

FRAMERS CORNER

Operating Instructions For Framer Tpj Pneumatic underpinner

**FRAMERS CORNER, Cedar Court, Walker Rd, Bardon Hill, Leics, LE67 1TU, UK
Tel: (44) 1530 516 925, Fax: (44) 1530 516 929
e-mail – sales@framerscorner.co.uk**

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1. Introduction

Thank you for choosing our Framers Corner Tpj pneumatic underpinner. It has proven to be very reliable and to provide excellent underpinning in soft and hard woods.

Keep it clean, lubricate the moving parts and the air supply and it will serve you well for many years.

FRAMER Tpj Specification

Maximum height of the pressure pad from the table - 80mm

Maximum width of moulding - 70mm

Maximum horizontal fence travel - 75mm

Maximum height between moulding and pressure pad 35mm

2. When you receive the machine

Before you start using this underpinner, remove any packing grease and refer to the Exploded View in Figure 1, page 5, to familiarise yourself with the components.

Pour 5 - 10cc of fine oil down the air inlet to lubricate the pneumatic valves.

We recommend that you fit an air filter and oil lubricator to your air supply.

Connect your air supply and practise setting the fence and the top pressure for different mouldings.

Also make sure that the correct size Magazine Head is in place for size of wedge you wish to use. If it is not, then release the Magazine Head by unscrewing the Locking Screw, (48), slide off the Magazine Head, replace with the correct head and lock it. A special Allen key is provided.

Please read the rest of this manual and look at the exploded view before starting to use the machine. We suggest that you start by using a simple flat moulding and then work your way through more complicated shapes.

Also use a high moulding and practise putting more than one wedge on top of each other, (called 'stacking'). See 'Operation cycle', page 3.

3. Fence

The fence is a sliding fence and is equipped with 2 production stops. When using more than 2 wedge positions, set the 2 stops for the front and back wedge positions and visually set any other wedge positions when underpinning.

It is important when inserting more than one wedge in any one position, called 'stacking', to ensure that the fence does not move. This can be done by holding the fence against the front or back stop or, if underpinning between the stops, use the Locking Handle, (13), to lock the fence in that position.

4. Wedges

The Magazine, (61), is fitted with a pneumatic cylinder which holds the strip of wedges in position. Switch, (25), is situated on the table and operates the pneumatic cylinder.

The FRAMERS CORNER Tpj takes 7mm and 10mm 'Universal' wedges. Make sure that the sharp end of the wedges is uppermost when inserted into the magazine, (61), and that they face the correct way.

The Magazine Head, (47), is particular to the size of wedge you are using, ie the '7' head is for use with 7mm wedges and the '10' Head is for use with 10mm wedges. To change the head for a different size of wedge, use the Allen key provided to undo the Locking Screw, (48), slide the head upwards and change to the other head. Remember to lock it.

5. Top Pressure

The Vertical Pressure Bar, (5), is fitted with a magnet and is supplied with 2 pressure pads, a round pad, (6), and an angled pad, (7). You will discover which pad suits which moulding with a little practise. It is often possible to use either pad.

The horizontal position of the top pressure is set by using the Locking Handle, (1). It is advisable to set the horizontal position of the Vertical Pressure Bar, (5), so that it is centred over the wedge to be inserted and that the pad, whichever one is used, is also aligned with this position.

The gap between the bottom of the pressure pad and the top of the moulding must be no more than 35 mm and this is set by using the locking handle (4).

It is essential when underpinning to make sure that the 2 corners of the moulding are aligned correctly before inserting the wedges. Push the left hand moulding up to the right hand side of the fence and then push the right hand moulding up to the left hand moulding. Check visually that they are aligned.

6. Air Pressure

The amount of air pressure required on the top pressure pad depends on the hardness of the wood/plastic being joined and this pressure can be set by the pressure controller, (33). Hardwoods require a pressure of between 6 to 8 atmospheres, (kg/m²), 85 to 120 psi, whilst softwoods can use a lower pressure of 4 - 6 atmospheres, (kg/m²), 50 to 85 psi. If in doubt, set the pressure to between 6 and 8 atmospheres, (kg/m²), 85 to 120 psi.

Too much pressure can damage softwoods whereas if the pressure is too low then the wedge will not be fully inserted.

7. Operating Cycle

The operating cycle can not start unless there is pressure on the wedges. The lever which operates the wedge pressure system is a 'joystick', (25), and is situated on the top of the table. When you have set the fence and the top pressure, checked that there are wedges in the magazine and that the Magazine Head is set for the correct size of wedge, it is time to start using the machine.

Place the mouldings in position, check that they are aligned to each other and push the moulding/fence against the front or back stop.

Make sure that the top pressure cannot come down on top of your fingers.

Press the footpedal half way down, only a little pressure is required. This will activate the top pressure and ensure that the moulding is held firmly. Press the footpedal all the way and one wedge will be inserted.

If the moulding is high and you wish to insert 2 or more wedges on top of each other then release the footpedal halfway and press down again. Repeat this for each additional wedge required in this wedge position.

Release the footpedal, move to the next position and repeat.

You can insert wedges when against the stops or at any point between them. Remember that if you are inserting more than one wedge in a position between the 2 stops then lock off the fence using the Locking Handle, (13).

8. Maintenance

Keep the machine clean, wipe the table with a fine oil at least weekly and remove any broken wedges from the magazine.

Do not let adhesive build up around the Magazine Head, (47). Clean it daily and spray a fine oil such as WD40 into the Magazine Head.

Once a month pour 5cc of fine oil into the air intake.

Check, monthly, to see that there are no airleaks on any of the pneumatics or airlines. Airleaks can downgrade the underpinner's performance and shorten the life of your compressor.

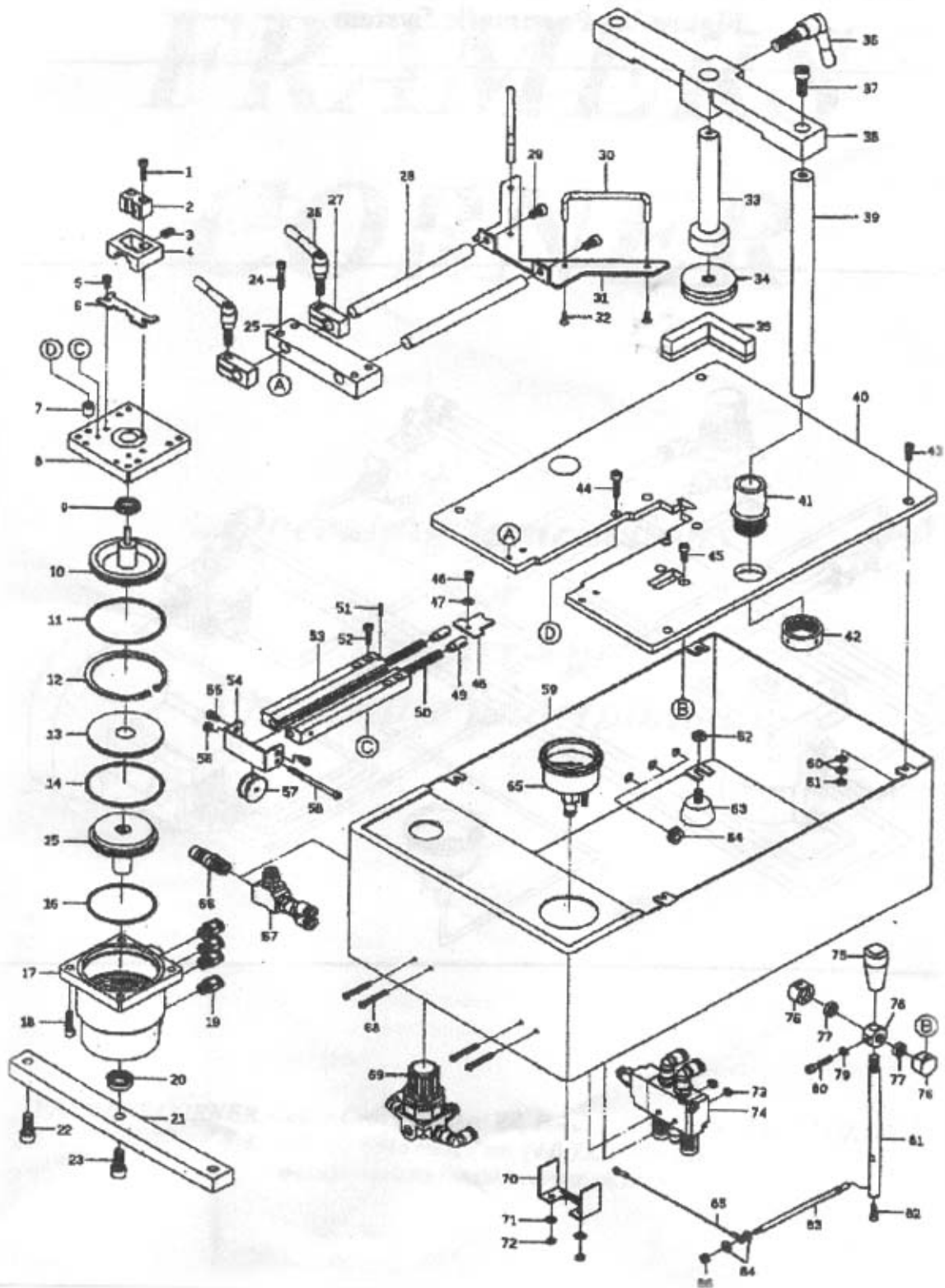
Make sure that your compressor's tank does not have any water in it. Drain the tank daily after switching the compressor off and leave the tank valve open overnight.

Framer TPJ Parts List

1 Screw (2)	44 Screw
2 Nosepiece	45 Screw
3 Grub Screw	46 Screw
4 Magazine Head	47 Washer
5 Screw (2)	48 Pusher
6 Driver Guide	49 Spring Cap (2)
7 ScrewPiston Top	50 Springs (2)
8 Cylinder Top Block	51 Screw
9 Seal	52 Screw
10 Piston Rod & Driver	53 Magazine Plates
11 Seal	54 Bracket
12 O' Ring	55 Screw
13 Piston Top	56 Nut
14 O' Ring	57 Pulley
15 Piston Bottom	58 Pulley Spindle
16 O' Ring	59 Body
17 Cyliner	60 Washer
18 Screw (4)	61 Nut
19 Connectors	62 Nut
20 Washer	63 Foot
21 Bottom Pressure Bar	64 Grommet
22 Screw (2)	65 Pressure Guage
23 Screw	66 Quick Action Connector
24 Fence Screw	67 Valve
25 Fence Block	68 Screws (4)
26 Locking Handle	69 Top Pressure Controller
27 Production Stop	70 Bracket For Pressure Guage
28 Fence Bars	71 Washer
29 Screw	72 Nut
30 Fence Handle	73 Nut (2)
31 Fence	74 Valve
32 Screw	75 Knob
33 Vertical Pressure Bar	76 Bush (2)
34 Round Pad	77 Washer
35 Angled Pad	78 Pivot Block
36 Locking Handle	79 Washer
37 Screw	80 Screw
38 Top Pressure Bar	81 Vertical Bar
39 Cylinder Piston	82 Screw
40 Table	83 Horizontal Bar
41 Bush	84 Washer (2)
42 Collar	85 Cable
43 Screw (4)	86 Nut

FRAMERS CORNER Tpj Pneumatic Underpinner

Figure 1 - Exploded View



FRAMERS CORNER TPJ Pneumatic Underpinner
Figure 2 – Pneumatic System

