

# Technik-Plus

## For the following models:

TP-Turbo Eco

TP-Turbo Professional

TP-Turbo Convenience

Serial number: \_\_\_\_\_

\*Translation from original instruction\*



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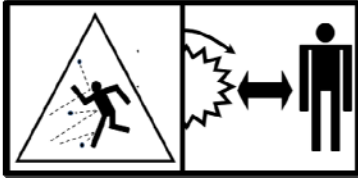
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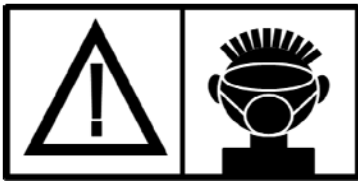
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## Description of the icons on our spreader:

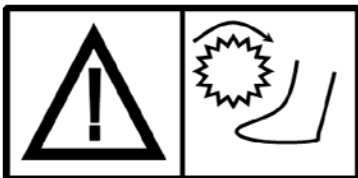
Icons point out possible danger areas. They serve the safety of all persons who work with seeder or have to do with it in any way. Pictograms must be displaced and can be reordered with the quoted order number.



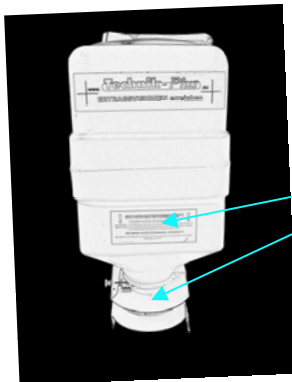
During operation of the machine do not enter the danger area. People and animals can be injured or objects can be damaged.



Please use protective clothing (for filling the hopper, for works on the machine...)! Also read the bag before opening it.



Attention to rotating parts! The motors are very powerful to damage or injure clothes or bodily parts. Before doing works on the machine please disconnect the power supply.



On these positions you will find the icons.

## CE conformity mark:

The CE conformity placing through the producer documents outwards the conformity of the machine with all regulations of the directives of the machine and other corresponding EC directives

EC declaration of conformity (see page 29)

By signing the EC declaration of conformity the producer validates that the introduced machine complies with all constitutional safety and healthy requirements.

## **Getting started:**

Please check following points:

1. Check of external shipping damage.
2. Completeness of machine according to delivery note.
3. Operating, commissioning and maintenance only by using the operating instruction.
4. When rotating or moving parts to check tightness.
5. Mounting of machine correctly according to operating instruction and safety regulations.
6. Test run.
7. After all 40 hours of operation or at least prior to each season please check tightness of rotating parts.
8. Note the call sign (!). Everywhere there is to ensure your safety.
9. On the machine you will find the necessary safety regulations on the plastic tank. If this label is lost it must be reordered! All safety information can be found in the operating instruction!

## **Dissemination:**

The user has to be familiar with all safety and operating instructions of the machine. Therefore, it is necessary to hand the operating instruction on the user. The operating instruction will remain even after selling the machine!

## **Safety instructions:**

### ***Danger area of machine***

The danger area extends in a semicircle towards to the spreading direction (see figure 1). Depending on the working width the size of the danger area varies from 8-26 m. Please note that the individual grains at a set working width of eg 24 m still can fly. Different weight of seeds leads to different working widths => danger area is the zone where flying material can injure or damage people, animals and objects.



figure 1

Other danger areas are agitator and spreader plates or feeder and feeder motor.

### ***In general:***

- ! Please study the operating instruction exactly before you start to work!
- ! Please keep enough safety distance during operation! All rotating and moving parts are very powerful and can pull in fingers or clothes! Take potential care when setting and calibrating the machine!
- ! Before starting to work make sure that no people, animals or easy to damage things are in the danger area!
- ! When spreading agricultural chemicals please read the bag before purchasing the seed! Use safety clothing and breath mask when spread poisoned material!
- ! Empty the tank after completed work to avoid any risk to people and animals!
- ! Attention to the agitator! The emptying of the tank or replacement of the agitator bolt or other spare parts may execute with interrupted electrical connection!
- ! Keep children away of the machine!
- ! During operation: Do not open the lid of the tank and not look directly into the hopper and spreader plate!
- ! Make sure that the seeder is switched off (main control switch>OFF) and the feeder is closed before you connect the machine with battery!
- ! Do not enter the danger area during operation and during the machine is connected with electricity!
- ! **Before any work on the machine or its components take care that the power supply is interrupted!**
- ! Use safety clothing and breath mask when filling the tank!
- ! For each work with the machine you have to use just work gloves!
- ! Adjusting the throwing blades or setting of output amount may only do with switched off machine and interrupted electrical connection.
- ! During calibration the danger area may only entered with switched off machine and interrupted electrical connection.
- ! Take care that no danger for people comes from the basic machine during remodelling of the seeder (=> switching off tractor (ignition), hydraulic assuring against moving, ...)

### **Control and electrical connection:**

- ! To keep functionality of control unit keep it dry, protect it from shocks and falls, and also take care of correct polarity of battery (do not mix + and – !)
- ! Control unit box must be fixed beyond of danger area! (eg tractor cabin). If the supplied cable is not sufficient, take care to the right cross section of the cable when extending this. Connections have to be clean, i.e. open wires are important to isolate and protruding wires are not allowed.
- ! Make sure that the wires are correctly assembled at connections, so that enough electricity can flow through.
- ! Protect cables against friction and heavy heat. When cable isolation is damages please exchange immediately.

### **Fitting and console:**

Please note following points when mounting the seeder:

- ! If you mount an own fitting console, there must be a load capacity of at least 100 kg!
- ! During operation seeder and frame are exposed strong vibrations. → Frame and bolting must stand these vibrations; check bolting before and after each operation to their fixed hub; also control cross beams and fitting console before and after each operation to damages and cracks! On the seeders there are screw holes and a square tube for fitting on the frame.
- ! The seeder must have enough space around it, so that settings and reconstruction work on the machine can be carried out safely.
- ! The steps to the tank to filling this shall be fitted with a grab. (Height 90-110 cm, but it needs at the each point of the steps the same height).  
Optimal steps height: 18 cm; optimal steps lowness: 27 cm; optimal steps width: 80 cm

### **Operation:**

- ! This seeder is not intended for aggressive seeds (mineral fertiliser).
- For spreading rape, clover, mustard, slug corn, phacelia, lucerne, rye, oats, peas, micro granular, (wheat), grass seed ...
- For fitting on curry comb, disc harrow, grubber, roller, seedbed combine, grassland harrow, harvester, harvester thresher, ...
- ! The machine is developed for agricultural work to spreading seeds. For another operation warranty and product liability will expiate!

### **Warranty:**

The manufacturer warranty is 1 year and applies in following points:

- Spare parts damaging because of false fitting or material defect within this time.
- If you use original spare parts.

Warranty applies in following points:

- Spare parts, which have to be changed regularly on normal operation (abrasion).
- Spare parts damaging because of accidents, carelessness, misuses and faulty use and installation.
- If you use replica parts or spare parts from other manufacturers.
- If you not keep in mind operating and mounting instructions.

**Before delivery each seeder will be checked out in all its functions during a long test run!**

### **Product liability:**

The product liability applies only to correct operation. If the seeder is not maintained correctly (eg regular control of scatter diagram and functionality of particular parts,...) the manufacturer assumes no liability.

## Description:

Centrifugal seeder, electric drive from 12 V battery heavy duty motor, feeder and spreader plate of stainless steel, galvanised and powder coated frame, agitator, spreader limit plate, electric switch operated feeder (240N) and spreader plate motor (200 W / 2700 U/min.), plastic hopper with sealed cover – size: 60 lit., 90 lit., 130 lit.

### Control unit:

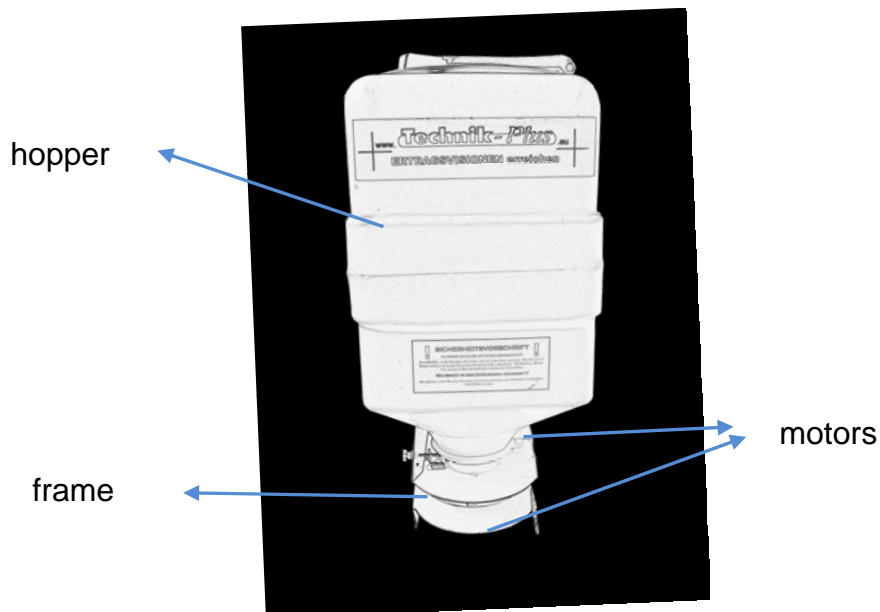
Control unit Professional:

- Speed adjustment on diffusion disc
- feeder open/close
- main switch on/off

Weight: 60 lit. = 29 kg  
90 lit. = 31 kg  
105 lit. = 33 kg  
130 lit. = 36 kg

### Dimensions:

construction	length	width	height
60lit.	50cm	48cm	92cm
90lit.	50cm	48cm	107cm
105lit.	50cm	48cm	118cm
130lit.	80cm	50cm	100cm



## **Technical details:**

### **EURO-TURBO Professional**

#### **Description (standard construction)**

- 1 x galvanised and powder coated frame with a square tube 50x50
- 1 x spreader plate motor
- 1 x feeder motor
- Control unit Professional:
  - Speed adjustment on diffusion disc
  - feeder open/close
  - main switch on/off
- Hopper volume 90 lit.
- agitator
- feeder and spreader plate of stainless steel
- spreader limit plate

#### **Optional**

- Hopper volume 60/105/130 lit.
- Grubber frame
- 3 point frame
- Spreader plate V-shaped for larger working widths

## **Technical details:**

operating voltage	12 V		
feeder motor	240N/12V		
spreader plate motor required voltage	200W - 20A - 12V - 2700U/min in service 5-20A and 15A to start		
working width	up to 24 m with slug corn up to 18 m with rape, clove, mustard up to 6 m with grass seed		
Hopper volume	60 – 90 (standard) – 105 – 130lit.		
Net weight			
60lit.	ca. 27kg		
90lit.	ca. 29kg		
105lit.	ca. 30kg		
130lit.	ca. 33kg		
Dimensions (cm):	Height	Max. Length	Max. width
60lit.	50	48	92
90lit.	50	48	107
105lit.	50	48	118
130lit.	80	50	100



Operating and mounting instruction for electro-universal spreader of new generation (Euro-Turbo Eco, Professional, Convenience) with variable speed control of spreader plate. (only Professional and Convenience)

#### **A. Speed regulation (only Professional and Convenience):**

The speed regulation for spreader plate was developed, that the user gets the possibility to set the machine exactly to the requirement, when spreading a wide range of seeds. High speed allows high spreading width. Is a smaller spreading width required, just reduce speed of spreader plate rotation. If you spread seeds with high speed, please eliminate agitating stud to avoid breakup of grains.

With small seeds (as rape, mustard etc.) it is recommended to use lower speed rotation, as seed can be smashed on high speed. That achieves smaller working widths.

#### **B. Fitting of Euro-Part spreader:**

It is possible to fit the EURO-TURBO spreader in any position of the tractor or implement. The control box can be fitted anywhere in the vehicle or in the tractor cab.

#### ***In General:***

Attend when mounting the machine, that the spreader becomes much heavier when filled with seed or granules (lifting capacity at least 100kg).

If you mount the seeder so that this bends a little forward (frame with hopper bends towards the ground), you have to mount an extra fixture to avoid a pulling out of the hopper. In this position working width reduces (it depends on the force of the bent).

Attend correct height on fitting the seeder – optimal height: 1 m from the ground to the spreader plate. The metal frame on the spreader has screw holes at bottom and rear (Use M10 bolts). A square tube can fit from bottom-upwards and fixed by a clamp screw.

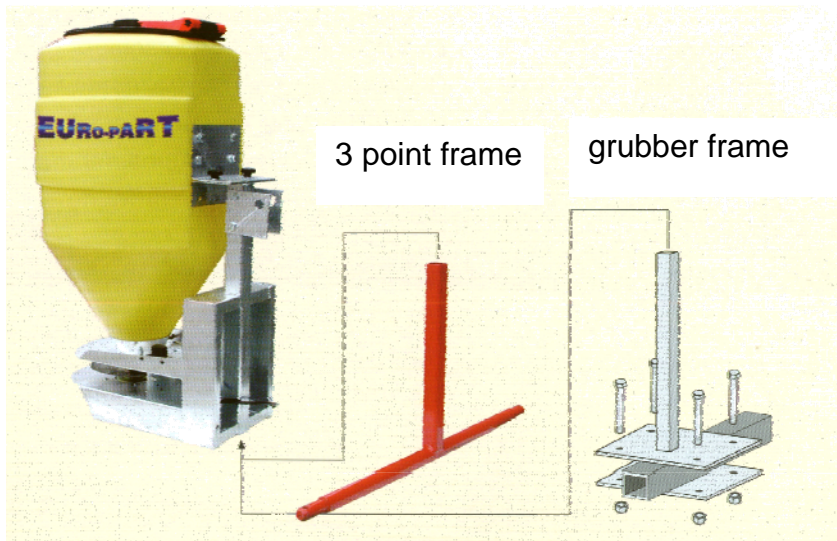
#### ***Fitting on a vehicle (Tractor, Quad, Unimog, Jeep, ...):***

The spreader can be fitted in front-, side- (footsteps) or rear section of the particular vehicle. Attend that you can board up and down safely and riskless if you mount the seeder on the footsteps of the vehicle. The spreader must not block up the way from vehicle's cabin (escape in a pinch!)

#### ***Fitting on an implement:***

It is possible to fit the spreader in any position of the implement, where you can build up a square tube (40x40). Then fix the spreader by a clamp screw. Now you can fit it to the required height.

**Optional:**



Upon request we provide the grubber framer or 3 point frame (see pricelist).

**Speed regulation:**

Please mount speed regulation outside of danger area (eg in the cabin). All parts of the speed regulation must be mounted moisture-protected and must not be opened. On the housing of control unit box you are not allowed to screw, drill or make other changes. You can add the control unit box with a Velcro or cable clip anywhere within reach of the user. The main switch must be easy accessible and immediately reachable in an emergency.

! When you switch off the motor please note that the spreader plate can continue to rotate a few seconds longer and so can rope in clothes or hairs. => Risk of injury for people and animals!

When laying the cable please consider that there arise no chafe or pressure marks and kinks. The cable must not tensioned too much otherwise wires can be ripped of contacts. (Lengthening see point C. electrical connection)

Attention: If assembling the cable too loosely, during operation it can impose or pull out from stretcher. If the cable is too long, please put the off cut correctly away from people and animals (eg rolling up in the cabin and adding slip-proof).

**C. Electrical connection**

The seeder is equipped with a 12 V spreader motor which needs 15 A for starting and 10 A in use.

**Connection:**

Connect the seeder direct with the battery. Please use the provided cable with fitted battery connectors and fuses (20A, length 21 cm).

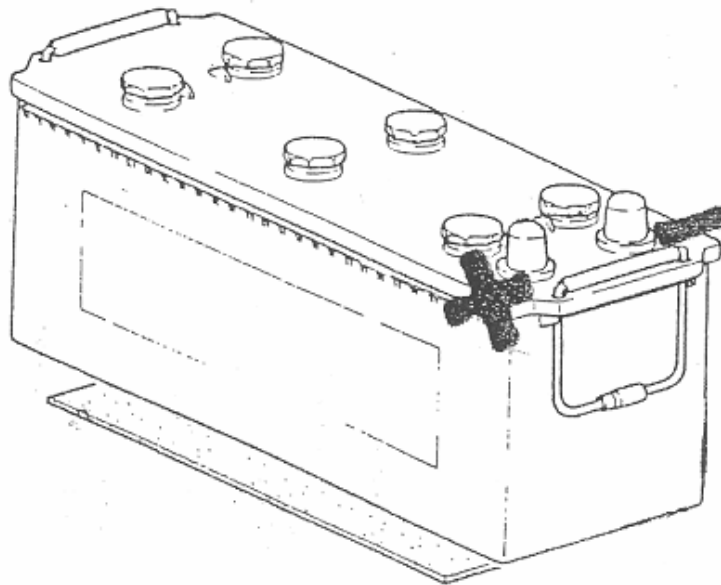
Take attention to the right pole on the battery!

- + = Plus Pole (red) direct to battery (use fuse!)
- = Minus Pole (black) direct to battery

**A DIRECT CONNECTION TO BATTERY IS ESSENTIAL!**

**A false connection will ruin the board.**

**(no warranty!)**



**Attention:** If you mount another plug (instead of the provided short cable) a good power supply is necessary like connecting direct to battery. If not the warranty expires!

The cable which comes from the control unit box is poled as follows:

- + = Plus Pole (cable no 2) direct to battery (use fuse!)
- = Minus Pole (cable no 1) direct to battery

***Lengthening:***

For lengthening the cables use smallest 2,5 mm<sup>2</sup> cable. Attention to proper connections! (no distant wires, connection only with a few wires, ...) Please note a good isolation of the connection to avoid dangers.

**D. Operation**

***Speed adjustment:***

With speed adjustment you can preselect the speed of the spreader plate (only Professional and Convenience). This happens on the control unit box in the cab.

If you turn the bottom to a higher number – the speed increase, the speed decrease when turned to a lower number

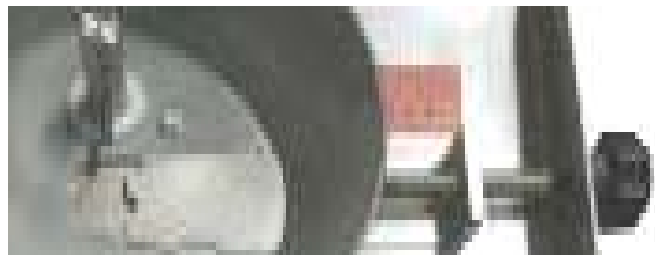
### **Spreading width:**

The spreading width depends on the speed of the spreader plate and on the condition of goods to spread. Coarse grained seeds achieve higher spreading width which cannot be reached by grass seeds. A working width of max 24 m can be reached with slug pellets. When using high speed on spreader plate, take care that seeds can be smashed! If a lower spreading width is required, you can fit it with the provided spreader limit plate. It is also possible to spread to one side if you turn over this spreader limit plate (longer side outside). A fitting high of min. 1 m (from the ground to the spreader plate) is necessary to reach results as per instruction. With a larger fitting high you may reach a higher spreading width. Attention: Do not mount the seeder too high – a safety filling of the hopper must be necessary.

The 240 N feeder motor has installed an ended switch!

### **Spreading quantity:**

The spreading quantity can be adjusted by the feeder (adjustment on the scale). The position 1 is closed and position 10 is fully opened.



### **Spread schema:**

You can adjust with a Z-plate the spreading schema (same outlet on left and right side).



- ..... seed
- ..... seed outlet
- .... Support frame sketchy

Position 1 throws the seed earlier out and higher quantity on right side.  
Position 2 supplies the seed to the opposite side and spreads more on left side.

When spreading grass seeds fit a longer pin into the shaft that the pin rotates above the seeder hole. Before starting operation (and after 15 minutes of work) it is necessary to check any bolt and electrical connection. Please do that every 6 working hours and clean the machine after every use. That extends the lifetime of the machine.

**Control units:**



*Control unit PROFESSIONAL*

Speed adjustment  
(Only Professional  
and Convenience)

Main switch ON / OFF

feeder  
OPEN / CLOSE



*Control unit ECO*



*Control unit CONVENIENCE*

Control lights for  
fuses

Control lights for  
Power-Start Automatic

Speed regulation  
(only Professional  
and Convenience)

Main switch ON / OFF

Control lights for  
spreader plate  
motor

feeder  
OPEN / CLOSE

Control lights for  
feeder motor

**Power-Start Automatic (only Convenience):**

Power-Start Automatic activates automatically when switching on the machine. The spreader plate motor starts with full speed and controls back after a few seconds (adjustable > see connection schema) to the adjusted speed. So it avoids a stopping of the motor. Take care that the feeder is always closed before you switch on the motor. When the motor starts with full speed, the seeder has reached the complete working width and so there is a larger danger area. Please open the feeder not until the control light for Power-Start Automatic is gone out.

**Control unit Professional**

If you have adjust a very small working width we recommend that the motor turns to full speed run before you switch it on (setting up bottom to 10). Make sure that the feeder is closed. Then switch on the machine. After 1-2 seconds turn back the speed bottom to the adjusted position afore. After further more seconds open the feeder.

**E. Calibration**

***Safety:***

A calibration is absolutely necessary. During calibration the seeder shall be regulated outside the danger area. Do not approach the machine until it is in operation, because individual grains can fly beyond the collection container. Before starting to work make sure that no people, animals or easy to damage things are in the danger area. Also for this work please use safety clothing and breath mask.

***Adjustment, Calculation:***

For calibration you can use the transport box or a big plastic bag. The box is cutting half and the seeder putting in it and then make a power supply. A scale value is preselected. Now let run the spreader for 1 minute and then weigh the seed you have collected in the box or plastic bag. Please compare this collected value with the calculated value. In the scale below you can exactly calculate seed output for calibration.

$$\frac{\text{Application rate kg/ha} \times \text{speed. Km/h} \times \text{spread width}}{600} = \text{weight kg/min}$$

$$\frac{5,0 \text{ kg/ha} \times 12 \text{ km/h} \times 12\text{m}}{600} = 1,2 \text{ kg/min}$$

		scale of feeder									
		1	2	3	4	5	6	7	8	9	10
km/h	4										
	5										
	6										
	7										
	8										
	9										
	10										
	11										
	12										
	13										

Now you can change the figure of the feeder scale and additional calibration and so the correct output can be found. After starting to work check the spreading on the field. Especially the speed driven, the quantity and distribution on the surface needs to be controlled.

**For your safety: During operation and closed electrical connection do not enter the danger area!**

***Spreading index:***

This index to be used as an average manual. Several facts are important for setting the feeder. Changes can be arising due to moisture, size of granules and seeds etc. We can mend to calibrate the machine at each seeding. Attention to the safety regulations! Please note a mounting height of 1 m (from the ground to the spreader plate).

○ Spreading index grass seed

working width	2,50 m				4,00 m				6,00 m		
speed adjustment (U/min)	2 - 4				5 - 8				8 - 10		
km/h	6	8	10	12	6	8	10	12	6	8	10

feeder

15 kg/ha	4,3	4,6	5,2	5,4	3,4	3,8	4,7	5,0	3,3	3,5	4,0
25 kg/ha	4,7	5,0	6,5	7,7	4,5	4,8	6,1	6,7	5,5	7,0	7,7

○ Spreading index clover

working width	3,00 m				6,00 m				12,00 m			
speed adjustment (U/min)	1 - 3				4 - 7				8 - 10			
km/h	6	8	10	12	6	8	10	12	6	8	10	12

feeder

10 kg/ha	1,0	1,1	1,2	1,3	1,1	1,3	1,4	1,5	1,3	1,5	1,7	1,9
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○ Spreading index Phacelia

working width	2,50 m				3,00 m				10,00 m			
speed adjustment (U/min)	1 - 3				2 - 4				8 - 10			
km/h	6	8	10	12	6	8	10	12	8	10	15	20

feeder

12 kg/ha	1,2	1,5	1,7	1,9	1,3	1,6	1,7	1,9	2,4	2,6	3,0	4,3
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○ Spreading index mustard

working width	3,00 m				4,00 m				15,00 m			
speed	800 - 1000				1000 - 1200				2400 - 2700			
bottom	2 - 4				3 - 5				8 - 11			
km/h	6	8	10	12	6	8	10	12	8	10	15	20

feeder

15 kg/ha	1,5	1,8	2,0	2,2	1,7	2,0	2,4	2,6	2,1	2,7	3,4	4,4
25 kg/ha	2,3	2,5	2,7	2,9	2,3	2,7	3,2	3,6	3,2	3,7	5,6	7,8

○ Spreading index slug pellets

working width	12,00 m			15,00 m			20,00 m			24,00 m		
speed	1800 - 2000			2000 - 2300			2400 - 2600			2600 - 2800		
bottom	ca. 7			ca. 8			ca. 9			ca. 10		
km/h	6	8	10	12	6	8	10	12	8	10	15	20

feeder

3 kg/ha	1,5	1,8	2,0	2,2	1,7	2,0	2,4	2,6	2,1	2,7	3,4	4,4
4,5 kg/ha	2,3	2,5	2,7	2,9	2,3	2,7	3,2	3,6	3,2	3,7	5,6	7,8

Mounting height 1 m (from ground to spreader plate)

Before starting to work a calibration is absolutely necessary!

EURO-PART refuses any responsibility by using the seeder if there arise a false application rate, or any failures in seeding quantity!

## **F. Maintenance and problem handling:**

### ***Maintenance:***

Also for this work please use safety clothing and breath mask and make sure that the power supply is disconnected. Before starting first operation (and after 15 minutes of work) it is necessary to check any bolt and electrical connection. Please do that every 6 working hours and clean the machine after every use. The hopper is fitted with two hand knob screws so you can take it off for emptying and cleaning. With a special function of the hopper it is also easy to empty hopper rests. For cleaning please take a wet cloth or clean the seeder with a compressor. Do not use a high-pressure washer otherwise motors can be broken. Please keep the seeder moisture-protected. With proper care and maintenance will increase lifetime of the spreader.

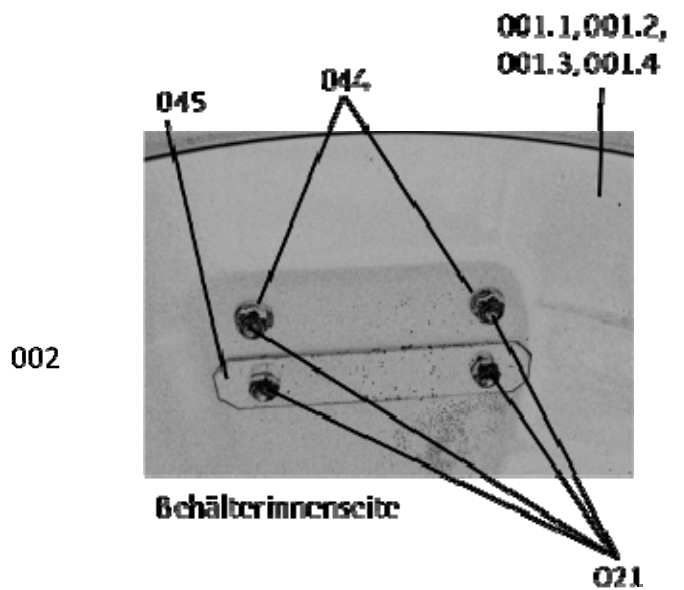
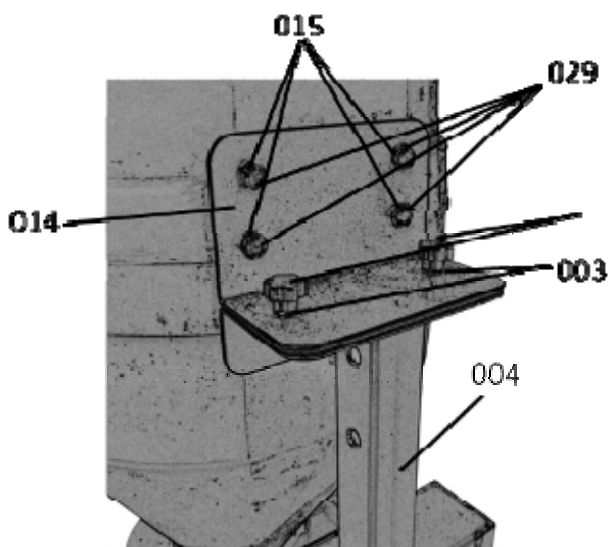
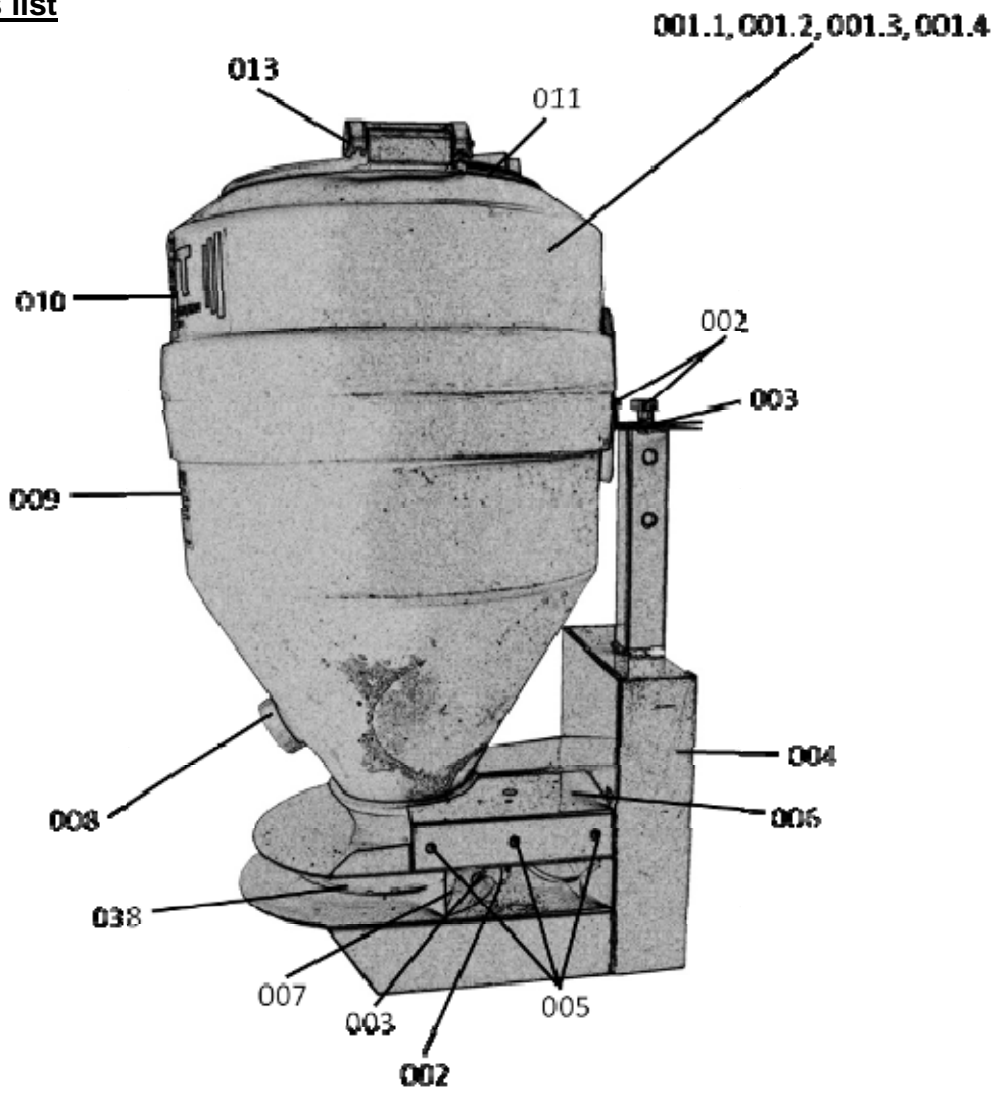


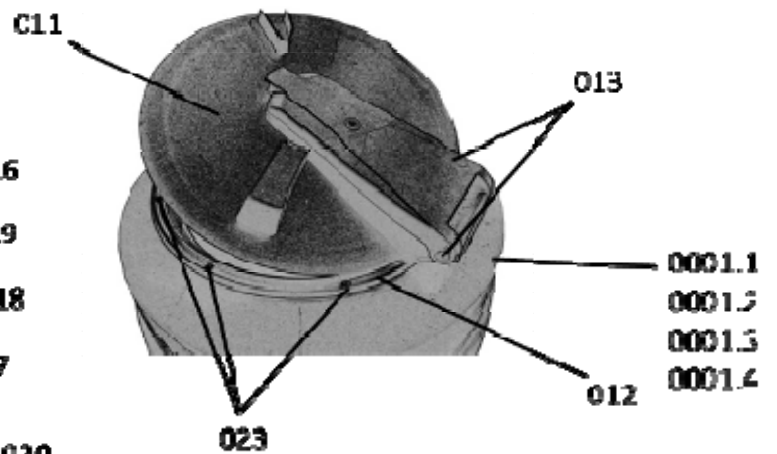
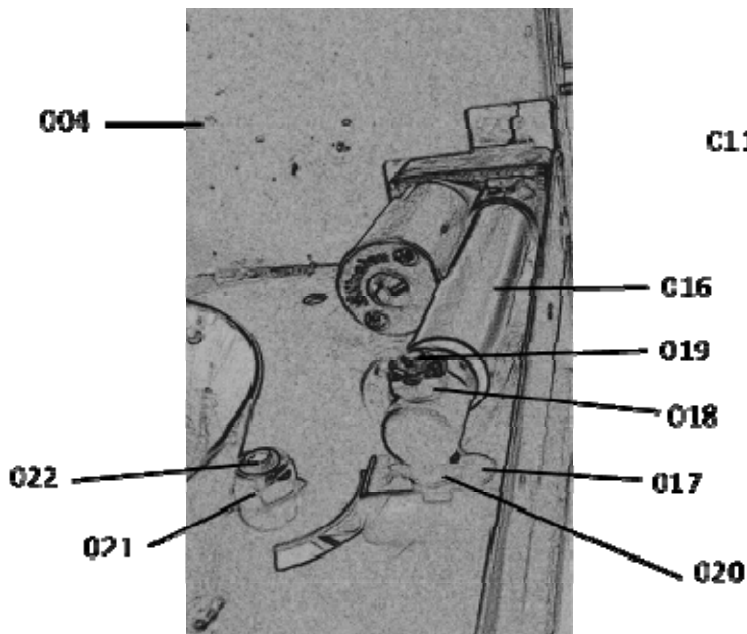
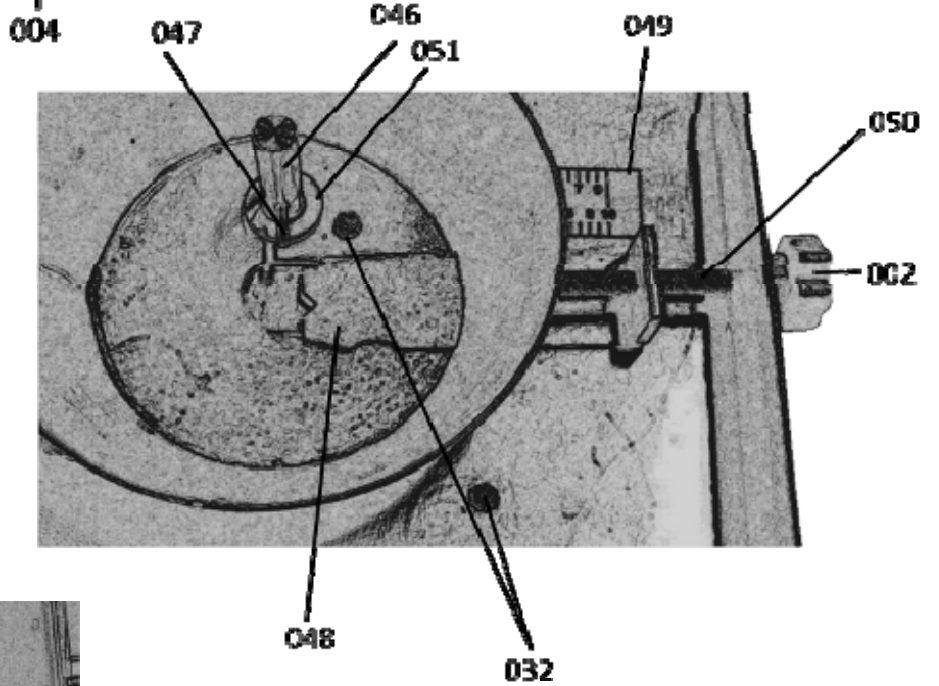
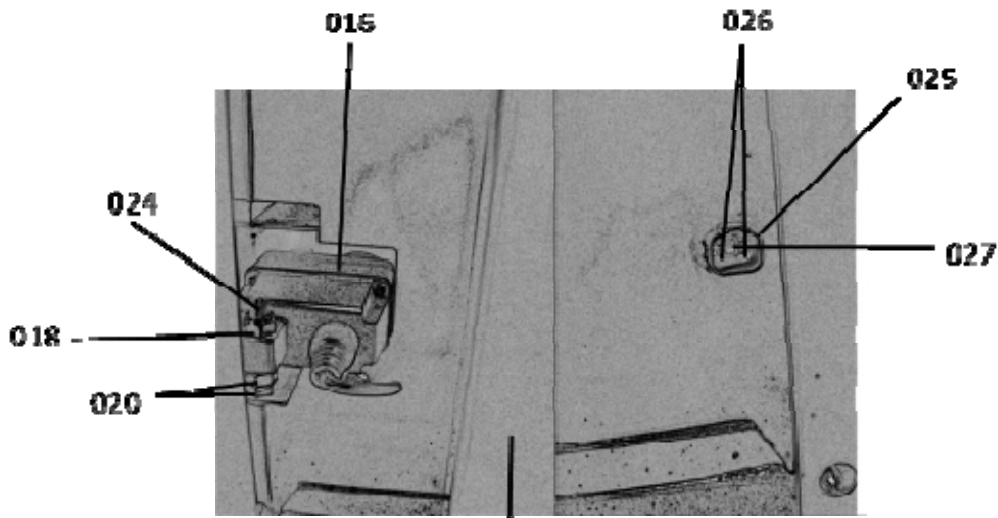
### ***Problem handling:***

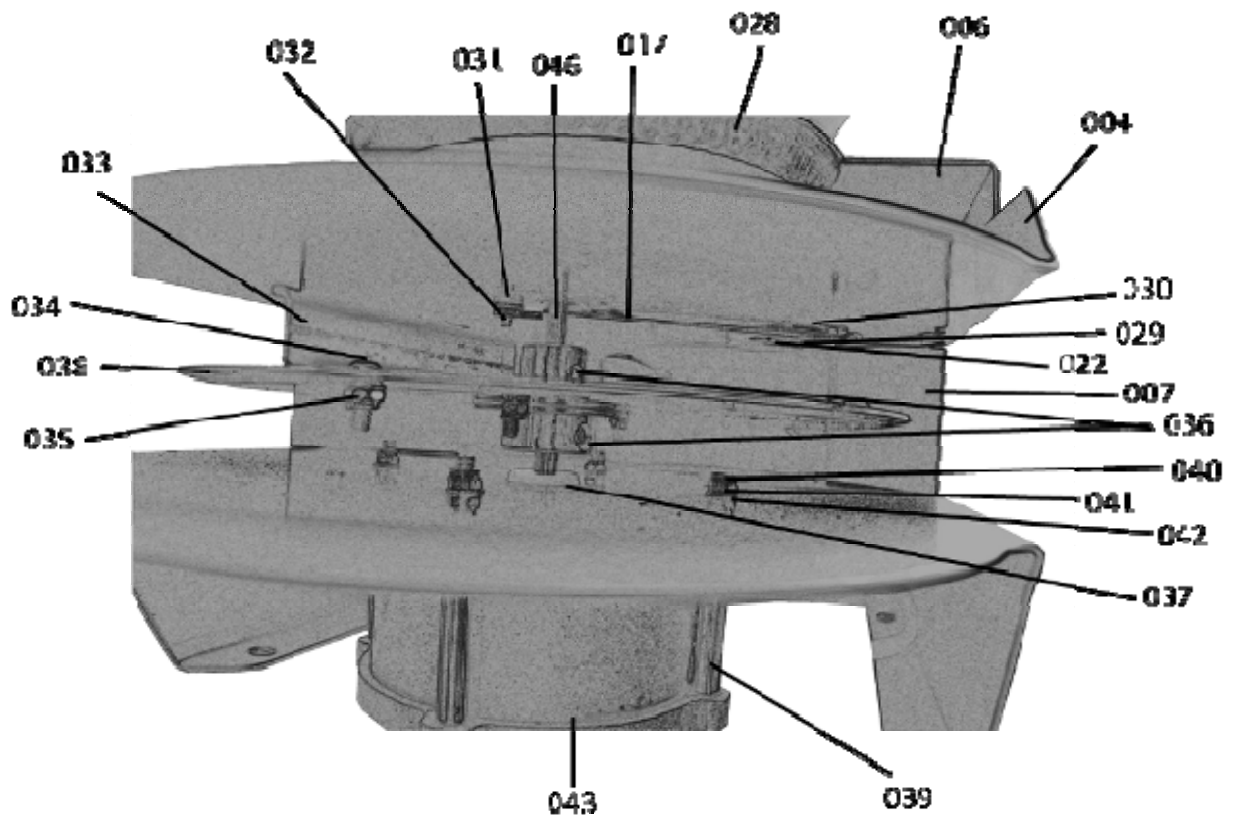
Also for this work please use safety clothing and breath mask and make sure that the power supply is disconnected.

- The spreader plate motor rotates only from time to time.
  - Please check power supply. Connect direct to battery.
- The spreader plate motor rotates no more.
  - Please check the fuses.
  - Please check power supply. Connect direct to battery.
  - Please demount the motor and connect it without control unit direct with battery (Polarity no importance). If then the motor rotates the causation is power supply (1) or control unit (2).
    - Please check power supply. (1)
    - Please contact us (2)
- The feeder motor operates no more:
  - Please check the fuses.
  - Please check power supply. Connect direct to battery.
  - Please demount the motor and connect it without control unit direct with battery (Polarity no importance). If then the motor rotates the causation is power supply (1) or control unit (2).
    - Please check power supply. (1)
    - Please contact us (2)
- The fuse often blows:
  - Please check power supply. Connect direct to battery.
  - Please contact us if this problem recurs anymore.
- The control unit blowed:
  - Please send the control unit with a short description of error and your contact details to us.
- The spreader operates only without control unit
  - Please send the control unit with a short description of error and your contact details to us.
- The seeds trickles down also at the agitator.
  - Please check that the agitator completes with a hard plastic seal (1) and so that there is no gap (2) to lose seed.
    - Please consider next point. (1)
    - (2) Please take off the agitator from the spreader plate with a socket screw. Then take out the agitator bolt and abrade a little bit from the underside of the agitator. Mount in again the agitator bolt and fit it with the socket screw. Check that the agitator completes with the hard plastic seal. If not, repeat this procedure.  
TIP: Do not over abrade. It may suffice a short millimeter.
  - Please check the hard plastic seal (wearing part). If it is wearied through please contact us.

G.Spare parts list



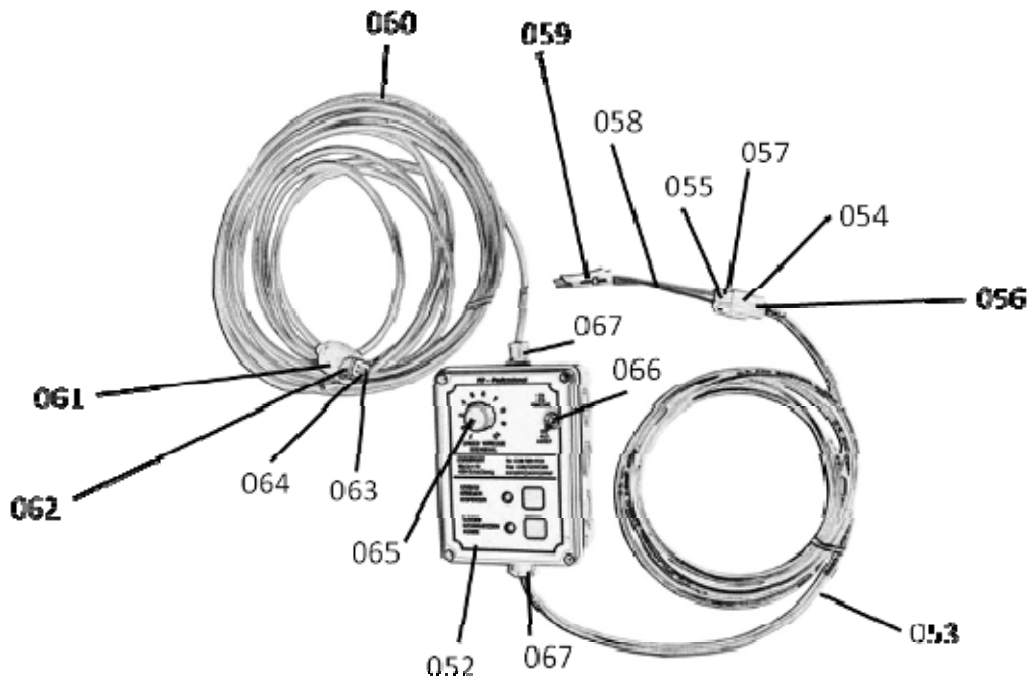




POS	BEZEICHNUNG	E-NUMMER
001.1	plastic tank 60 lit. with cover	10519901
001.2	plastic tank 90 lit. with cover	10519902
001.3	plastic tank 105 lit. with cover	10519903
001.4	plastic tank 130 lit. with cover	10519904
002	hand knob screw galvanized M8	10539901
003	washer galvanized M8	10539902
004	powder coated frame	10529901
005	sheet-metal screw M 3,9x9,5	10539903
006	cover for feeder motor	10529902
007	limit plate	10529903
008	closing for easy empty hopper rest	10519905
009	sticker for safety regulations	10559901
010	Euro-Part sticker	10559902
011	cover	10519906
012	ring for cover	10519907
013	connection ring – cover with hinge pin	10519908
014	angel plate for fastening the hopper	10529904
015	hexagon screw M 10x25 galvanized	10539904
016	feeder motor 240 N	10569901
017	feeder plate	10529905

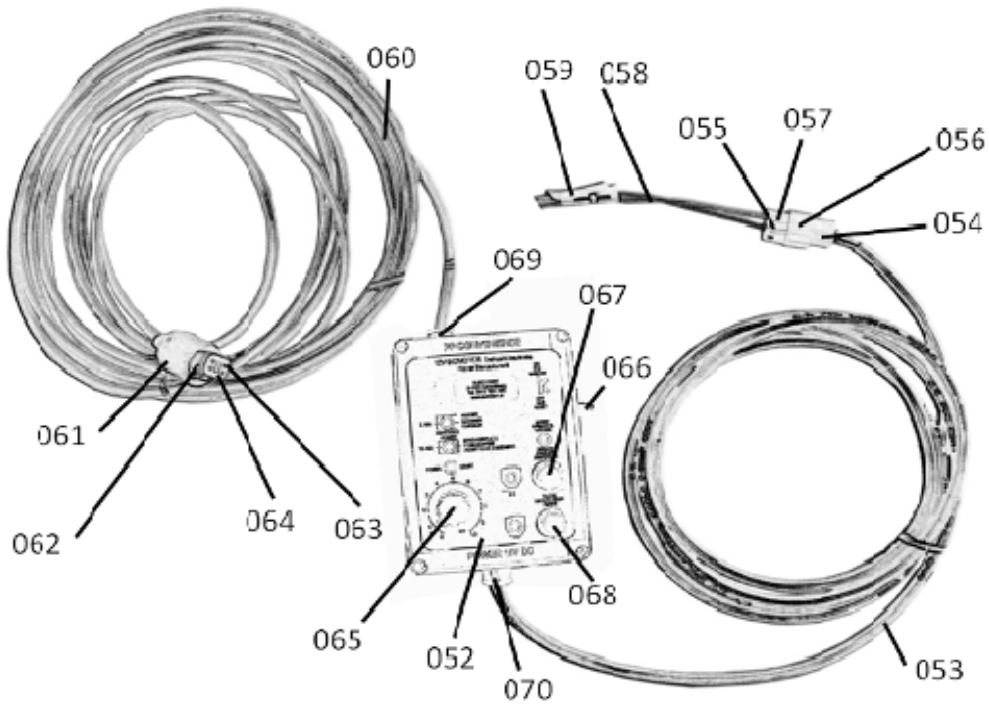
018	locknut M 8 galvanized	10539905
019	hexagon screw M 8x35 galvanized	10539906
020	screw nut M 8 galvanized	10539907
021	locknut M 10 galvanized	10539908
022	flat screw M 10x20 galvanized	10539909
023	rivets 4,8x30 for fastening the ring of the cover	10539910
024	hexagon screw M 8x45 galvanized	10539911
025	outlet	10519909
026	contact pin for 2,5 mm <sup>2</sup>	10539912
027	fuses for contact pins	10519910
028	gum seal	10579901
029	washer M 10 galvanized	10539913
030	carriage bolt M 10 stainless steel	10539914
031	feeder track	10529906
032	hexagon screw M 4x10 galvanized	10539915
033	Z-throw plate	10529907
034	screw M 5x10 stainless steel	10539916
035	lock nut stainless steel M 5	10539917
036	grub screw	10539918
037	gum seal	10579902
038	spreader plate	10529908
039	sleeve 59 mm	10529909
040	hexagon screw M 5x80 galvanized	10539919
041	lock nut M 5 galvanized	10539920
042	washer M 5 galvanized	10539921
043	spreader plate motor	10569902
044	carriage bolt M 10 galvanized	10539922
045	steel plate for fitting hopper	10529910
046	agitator bolt	10529911
047	splint 3x40	10539923
048	amount feeder	10529912
049	amount sticker	10559903
050	headless pin	10529913
051	plastic seal	10519911

**Professional:**



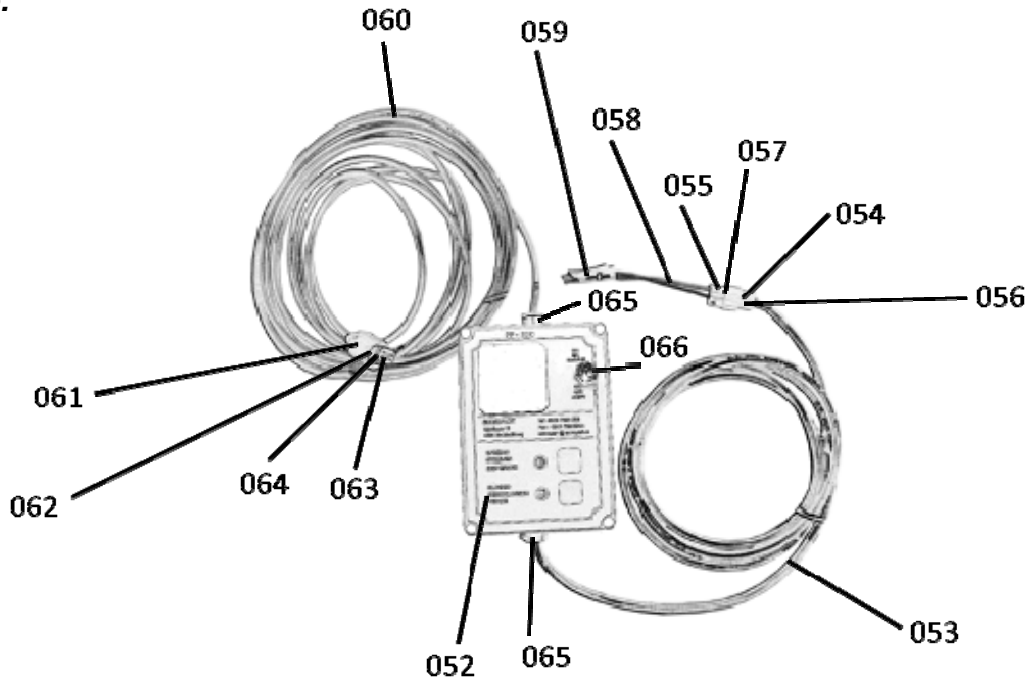
052	control unit box (incl. No. 065 and 066)	10589901
053	cable 2-pole 2x2,5 mm <sup>2</sup>	10549901
054	outlet	10519912
055	connector	10519913
056	blade terminal	10539924
057	blade receptacle	10539925
058	short battery cable (inkl. No. 056 and 058)	10549902
059	sticker +	10559904
060	cable 4-pole 4x1,5 mm <sup>2</sup>	10549903
061	gum cover	10579903
062	connector	10519914
063	outlets for 2,5 mm <sup>2</sup>	10539926
064	fuse for outlets	10519915
065	speed regulation	10599902
066	on/off switch	10599901
067	cable admission PG9	10519963

**Convenience:**



052	control unit box (incl. No. 065, 066, 067 and 068)	10589921
053	cable 2-pole 2x2,5 mm <sup>2</sup>	10549901
054	outlet	10519912
055	connector	10519913
056	blade terminal	10539924
057	blade receptacle	10539925
058	short battery cable (incl. No. 056 and 058)	10549902
059	sticker +	10559904
060	cable 4-pole 4x1,5 mm <sup>2</sup>	10549903
061	gum cocer	10579903
062	connector	10519914
063	outlets for 2,5 mm <sup>2</sup>	10539926
064	fuse for outlets	10519915
065	speed regulation	10599911
066	on/off switch	10599901
067	switch - opened (green)	10599913
068	switch - closed (red)	10599914
069	cable admission PG9	10519963
070	cable admission PG11	10519964

**Eco:**

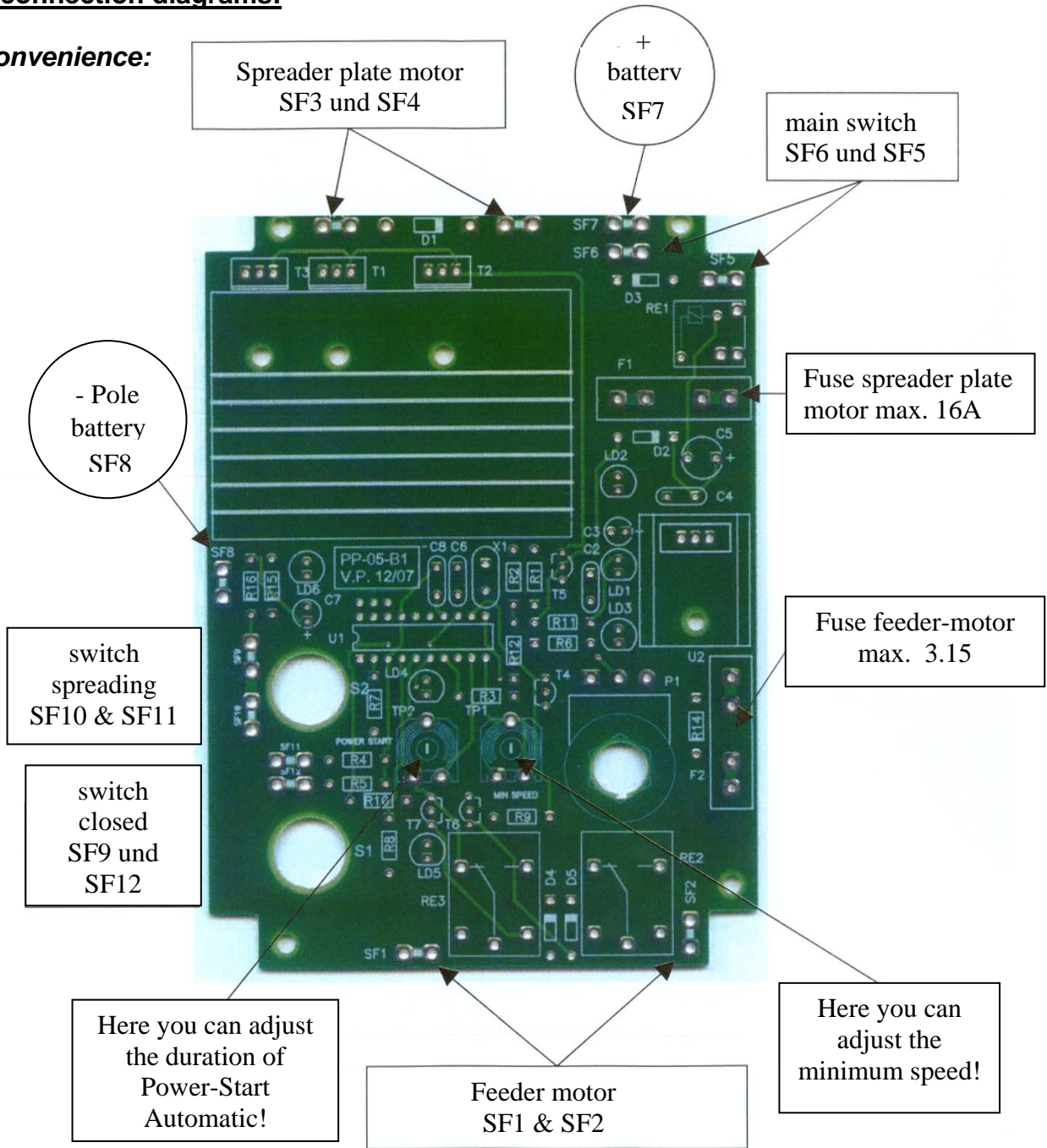


052	control unit box (incl. No. 066)	10589922
053	cable 2-pole 2x2,5 mm <sup>2</sup>	10549901
054	outlet	10519912
055	connector	10519913
056	blade terminal	10539924
057	blade receptacle	10539925
058	short battery cable (incl. No. 056 and 058)	10549902
059	sticker +	10559904
060	cable 4-pole 4x1,5 mm <sup>2</sup>	10549903
061	gum cover	10579903
062	sticker	10519914
063	outlets for 2,5 mm <sup>2</sup>	10539926
064	fuses for outlets	10519915
065	cable admission PG9	10519963
066	on/off switch	10599901



**H.connection diagrams:**

**Convenience:**

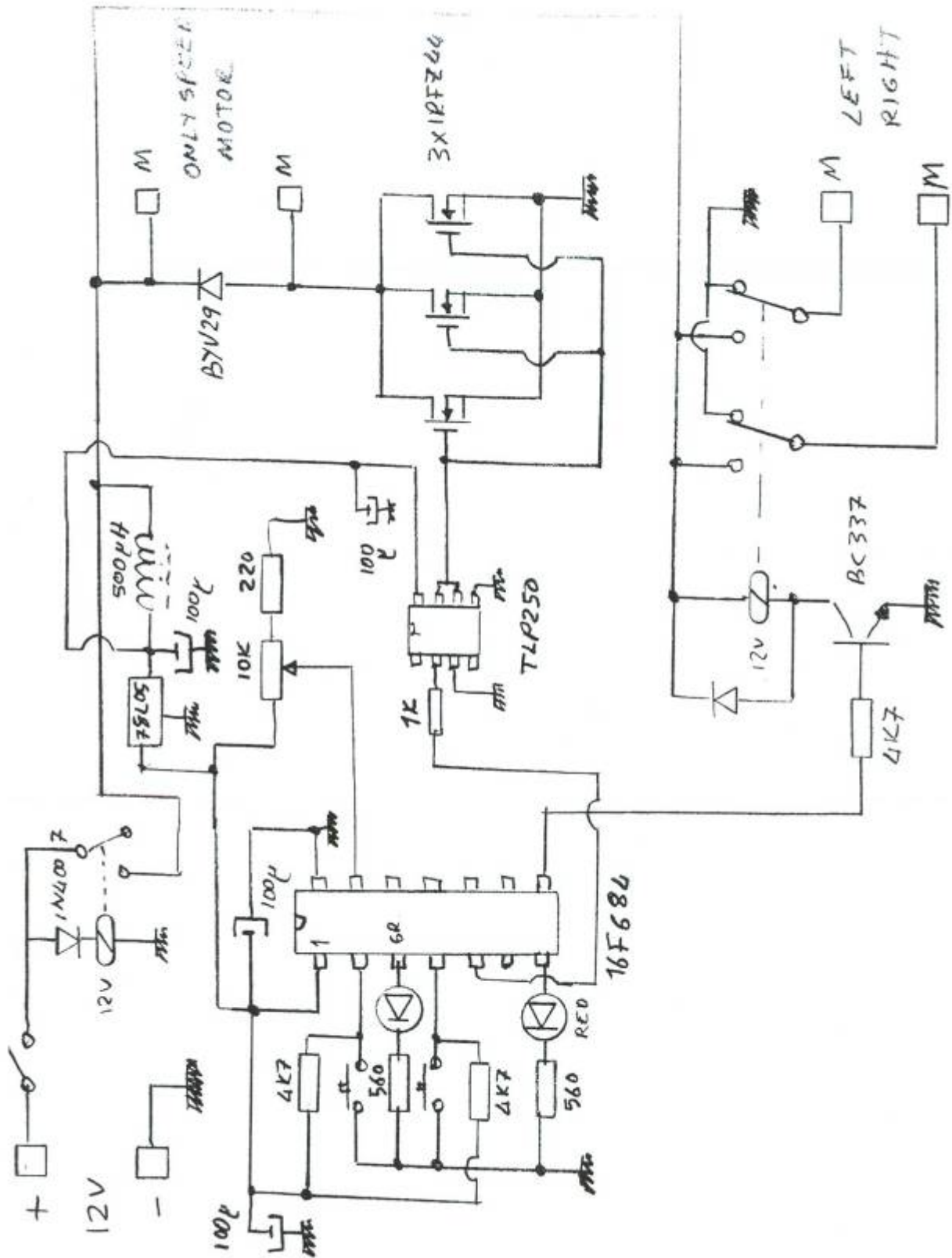


**Problem handling:**

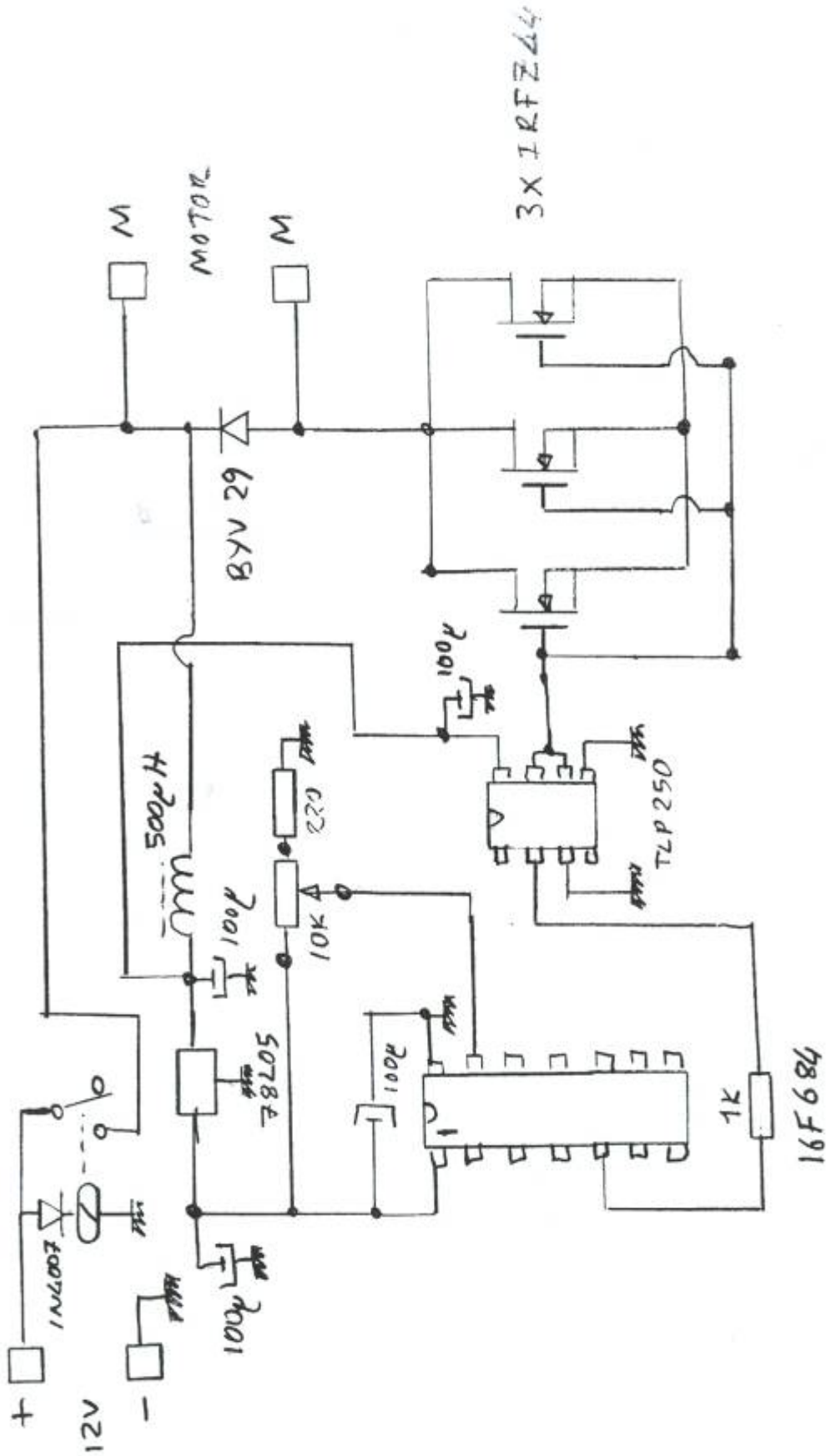
With new tractors you always have a higher voltage, and control unit may not work correctly. It is possible to increase the voltage by adjusting the potentiometer TP1 on board (adjust min. speed):

- Start the tractor with a voltage of 14,3 - 14,5 V.
- Put the main potentiometer on command board to "0".
- Open cover of the box where you can find the electronics. Turn the potentiometer with the marking TP1 with a little screw slowly anti-clockwise, so long until you reach a minimum of turns. When you have reached the minimum, the regulation is adjusted for a higher voltage.
- With the main potentiometer on board, you can now regulate on whole range from 0 (min.) to 10 (max.).

Professional:



Eco:



***In General***

Connecting on battery:

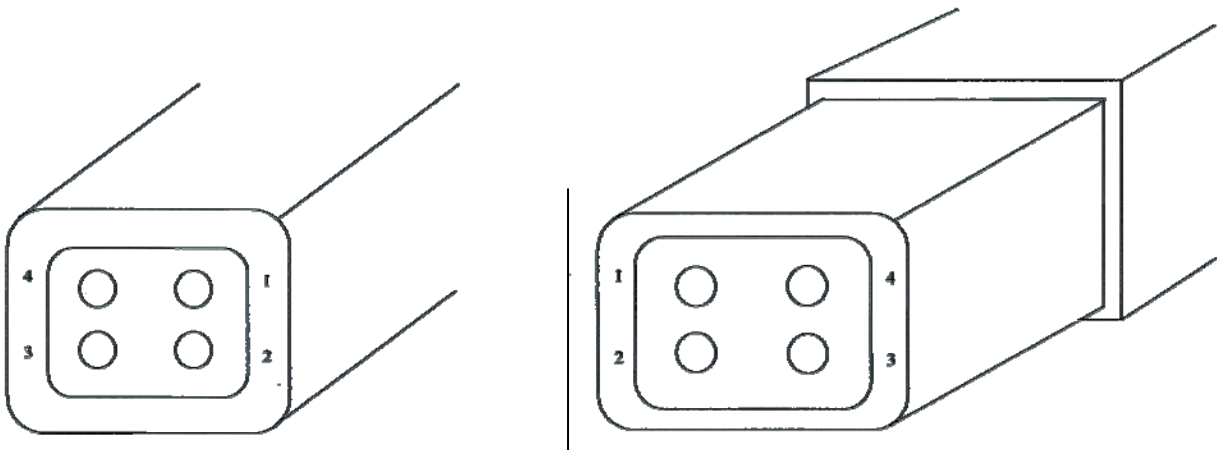
control unit:

- + = Plus Pole (red) direct to battery (use fuse)
- = Minus Pole (black) direct to battery

short battery cable:

- + = Plus Pole (cable No. 2) power supply direct to battery (use fuse)
- = Minus Pole (cable No. 1) power supply direct to battery

Connection spreader – control unit



No.1 = cable No.1 = — from spreader plate motor  
No.2 = cable No.2 = + from spreader plate motor  
No.3 = cable No.3 = — from feeder motor  
No.4 = cable No.4 = + from feeder motor

No.1 = — from spreader plate motor  
No.2 = + from spreader plate motor  
No.3 = — from feeder motor  
No.4 = + from feeder motor



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UID-Nr.: ATU24080401

Firmenbuch: FN 328568 p

### EG-KONFORMITÄTSERKLÄRUNG

im Sinne der EG-Richtlinie Maschinen 2006/42/EG, Anhang II A

Hiermit erklären wir, daß die Bauart von

Professional  
Convenience  
Eco

in der gelieferten Ausführung folgenden einschlägigen Bestimmungen entspricht:  
2006/42/EG

Angewendete harmonisierte Normen, insbesondere:

Angewendete nationale technische Spezifikationen, insbesondere:

**Technik-Plus**

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[www.technik-plus.eu](http://www.technik-plus.eu)

Unterschrift (Firmenchef Josef Großauer)

Mureck 14.01.2010

Ort und Datum der Ausstellung

