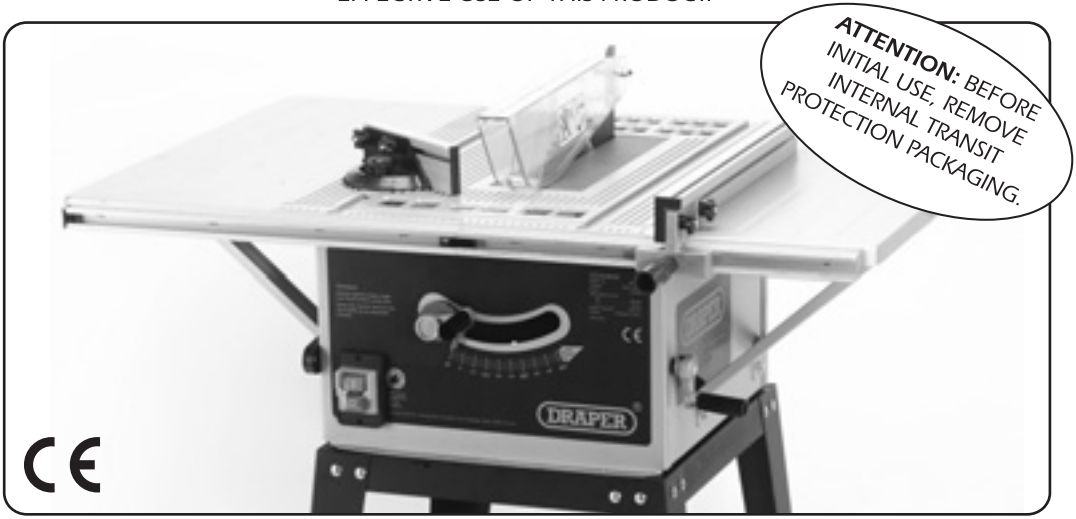
DRAPER®

INSTRUCTIONS FOR

254mm Table Saw

Stock No.69122 Part No.BTS252

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS PRODUCT.



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GENERAL INFORMATION

Read all these instructions before operating this product and save thee instructions.

This manual has been compiled by Draper Tools and is an integrated part of the product with which it is enclosed and should be kept with it for future references.

This manual describes the purpose for which the product has been designed and contains all the necessary information to ensure its correct and safe use. We recommend that this manual is read before any operation or, before performing any kind of adjustment to the product and prior to any maintenance tasks. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

Whilst every effort has been made to ensure accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

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DECLARATION OF CONFORMITY

We :
Draper Tools Ltd.,
Hursley Road,
Chandler's Ford,
Eastleigh, Hampshire.
SO53 1YF.
England.

Declare under our sole responsibility that the product:

Stock No:- **69122.**

Part No:- **BTS252.**

Description:- **Table Saw.**

To which this declaration relates is in conformity with the following directive(s) 98/37/EC, 73/23/EEC & 89/336/EEC.

With reference to: EN61029-1:2000, EN61029-2-1:2002, EN55014-2:1997, EN61000-3-2:1995+A1+A2+A14, EN61000-3-11:2000 & EN55014-1:2000.

John Draper
Managing Director

16/01/2003

SPECIFICATION

The Draper Tools policy of continuous improvement determines the right to change specification without notice.

Stock No.	69122
Part No.	BTS252
Rated voltage	230V/50Hz
Rated input	1500W
Max. depth of cut at 90°	80mm
45°	55mm
Blade diameter	254mm (10")
Bore size	15.88mm (⅝")
Revolution per minute (max)	4500r/min
Table size	430x637mm
Extension wing sizes (2)	260x637mm
Work area	950x637mm
Overall dimensions	950x660x295mm
Sound pressure level	99.3dB(A)
Sound power level	112.3dB(A)
Vibration level	<1.16M/s^2
Weight	28.5kg

ALWAYS WEAR AND APPROVED DUST MASK, EAR DEFENDERS AND GOGGLES.

GUARANTEE

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone: (023) 8026 6355.

A proof of purchase must be provided with the tool.

If upon inspection it is found that a fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. The guarantee period covering parts/labour is 12 months from the date of purchase. The guarantee is extended to 24 months for parts only. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agents.

Note: If the tool is found not to be within the Terms of Warranty, repair and carriage charges will be quoted and made accordingly.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the guarantee period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.

POWER SUPPLY

- **Connecting to the Power Supply:**

  To eliminate the possibility of an electric shock your machine has been fitted with a BS approved, non rewireable moulded plug and cable which incorporates a fuse, the value of which is indicated on the pin face of the plug. If the plug is marked with the ASTA symbol and the fuse needs replacing, an ASTA approved BS1362 fuse must be used of the same amp rating. If the plug is not ASTA marked, a fuse with the ASTA symbol, BS Kitemark, or both ASTA and BS Kitemark, of the same amp rating should be used.

- The fuse cover is detachable, never use the plug with the cover omitted. If a replacement fuse cover is required, ensure it is the same colour as that visible on the pin face of the plug (i.e. red). Fuse covers are available from your Draper Tools stockist.

  If the fitted plug is not suitable, it should be cut off and destroyed. *The end of the cable should now be suitably prepared and the correct type of plug fitted. See below.

- ***WARNING:**

  A plug with bare flexible wires exposed is hazardous if engaged in a live power socket outlet.

- **WARNING: THIS APPLIANCE MUST BE EARTHED.**
- The mains lead is coloured Green and Yellow - Earth, Blue – Neutral and Brown – Live.
- As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
- The wire which is coloured green and yellow must be connected to the terminal in your plug marked with the letter 'E' or by the earth symbol ⏚ or coloured green or green and yellow.
- The wire which is coloured blue must be connected to the terminal which is marked with the letter 'N' or coloured black or blue.
- The wire which is coloured brown must be connected to the terminal which is marked with the letter 'L' or coloured red or brown.
- **EXTENSION LEAD CHART:**

  Extension lead sizes shown assure a voltage drop of not more than 5% at rated load of tool.

Ampere rating (on Name plate)	3	6	10	13
Extension cable length (Metres)	Wire Size mm^2			
7.5	0.75	0.75	1.0	1.25
15	0.75	0.75	1.0	1.5
22.5	0.75	0.75	1.0	1.5
30	0.75	0.75	1.25	1.5
40	0.75	0.75	1.5	2.5

- **IMPORTANT:**
  On products exceeding 2000W it is recommended that the power cable and/or extension cable are fully unwound before a connection is made to the power supply.
  However, ensure the residual cable does not pose a trip hazard

GENERAL SAFETY INSTRUCTIONS

GENERAL SAFETY INSTRUCTIONS
(In accordance to EN 61029-1:2000)

WARNING: When using electric tools basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury including the following.

Read all these instructions before attempting to operate this product and save these instructions.

SAFE OPERATION

1. KEEP WORK AREA CLEAR
   a. Cluttered areas and benches invites injuries.

2. CONSIDER WORK AREA ENVIRONMENT
   a. Do not expose tools to rain.
   b. Do not use tool in damp or wet locations.
   c. Keep work area well lit.
   d. Do not use tools in the presence of flammable liquids or gases.

3. GUARD AGAINST ELECTRIC SHOCK
   a. Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).

4. KEEP OTHER PERSONS AWAY
   a. 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
   a. When not in use, tool should be stored in a dry lock-up place, out of reach of children.

6. DO NOT FORCE THE TOOL
   a. It will do the job better and safer at the rate for which it was intended.

7. USE THE RIGHT TOOL
   a. Do not force tools to do the job of a heavy duty tool.
   b. Do not use tools for purposes not intended; for example do not use circular saws to cut tree limbs or logs.

8. DRESS PROPERLY
   a. Do not wear loose clothing or jewellery, they can be caught in moving parts.
   b. Non-skid footwear is recommended when working outdoors.
   c. Wear protective hair covering to contain long hair.

9. USE PROTECTIVE EQUIPMENT
   a. Use safety glasses.
   b. Use face or dust mask if working operations create dust.

10. CONNECT DUST EXTRACTION EQUIPMENT
   a. 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
   a. Never yank the cord to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.

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

13. DO NOT OVERREACH
   a. Keep proper footing and balance at all times.

14. MAINTAIN TOOLS WITH CARE
   a. Keep cutting tools sharp and clean for better and safer performance.
   b. Follow instruction for lubricating and changing accessories.
   c. Inspect tool cords periodically and if damaged have them repaired by an authorized service facility.
   d. Inspect extension cords periodically and replace if damaged.
   e. Keep handles dry, clean and free from oil and grease.

15. DISCONNECT TOOLS
   a. 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
   a. Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

17. AVOID UNINTENTIONAL STARTING
   a. Ensure switch is in "off" position when plugging in.

18. USE OUTDOOR EXTENSION LEADS
   a. When the tool is used outdoors, use only extension cords intended for outdoor use and so marked.

19. STAY ALERT
   a. Watch what you are doing, use common sense and do not operate the tool when you are tired.

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

21. WARNING
   a. The use of any accessory or attachment other than one recommended in this instruction manual may present a risk of personal injury.

22. HAVE YOUR TOOL REPAIRED BY A QUALIFIED PERSON
   a. This electric 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.

ADDITIONAL TABLE SAW SAFETY RULES

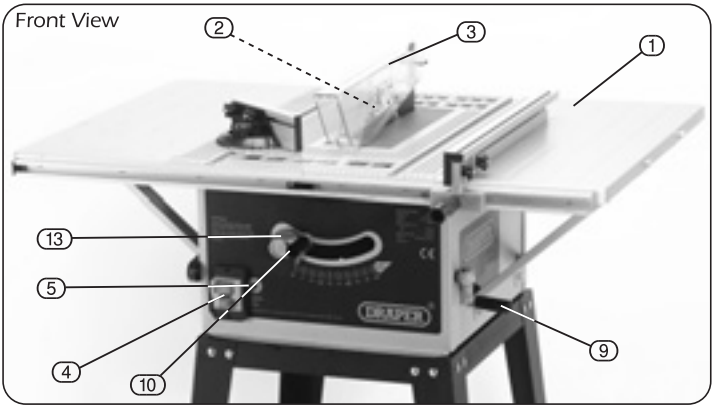
WARNING
For your own safety, do not operate your saw until it is completely assembled and installed according to the instructions....and until you have read and understood the safety rules, assembly procedures, adjustment procedures and maintenance etc.

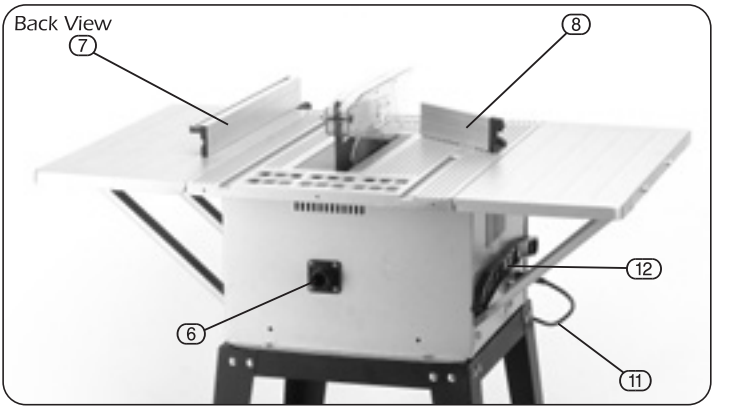
1. **STABILITY.**
   The saw must be bolted down. There may be a tendency for the saw to tip over or move during certain cutting operations, such as, cutting extremely large heavy panels or long heavy boards.
2. **MINIMISE POTENTIAL ACCIDENTS.**
   Most accidents are caused by FAILURE TO FOLLOW SET UP AND OPERATION INSTRUCTIONS.
   Avoid awkward hand positions, where a sudden slip could cause a hand to move into a saw blade or other cutting tool. Never reach behind, or around, the cutting tool with either hand to hold down the workpiece, or for any other reason. DO NOT PLACE FINGERS OR HANDS IN THE PATH OF THE SAW BLADE.
3. Never reach under your machine when operating or make any adjustments when it is running.
4. Turn the saw 'OFF' and disconnect the power supply when changing the cutting tool, removing or replacing the blade guard, or making any adjustments.
5. Always maintain control of the workpiece. DO NOT 'LET GO' of the workpiece until the machine has stopped.
6. When removing short workpieces, or cleaning up around the table, be sure the saw is switched 'OFF'.
7. Never turn the saw 'ON' before clearing the table of all tools, wood scraps, etc., except the workpiece and related feed or support devices for the operation.
8. When moving the saw, disconnect power supply.
9. Never hold onto or touch the 'free end' of the workpiece or a 'free piece' that is cut off, while power is 'ON' and/or the saw blade is rotating.
10. If you stall or jam the saw blade in the workpiece, turn power 'OFF', remove the workpiece from the saw blade and check to see if the saw blade is parallel to the table slots or grooves and if the riving knife is in alignment with the saw blade. If ripping at the time, check to see if the rip fence is parallel with the saw blade. Adjust as indicated in this manual.
    WARNING: Do not allow familiarity (gained from frequent use of your saw) to become commonplace. Always remember that a careless fraction of a second is sufficient to inflict severe injury.
11. MAKE SURE YOUR FINGERS DO NOT CONTACT THE TERMINALS OF THE POWER PLUG when installing or removing from the mains power supply.
12. **KICKBACKS - THEIR CAUSE.**
    Kickbacks can cause serious injury. A kickback occurs when a part of the workpiece binds between the saw blade and the rip fence or another object rises from the table and is thrown towards the operator. Kickbacks can be avoided by attention to the following conditions.:
    Replace table insert when worn.
13. KICKBACK - HOW TO AVOID THEM AND PROTECT YOURSELF FROM POSSIBLE INJURY.
    a) Be certain that the saw blade is parallel to the rip fence.
    b) Do not rip by applying the feed force to the section of the workpiece that will become the cut-off (free) piece. Feed force when ripping should always be applied between the saw blade and the fence....use a push-stick for short work or less than 6" wide.
    c) Keep saw blade guard and riving knife in place and operating properly. The riving knife must be in alignment with the saw blade.
14. Do not leave a long board (or other workpiece) unsupported so the spring of the board causes it to shift on the table. Provide proper support for the workpiece, based on its size and the type of operation to be performed. Hold the work firmly against the fence and down against the table surface.
15. Never use a length stop on the free end of the workpiece when cross cutting. Never hold onto or touch the free end of the workpiece when cross cutting, or a free piece that is cut off when ripping while power is 'ON' and/or the saw blade is rotating. In short, the cut-off piece in any 'through-sawing' (cutting completely through the workpiece) operation must never be confined - it must be allowed to move laterally.
16. IF YOUR SAW MAKES AN UNFAMILIAR NOISE OR IF IT VIBRATES EXCESSIVELY, CEASE OPERATING IMMEDIATELY UNTIL THE SOURCE HAS BEEN LOCATED AND THE PROBLEM CORRECTED.
17. **EXTENSION LEADS**
    The use of any extension lead will cause some loss of power. To keep this to a minimum and to prevent over heating and motor burn-out, use the table to determine the minimum size of extension cable required. Use only extension leads which have a 3-pin plug and 3-pin sockets which accept the tools plug.

- **SAFETY PRECAUTIONS**
- Do not use saw blades which are damaged or deformed;
- Replace table insert when worn;
- Use only saw blades recommended by the manufacturer, which conform to EN 847-1.
- WARNING: When changing the saw blade beware that the width of the groove cut of the saw blades shall not be less than, and the thickness of the body of the saw blade shall not be more than, the thickness of the riving knife;
- Take care that the selection of the saw blade is suitable for the material to be cut;
- Wear suitable personal protective equipment when necessary, which should include
  - hearing protection to reduce the risk of induced hearing loss,
  - respiratory protection to reduce the risk of inhalation of harmful dust,
  - gloves when handling saw blades and rough material. Saw blades shall be carried in a holder whenever practicable;
- Connect circular saws to a dust-collecting device when sawing wood.
- Do not use High speed steel (HSS) blades;
- The push-stick or push block should always be stored with the machine when not in use.

- **SAFE OPERATION**
- Use push-sticks or push blocks to feed the workpiece past the saw blade;
- Use and correct adjustment of the riving knife;
- Use and correct adjustment of the upper saw blade guard;
- Rebating or grooving should not be carried out unless suitable guarding, such as a tunnel guard, is fitted above the saw table;
- Saws shall not be used for slotting (stopping groove);
- Use only saw blades for which the maximum possible speed is not less than the maximum spindle speed of the tool and the material to be cut;
- When transporting the machine use only transportation devices and do never use guards for handling or transportation;
- During transportation the upper part of the saw blade should be covered; for example by the guard;

GETTING TO KNOW YOUR TABLE SAW





1. Work Table.
2. Blade.
3. Blade Guard.
4. No-volt On/Off Switch.
5. Overload Protection Trip Reset Switch.
6. Dust Extraction Port.
7. Rip Fence.
8. Mitre Guide.
9. Saw Blade Angle Adjustment.
10. Saw Blade Height Adjustment.
11. BS Non-rewireable Plug & Cable.
12. Push stick.
13. Saw Blade Adjustment Locking Knob.

- **UNPACKING:** After removing the packing material, make sure the product is in perfect condition and that there are no visible damaged parts. If in doubt, do not use the product and contact the dealer from whom it was purchased.

  The packaging materials (plastic bags, polystyrene, etc.), must be disposed of in an appropriate refuse collection container. These materials must not be left within the reach of children as they are potential sources of danger.

ASSEMBLY

- **NOTE:** Remove the plug from the socket before carrying out adjustment, servicing or maintenance.
- **ATTENTION:** Before initial use, remove internal transit protection packaging.

  Place machine so the base (A) is accessible and remove the four cross slot screws (12mm*). Remove the base (A) and store to one side. Remove all transit packaging (Fig.1).

  *One screw is 4mm shorter to avoid damaging the no-volt switch housing.

  Assemble crank handle (B) to the right hand side of the machine.

  Tighten the plain slot grub screw (C) making certain it firmly locks onto the spindle flat (D) (Fig.2).

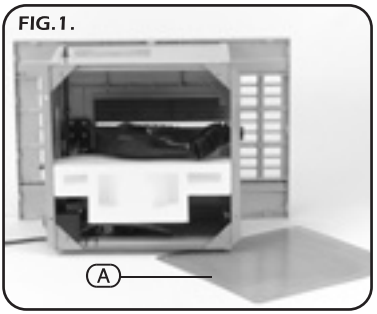


FIG.1.

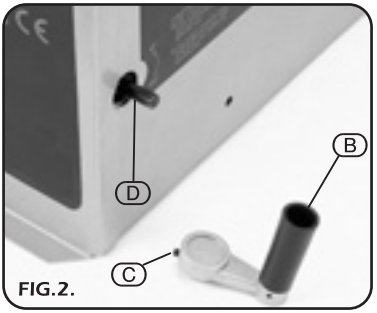


FIG.2.

  Loosen the blade position clamp ring (E) before rotating the crank handle clockwise. When the motor body is tilted to approx. 45° remove the second part of the transit packaging.

  With all the packaging removed, rotate the crank handle anticlockwise to return to the blades original position.
- **NOTE:** Keep base grill separate to allow further assembly operations.

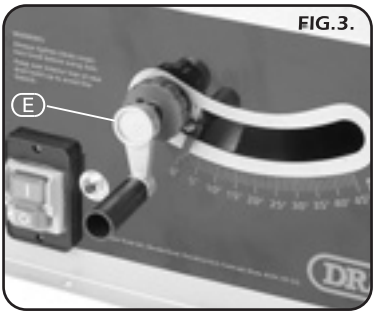


FIG.3.

- ***RIVING KNIFE INSTALLATION/ ADJUSTMENT (Figs.4-6):***

  On the underside of the table, loosen the 5mm hex. socket bolts (F). With the bolts sufficiently loose pass the riving knife (G) through the table insert and position it under plate (H).

  Tighten bolts (F) to grip the riving knife but still allowing movement for adjustment.

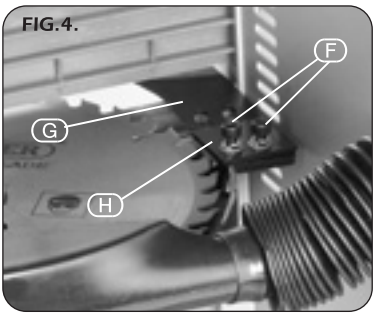


FIG.4.

ASSEMBLY

Attach the crank (I) to the front side of the machine.

Tighten the plain slot grub screw making certain it firmly locks onto the spindle flat.

Loosen the blade position clamp ring before rotating the crank handle anticlockwise raising the blade.

The radial distance between the riving knife and the toothed rim of the saw blade shall not at any point exceed 5mm at any cutting depth. The tip of the riving knife shall not be lower than 5mm from the tooth peak.

With the riving knife correctly adjusted securely tighten the 5mm hex. socket bolts clamping the knife.

FIG.5.

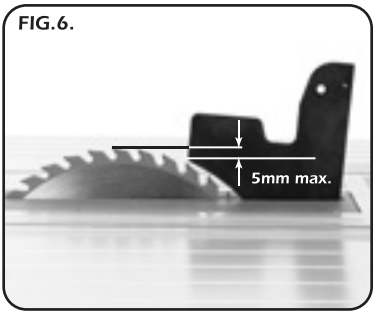


FIG.6.

- **PUSH STICK HOLDERS (Fig.7.):**
  Carefully screw the clamp plates (J) to the left hand side of the machine into the threaded holes (K). Ensure the spring washer is located between the screw and plain washer.

  NOTE: Do not overtighten the screw to prevent damaging the thread in the housing.

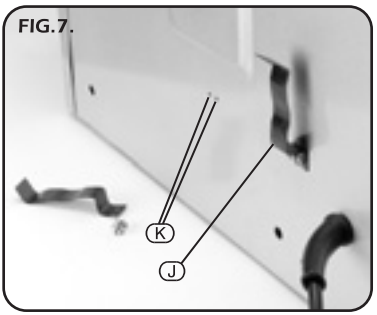


FIG.7.

ASSEMBLY

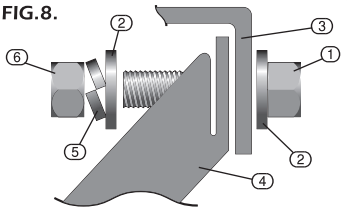
- **EXTENSION WINGS (Figs.8-11):**
  Attach the arm supports (4) to the outer edge of the extension wings (3).

  Ensure the 10mm bolt passes through one plain washer, the extension wing, the support arm, the second plain washer, the spring washer and secured in place with the 10mm nut.

  Wait for complete assembly and adjustment before fully tightening the fixings.

  Attach the extension wing to the table.
- **NOTE: The wings are left and right handed.**

FIG.8.



1 10mm bolt
2 Plain washer
3 Extension wing
4 Support wing
5 Spring washer
6 10mm nut

FIG.9.

Ensure the holes (L) are positioned to the front of the saw.

Insert the 10mm bolt through the spring washer, plain washer, extension wing into the threaded holes in the side of the saw table. Leave bolts sufficiently loose to allow adjustment.

Support the saw on the front edge so the table and extension wings are perpendicular to the floor.

Care must be taken to avoid damaging any components on the saw's front panel.

Attach the bottom of the support arms (9) through the side of the saw housing (10).Insert the 10mm bolt through one plain washer, the support arm, the saw body, the second plain washer, the spring washer and secure in place with the 10mm nut.

Level the front of the extension wings with the front of the saw. Level the work table surface with the top of the wings especially the outer edge supported by the arms.

Tighten all fixings during/after the adjustment process.

FIG.10.

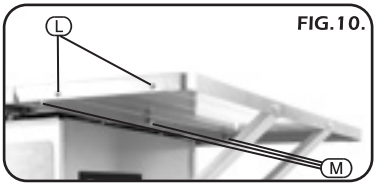
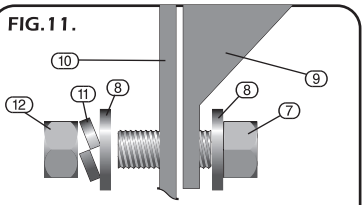


FIG.11.



7 10mm bolt
8 Plain washer
9 Support arm
10 Saw Housing
11 Spring washer
12 10mm nut

ASSEMBLY

- **RIP FENCE CHANNEL (Figs.12-13):**
  Slot the two halves of the channel together over the centre piece (N).

  Using four of the 4mm hex. socket bolts secure the channel to the table front into the thread holes. Use the four remaining 4mm hex. socket bolts to attach the channel (O) to the extension wings (P).
- **NOTE:** Position the spring washer in between the plain washer and the 8mm nut.

  Align the top of the rail with the work table/extension wing surface, making certain it is central and tighten all the fixings.
- **NOTE:** The scale functions as a guide only. For accuracy the width of cut must be measured from the blade.

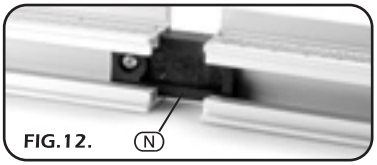


FIG.12.

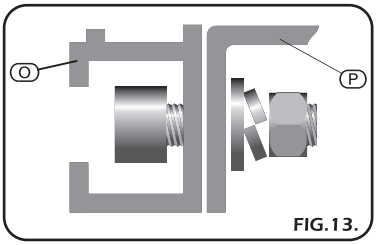


FIG.13.

- **BLADE GUARD (Fig.14.):**
  Remove the 10mm locking nut, plain washer and bolt from the riving knife. Slide the blade guard (S) over the riving knife aligning the hole.

  Pass the bolt through from the left locating the square shoulder into the guard's aperture. Replace the plain washer and locking nut.

  Tighten the nut, stopping before the guard begins to pinch the riving knife.

  The blade guard must have freedom of movement to function safely, allowing the guard to fall as the blade height increases.
- **NOTE:** The roll pin through the riving knife is solely designed to prevent the blade guard from being raised more than is functionally necessary prohibiting exposure to the blade.

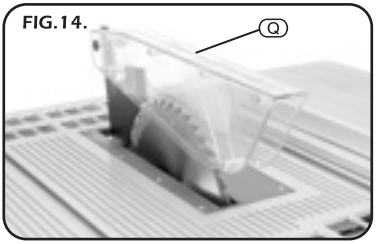


FIG.14.

ASSEMBLY

- **STAND ASSEMBLY (Fig.15-19):**
  The table saw must be securely mounted to the stand (or other suitable surface).

  It must be located on a firm, level surface providing sufficient space around the saw table to allow material to be cut without interference. It must never be positioned in a manner that encourages or forces the user to assume an awkward posture or dangerous arrangement i.e. leaning over the saw to retrieve the cut timber.

  Locate the four pairs of cross support members. The two shortest pairs are the upper supports, and the other longer two pairs are the lower supports. Lay out the four upper sections as shown.

  Assemble one corner i.e. a leg to two of the upper sections. Pass the dome head bolts (locating the square shoulder) through the leg and cross member and secure with the 10mm nut.
- **NOTE:** Ensure the spring washer is position between the 10mm nut and plain washer.

  The fixings must be finger tight only to allow adjustment.

  Assemble the two upper sections so the 410mm piece overlaps the top of the 420mm piece.

  Assemble the leg on the opposite corner in the same way. When complete join the two parts with the two remaining legs.

  Bolt the four lower sections in place ensuring the two sections stamped "A" are directly under the 410mm pieces.

  Pass the 10mm bolt (R) up through the rubber foot (S). Assemble the rubber foot to the leg and secure with the plain washer, spring washer and 10mm nut.

  When fully assembled position the stand upright on a level surface to settle in the correct shape before tightening all the fixings.

  When correctly assembled and all fixing are tight the stand should not rock, but remain firm.

  Replace the base grill on the saw. Secure with the three cross slot screws, spring washers and plain washers. Insert the short cross slot screw into the corner adjacent to the no-volt switch.

  With the aid of an assistant, lift the table saw onto the stand assembly and align the mounting holes in the base with those on the stand.
- **NOTE:** Lift the saw at points (T). Do not attempt to move or lift the saw using the extension wings. Never use guards for handling or transportation.

  With the saw in position bolt the complete assembly together with the 10mm bolts, plain washers, spring washers and 10mm nuts.

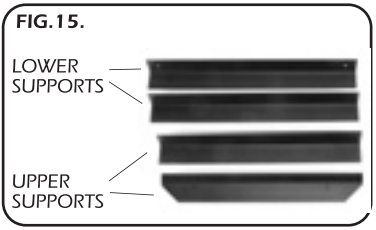


FIG.15.

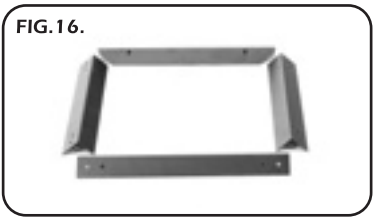


FIG.16.

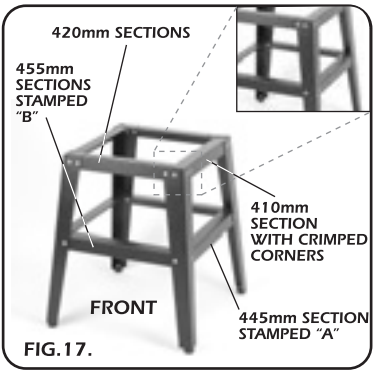


FIG.17.

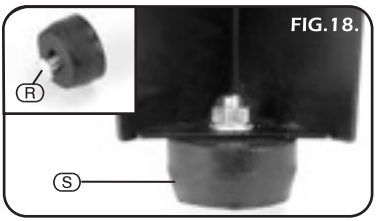


FIG.18.

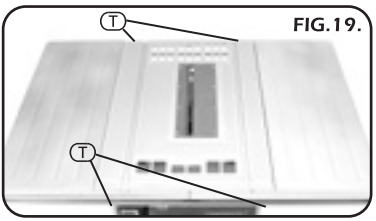


FIG.19.

ASSEMBLY

- **RIP FENCE (Figs.20-23):**
  Rotate locking knob (U) anticlockwise to loosen plate (V).
  Remove the end cap from the rip fence channel before sliding the plate down channel (W).
  Slide the rip fence casting to the appropriate side of the saw blade most comfortable for the operators requirements.
  Tighten the locking knob to clamp the casting tightly to the rail. Make certain the casting is sitting flush in the channel. Replace the end cap.
  The aluminium 'L' section of the fence is designed with two alternative mounting positions.

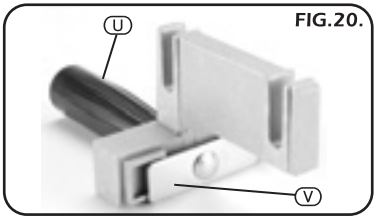


FIG.20.

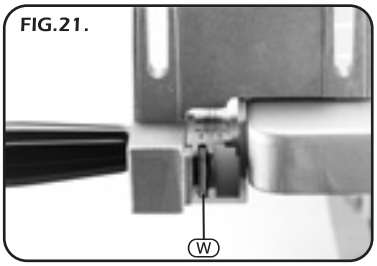


FIG.21.

For standard ripping the fence should be mounted as shown in Fig.22.
Loosen the locking knobs (X) to slot the fence section (Y) down into the casting.
Push down on top of the fence section to guarantee it runs level across the saw table surface before tightening the locking knobs (X).

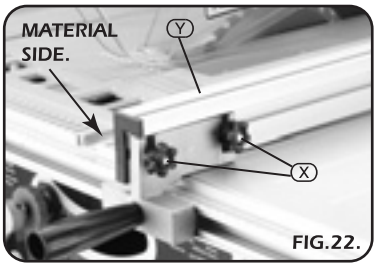


FIG.22.

For operations involving thinner/flatter material the 'L' section of the fence can be located as shown in Fig.23.

- **CAUTION:** The rip fence must be parallel to the blade to minimise the danger of kick back.

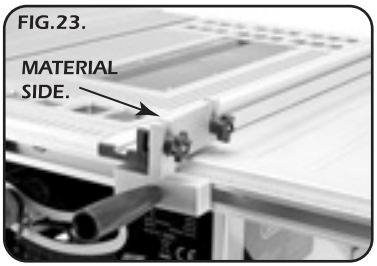


FIG.23.

OPERATION & USE

- **NOTE:** Remove the plug from the socket before carrying out adjustment, servicing or maintenance.
- **BLADE ADJUSTMENT (Figs.24-25):**
  Loosen locking knob (AA) prior to adjustment.
  HEIGHT:
  To adjust the blade height rotate handle (Z) anticlockwise to raise the blade.
- **CAUTION:** The saw blade must be set approximately 5mm above the work piece top. Any greater exposure of the saw blade increases the risk of kick back (Fig.25.).
  BEVEL:
  To tilt the blade angle between 0° and 45° turn handle (AB). Anticlockwise to move from 45° to the 0° setting.
  Locking knob (AA) must be secured prior to attempting any cuts.

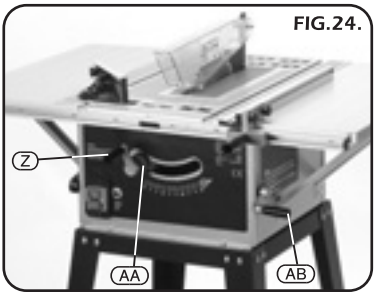


FIG.24.

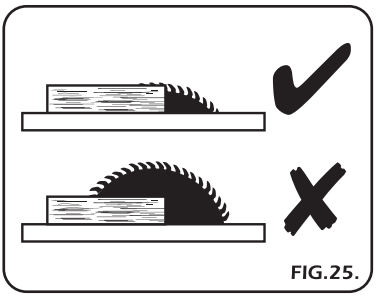


FIG.25.

- **NO-VOLT ON/OFF SWITCH & CIRCUIT BREAKER (Fig.26.):**
  This saw is fitted with a no-volt on/off switch. In the event of an interruption to the power supply, the machine will have to be manually restarted once the power supply has been reinstated.
  Press the green button marked "I" to start the saw.
  Press the red button marked "O" to stop the saw.
- **NOTE:** The motor is fitted with a brake to aid deceleration of the saw blade.
  Should the saw blade become jammed during a cut, the overload protection will trip out and cut power to the motor. This is designed to help prevent motor damage due to burning out caused by overload.
  Once the blockage has been safely removed and the blade is free again, press button (AC) to reset the saw again before attempting to restart.
- **NOTE:** Other possible reasons for the circuit breaker to trip could be motor temperature rising excessively due to constant use or
  regular usage approaching the maximum
  cutting specifications.
  If this is the case allow sufficient time for the motor to fully cool down before attempting to reset and restart.

FIG.26.

- **DUST EXTRACTION (Fig.27.):**
  Inhalation of dust particles can be detrimental to health. The dust outlet must be connected with a dust extraction machine.
- **NOTE:** Due to the outlet diameter, a size adaptation may be necessary.

  All wood dust (including dust from composites like chipboards and fibre boards etc) is hazardous to health; it can affect the nose, the respiratory system and the skin. For example MDF (medium density fibreboard) which contains formaldehyde is a known carcinogen. In addition to the above measures a correctly fitted dust mask, suitable for the activity and in accordance to the relevant standard, must be worn. For work activities involving exposure to fine wood dust a mask rated to at least FFP2 should be used.

FIG.27.

- **REPLACING THE SAW BLADE (Figs.28-29):**
  The use of fixed rings, e.g. pressed, in circular saw blades shall be permitted if made to the manufacturers specification such as Draper 250mm T.C.T. Saw Blade Stock No.00000.
- **NOTE:** Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

  Raise the blade to full height. Remove the blade guard. Remove the eight cross slot screws (AE) and the table insert (AD) to access the motor spindle on which the saw blade is fixed.

  Replace table insert when worn.

  Using the 24mm spanner, hold the blade's outer flange in position. Use the 22mm spanner to loosen the blade locking nut in an anticlockwise direction.

  Do not use saw blades which are damaged or deformed.

  Only use saw blades recommended, which conform to EN847-1.
- **WARNING:** When changing the saw blade beware that the width of the groove cut of the saw blades shall not be less than, and the thickness of the body of the saw, blade shall not be more than, the thickness of the riving knife.

  Take care that the selection of the saw blade is suitable for the material to be cut.

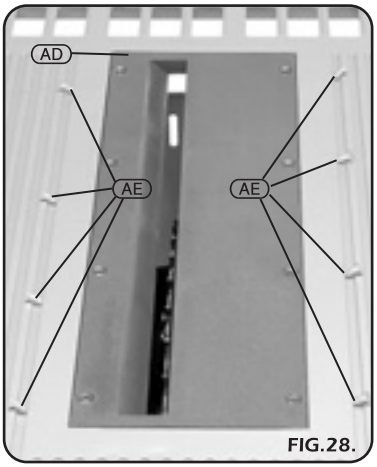


FIG.28.

FIG.29.

CUTTING OPERATIONS

Do not use high speed steel (HSS) blades.

Do not attempt to fit abrasive wheels.

Ensure the specification of the replacement blade conforms with the machine (i.e. outer diameter, width, rpm and type, e.g. wood cutting etc). Before fitting the new blade, wipe a drop of oil on the flange where the arbor locates.

- **NOTE:** Install the blade with the direction of rotation arrow matching the direction of rotation arrow on the blade guard.

  The teeth face downward at the front of the saw.

  Use only saw blades for which the maximum possible speed is not less than the maximum spindle speed of the tool and the material to be cut.

  Check the blade nut is completely tight before refitting the table insert and blade guard.

  After replacement of the blade is complete check the riving knife set-up remains correct and adjust if necessary.

  Never attempt to operate the saw with the blade guard removed.

- **NOTE:** This saw is not designed to cut metal or masonry.

  It is intended for cutting wood and similar materials only.

  Any other application is considered misuse.

- **CUTTING OPERATIONS:**

  Rebating or grooving should not be carried out.

  Saws shall not be used for slotting (stopped groove).

  There are two basic types of cuts: ripping and cross cutting. In general, cutting with the grain is ripping and cutting across the grain is cross cutting. However, with man-made materials this distinction is somewhat difficult to make. Therefore, cutting a piece of wood to a different width is ripping and cutting across the short dimension is cross cutting. Neither ripping or sawing can be done safely freehand! Use push-sticks or push blocks to feed the work piece past the saw blade. Ripping requires the use of a rip fence and cross cutting the use of a mitre guide.

- **CAUTION:** Before using the saw each time check the following:-

  1. Blade is tight and the riving knife is correctly adjusted .
  2. Blade adjustment locking knob is tight.
  3. If ripping, that all fence locking knobs are tight and the fence is parallel to the blade.
  4. If cross cutting, mitre guide locking knobs are tight.
  5. Guard is in place and functioning properly.
  6. Safety goggles, ear defenders and dust mask are being worn.

  Failure to adhere to these common safety rules can greatly increase the danger of injury.

CUTTING OPERATIONS

- **RIPPING (Fig.30.):**
  Secure the rip fence to the table.

  Remove the mitre guide.

  Raise the blade to 5mm higher than the top of the work piece.

  Hold the work piece flat on the table and against the fence. Keep the work piece about 25mm back from the blade.
- **CAUTION:** The workpiece must have a straight edge against the fence and must not be warped, twisted or bowed in any way. Keep both hands away from the blade and away from the path of the blade.

  Turn the saw on and allow the blade to reach full speed.

  Keeping the work piece against the table and fence, slowly feed the work piece towards the saw blade. Stand with your body to one side of the blade and at the front of the table when feeding the wood. This will reduce the risk of injury should a piece of wood kickback or kick up. Continue pushing the work piece until it is clear of the guard and it falls off the rear of the table. Do not overload the motor. Never try to pull a work piece back with the blade turning. Turn the switch off, allow the blade to stop and slide the work piece out.
- **BEVEL RIPPING:**
  This operation is the same as ripping except that the blade angle is set to an angle greater than 0°.
- **WARNING:** Only operate with the work piece and rip fence on the right side of the blade to reduce the risk of kickback.

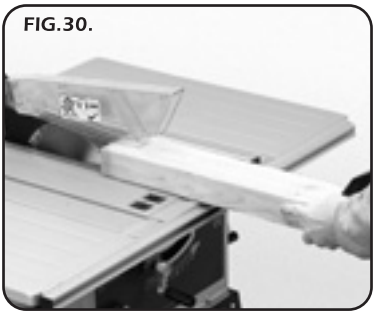


FIG.30.

- **CROSS CUTTING (Fig.31.):**
  Remove the rip fence and place the mitre guide in the table slot.

  Set the blade height 5mm above the work piece top.

  Hold the work piece firmly against the mitre guide with both hands.

  Start the saw and allow the blade to spin up to full speed.Whilst gripping the work piece firmly against the guide and pushing flat against the table, slowly slide the wood through the blade.

FIG.31.

CUTTING OPERATIONS

- **BEVEL CROSS CUTTING (Fig.32.):**
  This operation is the same as cross cutting except that the blade angle is set to an angle greater than 0°.
- **WARNING:** Only work with the workpiece and mitre guide on the right side of the blade.

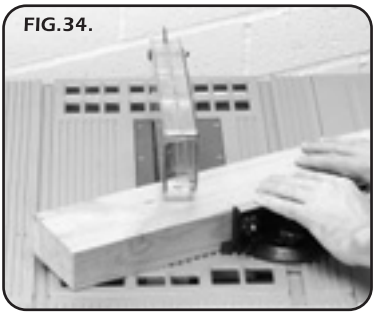
FIG.32.

- **RIPPING SMALL/FLAT PIECES OF WOOD (Fig.33.):**
  This is an unsafe practice and not recommended. It is not safe to have your hands close to the blade. Instead, rip a large piece of material to obtain the desired size. When a small piece requires ripping use the push stick provided to hold the work piece in place, keeping your hands away from the blade and have the rip fence set up as shown in Fig.23, page 12.

FIG.33.

- **MITRE CUTTING (Fig.34.):**
  This operation is the same as cross cutting except the mitre guide is set at any angle other than 90°.
- **COMPOUND MITRE CUTTING:**
  This is a combination of bevel cross cutting and mitre cutting. It is very infrequently used. Follow the instructions for both mitre cutting and bevel cross cutting.

FIG.34.



- **WORKPIECE SUPPORT (Fig.35.):**
  Longer pieces need extra supports, for example, a roller stand. The supports should be placed to the side for wider material or to the rear for longer material so the workpiece does not sag or kick up. The support should allow the workpiece to lay flat on the table during the cutting operation.

FIG.35.

MAINTENANCE

Regular inspection and cleaning reduces the necessity for maintenance operations and will keep your tool in good working condition. The tool bearings and gears are life-long lubricated. The motor must be correctly ventilated during tool operation. For this reason avoid blocking the air inlets with hands. After use disconnect the tool from the power supply and clean carefully, vacuum ventilation slots, etc.

DISPOSAL OF POWER TOOLS

- At the end of the machine's working life, or when it can no longer be prepared, ensure that it is disposed of according to UK regulations.
- Contact your local authority for details of collection schemes in your area.

  In all circumstances:
  - Do not dispose of power tools with domestic waste.
  - Do not incinerate.
  - Do not abandon in the environment.

TROUBLESHOOTING

Trouble	Probable Cause	Remedy
Saw will not start.	1. Saw not plugged in. 2. Fuse blown or circuit breaker tripped. 3. Cable damaged.	1. Plug in saw. 2. Replace fuse or reset circuit breaker. 3. Have cable replaced.
Does not make accurate 45° and 90° rip cuts.	1. Tilt angle pointer not set accurately.	1. Check blade with square and adjust pointer to zero.
Material pinches blade when ripping.	1. Rip fence not aligned with blade. 2. Warped wood, edge against fence not straight.	1. Check and adjust rip fence. 2. Select another piece of wood.
Material binds on riving knife.	1. Riving knife not aligned correctly with blade.	1. Check and align riving knife with blade.
Saw makes unsatisfactory cuts	1. Blunt blade. 2. Blade mounted backwards. 3. Gum or pitch on blade. 4. Incorrect blade for workpiece. 5. Gum or pitch on table causing erratic feed.	1. Resharpen or replace blade. 2. Turn blade around. 3. Remove blade and clean with white spirit and coarse steel wool. 4. Change to correct type of blade. 5. Clean the table.
Material kicked back from blade	1. Rip fence out of alignment. 2. Riving knife not aligned with blade. 3. Feeding work piece without rip fence. 4. Riving knife not in place. 5. Dull blade. 6. Letting go of material before it is past saw blade. 7. Blade angle locking knob not tight.	1. Align rip fence with blade. 2. Align riving knife with the blade. 3. Install and use the rip fence. 4. Install and use riving knife (with guard). 5. Replace the blade. 6. Push material all the way past saw blade before releasing the work. 7. Tighten knob.
Blade does not raise or tilt freely.	1. Sawdust and dirt in raising and tilting mechanism.	1. Vacuum out loose dust and dirt.
Blade does not run up to speed.	1. Extension cable too light or too long. 2. Low mains voltage.	1. Replace with adequate size extension cable. 2. Check supply voltage.
Machine vibrates excessively.	1. Saw not mounted securely to stand or work bench. 2. Stand or bench on uneven floor. 3. Damaged saw blade.	1. Tighten all fixings. 2. Reposition on flat level surface. Fasten to floor if necessary. 3. Replace blade.
Does not make accurate 45° and 90° cross cuts.	1. Mitre gauge out of adjustment.	1. Adjust mitre gauge.

OPTIONAL ACCESSORIES

Stock No.	Part No.	Description
69123	ABTS3	Table saw stand for BTS252

- **BLADES**

Diameter	Stock No.	Part No.	No. of Teeth	Bore mm	Reducing Bushes Supplied	Type	Finish
250mm (10")	75244	CSB250	24	30	20+25mm+5/8"	Rip & Cross Cut	Coarse
250mm (10")	75245	CSB250	40	30	20+25mm+5/8"	Cross Cut	Medium
250mm (10")	75246	CSB250	60	30	20+25mm+5/8"	Cross Cut	Fine
250mm (10")	75247	CSB250	80	30	20+25mm+5/8"	Cross Cut	Fine

NOTES

NOTES

CONTACTS

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- **E-mail:** sales@drapertools.com
- **Sales Fax:** (023) 8049 4209
- **General Enquiries:** (023) 8026 6355

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