

TECHNICAL INFORMATION



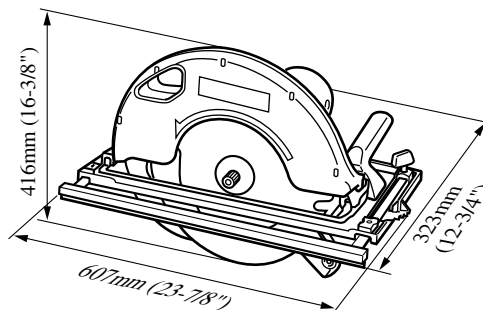
New Tool

Models No. ▶ 5143R

Description ▶ 355mm(14") Circular saw

CONCEPTION AND MAIN APPLICATIONS

5100BR is an improved model of the 5100BR and it is equipped with a riving knife. It corresponds to CENELEC regulation and has been developed aiming for export product especially for European market. It's main features are; large base, sturdy body, motor brake function, easier operability.



► Specifications

Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output(W)
			Input	Output	
100					
110	21	50	2200	1350	2500
115	15	50	1650	900	2500
220	10	50	2200	1350	3400
230	10	50	2200	1350	3400
240	9.6	50	2200	1350	3400

No load speed per minute		2700/min
Driving shank	Blade outer dia	ø355mm(14")
	Inner dia	ø30mm(1-3/16")
Max. cutting capacities	at 90°	50mm(2") - 130mm(5-1/8")
	at 45°	35mm(1/8") - 90mm(3-1/2")
	at 30°(or 60°)	23mm(7/8") - 60mm(2-3/8")
Power supply cord		5m

When *355mm saw blade is used.

► Standard equipment

Guide Rule
Hex. wrench
Chip saw blade 355 (20 blades; equipped in body)
Joint set (Europe only)

► Optional accessories

Chip saw blade 355, Joint set (for mounting dust catcher)

5143R

Soft start and Electric break system
Work efficiency improved

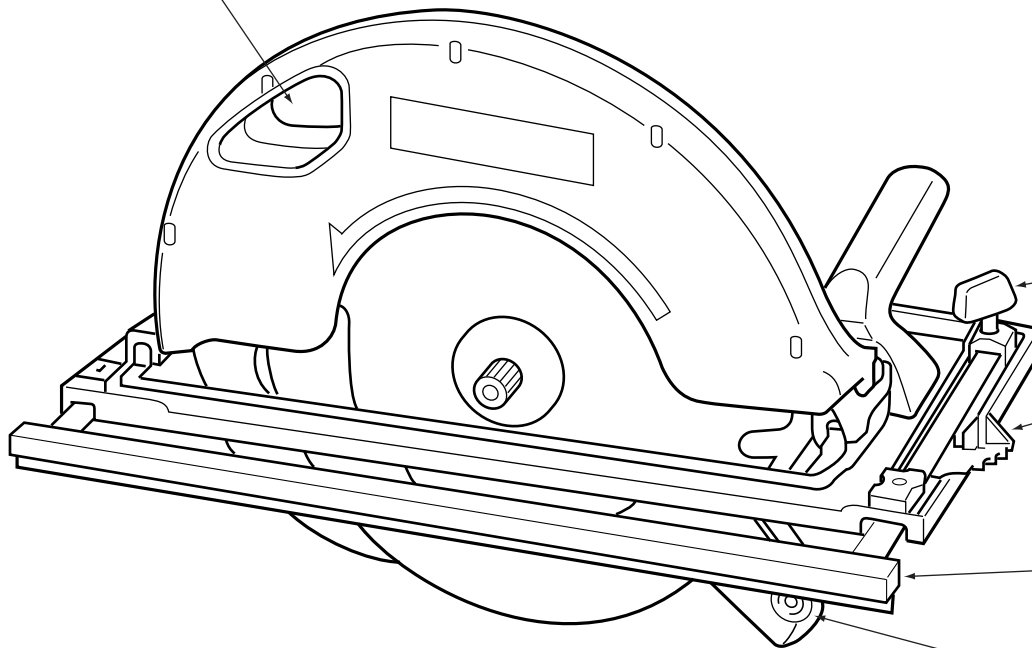
Quiet 85dB

5100BR 94dB

(Model 5143R's noise 1/8 of 5100BR)

Noise from the fan is reduced because no-load speed is suppressed with an electronic control and also noise of gears is decreased by using a spring for connection between spindle and gear. (See next page.) PAT.P

Large outlet for discharging
saw dust can be connected
with dust catcher



Big plastic knob

Stepped top guide
on front and rear
of the base

Easy to align a mark
line even at long
material

Two parallel
gauge can fix
material securely.

These can be used as
a support base when
turned upside down.

Safety cover with
roller makes
feeding of material
smooth and
prevents score on
surface of material.

High power 2,200W motor
far from burnout

Carrying handle convenient to carry

Depth guide with scales

Hex. wrench is stored.

Blade thickness:
2.2mm

(1.45mm thicker than
5100BR and not tend
to bend)

Shaft lock (unique parts)

Safety cover lever useful for
start work of angle operation

Up-down lever can be operated
while gripping handle.

Flat bottom

The machine can stand with this
side facing bottom for easy blade
replacement.

Sight-hole

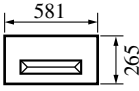
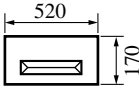
60mm cutting is possible with 60-degree angle

Base bridge is aluminum made and the angle
adjustment is simple by using a knob.

(PAT.P) adapted to CENELEC standard.
Easy to see marking line and the tip of the blade.
Cooling air blows off the cut chips.

► Features and benefits

1) Large aluminum base enables stable work.

	Base dimensions (mm)	Base material	Angular guide material (for depth and angle adjustment)
5143R		Aluminum	Aluminum (support both front and end)
5100BR		Steel plate	Steel plate (support both front and end)

2) Operability has been improved thanks to soft-start and Electric brake system. Mark alignment at start-up operation becomes easy owing to soft-start function. Also Electric brake system improves work efficiency of machine transportation. Only this model has these two functions.

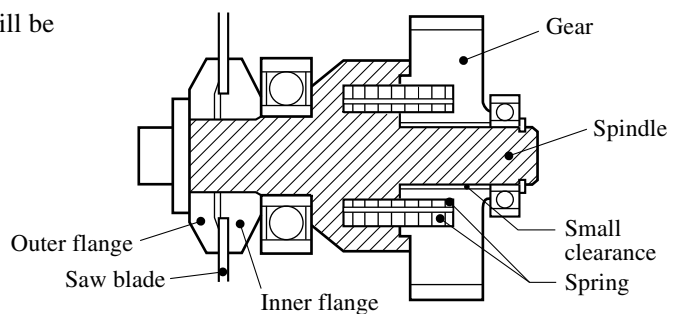
3) Marking line and the tip of the saw can be seen through a sight-hole.

Sight-hole is provided in the blade casing and the marking line and the position of the blade tip can be seen through it. Air is blown from the side of the machine so that the cut chips will not spatter.

4) Low noise

Flow of air from the fan is well treated and no-load speed is suppressed low by the electronic control, thus noise has been reduced. Also noise of the gear is decreased by using a spring for connection of spindle and gear. Outline of this mechanism is; In conventional round saw, gear and spindle were connected together by press-fitting or key structure. On the contrary, this model uses two spring to connect gear and spindle as shown below. Slight clearance between inner diameter of the gear and spindle shaft absorb the friction of the gear teeth at the time of the gear operation. This eliminates the noise of the gears.

When the motor or machine is locked and impact force generates, spindle and spring will slip and the force will be relieved for protection of the gears.



► Repair

For removal of the base and disassembly of the gears, remove each part in the order as shown in Figure 1 below.

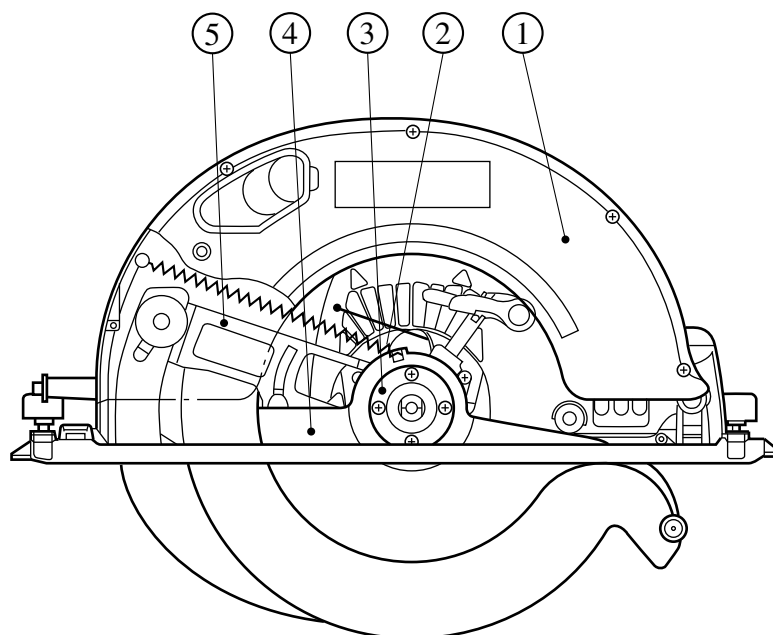
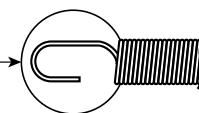
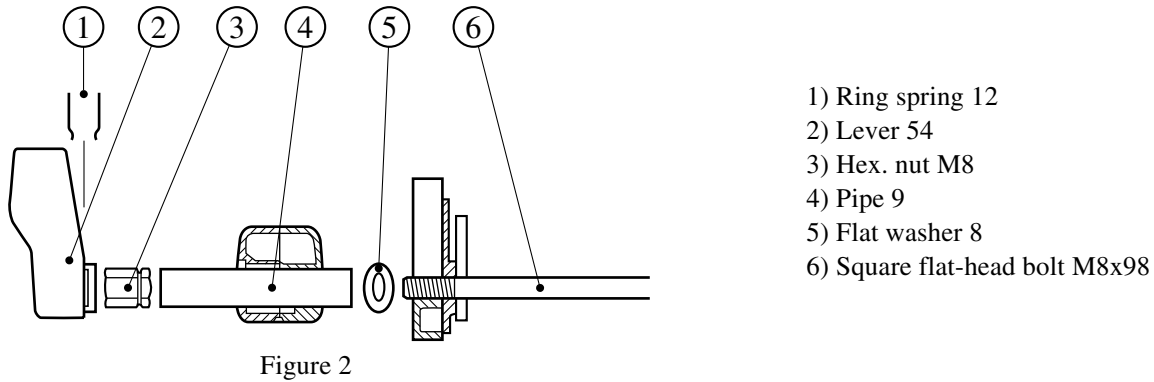


Figure 1

- 1) Blade case cover (tapping screw, bind, CT, 5x20 ...5 pieces)
- 2) Tension spring 5 [Note] Hook should not be deformed
- 3) Bearing retainer 42-68 (flat countersunk-head screw M5x16 ... 4 pieces)
- 4) Safety cover (excluding wire cable)
- 5) Riving knife holder (square flat-head bolt M8x98, See figure 2 on page 4/5.)



For removal of the square flat-head bolt, remove each part in the order as shown in Figure 2 below.



(1) Removal of base

Pull out headed pin 10 and remove the base (figure 3).

(2) Disassembly of gears

Unscrew four pan-head screws M5x16 and remove bearing box that includes spindle ,gears, etc. (figure 3).
Pull out the spindle from the bearing box by using an arbor.

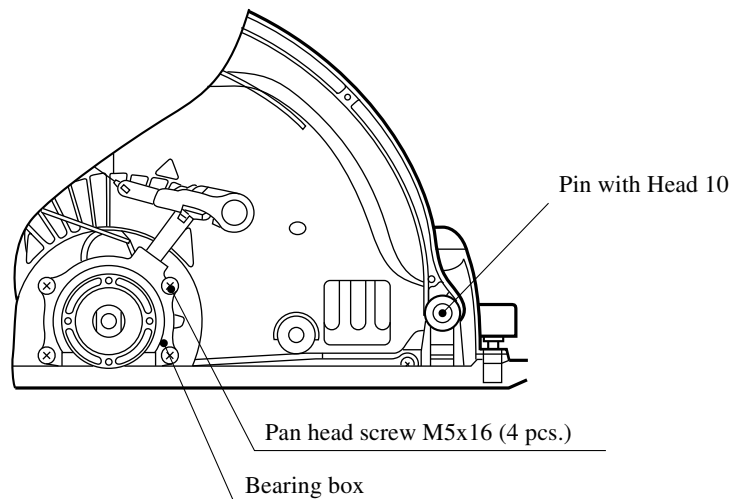
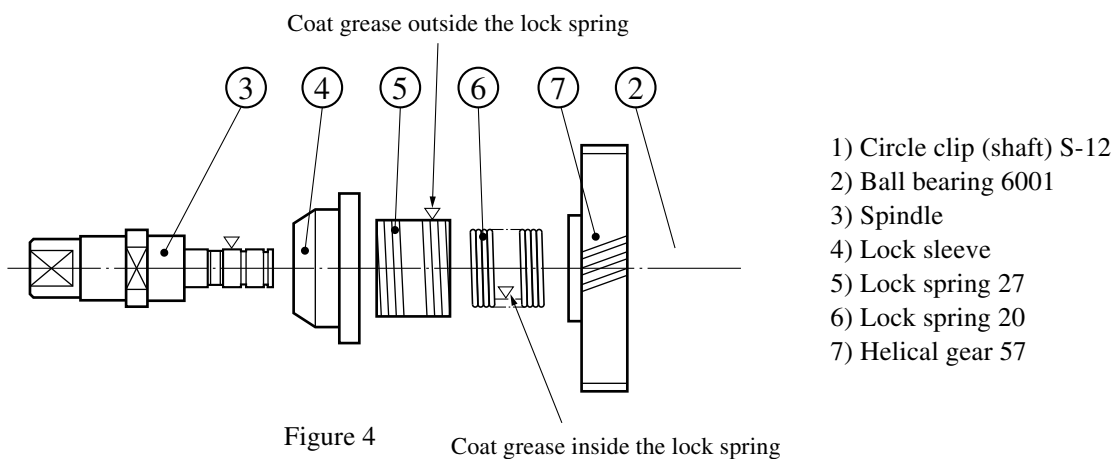


Figure 3

For disassembly of gears, remove each part in the order as shown in Figure 4 below.



[Note] When assembling the gears, coat grease on spindle, lock spring, etc. (grease-up points are indicated as ▽ in the figure 4.)

(3) Mounting of tension spring 5

Mount tension spring 5 as shown in the figure 5 below.

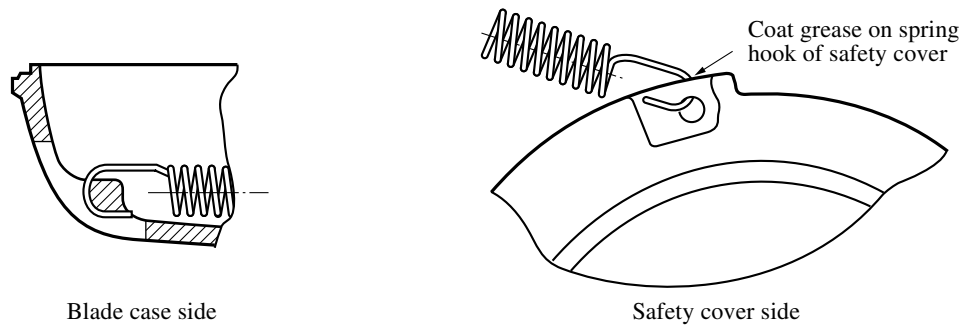


Figure 5

(4) Disassembly and assembly of switch parts

For disassembly, remove ring spring 12 and lever 54 (see figure 2 on page 4/5), then remove tapping screw flange PT/5x25 (4 pieces) and pan-head screw M5x40 (3 pieces) to remove handle L. For assembly, put lock-off button into handle R and mount switch lever. (See figure 6.)

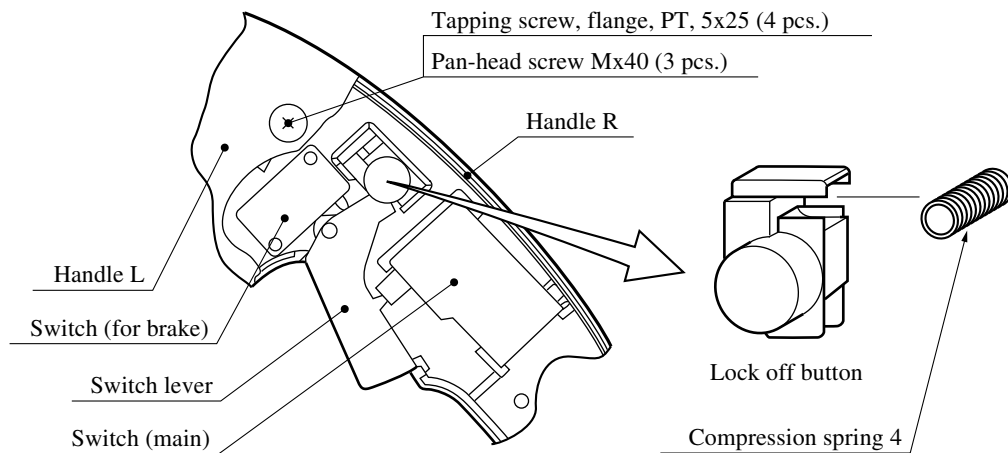


Figure 6

(5) Route wire rope as shown in the figure 7 below.

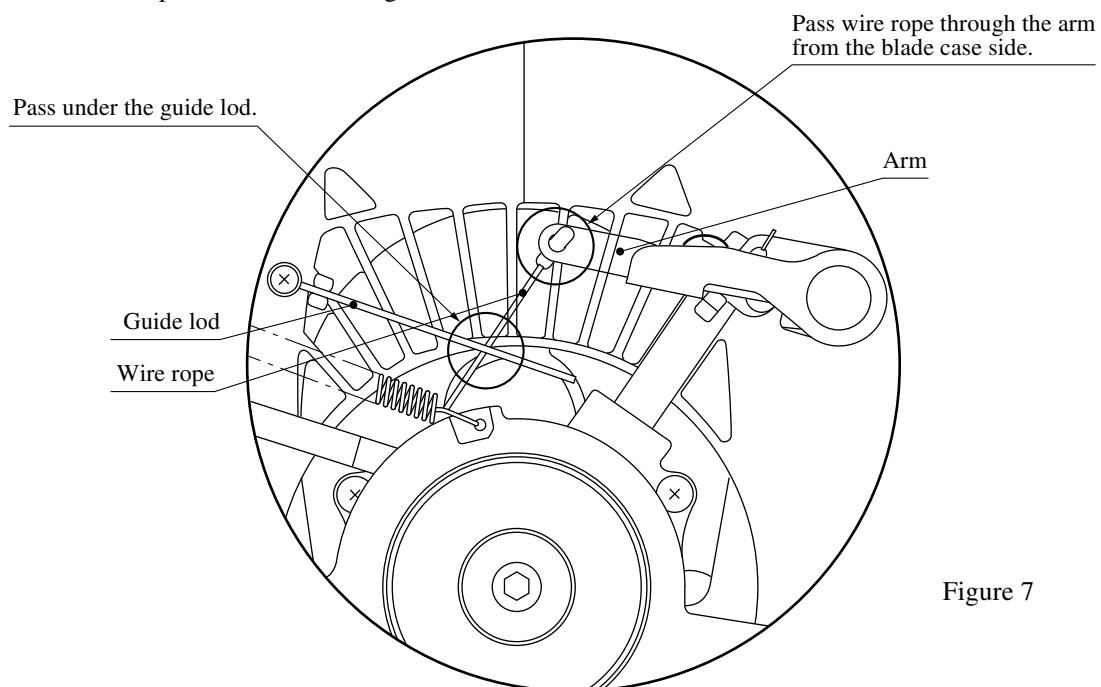
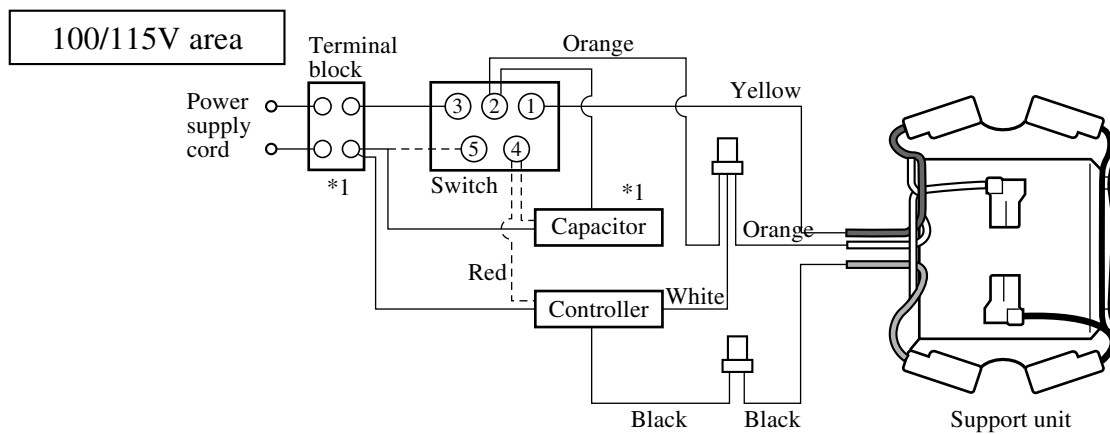
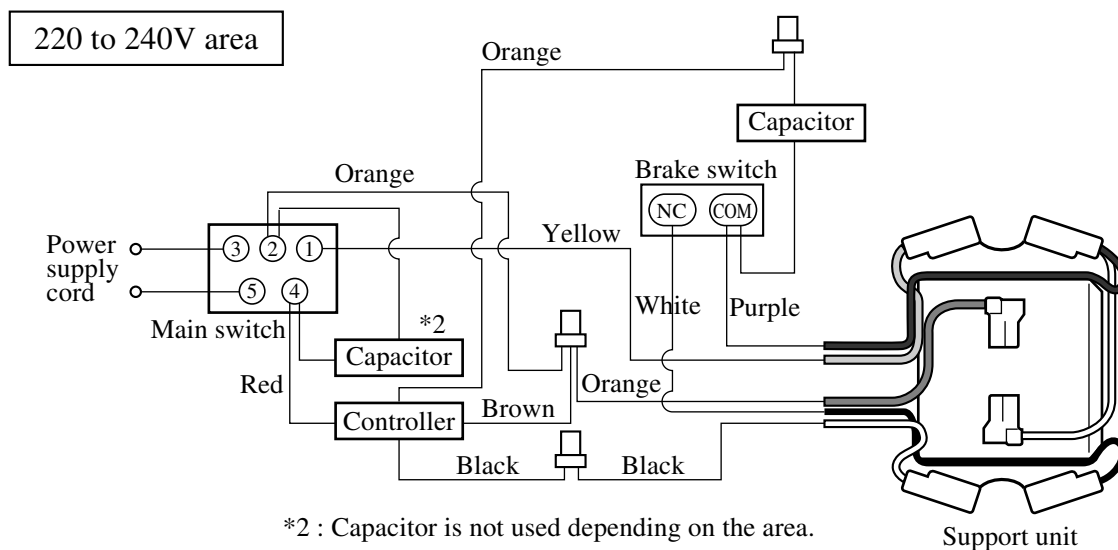


Figure 7

► Wiring Diagram



*1 : Terminal block and capacitor are not used depending on the area.
When the terminal block is not used, wiring should be the dotted lines.



*2 : Capacitor is not used depending on the area.