools. Only cylindrical tools with the stipulated maximum shaft diameter may be clamped in the scroll

chuck (10). Only use a tool that is sharp and free of defects. Do not use tools whose shaft is damaged or which are deformed or flawed in any other way. Use only accessories and attachments that are specified in the operating instructions or have been approved by the manufacturer.

**8. HANDLING THE DRILL CHUCK** (See Fig 1)  
 Your table drill is equipped with a key chuck (10). In order to insert a drill bit, flip up the chip guard (13), insert the drill bit, then tighten down the drill chuck using the supplied chuck key. Pull out the chuck key. Ensure that the clamped in tool is firmly seated.

**Caution!** Do not leave the chuck key in the clamp hole. Doing so will cause it to shoot out, which could cause injury.

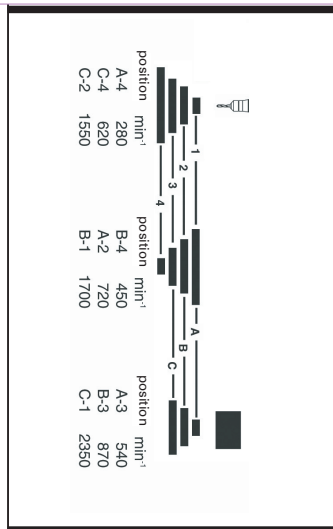
**9. SETTING THE SPEED** (See Fig 1, 6, 7)  
 First switch the machine off, then pull out the mains plug. The various spindle speeds can be set by moving the V-belt.

- Proceed as follows:
- Remove the screw (16) in order to open the pulley cover (7).
  - Slacken the tightening screw (15) and push the motor (8) in the direction of the machine head.
  - Move the V-belt to the desired position.
  - Refer to the table for the recommended speeds for different drill bit materials (fig 6).
  - Tighten the V-belt by pushing the motor (8) back from the machine head (6). Screw the tightening screw (15) back down again. The tension is properly set when the V-belt flexes in the middle by approx. 1 cm when pressed.
  - Close the pulley cover and screw down using the screw (16).

The pulley cover (7) must always be locked tight, as the machine is equipped with a safety switch that only allows the machine to be turned on when the pulley cover (7) is closed.

**Caution!** Never let the pillar drill run when the pulley cover is open. Always pull the mains plug before opening the cover. Never touch the V-belt when it is rotating.

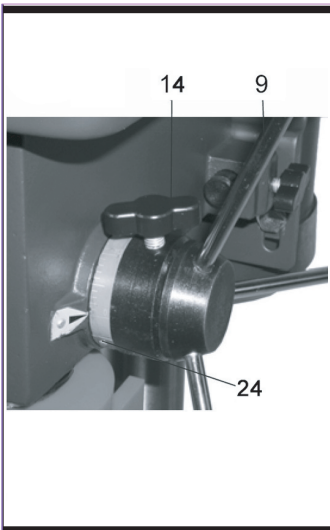
**10. DRILL DEPTH STOP POINT** (See Fig 8)  
 The drilling spindle has a swiveling scale ring for setting the drill depth. Only adjust the setting



**Fig 6**



**Fig 7**



**Fig 8**



**Fig 9**

when the machine is at a standstill.

- Lower the drilling spindle (11) until the tip of the drill bit touches the workpiece.
- Slacken the depth scale lock (14) and turn the scale ring (24) forwards until it stops.
- Turn the scale ring (24) back to the desired drill depth, then lock this setting into place using the depth scale lock (14).

### **11.SETTING THE ANGLE OF THE DRILL TABLE** (See Fig 5)

- Slacken the carriage bolt (25) under the drill table (4).
- Set the drill table (4) to the desired angle (which can be read off the scale on the top side of the drill table).
- Tighten down the carriage bolt (25) in order to lock the drill table (4) into this position.

### **12.SETTING THE HEIGHT OF THE DRILL TABLE** (See Fig 1)

- Slacken the tightening screw (5).
- Set the drill table (4) to the desired height by pressing down or lifting up and simultaneously (gently) pushing to the left or right.
- Screw the tightening screw (5) back down again.

### **13.NEVER HOLD THE WORKPIECE IN PLACE WITH YOUR HAND!**

When drilling you must ensure that the workpiece can move freely in all directions .This will allow you to precisely locate the drill bits.

Always ensure that the workpiece cannot rotate.

**Caution!** Sheet metal parts have a tendency to “snatch” (rise up the dill bit) suddenly unexpectedly always. Ensure workpiece is securly clamped before drilling.

There must be enough distance (>10mm) between the upper edge of the workpiece and the tip of the drill bit.

### **14.COUNTERSINKING AND CENTER-DRILLING**

With this table drill, you can also countersink and center-drill. Please observe that countersinking should be performed at the lowest speed, while a high speed is required for center-drilling.

### **15.CARE AND MAINTENANCE**

The table drill is to a large extent maintenance-

free.

Keep the device clean.

Pull out the mains plug before doing any cleaning and maintenance work on the machine.

Do not use any harsh, abrasive cleaning solvents.

Ensure that no liquid seeps into the device.

Re-gress all bare parts when the work is finished.

The drill pillar, blank parts of the column, and the drill table especially should be regressed at regular intervals. Use standard, acid-free lubricating grease to do this.

Regularly check and clean the ventilation holes.

Store the device in a dry room. Should the device become damaged, do not try to repair it yourself; leave this work to a qualified electrical technician.

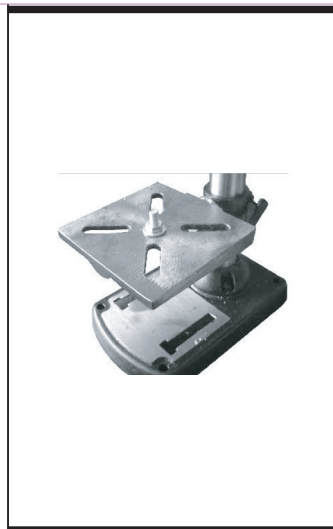
### **16.ASSEMBLY OF THE CHUCK**

Holding the chuck on the spindle, tap with a block of wood hammer or a soft tip hammer to set the chuck onto the spindle. (See fig9)

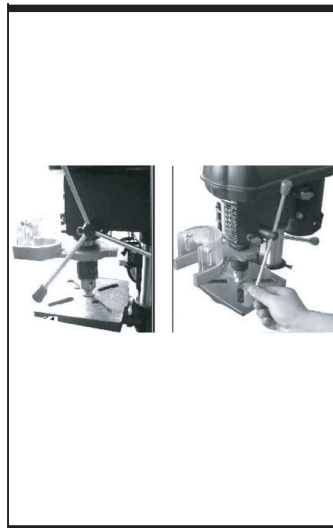
### **17.DISASSEMBLY OF THE CHUCK**

Disconnect the bench drill from the power supply. Fit a suitable length bolt through the work table hole, do not tighten it (See fig10).

Adjust the work table to a suitable height and lock the work table. Move down chuck and tighten the chuck onto the bolt (See fig11 & 12). Turn handle, move up spindle. Chuck will be pulled off.



**Fig10**



**Fig 11&12**

Drilling Speed Chart (Guide Only)						
Material to be drilled						
Drill mm	Steel	Cast Iron	Hard Metal	Aluminium	Plastic	Wood
	Drill speed (min <sup>-1</sup> )					
3	2350	2350	1550	2350	2350	2350
4	1700	2350	870	2350	2350	2350
5	1700	1700	870	1700	2350	2350
6	1550	1700	720	1700	2350	2350
7	870	1550	720	1550	2350	2350
8	720	870	620	1550	2350	2350
9	620	720	540	870	2350	2350
10	620	720	540	870	2350	2350
11	540	620	450	720	2350	1700
12	540	620	450	720	2350	1700
13	450	540	450	620	1700	1700
14	450	540	280	620	1700	1550
15	280	450	280	540	1550	1550
16	280	450	280	540	1550	1550

## MAINTENANCE

Always lubricate drill bits with suitable oil when drilling.

This will prolong the life of drill bits.

**Caution: Do not use water-based coolant or any kind of continuous coolant pump.**

Remove all swarf and dust after each operation. Spread oil onto unplated surfaces especially if the machine is not used for long periods.

Lubricate the Spindle drive with oil every six months.

Spindle guide screw should be checked periodically to finger tightness.

## ENVIRONMENTAL PROTECTION



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

## PLUG REPLACEMENT

The fuse in the main plug of your power tool should always be replaced with one of identical rating.

Check the voltage given on your power tool matches the supply voltage.

The power tool is supplied with a fitted plug, however if you should need to fit a new plug follows the instruction below.

### IMPORTANT

The wire in the mains lead are coloured in accordance with the following code:

**Green & yellow ---Earth**

**Blue ---Neutral**

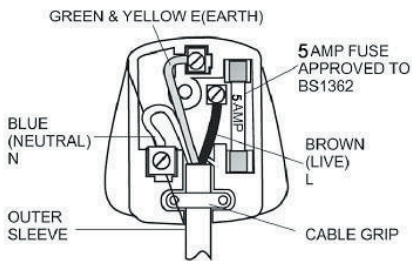
**Brown ---Live**

The wire which is coloured green & yellow must be connected to the terminal which is marked with E or  $\overline{\text{E}}$ .

The wire that is coloured blue must be connected to the terminal that is marked with the letter N.

The wire that is coloured brown must be connected to the terminal that is marked with the letter L.

A 13AMP (BS1363 or BS1363/A) plug must be used and a 5 AMP fuse must be fitted.





## Declaration of Conformity

We, Importer

**Screwfix Direct Ltd**

**Mead Avenue**

**Houndstone Business Park**

**Yeovil**

**BA 22 8RT**

Declare that the product

**9 SPEED BENCH PILLAR DRILL  
SF16N-9**

Complies with the essential health and safety requirements of the following directives:

**89/336/EEC, 93/68/EEC**—EMC Directive.

**73/23/EEC, 93/68/EEC**—Low Voltage Directive

**98/37/EC**—Machinery Directive.

Standards and technical specifications referred to:

**EN 61029-1:2000**

**EN 55014-1 /A2:2002**

**EN 55014-2 /A1:2001**

**EN 61000-3-2:2000**

**EN 61000-3-3: /A1:2001**

### Authorised Signatory

Date: 15/09/05

Signature: P. C. Harries

Name: Peter Harries  
Screwfix Direct Ltd  
Quality Manager





**TITAN®**