ECHNICAL INFORMATION



P 1/2

Model No. ▶ LS1017L, LS1018L

Description ► Slide Compound Saw 255mm (10")/ 260mm (10-1/4")

CONCEPT AND MAIN APPLICATIONS

Models LS1017L and LS1018L are developed as more cost-competitive 255/ 260mm (10"/ 10-1/4") Slide compound saws.

The specification differences between both models are:

- LS1017L: Bevel range of 45 degrees left and 5 degrees right
- LS1018L: Bevel range of 45 degrees left and right

Additionally, both models are equipped with laser marker for easy trace of cutting line.



[Illustrated above is LS1018L.]

Dimensions: mm (")		
Model No.	LS1017L LS1018L	
Length (L)	825 (32-1/2)	
Width (W)	536 (21-1/8)	
Height (H)	581 (22-7/8) 633 (25)	

► Specification

		(U-)	Continuous Rating (W)			
voltage (V)	Current (A	(Hz) Cycle (Hz)	Input	Output	Max. Output (W)	
110	13.6	50/ 60	1,430			
120	13.0	50/ 60				
220	6.8	50/ 60	1,430			
230	6.5	50/ 60	1,430			
240	6.3	50/ 60	1,430			
Model No.		LS1017L		LS10	LS1018L	
Saw blade:	Diameter		255 (10) - 260 (10-1/4)			
mm (")	Hole diameter	r European countries: 30 (1-3/16), North America: 15.88 (5/8), Other countries: 2		er countries: 25.4 (1)		
No load speed: min-1 = rpm		4,200 4,300		00		
Electric brake		Yes				
Electronic	ronic Soft start Yes					
control	Constant speed	No				
Laser marker		Yes*1				
Lock-off switch		Yes				
Protection again	on against electric shock		Double insulation			
Cord length: m	(ft)		2.5 (8.2)			
Weight accordin EPTA-Procedur	g to e 01/2003: kg (lbs)	European countries*2: 19.5 (43.0), Other countries*3: 19.5 (42.9)European countries*2: 19.9 (43.9), Other countries*3: 19.8 (43.5)		s*2: 19.9 (43.9), *3: 19.8 (43.5)		

*1 Uses dry-cell battery as the power source.

*2 with TCT saw blade and "Blocking mechanism at the rest position" *3 with TCT saw blade

See next page for the cutting capacity.

► Standard equipment

Vertical vise 1 pc	TCT saw blade 1 pc
Dust bag 1 pc	Socket wrench (with Hex wrench) 1 pc
Triangular rule 1 pc	Holder set 2 pcs

Note: The standard equipment for the tool shown above may vary by country.

► Optional accessories

Holder set	Horizontal vise	Holder assembly
TCT saw blades	Stand set	

► Specification (cont.)

[Cutting Capacities]

North America

Cutting capacities [Height x Width in mm (")] with 255mm (10") saw blade

Bevel angle Miter angle	45 degrees left	0 degree	45 degrees right (LS1018L only)
0 degree	50 x 305	91 x 305	31 x 305
	(2 x 12)	(3-5/8 x 12)	(1-1/4 x 12)
45 degrees left & right	50 x 215	91 x 215	31 x 215
	(2 x 8-1/2)	(3-5/8 x 8-1/2)	(1-1/4 x 8-1/2)
60 degrees right		91 x 150 (3-5/8 x 5-7/8)	

All countries except North America Cutting capacities [Height x Width in mm]

with 260mm (10-1/4") saw blade

Bevel angle Miter angle	45 degrees left	0 degree	45 degrees right (LS1018L only)
0 degree	50 x 310	91 x 310	31 x 310
45 degrees left & right	50 x 220	91 x 220	31 x 220
60 degrees right		91 x 153	





REPAIR MANUAL

Slide Compound Miter Saw LS1018L



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CAUTION: Repair the machine in accordance with "Instruction manual" or "Safety instructions". [1] NECESSARY REPAIRING TOOLS

Code No.	Description	Use for
1R034	Bearing Setting Plate 12.2	press-fitting Bearing 6001 to Rotor
1R036	Bearing Setting Plate 17.2	assembling Bearing 6004 to Output shaft
1R080	Arbor Press	press-fitting Bearing
1R173	Retaining Ring R Pliers	connecting/disconnecting Terminal connected to Carbon brush house
1R207	45-degree Set Square	adjusting accuracy of 45 degrees
1R208	90-degree Set Square	adjusting accuracy of 90 degrees
1R269	Bearing Extractor	remove Bearing 6003
1R291	Retaining Ring S and R Pliers	remove Retaining ring

[2] LUBRICATION

Apply lubricant to the portions designated with the following arrows to protect parts and product from unusual abrasion.

Arrow	Type of lubricant	Amount
	Makita grease SG No.0	approx. 10 g
	Makita grease N No.1	a little
	Liquid gasket	a little and flat



[2] LUBRICATION (cont.)



Fig. 2



[2] LUBRICATION (cont.)











[3] DISASSEMBLY/ASSEMBLY

[3] -1. Switch

DISASSEMBLING

(1) Remove two Carbon brushes. And unscrew two M4x12 Cross head screws to remove Lock lever.





(2) To release Power supply cord, unscrew two M4x18 Cross head screws and two Cord clamps.



Fig. 8

(3) Unscrew four M6x50 Cross head screws and remove Motor housing and Handle section from the machine.



[3] DISASSEMBLY/ASSEMBLY

[3] -1. Switch (cont.)

DISASSEMBLING

(4) Unscrew eight M4x16 Tapping screws and remove Left handle.



Fig. 10

(5) Remove Brake system switch key, Switch lock bracket, Switch lock plate and Switch handle when exchanging the Switch.





ASSEMBLING

(1) Attach Switch lock plate with Switch handle spring to Right handle. And attach Switch handle.



[3] DISASSEMBLY/ASSEMBLY

[3] -1. Switch (cont.)

ASSEMBLING

(2) Attach Switch lock bracket to Right handle.



Fig. 13

(3) Assemble Left handle to Right handle by tightening eight M4x16 Tapping screws.



Fig. 14

(4) Assemble Motor housing and Handle section to the machine by reversing the disassembly procedure.

[3] -2. Starter

DISASSEMBLING

(1) Unscrew two M4x16 Tapping screws and remove Motor rear cover. And disconnect cables to remove Soft starter.



[3] DISASSEMBLY/ASSEMBLY

[3] -2. Starter (cont.)

DISASSEMBLING

(2) Remove Baffle ring from Motor housing.



Fig. 16

(3) Disconnect the terminal connected to Carbon brush house with 1R173 or a similar tool such as long-nose pliers.



Fig. 17



[3] DISASSEMBLY/ASSEMBLY

[3] -2. Starter (cont.)

DISASSEMBLING

(2) Unscrew two M5x70 tapping screws and remove Stator by tapping Motor housing with a resin hammer.



Fig. 19

ASSEMBLING

(1) Assemble Stator to Motor housing.





(2) Connect Cables to Soft starter while checking the wiring diagram.



[3] DISASSEMBLY/ASSEMBLY

[3] -2. Starter (cont.)

ASSEMBLING

(3) Connect Terminal to Carbon brush house with 1R173 or a similar tool such as long-nose pliers.



Fig. 22

(4) Attach Stator with two M5x70 Tapping screws. And set Baffle ring.



Fig. 23

[3] DISASSEMBLY/ASSEMBLY

[3] -3. Rotor

DISASSEMBLING

(1) Unscrew two M5x18 Cross head screws and remove Rotor from Gear box.



Fig. 24

(2) Remove Retaining ring 16 from Rotor with 1R291.



Fig. 26

Reference Bearing 6003 Bearing 6001 Bearing 6001

Fig. 25

(3) Remove Bearing 6003 with 1R269.



Fig. 27

ASSEMBLING

(1) Put 1R034 on the Bearing 6001 and press 1R034 with 1R080 (Arbor press), and then Bearing 6001 is pressed.



(2) And attach Absorber ring to Bearing 6001.



Fig. 29

[3] DISASSEMBLY/ASSEMBLY

[3] -3. Rotor (cont.)

ASSEMBLING

(3) Insert Rotor into Gear box. And fasten the Shaft fix cover with two M5x18 Cross head screws.



Fig. 30

[3] -4. Gear box

DISASSEMBLING

(1) Unscrew four M6x22 H.S.bolts and remove Gear box.



Fig. 31

(2) Unscrew two M6x15 Countersunk head bolts with No.3 Phillips screwdriver.





Fig. 32

(3) Remove Bearing cover by prying it off with a slotted screwdriver.



[3] DISASSEMBLY/ASSEMBLY

[3] -4. Gear box (cont.)

DISASSEMBLING

(4) Unscrew two M4x10 Countersunk head bolts and remove Bearing press plate.



(6) Remove Gear by hand from Bearing cover.





(8) Set Bearing 6004 on 1R217 and press the bearing with Arbor press. And then, Bearing 6004 is removed.



Fig. 39

(5) Remove Retaining ring 14 with 1R291.



Fig. 36

(7) Remove Bearing 6004 and Output shaft by pressing Bearing cover by hand.



Fig. 38

[3] DISASSEMBLY/ASSEMBLY

[3] -4. Gear box (cont.)

DISASSEMBLING



Fig. 40

Note

Clean the left over mechanical oil seal with scrapers and remove grease on the surface. If dust remains, it may causes a grease leakage.







ASSEMBLING

(1) Press Bearing 6004 to Output shaft as shown below.



Fig. 42

(2) Attach Output shaft and Bearing 6004 to Bearing cover by pressing by hand.



Fig. 43

[3] DISASSEMBLY/ASSEMBLY

[3] -4. Gear box (cont.)

ASSEMBLING

(3) Fix Bearing press plate with two M4x10 Countersunk head bolts.



Fig. 44

(5) Fix Retaining ring 14 to Output shaft with 1R291.



Fig. 46

(4) Set Gear to Output shaft.



Fig. 45

(6) Attach Bearing cover to Gear box.



Fig. 47



[3] DISASSEMBLY/ASSEMBLY

[3] -5. Gear lock pin

DISASSEMBLING

(1) Remove Retaining ring 10.5x1 with a small slotted screwdriver.



Fig. 49

ASSEMBLING

(1) Set Gear lock pin with Gear lock spring to Gear box.



Fig. 51

(2) Fix Retaining ring 10.5x1 with two slotted screwdrivers as shown below.



Fig. 50



[3] DISASSEMBLY/ASSEMBLY

[3] -6. Lower blade guard

DISASSEMBLING

(1) Unscrew M6 Locknut and remove Lower blade guard.



Fig. 53

ASSEMBLING

(1) Set Guard spring to Lower blade guard. And set Guard fix plate to Lower blade guard while engaging Guard spring to the hook on Guard fix plate.



Fig. 54

(2) Set Bowl plate to Guard fix plate so as not to pinch Guard spring and secure Bowl plate with M6 Locknut. And then, check that Guard fix plate works smoothly.



[3] DISASSEMBLY/ASSEMBLY

[3] -7. Link

DISASSEMBLING

(1) Remove Lower blade guard. (See Fig. 53.)

(2) Fix Up blade guard at the top dead point by pressing Pin C. And, remove M6x20 H.S.bolt with glue.



Fig. 56

(3) Remove Retaining ring 5 and Thin flat washer 6 with a slotted screwdriver. And, remove Link from Up blade guard.



Fig. 57



[3] DISASSEMBLY/ASSEMBLY

[3] -7. Link (cont.)

ASSEMBLING

(1) Set Link to Up blade guard. And put Thin flat washer 6 into Pin and fix Link with Retaining ring 5 using a tool such as long-nose pliers.



Fig. 59

(2) Set Link sleeve and fasten Link with M6x20 H.S.bolt with glue and Thin flat washer 6.



Fig. 60

[3] DISASSEMBLY/ASSEMBLY

[3] -8. Up blade guard

DISASSEMBLING

(1) To release Power supply cord, unscrew two M4x18 Cross head screws and two Cord clamps.



Fig. 61

- (2) (If not removing Motor housing and Gear box)
 - Fix Up blade guard with Pin C at the lower dead point. And, loosen two M6x12 Lock screws that fix Connection shaft.





- (3) Remove Gear box. (See Fig. 31.)
- (4) Fix Up blade guard with Pin C at the top point. And, unscrew three M4x12 Cross head screws that fix Battery box and Laser cord tube. There is no need to remove the other screws.



Fig. 63

(5) Remove M6x20 H.S.bolt with glue to release Link.



Fig. 64

[3] DISASSEMBLY/ASSEMBLY

[3] -8. Up blade guard (cont.)

DISASSEMBLING

(1) Fix Up blade guard with Pin C at the top dead point. And, loosen M6x15 H.S. screw to release the tension on Torsion spring.



Fig. 65

(2) Remove Torsion spring and Location tube. And, remove Up blade guard.

(2) And, remove Connection shaft with a plastic hammer and 1R243.



Fig. 66



Fig. 67

ASSEMBLING

(1) Set Up blade guard at right angle to Up blade guard bracket.



[3] DISASSEMBLY/ASSEMBLY

[3] -8. Up blade guard (cont.)

ASSEMBLING

(1) Set Torsion spring with Location tube inside, and set Connection shaft and tap it with a plastic hammer.



Fig. 69

(3) Fix Up blade guard with Pin C. And fix Link with M6x20 H.S.bolt with glue.



Fig. 71

(5) Fix Power supply cord with two Cord clamps and two M4x18 Cross head screws.



Fig. 73

(2) Set Up blade guard at the lower dead point and fix Connection shaft with two M6x12 Lock screws.



Fig. 70

(4) Fix Battery box and Laser cord tube with three M4x12 Cross head screws.



Note

Check that Up blade guard can move to top point with the reaction force of Torsion spring. If not, tighten the spring with M6x15 H.S. screw to strengthen the tension on the spring.



[3] DISASSEMBLY/ASSEMBLY

[3] -9. Support arm

DISASSEMBLING

(1) Unscrew four Cross head screws and remove Sliding bar rear cover.





Fig. 76

(2) Loosen Hex nut with Bevel locking handle and remove Bevel locking handle.



Fig. 78

Fig. 75



Fig. 77

(3) Loosen two M5x20 cross head screws and remove Sliding bracket cover.



Fig. 79

[3] DISASSEMBLY/ASSEMBLY

[3] -9. Support arm (cont.)

DISASSEMBLING

(4) Unscrew M4x12 Cross head screw and remove Bevel pointer.



Fig. 80

(6) Remove two Big flat washer 10x26x2.5, Surface bearing and Bowl type plate.



Fig. 82

(8) Remove Support arm and the following parts.



Fig. 84

(5) Remove Hex nut.



Fig. 81

(7) Remove M10 Locknut.



Fig. 83

(9) Unscrew three M6x20 H.S.bolts and remove 45° Limit bracket.



[3] DISASSEMBLY/ASSEMBLY

[3] -9. Support arm (cont.)

DISASSEMBLING

(10) Remove Retaining ring 10 with 1R291.









ASSEMBLING

(1) Assemble the following parts by reversing the disassembly procedure.



Fig. 89

(11) Remove Flat washer 12x20x1, 90° block spring and 90° block.



Fig. 87



Fig. 90

(2) Attach 45° Limit bracket with three M6x20 H.S.bolts.

[3] DISASSEMBLY/ASSEMBLY

[3] -9. Support arm (cont.)

ASSEMBLING

(3) Set Friction ring and insert Support arm to Locking rod. And insert Clamp plate and two Flat washer 10, and then temporarily tighten M10 Locknut.





(4) Temporarily attach Bevel pointer with M4x12 Cross head screw.



(5) Insert Sliding bar into Support arm.



Fig. 93

(7) Fasten Sliding bar rear cover with two M5x15 Cross head screws and two M5x12 Cross head screws.



(6) Set Sliding bar rear cover by tapping it with a plastic hammer.





[3] DISASSEMBLY/ASSEMBLY

[3] -9. Support arm (cont.)

ASSEMBLING

Adjustment

With Motor housing and blade are attached, adjust tightening force of M10 Locknut so that the body wouldn't fall down at inclination of 10° and fall down at inclination of 25° .





(8) After adjustment, put Bowl type plate, two Big flat washer 10x26x2.5 and Surface bearing.



Fig. 97

(10) Tighten M10 Locknut using Bevel locking handle.



(9) Fix Sliding bracket cover with two M5x20 Cross head screws.



(11) Set Bevel locking handle in the direction as shown below.



Fig. 99

[3] DISASSEMBLY/ASSEMBLY

[3] -10. Working table and Base

DISASSEMBLING

(1) Remove Sub fence and Right sub fence by loosening three M10 Locknut.



Fig. 101

(3) Loosen six M4x12 Cross head screws and remove Table inserts.



Fig. 103

(5) Turn Base upside down and remove M10 Locknut and Big flat washer 10.



Fig. 105



(2) Remove four M8x30 Hex bolts and remove Rip fence.



Fig. 102

(4) Loosen M5x12 Cross head screw and remove Miter pointer.



Fig. 104

(6) Unlock Working table and remove it from Base.



[3] DISASSEMBLY/ASSEMBLY

[3] -10. Working table and Base (cont.)

DISASSEMBLING

(7) Remove Pivot shaft by tapping it with a plastic hammer.



Fig. 107

(9) Remove Miter locking handle by turning it counterclockwise.



Fig. 109

(11) Unscrew two M4x15 Cross head screws and remove Lock plate B and Working table locking bracket.



(13) Remove Press plate, Lock spring and Lock shaft B.

(8) Remove two Friction plates.





(10) Remove Lock shaft A.



Fig. 110

(12) Unscrew two M4x12 Cross head screws and remove Lock plate A.



Fig. 112



[3] DISASSEMBLY/ASSEMBLY

[3] -10. Working table and Base (cont.)

ASSEMBLING

(1) Set Lock spring and Lock pin to Lock shaft B and attach to Working table.



Fig. 114

(3) Fix Lock plate A with two M4x12 Cross head screws.



Fig. 116



Fig. 118

(2) Press Lock shaft B in the direction of the arrow as shown below and set Press plate.



Fig. 115

(4) Fix Working table locking bracket and Lock plate B with two M4x15 Cross head screws.



Fig. 117

[3] DISASSEMBLY/ASSEMBLY

[3] -10. Working table and Base (cont.)

ASSEMBLING

(5) Insert Pivot shaft to Working table with a plastic hammer.



(7) Push press plate to unlock, and attach Working table to Base.



Fig. 121

(9) Attach two Table inserts while being careful of direction and fix them with six M4x12 Cross head screws.



Fig. 123

(11) Fix Sub fence and Right sub fence with M10 Locknut.



(6) Set two Friction plates to Working table.



Fig. 120

(8) Tighten and fix M10 Locknut from the back side of Base. Tighten the Nut so that Working table would not rattle and moves smoothly.



Fig. 122 (10) Fix Rip fence with four M8x30 Hex bolts.



Fig. 124

[4] ADJUSTMENT

[4] -1. Preparation for adjustment

Adjust Bevel locking handle as shown below to make it to be shifted by hand.





[4] -2. Adjustment

Adjustment can be carried out following the procedure.

1 Adjustment for 90° angle

(1) Set Up blade guard to the lower dead point and fix it with Pin C.

(2) Set 1R208 in the position as shown below and adjust until the gap between blade and 1R208 is cleared.



[4] ADJUSTMENT

[4] -2. Adjustment

2 Adjustment for 45° angle

(1) Set blade to the lower dead point and fix it with $\mbox{Pin}\ C.$

(2) Remove Sub fence and Right sub fence.

(3) Set 1R207 in the position as shown below and adjust until the gap between blade and 1R207 is cleared.



If there is a gap in the position circled in line, loosen M6x28 Hex bolt by turning a hex wrench counterclockwise.

If there is a gap in the position circled in line, tighten M6x28 Hex bolt by turning the wrench clockwise.



Fig. 128

[4] ADJUSTMENT

[4] -2. Adjustment

3 Rip fence

- (1) Remove Sub fence and Right sub fence.
- (2) Loosen four M8x30 Hex bolts. And ② is the supporting point for adjustment. Adjust Rip fence so that the angle between blade and Rip fence is 90°.



Fig. 129

(3) After adjustment, tighten bolts in the following order. Do not tighten them strongly because Rip fence may be out of place.



Fig. 130

(4) Confirm that the angle between blade and Rip fence is $90^\circ.$

(4) Adjustment for the cutting range of blade

(1) Set Up blade guard at the lower dead point. And hold it with hand and adjust the cutting range of blade with M6x25 Hex bolt so that the edge of blade in the guide fence side and the Handle side is placed inside the range as shown below.



[4] ADJUSTMENT

- [4] -2. Adjustment
- 5 Adjustment for laser light

(1) Draw a line (right angle to Rip fence) on plywood.



(2) Align blade with the line.



Fig. 132

- (3) If blade cannot be aligned with the line, adjust the following settings.
- Adjustment for horizontal direction

 Image: Strift Laser moving fix plate

 Image: Strift Laser moving fix plate

Fig. 134

• Adjustment for inclined light



[4] ADJUSTMENT

- [4] -2. Adjustment
- **5** Adjustment for laser light

• The other case



Fig. 136

- [5] Circuit diagram, Wiring diagram
- [5] -1. 220-240V area where Radio Interference Suppression is required
- [5] -1. 1. Circuit diagram

Stator Assembly <View from the Carbon brush side>





- [5] Circuit diagram, Wiring diagram
- [5] -1. 220-240V area where Radio Interference Suppression is required
- [5] -1. 2. Wiring diagram

Overall wiring diagram



Fig. 138





- [5] Circuit diagram, Wiring diagram
- [5] -1. 220-240V area where Radio Interference Suppression is required
- [5] -1. 3. How to connect wires

Electric switch



Terminal block



Soft starter



- A: Blue Terminal block 2 (Power supply line)
- B: Blue Stator assembly
- C: Gray Electric switch (2)
 - Carbon brush holder

Fig. 145

- [5] Circuit diagram, Wiring diagram
- [5] -2. 110V area where Radio Interference Suppression is required
- [5] -2. 1. Circuit diagram

Stator Assembly <View from the Carbon brush side>



Fig. 146

- [5] Circuit diagram, Wiring diagram
- [5] -2. 110V area where Radio Interference Suppression is required
- [5] -2. 2. Wiring diagram

Overall wiring diagram



Fig. 147





- [5] Circuit diagram, Wiring diagram
- [5] -2. 110V area where Radio Interference Suppression is required
- [5] -2. 3. How to connect wires

Electric switch



Terminal block



(1) Brown Power supply line

- (2) White Soft Starter A
- Black Electric switch (2) (With Capacitor)
- (3) Blue Power supply line
- (4) Black Electric switch (3)



Fig. 153

Soft starter



- A: White Terminal block 2 (Power supply line)
- B: White Stator assembly
- C: Black Electric switch (2)
 - Carbon brush holder

Fig. 154

- [5] Circuit diagram, Wiring diagram
- [5] -3. 110V area
- [5] -3. 1. Circuit diagram

Stator Assembly <View from the Carbon brush side>



Fig. 155

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► Repair

- [5] Circuit diagram, Wiring diagram
- [5] -3. 110V area
- [5] -3. 2. Wiring diagram

Overall wiring diagram



Fig. 156

Soft starter



Fig. 157

Cable tie position



Fig. 158



- [5] Circuit diagram, Wiring diagram
- [5] -3. 110V area
- [5] -3. 3. How to connect wires

Electric switch



Red Stator assembly Black Carbon brush holder Soft starter C Black Terminal block 4 (Power supply line)

Fig. 160

Terminal block



(1) White	Power supply line
(2) White	Soft starter A
(3) Black	Power supply line
(4) Black	Electric switch (3)

Soft starter



A: White Terminal block 2 (Power supply line)

Fig. 161

- B: White Stator assembly
- C: Black Electric switch (2)
 - Carbon brush holder

Fig. 162