



LASER CONTROLLED LEVELER MACHINE

USER GUIDE



ATTENTION



**DO NOT
OPERATE THE MACHINES
BEFORE READING THIS MANUAL!**

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WARNING SIGNS & MEANINGS



CAUTION

This sign warns that the operations described could cause damage to machine, if they are not carried out correctly.



READ MANUAL FIRST

Read the "Operating and Maintenance Manual" carefully before first start and keep the manual nearest.



WARNING

This sign warns that the operations described could cause serious lesions or long term health risks, if they are not carried out correctly.



KEEP CHILDREN AWAY

This symbol expresses to keep the children away against any risk.



Do not stare into beam or view directly with optical instruments.

CLASS 3A LASER PRODUCT



DO NOT STAND NEAR THE MACHINE WHILE IT IS WORKING

This symbol expresses not to stand near the machine while it is working to avoid any injury.



Be careful against danger of entrapment.



Do not carry people or loads on the plough.



Locations which need to be greased in each use.

INTRODUCTION

Dear Farmer,

Firstly, we congratulate you for your correct preference on the way to efficiency by selecting the brand "ALPLER". As your agricultural partner, we offer you our product in which we combined high quality, low operational cost and effective after-sale service concept.

All of "ALPLER" products are designed for the most efficient and the safest use and tested accordingly in cooperation with the relevant university departments, agricultural establishments and farmers. We request you to read the user manual before the first operation in order to use our product in a more effective manner as well as for product and your own safety. The failures that may result from using the product beyond the instructions for use specified in this manual are not covered by "ALPLER" warranty. "ALPLER" products are manufactured for agricultural utilization purposes only, and our company does not assume any liability against the conditions arising from misuse. Maintenance, repair and operation of our products must be carried out by those who were informed on the relevant and possible dangers.

Enjoy your new product and we wish you productive and fruitful years.

We hope to serve you for a long time...



CAUTION

If the product owner changes in the future, please submit this manual to the new owner of the product and inform on safety measures.

1. SAFETY RULES

1.1. SAFETY RULES AND REGULATIONS

- 1- Before moving, while attaching the leveler machine to tractor please be sure that it is fixed and while detaching the leveler be sure there is no connection left between the leveler and the tractor.
- 2- Before beginning to drive the tractor, check surroundings area (CHILDREN)!
- 3- Never stay or allow anyone to stay within the operating area.
- 4- Never stay in the turning and slew area of the implement!
- 5- While closing the scraper wings, be sure that it is empty and the safety pins are detached. Raise the leveler and keep moving it while the wings are closing.
- 6- Do not stare into the laser beam or view the laser beam with optical instruments, as this can cause eye injury or blindness. When working in open areas, avoid using the laser at eye level. CLASS 3A LASER PRODUCT
- 7- Charge the batteries in dry conditions, if the charger is wet do not use or open the charger.
- 8- The hydraulic pipes are under pressure!
- 9- When connecting hydraulic sockets, the pipes must be connected as directed.
- 10- Always release hydraulic pressure from both tractor and leveler before coupling.
- 11- When connecting hydraulic pipes to the tractor ensure that incorrect connection is avoided. If the connections are reversed, the opposite function is carried out (e.g. raising/lowering) and there is a risk of accidents.
- 12- Regularly check the hydraulic pipes and replace the damaged or aged ones with the pipes comply with the technical specifications as described by ALPLER.
- 13- Do not operate the equipment with hydraulic oil leaking. Oil is flammable and their presence could present a hazard. Do not check for leaks with your naked hand! Hydraulic oil escaping at high pressures can penetrate the skin and cause injury. When injured see a doctor immediately. To check for a hose leak, SHUT the tractor ENGINE OFF and remove all hydraulic pressure. Wear oil impenetrable gloves and use a cardboard to check for evidence of oil leaks.
- 14- When working on tires make sure that the implement has been placed on the ground safely and that is secured by chocks against unintentional rolling
- 15- After each use, check all bolts and nuts if they need tightening, also for the missing ones, replace them with the original ones.
- 16- Sitting or standing on the implement during operation or during transport is not permissible.
- 17- When using public roads adhere to applicable traffic rules! Plug the electric socket and use the lamps and signals.

2. SETTINGS

2.1 GENERAL INFORMATION ABOUT LASER SYSTEM



Laser Set Carrying Case



Laser Transmitter



Laser Receiver



Control Box

2.1.1 LASER TRANSMITTER

Laser instrument handling precautions

A rotor laser is a precision optical instrument and should be treated with care. Always transport the laser in the provided transport case to protect it from possible impact damage. Severe vibration or impact can affect beam accuracy.

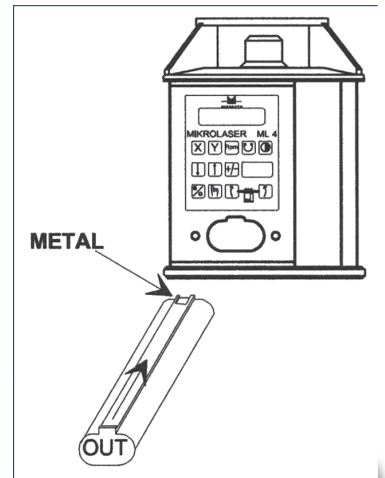
BATTERY

The ML4 is battery operated. The Ni-Cd battery is of the widely known rechargeable 7.2V Makita™ type. To recharge the battery, place the battery in the supplied charger. The led on the charger will light during charging. When the led goes out, the battery is fully charged. A complete recharge takes about one hour. A fully charged battery has a capacity of more than 20 hours of operation (rpm 300).

TO INSERT THE BATTERY












To place the battery in the laser, first unscrew the two finger screws on the top of the battery lid, and then insert the battery with the negative pole upwards, and the poles towards the instrument. The batter should slide in easily, except for the last 1 cm. it is important that no violence is used when inserting the battery. After inserting the battery, close the battery lid and tightly screw the finger screws.

NOTE! To ensure that the battery is kept dry, inspect that the battery compartment cover and gaskets are OK. If the battery compartment is wet, dry the laser without the battery and lid at max.50°C (122°F). All the time that the battery is not used, it must be kept in the suitable place in the carrying case, not inside the laser head.



2. SETTINGS

THE BUTTONS ON THE LASER TRANSMITTER



-  Selection of grade setting in the X-axis
-  Selection of grade setting in the Y-axis
-  Selection of the speed of rotation
-  Selection of optical axis rotation
-  Selection of LCD contrast
-  Decrease the value in the display
-  Increase the value in the display
-  Reverse the sign in the display
-  Power ON/OFF
-  Manual / Automatic operation
-  Adjustment in vertical mode



ADJUSTMENT OF SPEED OF ROTATION

To change the speed of rotation, push the  button.

**MOTOR ROTATION 400rpm
00.0cm**




Push the  button or the  button until the display shows the value you want to use. The transmitter has rotation speeds from 0 to 900 rpm. To save battery power, use the lowest possible rpm. Recommended speed of rotation is 300 or 400 rpm. In case of negative environmental conditions that will affect the accuracy such as rain, fog, excessive dust, increase the rotation speed.

2.1.2 CONTROL BOX



Shows the direction in which the Laser Mast differs from On-grade when running in Manual or Automatic mode. In Survey mode, all the lamps will flash.

BUTTONS ON THE CONTROL BOX

-  Shows that the system is running in automatic mode. ON/OFF
-  Moves the Mast downwards. When activating the User MENU, it raises the value in the selected option
-  Moves the Mast upwards. When activating the User MENU, it raises the value in the selected option



Manual Switch to lower or raise the hydraulic valves manually





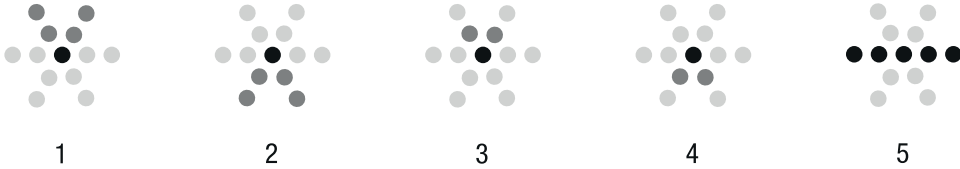
Mode Switch to select Automatic, Manual or Survey mode

2. SETTINGS

MOVING THE MAST IN MANUAL OR AUTO MODE

Make sure that you are operating in Manual or Auto mode.

Push  or  button to move the Mast up or down. The lamps show the direction in which the mast differs from On-grade. If the beam gets out of the range of the detector, the lamps will flash indicating in which direction the beam disappeared.



- 1- Beam disappeared Over On-Grade and Mast needs lowering
- 2- Beam disappeared below On-Grade and Mast needs rising.
- 3- Beam disappeared Over On-Grade and Mast needs a little bit lowering
- 4- Beam disappeared below On-Grade and Mast needs a little bit rising.
- 5- Mast is On-Grade

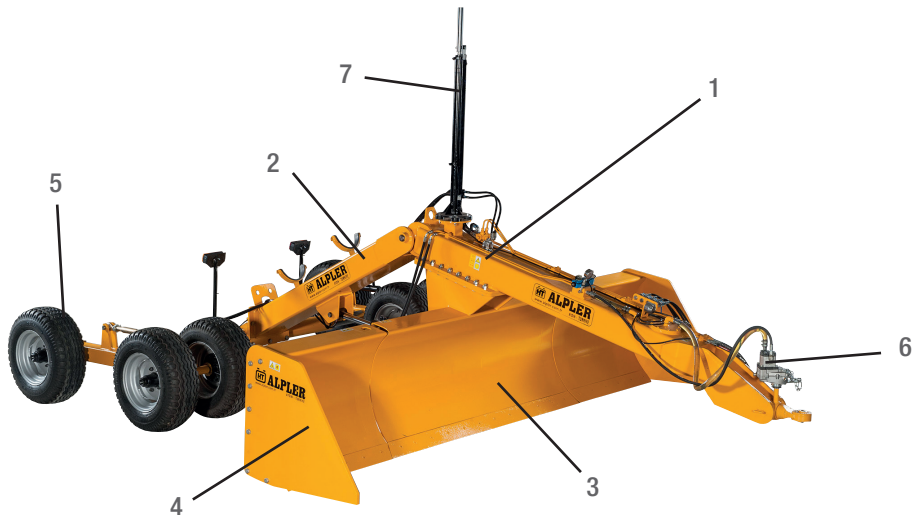


Beam disappeared on grade.

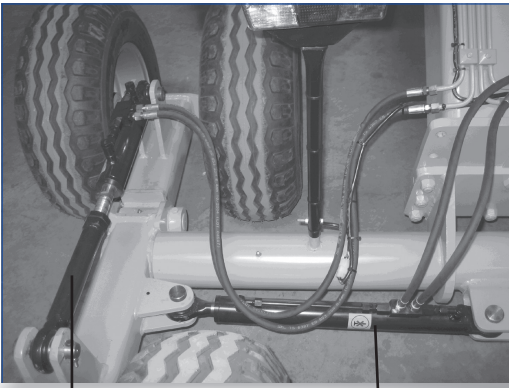
NOTE! FOR FURTHER INFORMATION ABOUT THE LASER SYSTEM, CONSULT THE PRODUCER MANUALS SUPPLIED IN THE CARRYING CASES.

2.2 GENERAL INFORMATION ABOUT LEVELER MACHINE

- 1- Front Chassis
- 2- Back Chassis
- 3- Main Bucket
- 4- Scraper Wing
- 5- Tires
- 6- Hydraulic Pump
- 7- Mast

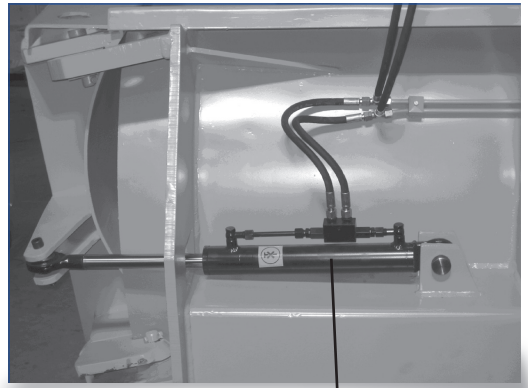


2. SETTINGS

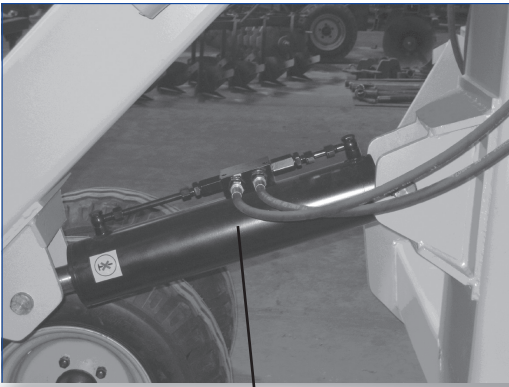


8-Tyre Adjustment Piston

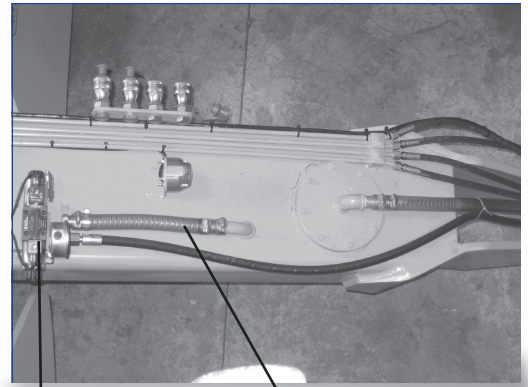
9- Tire Piston



10- Bucket Piston



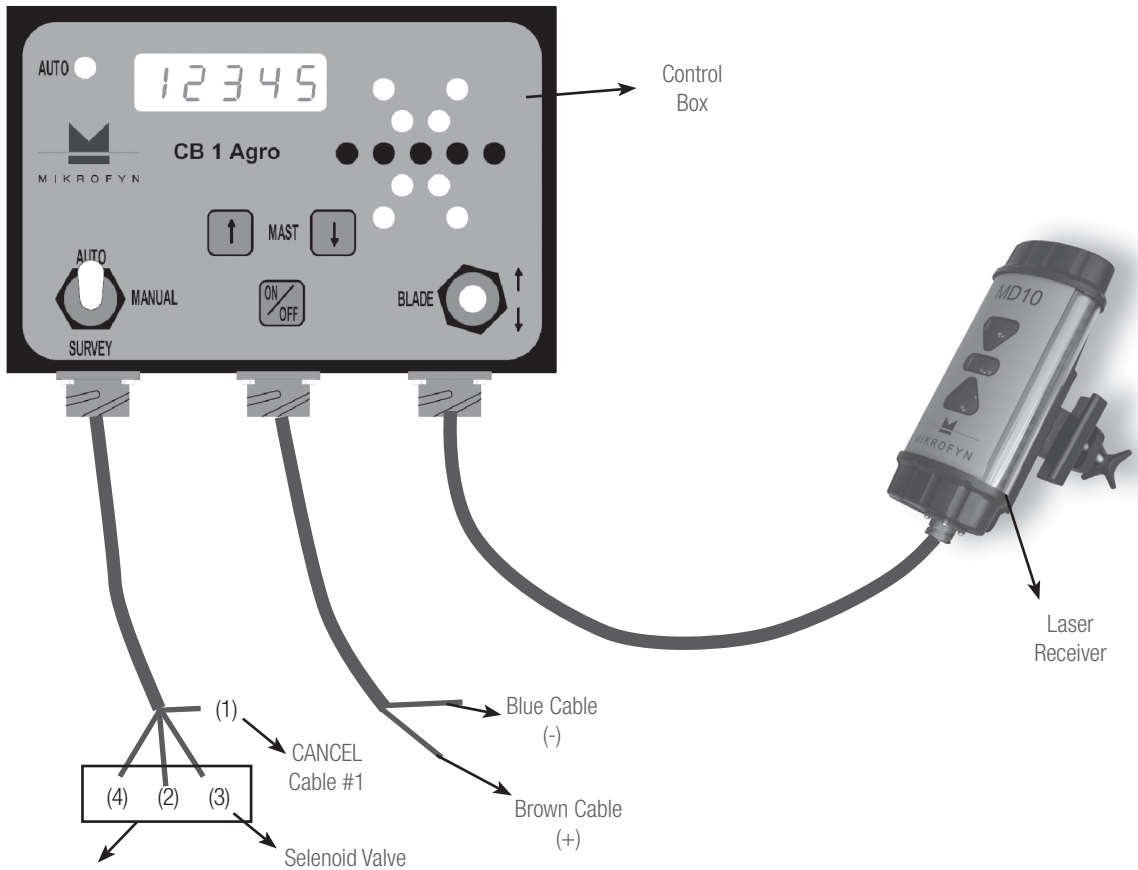
11- Chassis Piston



12- Selenoid valve

13- Oil Cycle Pipe

3. SETUP PROCEDURES



Connect Cable #2 in the middle.
Cables #3 & #4 can be connect
right or left.

INSTALLATIONS PROCEDURES

First move the tractor into a position suitable to mount the leveler machine. Before following the next steps, for your own safety stop the engine and pull the hand break before leaving the tractor.

3.1 INSTALLATION OF CONTROL BOX

- 1- Mount the special "U" shape plate of the control box to a place inside the tractor cabin where the driver can easily reach and operate the control box.
- 2- Fix the control box on to the plate. The end side of the control box electric cable consists of two wires. While the Brown cable responds the positive pole, the blue one must connect to the negative pole
- 3- Plug the laser receiver cable, control box electric cable and the Solenoid valve cable in to the suitable sockets on the control box. Each plug and socket pair is designed unique, to eliminate possible wrong connection on the control box.

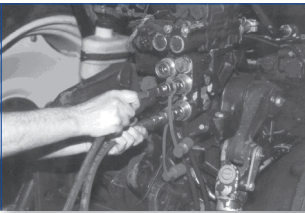
3. SETUP PROCEDURES

3.2 INSTALATION OF THE LASER RECEIVER

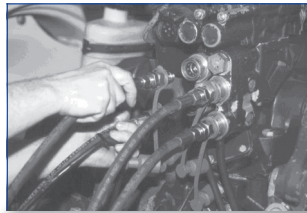
- 1- Take the laser receiver from the transport case and attach it to its place on the mast then connect its cable coming from the control box.
- 2- Plug the Solenoid valve cable in to its socket on the leveler machine

3.3 ATACHING THE LEVELER TO THE TRACTOR

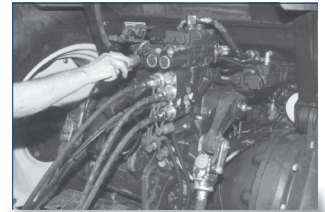
- 1- Take the pump from its place on the leveler machine, connect it with the PTO shaft on the tractor caring the aeration plug is on the top and fix it by the chain to prevent possible rotation.
- 2- Start the tractor engine and activate the PTO shaft of the tractor with 540 rpm.
- 3- Turn the control box on, and adjust the leveler machine draw bar corresponds the tractor's draw bar at the same level by pressing raise/lower button on the control box. Move the tractor closer to attach the leveler machine and insert the hitching pin and fix it by the safety pin.
- 4- Unplug the hydraulic pressure hoses from the leveler machine and plug them in the tractor's hydraulic pump outlets by two pairs. The two hydraulic pressure hoses on the left side of the leveler and the other two hydraulic pressure hoses on the right side of the leveler are two pairs. While doing this operation please observe the inlet/outlet sockets of hydraulic system of your tractor (see figure 1 & 2).
- 5- Insert the lamp plug in the socket on the back of the tractor (see figure 3).



(Figure 1)



(Figure 2)



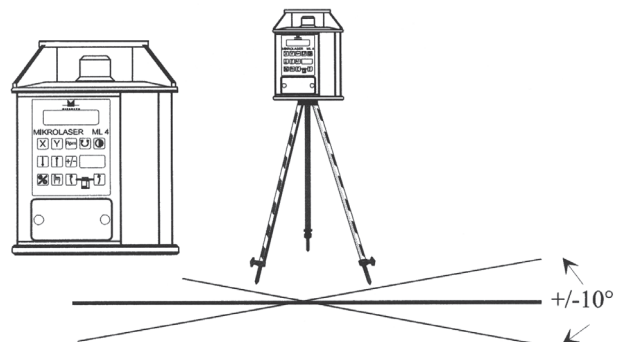
(Figure 3)

- 6- Please be sure that you have completed all the above steps before you move the tractor.
- 7- While dismantling the leveler from the tractor, please follow the same steps from bottom to top.

3.4 INSTALATION OF THE LASER TRANSMITTER

Take the tripod from its place at the back of the leveler and place it on a suitable place on the field. Take the laser transmitter from transport case, unscrew the transmitter attaching piece from the tripod and connect it with the transmitter, then screw the transmitter on to the tripod.

Turn the transmitter on, enter the desired grade values in to the transmitter, rotate it to the direction of work by observing the marks on its sides and fix it by the bolt.



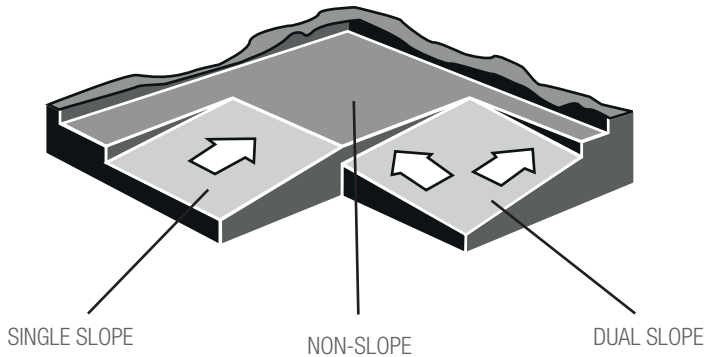
Open the laser safety covers on the top of the transmitter first and raise the tripod by extending each leg one by one. While raising the tripod, observe not to lay the transmitter beyond (+-) 10% self calibrating range, otherwise it will turn itself off automatically and needs to turn on again.

4. OPERATING INSTRUCTIONS

HORIZONTAL MODE

See the related chapter on producer's user manual (MICROFYN MICROLASER ML4 USER'S GUIDE)

4.1 GRADE SETTINGS



When the value entered into X, Y or both, the grade will be given to the field as seen on the marks on the side of the transmitter. When a value entered in to Y, the slope will be in Y axis as seen on the transmitter. When a value entered in to X, the slope will be in X axis as seen on the transmitter. If it is desired to give opposite grade of the seen marks on the side of the transmitter to the field, then the minus sign should be given to the values entered to the transmitter. For this purpose, first press the button x or y where you want to change the sign until the cursor comes to the beginning of the line and then press +/- button to change the sign. If negative sign is given to any axis, then the slope will be opposite of the mark of respective axis.



Here below are the samples for X-axis. (The same application manner is also acceptable for the Y-axis)

X: 00.000 = Zero slope on X-axis

X: 00.005 = On X-axis, in 100 mt. the difference in elevation will be 5mm (as the X-axis mark on the transmitter)

X: 00.010 = On X-axis, in 100 mt. the difference in elevation will be 10mm (as the X-axis mark on the transmitter)

X: 00.100 = On X-axis, in 100 mt. the difference in elevation will be 100 mm (as the X-axis mark on the transmitter)

X: 01.000 = On X-axis, in 100 mt. the difference in elevation will be 1000mm (as the X-axis mark on the transmitter)

X: 10.000 = On X-axis, in 100 mt. the difference in elevation will be 10000mm (as the X-axis mark on the transmitter)

X-00.010= On X-axis, in 100 mt. the difference in elevation will be 10mm (as the INVERSE of the X-axis mark on the transmitter since there is negative sign at the beginning of the value)

4.1.1 GRADE SETTING FOR ZERO (0) SLOPE APPLICATION

For working without any grade (flat), on the transmitter screen the values must be 00.000 for both X and Y axis.

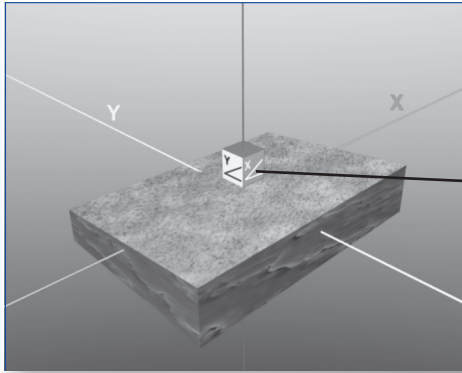
X: 00.000

Y: 00.000

NOTE! For Zero slope applications the direction of the transmitter is not important.

4. OPERATING INSTRUCTIONS

4.1.2. GRADE SETTING FOR SINGLE SLOPE APPLICATION



(Figure 4)



If it is desired to give single slope on the field, then the desired value should be given to only one axis X or Y and left the other axis 00.000. The direction of the transmitter should be done by observing the axis mark on the side of the transmitter is same axis that the value is given (See fig. 4).

Sample 1:

X: 00.020

Y: 00.000

According to sample 1 the slope will be only on X-axis and in 100 mt. the difference in elevation will be 20mm (as the X-axis mark on the transmitter)

Sample 2:

X: 00.000

Y: 00.030

According to sample 2 the slope will be only on Y-axis and in 100 mt. the difference in elevation will be 30mm (as the Y-axis mark on the transmitter)

Sample 3:

X-00.040

Y: 00.000

According to sample 3 the slope will be only on X-axis and in 100 mt. the difference in elevation will be 40mm (as the as the INVERSE of the X-axis mark on the transmitter since there is negative sign at the beginning of the value)

Sample 4:

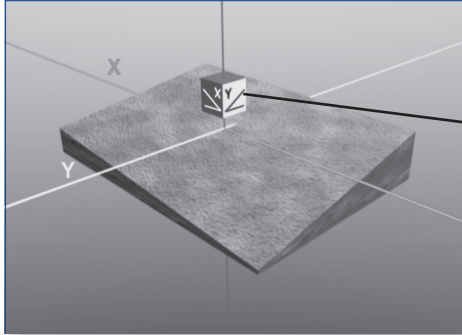
X:00.000

Y-00.015

According to sample 4 the slope will be only on Y-axis and in 100 mt. the difference in elevation will be 15mm (as the as the INVERSE of the Y-axis mark on the transmitter since there is negative sign at the beginning of the value).

4. OPERATING INSTRUCTIONS

4.1.3 GRADE SETTING FOR DUAL (TWO AXIS) SLOPE APPLICATION



(Figure 5)



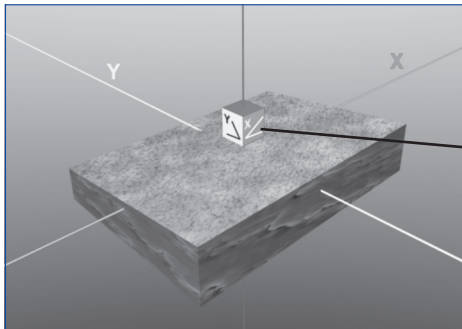
If it is desired to give dual slope on the field, then the desired values should be given to both X and Y axis. The direction of the transmitter should be aligned by observing the axis marks on the side of the transmitter (See fig. 5).

Sample 1:

X: 00.020

Y: 00.030

According to sample 1, on X-axis in 100 mt. the difference in elevation will be 20mm (as the X-axis mark on the transmitter). On Y-axis in 100 mt. the difference in elevation will be 30mm (as the Y-axis mark on the transmitter).



(Figure 6)



Sample 2:

X: 00.050

Y-00.010

According to sample 2, on X-axis in 100 mt. the difference in elevation will be 50mm (as the X-axis mark on the transmitter). On Y-axis in 100 mt. the difference in elevation will be 10mm (as the INVERSE of the Y-axis mark on the transmitter since there is negative sign at the beginning of the value). (See fig. 6)

Sample 3:

X-00.040

Y-00.030

According to sample 3, on X-axis in 100 mt. the difference in elevation will be 40mm and on Y-axis in 100 mt. the difference in elevation will be 10mm (as for both, the INVERSE of the X and Y-axis marks on the transmitter since there are negative sign at the beginning of the values).

4. OPERATING INSTRUCTIONS

4.2 CONDUCTING A TOPOGRAPHIC SURVEY

- 1- First complete the installation and mounting procedures of the Control box, laser receiver, the leveler machine and the laser transmitter.
- 2- Adjust the transmitter for the desired slopes for X of Y or both.
- 3- When leveling a field, it is often easier and less confusing to record the data on a scaled or grid map that visually representing the field. Draw your field's top view on a paper and keep a pen or pencil with you to record data.
- 4- Move the leveler to one corner of your field where you will start recording data. Transform the leveler from transport position to working position, while doing this it is important to move the leveler slowly while opening the tires and the scraper wings. When the bucket wings are completely opened, they should be fixed by the security pins.
- 5- Turn the control box on and take it to manual position. Lower the scraper of the leveler machine where its blade is tangent with the ground but be aware of that there is no space between the bucket blade and the ground as well as the blade is not dig into the ground.
- 6- Move the receiver up or down till the green light that means on grade is blinking. When the lamp on the top of the receiver blinks, it means the receiver is above the grade and needs lowering. Vice versa, when the lamp at the bottom of the receiver blinks, it means the receiver is below the grade and needs rising. The same direction lamps also blink on the control box with same manner. When the green lamp in the middle blinks, the value on the mast which is indicated by the indicator must be record on the grid map where the measurement is done.
- 7- Continue taking data within each 20-25 mt. according the unevenness of your field. Increasing the number of data taken will increase the accuracy of your leveling.
- 8- In the case of a land leveling exercise, where a cut/fill map is required, it is best to use the mean height of the field as a reference point. To determine the mean height of the field add together all of the measured points and divide by the number of measurements.
- 9- Move the mast up or down till the indicator shows the mean value that you found after calculation.
- 10- Take the control box into automatic mode and start leveling the field from the point which has the closest smaller value with your mean value.

4.2.1 EXAMPLE FOR CONDUCTING THE TOPOGRAPHIC SURVEY

Assume that we get the values from 20 different points shown on the left chart from our field.

First to find the mean value, we sum all values and divide the sum by the number of values taken.

$(24+29+34+30+20+25+19+17+26+33+27+40+18+22+32+36+15+41+38+34=560)$

$560/20=28$

Position the mean height value on the mast, turn the control box to automatic mode and start leveling the field

On the grid map, the points having higher values than the mean 28, represents the lover areas that must be filled. Vice versa the points having lower values than the mean 28, represents the higher areas that must be cut. In our example, the points A,E,F,-G,H,J,L,N,O,S" are our higher areas needs to be cut and carried to the lower points "B,C,-D,K,M,P,R,T,V,Y" to be filled.

A	20-25 m	B	C	D
24		29	34	30
	20-25 m			
E		F	G	H
20		25	19	17
J		K	L	M
26		33	27	40
N		O	P	R
18		22	32	36
S		T	V	Y
15		41	38	34

4. OPERATING INSTRUCTIONS

- 5- Disconnect the solenoid valve cable and roll it up
- 6- Dismount the laser receiver from the mast, place it in to the carrying case and roll its cables up.
- 7- Disconnect all the cables attached to the control box and place them in to the carrying case.
- 8- Take the safety pin out and dismount the leveler from the tractor. Please be sure that there is no connection between the leveler and the tractor before moving.
- 9- Lower the tripod by shortening its legs one by one, dismount the laser transmitter from the top and turn it off. Close the laser safety covers on the transmitter and place it to the carrying case.

4.6 SECOND DAY ADJUSTMENTS ON AN UNFINISHED FIELD

Place the tripod to the same place that was previously used and attach the laser transmitter.

Rotate the transmitter to the direction as it was directed last day, turn it on and open its safety covers. In case of working zero slope on the field, it is not necessary to place the transmitter on the same place and at the same direction as the last time it was used. Raise the tripod by extending each leg one by one and again observe not to lay the transmitter beyond its $\pm 10\%$ self calibrating range.

Unless you have not change the slope values X or Y, although you turn the laser transmitter off, it will keep the last time values in its memory. There is no need to re enter the slope values to the transmitter.

Turn the control box on and take it to the manual mode. Transform the leveler in to working position and move it to the part of the field that its leveling had finish. Lower the scraper blade till it is tangent with the ground and move the mast up or down until the green light on the mast blinks. Take the control box into automatic mode and move the leveler 2 or 3 meters. While moving the leveler, observe that the scraper blade is not digging the ground or there is not much space between the blade and the ground. If the bucked blade is not moving tangent with the ground, then it means that the mast should be readjusted. When the mast readjusted, turn the control box into the automatic mode and continue leveling the field.

4.7 LEVELING THE FIELD BY KEEPING ITS EXISTING SLOPE

The mentioned leveling procedures above were about leveling the field with desired values, if it is necessary to make the leveling according to the fields existing slope, then the existing slope of the fields must measured and the transmitter should be adjusted with field's existing slope. Dual slope operation can also done by taking in to account field' existing slope.

4.7.1 CALCULATING THE FIELD'S EXISTING SLOPE

Measure the length of the field on the direction of the existing slope. To measure the length of the field you can either use a measurement tape or use your tractor's back tire by marking the tire and moving the tractor from one side to the end side of the field and then multiply the circumference of the tire with the number of revolution.

Adjust the transmitter for zero slopes for both X and Y values, attach on the tripod and place the tripod on a suitable place on the field. Start taking data from the high side of the field within each 20-25 mt. and take their average. Do the same job for the low side of the field and take the average. By subtracting one from other, find the difference of two averages, the result shows the difference in elevation of the field. To find the slope of the field first convert the dimensions in the same unit (mt/mt - cm/cm), divide the difference in elevation of the field by the total length of the field and multiply the result with 100. Enter the result value into the transmitter by caring the digits.

4. OPERATING INSTRUCTIONS

$$08+13+11+12 = 44$$

$$44 / 4 = 11 (\text{Av.Elevation of the high side of the field})$$

$$90+93+92+89 = 364$$

$$364 / 4 = 91 (\text{Av.Elevation of the low side of the field})$$

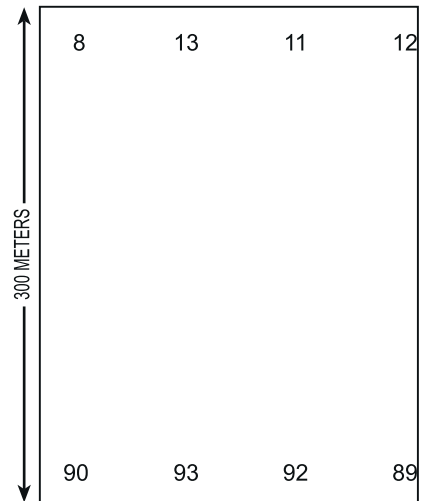
$$91 - 11 = 80 (\text{elevation difference of two sides})$$

80cm = 0,8 mt converting cm to mt.

$$300 \quad 0,8 (\text{slope})$$

$$100 \quad ? (\text{slope})$$

$$\frac{? = 100 \times 0,8}{300} \longrightarrow ? = 0,266$$



The existing slope of the field is % 0,266. The value that we must enter the transmitter is as follows

X: 00.266

Y: 00.000

For X-axis;

X: 00.000

Y: 00.266

For Y-axis

After the transmitter is adjusted, the same steps for topographic survey conducting is followed (see chapter 4.2)

5. TROUBLE SHOOTING

PROBLEM:

One side of the blade digging the ground more than the other side

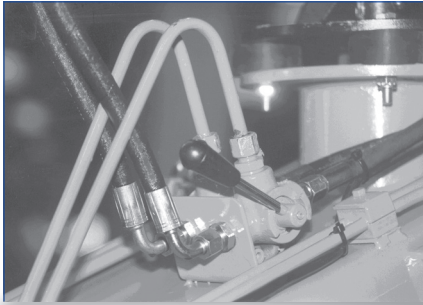
SOLUTION:

Move the leveler machine to an even and smooth place, raise the blade about 10-15 cm above the ground. Measure the height of the blade from left and right end points, if the heights are different, make the necessary adjustment by turning the rod on the right tire set till the heights are same (fig.7).

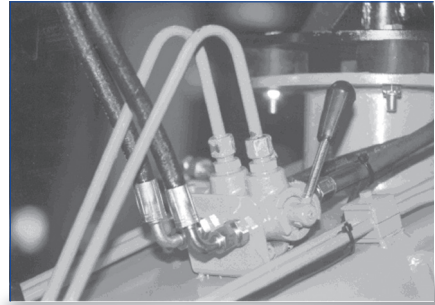


(Figure 7)

If the valve directing arm is situated as in figure 8 then the mast piston is active and you can move the mast up/down. If the valve directing arm is situated as in figure 9 then tire piston is active and you can raise or lower the left tire.



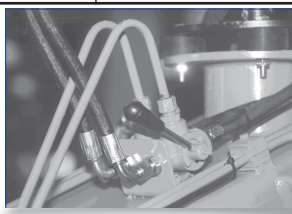
(Figure 8)



(Figure 9)

5. TROUBLE SHOOTING

PROBLEM	SOLUTION
Leveler will not raise or lower	Check the transmitter is working
	Check electric connections on solenoid
	Check that the PTO shaft is working
	Check the oil pressure on the system and increase if needed
	Check for contamination in oil lines
Leveler will only move in one direction	Check electric connections on solenoid
	Check for contamination in oil lines
	Check the electric connections
Field uneven	Traveling too quickly
	Check the oil pressure on the system and increase if needed
	Too much crop/weed residue on surface
	Soil too compacted
Leveler doesn't respond in certain parts of field	Line of vision between transmitter and receiver blocked
	Receiver the same height as tractor cabin
	Working beyond the laser' working range (400m)
Soil not flowing out of the Leveler	Laser beam above or below the receiver height
	Too much foreign matter in soil
Soil not flowing into the Leveler	Soil too wet
	Too much crop/weed residue on surface
One side of the blade digging the ground more than the other side	Soil too compacted
	Check that the tire pressures are equal
Mast is not raising up or move down	Make the tire adjustment explained above
	Check the hydraulic connections
	Adjust the mast valve rod as shown on fig. 5
	Check the hydraulic outlet pressure of the tractor and consult to your tractor service
While turnings, one side of the blade is more digging the ground	Check for contamination in oil lines
	Make smoother turnings



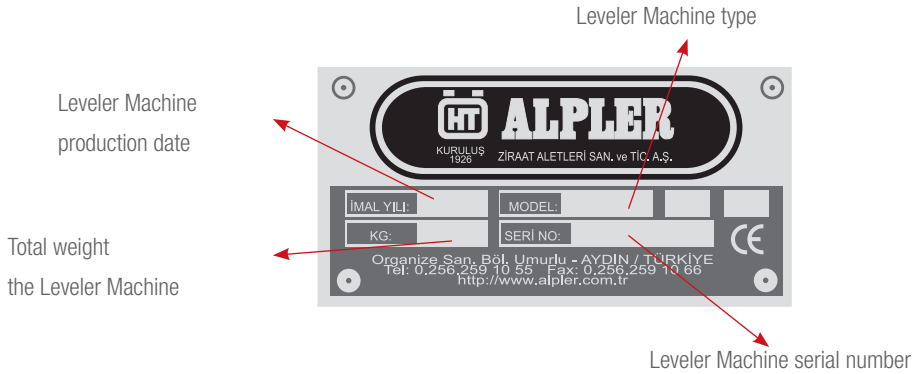
(Figure 5)

6. MAINTANANCE

- 1- Before using the leveler, apply grease to the required points.
- 2- Check the tire pressures and observe that all tire pressures are same.
- 3- Before using the leveler, check the pump transmission oil level and if it is necessary add sufficient amount of oil.
- 4- If the leveler will not be used for a long time, it is advised to apply grease on the surfaces of the blade and the scraper to avoid rusting.
- 5- After each working, clean the mud stick on the leveler.
- 6- After each working, tighten the bolts and nuts on the leveler, and replace the missing ones as the originals.
- 7- Check the oil level in the tank and change the oil filter after each 3000 hours working.
- 8- Check the wearing parts and replace the worn parts with the original ALPLER brand.

NOTE: IN CASE OF A PROBLEM WITH YOUR LEVELER, DON'T HESITATE TO ASK FOR HELP IN OUR AUTHORIZED SERVICES ...

7. WARRANTY



Use original spare parts in ALPLER branded products. The customer will be responsible for the problems that occur due to not using original spare parts. The Laser Controlled Leveler Machine will not covered by the warranty when non-original parts are installed on the Laser Controlled Leveler Machine, additional equipment is attached on the Laser Controlled Leveler Machine or it is used after removing standard parts.

While ordering spare parts, for the codes beginning with '0', plough serial number together with the part code should be provided. For other codes, it is not necessary to provide the Laser Controlled Leveler Machine serial number.

Label information are important for identifying the Laser Controlled Leveler Machine and for spare part orders. As a measure against the illegibility of the label due to deformation or its loss, label information on the Laser Controlled Leveler Machine should be written literally in the corresponding fields of the following label picture, and it should be retained.

Our Laser Controlled Leveler Machine are **warranted for 2 years** for faults that may occur due to material, workmanship and mounting errors.

Faults resulting from improper use are not covered by the warranty. The average lifetime is 10 years.



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