



Mega Electronics Ltd

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FX-5 High Speed Drilling Machine

The FX-5 is a compact, high speed printed circuit board drilling machine, designed primarily for the development engineer, PCB manufacturer, or model shop. Its high accuracy and ease of operation make it ideal for drilling prototypes and small batches of PCBs. The machine is of a robust steel construction and features an integral fan to assist swarf removal. A work illuminating lamp, spring plunger for stack drilling and an adjustable dead-stop attachment are also included. The FX-5 offers a choice of two fixed operating speeds : 14,000 rpm or 18,000 rpm, switchable by means of a toggle switch on top of the machine.

Specifications	
Dimensions (mm)	L336 x W110 x H400
Maximum board width	300mm
Drill Sizes	0.5-4.0mm
Height under chuck	44mm
Electrics	220-240V AC 50Hz 1ph

FX-5R PCB Routing Machine

A modified version of the FX-5 Drilling Machine also suitable for routing PCBs. The machine has a fence and depth stop and is fitted with special bearings, allowing it to withstand heavy side loadings. The router is ideal for making cut-outs in edge connectors, shaping complicated contours, removing unwanted tracks, or chamfering rough edges of circuit boards.

Specifications	
Spindle Speeds	14,000 rpm, 18,000 rpm
Dimensions (mm)	L420 X W200 X H400
Throat clearance	150mm
Chuck capacity	0.5-4mm
Height under chuck	44mm
Electrics	220-240V 50Hz 1ph



FX-5 (27-18093) High Speed P.C.B. Drilling FX-5R (27-18095) P.C.B. Routing Machine

1. Unpack the drill unit and check for damage.
2. Check that the chuck key is not left in the packing box and is attached in the spring clip on the right side of the machine.
3. Carefully place a carbide twist drill into the drill chuck and lock with the chuck key. Set the top and bottom drill stop knobs (located on the right side of the drill body adjacent to the handle). Top stop knob set 3 mm from the drill point to the top surface of the PCB material. Bottom stop knob set 3 mm below the bottom surface of the PCB.
4. The unit has two speeds 14,000 rpm and 18,000 rpm, the speed selector switch has three positions, high speed (II), low speed (I) and centre off.
5. The spindle slide should be lubricated daily with fine machine oil if the unit is in constant use.
6. Clean the machine weekly to remove any excess swarf and dust. Periodic checks must be made for motor brush wear; the motor brush covers are located on both sides of the motor housing behind the black plastic screw covers. **(NO SERVICING OR MAINTENANCE SHOULD BE CARRIED OUT UNTIL THE UNIT HAS BEEN SWITCHED OFF AND ISOLATED FROM THE MAINS ELECTRICITY SUPPLY)**
7. Please note that the spindle and motor bearings are greased with special high-speed grease and are sealed for life. These bearings **MUST NOT** be lubricated, for any problems refer to the manufacturer.



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Electrical Safety Notice

CONNECTIONS TO MAINS ELECTRICAL SUPPLY

This equipment is designed to safety class1.

Before connecting this equipment to the mains electricity supply, examine the information on the apparatus rating label. Ensure that the mains supply is single phase alternating current (a.c.) of the stated frequency (Hz), with neutral nominally at earth potential.

Check the supply voltage is within the stated range.

The equipment rating label states the value of the fuse fitted to the apparatus itself. Ensure that the plug or supply circuit is fitted with an appropriate fuse of higher value.

WARNING THIS APPARATUS MUST BE EARTHED

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

Green/Yellow - Earth	(E)
Blue - Neutral	(N)
Brown - Live	(L)

If the mains plug is to be replaced connect the wires to a non-reversible 3 pin plug as follows:

Green/Yellow wire to terminal marked: E (earth) or G (ground) or coloured Green or coloured Green/Yellow.

Blue wire to terminal marked: N (neutral) or Common or coloured blue.

Brown wire to terminal marked: L (live) or Phase or coloured Brown.

NO SERVICING OR MAINTENANCE SHOULD BE CARRIED OUT UNTIL THE UNIT HAS BEEN SWITCHED OFF AND ISOLATED FROM THE MAINS ELECTRICITY SUPPLY.

Any spare parts which may be required, are supplied on the understanding that the replacement of these requiring the exposure of live electrical connections will be undertaken by an electrically qualified person.