

Terradonis

Terradonis

PRECISION ROLLER SEEDER

JP1 *User Manual*



Terradonis is a registered trademark of ICS

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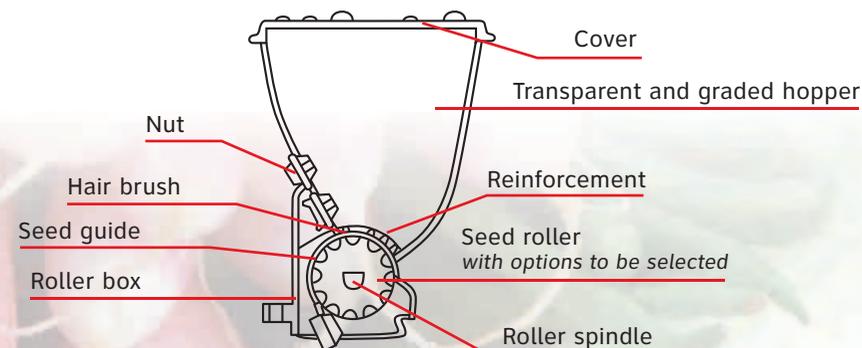
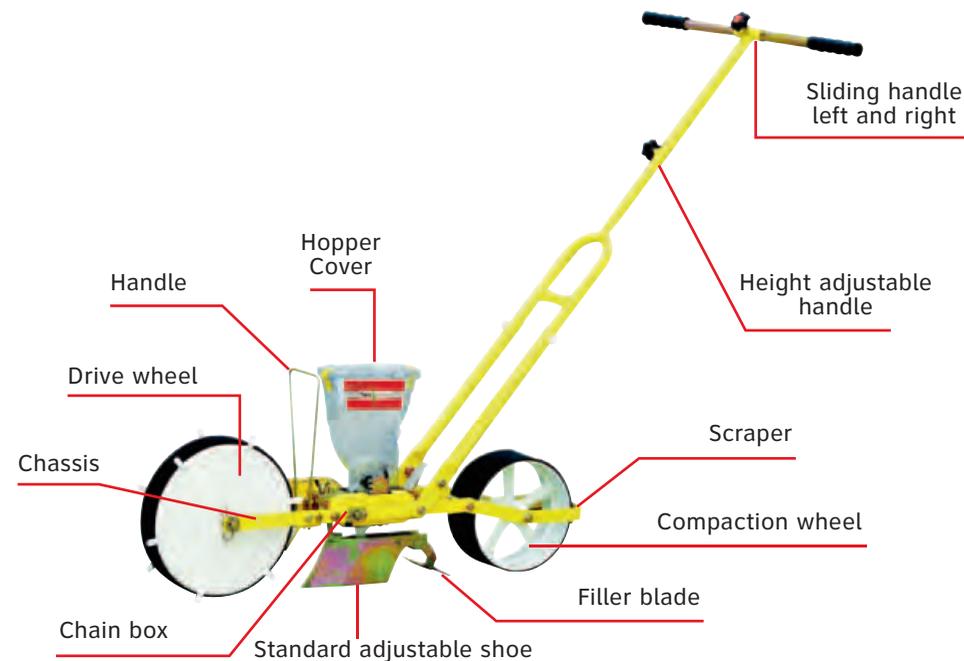
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INSTRUCTIONS FOR USE

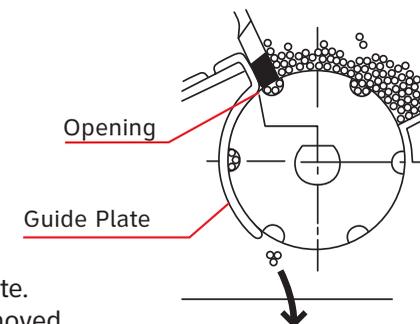
SETTINGS

- Lubricate all rotating parts except the seed roller.
- The brush, the guide plate, the spongy rubber of the transmission wheel and the spongy rubber of the compaction wheel are consumables. Check them regularly and replace as necessary.
- Make sure the seedbed is uniform.
- Check whether the seed roller is caked in dirt, pesticides or seed casing residues. If it is, it should be cleaned.
- Prepare a seedbed by carefully hoeing and levelling.
- When you sow beans or grains, a bypass can occur in the seed hopper. In this case, gently tap the hopper and fill the hopper half full instead.
- When you disassemble the sower, make sure the free roller is not caked in dirt, etc. ...

→ **BRUSH:** In its default position, the brush lightly touches the seed roller. To increase the volume of seeds, put the brush in a high position (loosen the wing nut and lift the brush).

If you use coated seed: The brush should touch the seeds, and exercise slight pressure on them. It is necessary to find the right adjustment for your seeds, because if the brush is too low, it will wear very (too) quickly. If it is too high, the seeds will break.

→ **GUIDE PLATE:** The guide plate forms a cavity between the roller, the brush and the guide plate. Without this space, the seeds might break. The end of the guide plate must be in close contact with the roller. If the guide plate becomes misaligned, you can realign it using the diagram opposite. In a general way, guide plate should be removed as soon as the brush is raised.



→ **SEEDING DISTANCES:** The distances between the seeding can be adjusted by adjusting the pinions and the number of holes in the roller, see the seed distance table.

Note: the actual planting distances may vary depending on soil quality and speed of work. Test intervals based on the ground before you start planting.

...SETTINGS

- **PLANTING DEPTH:** Planting depth may be adjusted by lowering or raising the shoe.
- **SOIL COVER:** Adjust the angle of the filler blade for optimal soil cover.
- **HEIGHT OF THE HANDLE:** The handle height can be adjusted by loosening the screws at the base of the fork of the handle and the buttons on each of its removable parts and by adjusting them according to your needs.
- **CLEANING:** If soil sticks to the compaction wheel, the contact surface must be cleaned before it sticks (it might deposit oil or dirt).
- **HOPPER COVER:** The hopper cover is made of different molded holes representing the holes of the different rollers offered. They will enable you to verify that seeds and rollers are well-chosen and suitable. Under each mold, the size of the hole. The table below shows the sizes of the roller holes enabling you to find the roller that you need.

TABLE OF ROLLER HOLE SIZES (in mm)

Ref.	Hole size	Hole depth	Length if hole in X	Ref.	Hole size	Hole depth	Length if hole in X	
<i>The letter indicates the type of hole. Refer to the table of distances to decide on the right number of holes for your needs.</i>								
A	13,50	6,00	-	R	9,00	3,50	-	
AA	12,00	6,00	-	S-4	SPECIAL FORM (19mm x 8mm)			
C	11,00	5,50	-	U-4	SPECIAL FORM (19mm x 10mm)			
F	5,00	2,50	-	X	4,00	2,00	-	
FJ	5,00	3,00	-	XY	2,50	1,20	5,00	
G	9,00	4,50	-	XYX	2,00	1,20	4,00	
J	SPECIAL FORM (½ hole of 1.5mm)				Y	3,50	1,50	-
L	7,00	2,50	-	YJ	3,00	2,00	-	
LJ	7,00	3,70	-	YK	3,50	2,30	-	
M	5,00	2,00	-	YX	2,50	1,50	-	
MJ	6,00	3,50	-	YXX	2,50	1,80	-	
MM	6,00	2,50	-	YYJ	3,00	1,70	-	
N	SPECIAL FORM (16mm x 6mm)				YYX	2,00	1,8	-
Q	8,00	3,00	-	Z without hole	External diameter 59.85mm			

SOWING SEEDS IN ROWS

→ **The quantity of seed is adjusted by the combination of 3 elements:**

- Number of holes on the seed roller
- Size of the holes in the seed roller
- Number of sprocket teeth used

For the **number of holes you need**: refer to the table of distances below:

TABLE OF DISTANCES (in mm)

		NUMBER OF TEETH PER SPROCKET											
		Front	14	14	13	13	11	11	10	11	10	10	9
Number of holes per seed roller	2	Back	9	10	10	11	10	11	11	13	13	14	14
	3		320	360	380	420	460	500	540	580	640	700	760
	4		210	230	250	280	300	330	360	390	430	460	510
	6		160	180	190	210	230	250	270	290	320	350	380
	8		105	115	125	140	150	165	180	195	215	230	255
	10		80	90	95	105	115	125	135	145	160	175	190
	12		64	72	76	84	92	100	108	116	128	140	152
	16		53	58	63	70	75	83	90	98	108	115	128
	20		40	45	48	53	58	63	68	73	80	88	95
	24		32	36	38	42	46	50	54	58	64	70	76
	30		27	29	32	35	38	42	45	49	54	58	64
	36		21	24	25	28	31	33	36	39	43	47	51
			18	20	21	23	26	28	30	32	36	39	42

→ **PLANTING DISTANCE:** see table above.

Feel free to contact us for any special request of seed rollers (for other dimensions than the one quoted in the table).
Quoted dimensions may vary, our website www.terradox.com is updated accordingly.

SOWING SEEDS IN ROWS...

...SOWING SEEDS IN ROWS

→ NUMBER OF SEEDS/HOLE:

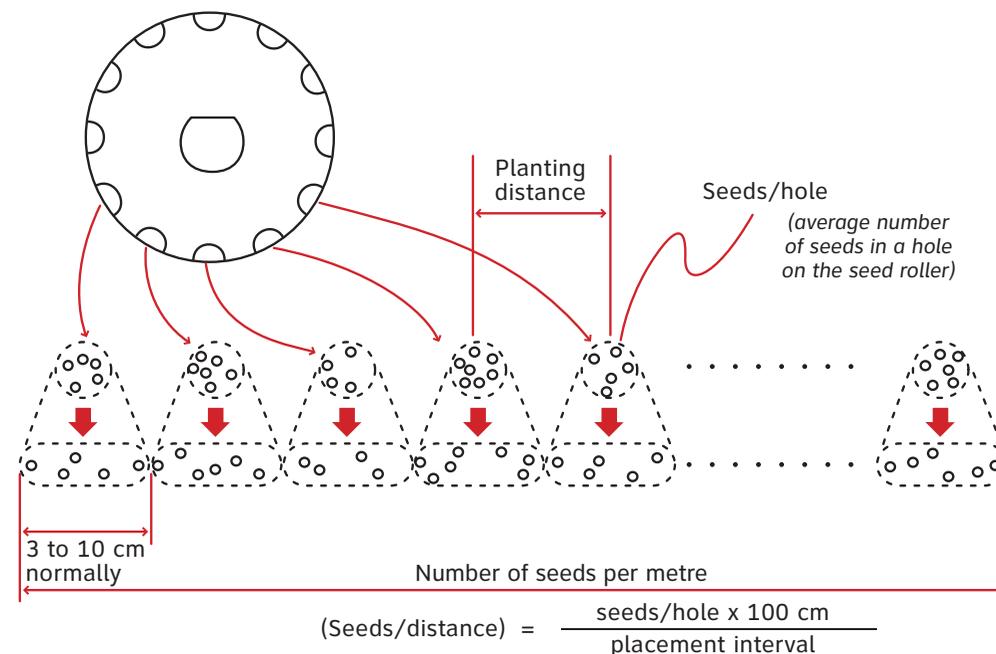
The number of seeds differs depending on seed size, which in turn depends on the species and the year and the adjustment of the brush.

Therefore numbers shown in the table of distances are given as a guideline only. Below are some examples of correspondence between rollers and crops, on the basis of one seed per hole:

EXAMPLES OF CORRESPONDENCE BETWEEN ROLLERS AND CROPS

CROP	ROLLER	CROP	ROLLER
Basil	YX24	Endive	XYY12
Beetroot	MJ12	Radish	X24
Broccoli	YYJ6	Rocket	X12
Carrot	X24, XYY24, XY24	Wheel with no hole	Z
Camomile	YYX24	Tomato	X2
Celery	YYX12	Thyme	YYX12
Chicory	XYY12	Spinach	FJ24
Cabbage	YYJ6	Fennel	X12
Pak Choi	YYJ6	Green beans	N6
Frisée	YYJ6	Lettuce (coated)	MJ12
Spring onion	Y24	Lettuce (raw)	XYY12 or 24

CROP	ROLLER
Flax	Y24
Lamb's lettuce	F24, FJ12
Mint	YYX 12 or 24
Onion (raw)	X24
Sorrel	YYX12 or 24
Parsnip	L12, L24
Parsley	YYJ24
Leek	Y24
Peas	AA12



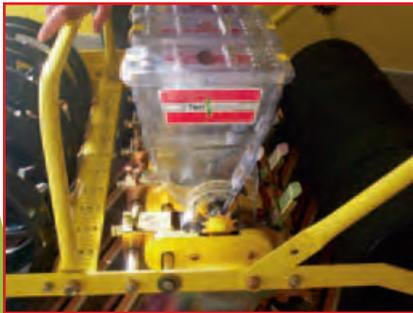
Caution: the planting distance depends on the combination of sprocket teeth (11 adjustment positions) and the number of holes on the metering roll. The drive wheel may slip depending on soil quality and placement speed. Therefore, the number of seeds is a guideline only. If the transmission wheel skids, planting distances will be larger, reducing the number of seedlings. So make sure that the wheel does not slip.

Seed dispersal: Seeds are dispersed in a hole according to the direction of the motion until they are sown, and roll on the ground. The dispersal length varies depending on the size of the hole, the soil quality, the seed size and can vary between 3 and 10cm.

REMOVAL OF THE HOPPER FOR

POSITIONING OF THE ROLLER

1 Press the metal element to unclip the hopper, then lift.



2 Unclipped element.



3 Unscrew the white knob and open the retractable portion of the hopper



4 To remove the pin, turn it as shown in photo below and pull, to release the pin and the roller.

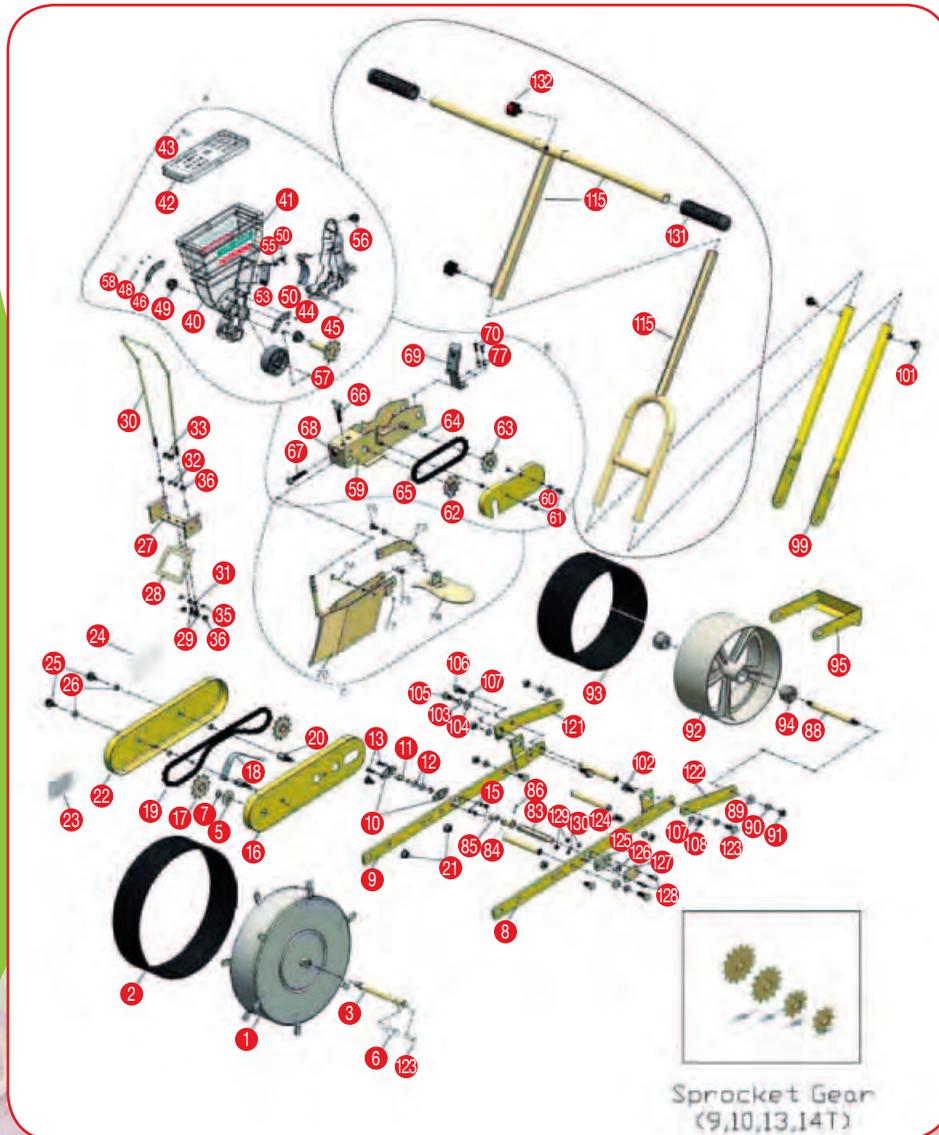


5 The roller can now be changed.



SPARE PARTS

SPARE PARTS



N	NAME	QTY	N	NAME	QTY
1	Drive wheel	1	41	Label	2
2	Drive wheel guard	1	42	Hopper cover	1
3	Drive wheel shaft	1	43	Seed distance label	1
5	M12 Washer	2	44	Hopper protection	1
6	Pin	1	45	Drive shaft	1
7	Ring	1	46	Wheel protection	2
8	Left side bar	1	48	Bolt	6
9	Right side bar	1	49	Grommet	2
10	Roller protection	2	50	Guide plate	1
11	Gear shaft	1	53	Brush	1
12	Bearing	2	54	Wing bolt	1
13	M5 bolt	2	55	Plate flange M5	1
14	Hexagonal Nut M5	2	56	Knob	1
15	Sealing washer M5	2	57	Hopper sprocket	1
16	Left chain box	1	58	Pin	1
17	11 tooth sprocket	2	60	Hexagonal Nut (M5)	2
18	Chain tightening tab	1	61	Knob	2
19	Chain	1	62	10 tooth sprocket	1
20	Nut (allen 6) for chain box	2	63	10 tooth sprocket	1
21	M8 Flange	2	64	Sleeve ring	1
22	Right chain box	1	65	Chain	1
23	Label	1	66	Wing bolt M8	1
24	Label	1	67	Hexagonal Nut (M8)	1
25	Knob M6	2	68	Hexagonal Screw (M8)	1
26	Plate flange	2	69	Hopper release element	1
27	Handle support	1	70	Hexagonal nut M4	2
28	Drive wheel scraper	1	71	Flange	2
29	Hexagonal nut (M6)	2	72	Blade	1
30	Handle	1	73	Blade arm	1
31	Plate flange M6	2	74	Upper blade pin	1
32	Flange M6	2	75	Spring	1
33	Hexagonal nut (M6)	2	76	Hexagonal nut M6	1
35	Flange M6	2	77	Hexagonal nut	1
36	Hexagonal nut (M6)	4	78	Filler blade	1
40	Hopper	1	79	Drive shaft	2

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SPARE PARTS

N	NAME	QTY	N	NAME	QTY
80	Hexagonal nut	1	107	Sealing flange	2
83	Hexagonal shaft	1	108	Hexagonal bolt M8	2
84	Gear hub collar	1	110	9 tooth sprocket	1
85	Gear hub one direction	1	111	10 tooth sprocket	1
86	Pin	1	112	13 tooth sprocket	1
88	Compaction wheel spindle	1	113	14 tooth sprocket	1
89	Flange	2	115	Handle sleeve	1
90	Washer	2	121	Left arm for compaction wheel	1
91	Hexagonal nut	2	122	Right arm for compaction wheel	1
92	Compaction wheel	1	123	Hexagonal nut M8	2
93	Compaction wheel protection	1	124	Hexagonal nut M8	1
94	Spacer/wheel spindle	2	125	Support	1
95	Scraper	1	126	Ring	1
99	Handle assembly lug	2	127	Support cover	1
101	Bolt M6	2	128	Round head nut	2
102	Flange M8	2	129	Hexagonal screw M5	1
103	Washer M8	2	130	Washer M5	1
104	Plate washer M8	2	131	T handle	1
105	Hexagonal nut M8	2	132	Knob	1
106	Hexagonal nut M8	2	133	Nut M8	1

CONSUMABLES

NAME	REPLACEMENT
Brush	These elements are subject to wear and tear. They should be replaced therefore when they can no longer carry out their function.
Chain Guide	
Spongy rubber drive wheel cover	
Spongy rubber compaction wheel cover	

ADJUSTMENT OF THE SLIDING HANDLE

1 The handle can be adjusted by loosening the knob.



2 When unscrewed, slide the handle to the left or right depending on your need.



3 This allows you to position yourself on the side of the row while maintaining sufficient thrust force.



OUR DIFFERENT SHOES

→ DOUBLE ROW SHOE:

It allows to sow two rows, distant of 45mm, by seeding unit.

It is delivered with a plastic seed divider.

To get a higher density, we recommend to use a roller with 30 or 36 holes.

Recommended for radish, carrot, small vegetable...



standard soil opener



"double row" soil opener option



→ SOIL OPENERS: (exist in 60mm, 75mm and 120mm wide)

Allows sowing in bed, rather than in line.

In the case of sowing in seed nursery, it allows a better cover of soil surface, and then a better density is obtained.



→ DISC SOIL OPENER :

It is recommended for stony and tough soil.

SETTING OF THE SHOES

1 Remove the standard shoe unscrewing the bolt, as shown on the picture.

2 Mount the shoe to be used and screw the bolt.

Caution: do not force to screw. As soon as the shoe is maintained, stop screwing.



ADD-ON HOPPER

→ THIS OPTION ALLOWS TO INCREASE THE STANDARD HOPPER CAPACITY FROM 1.2L TO 3L.

1 Take the hopper cover off.

2 Place the add-on on the top of the hopper, to superimpose the holes of the hopper to the holes of the add-on.

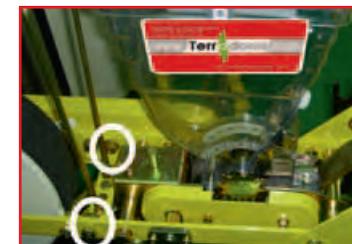
3 Screw the white knobs. The cover of the hopper can be placed at the top of the add-on.



→ THE ROW MARKER IS MADE TO MARK THE NEXT ROW.

1 Take the handle off, with the help of a key of 10.

2 Unscrew the bolts placed of each part of the handle with a key of 13.



3 Place the row marker, screw the fixing paws, and then screw the side bolts.

MOUNTING OF THE JPN FERTILIZER...

...MOUNTING OF THE JPN FERTILIZER

- 1** Replace the sprocket of the seeder's hopper by the double sprocket from the JPN Kit.



- 2** Unscrew the axle located in front of the rear wheel of the seeder to place the bearing plate of the JPN.



- 3** Think about replacing the shaft before screwing!



- 4** Mount the bearing of the JPN.



- 5** Place the spacer on the shaft where the hopper will be mounted and mount the hopper.



- 6** Engage the chain in the seeder hopper sprocket and in the sprocket of the JPN. Place the sprocket on the JPN hopper shaft.



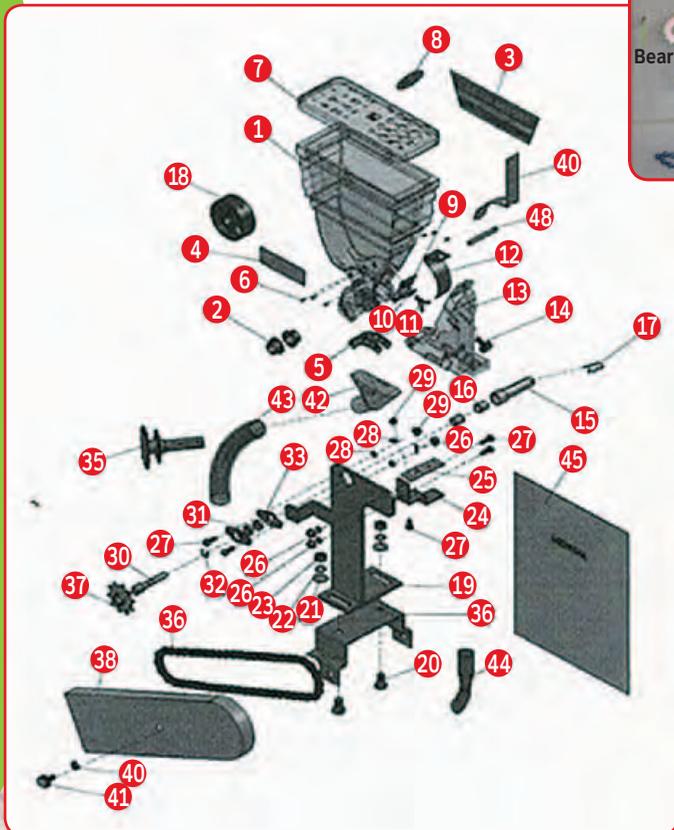
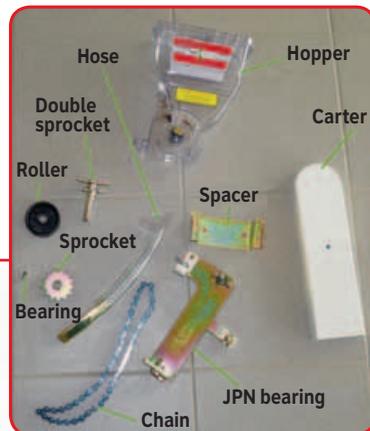
- 7** Unscrew the white knob and settle the chain housing. Screw the white knob.



- 8** Install the hose (with the divider at the top) and mount it at the bottom of the hopper.

JPN FERTILIZER

→ For the seeding distances, please confer to the seeding distance table of the seeder (page 7). The distribution roller for the fertilizer has 8 holes.



SPARE PARTS FOR JPN

N°	Name	Quantity	N°	Name	Quantity
1	Hopper	1	24	Fixing plate	1
2	Eye of the drive shaft of the roller	2	25	Fixing plate of the roller housing	1
3	Sticker	2	26	Bolt	1
4	Sticker	1	27	Bolt	4
5	Protection of the roller	2	28	Ring	4
6	Screw	6	29	Bolt	4
7	Hopper cover	1	30	Clutch shaft	1
8	Sticker	1	31	Roulement	2
9	Brush	2	32	Rondelle	1
10	Screw	1	33	Bearing carter	1
11	Butterfly screw	2	35	Driving sprocket	1
12	Granule guide	2	36	Base of the JPN	1
13	Roller carter	2	37	Sprocket	1
14	Knob	2	38	Chain – 58 links	1
15	Driving shaft	1	39	Chain carter	1
16	Clutch axle of the roller	2	40	Ring	1
17	Pin	1	41	Knob	1
18	Roller	1	42	Plastic cone	1
19	JPN Bearing	2	43	Hose	1
20	Bolt	2	44	Tube	1
21	Ring	4	45	User manual	1
22	Ring	1	46	Security plate	1
23	Nut	2	48	Axle	1

CONSUMABLES FOR JPN

NOM	Replacement
Brush	These elements have sometimes to be replaced. Please replace them when necessary.

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