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WELCOME

Get ready for a whole new experience.

Lexus Round Centering has a completely fresh, new look and it's easier than ever to use.

This booklet explains how to get your Lexus Round Centering set up and where to turn for help, so you can enjoy the most intuitive Centering System yet for Real gem quality Diamonds.

Let's get started!

SPECIFICATIONS

✚ Weight	: 25 kg. (Excluding computer system)
✚ Dimension	: 200 x 600 x 700 mm (Excluding computer system)
✚ Supply	: 220 VAC , 50 HZ , 1 Phase
✚ Load	: 500 VA
✚ Computer System	: Standard PC Platform.

APPLICATION

- This is a planning cum centering machine for Round Brilliant.

The Rough Makeable diamond with tentative table will be glued to the pot, which is a two-piece 13 mm die pot. This pot assembly will be mounted in the machine spindle. The machine will first perform the planning process on the rough diamond and suggest the various possible cut class and size of the finished diamond from the rough. It will also indicate the possible selling price of each of the finished diamond based on the international price data. The operator can decide for one of the alternative suggested by the machine. Then the machine goes into centering mode where the centre of bruting has to be aligned with center of the stone. This pot assembly will now be removed and fixed in the Econobruiter machine Spindle.

ADVANTAGES

- ⊕ This Machine will help in optimisation of Finished Diamond size and Maximization of value recovery. And also make it possible to reduce production cost, by making use of low cost Econobruiter in place of AutoBruters.

OPERATING CONTROLS



1. Die
2. Pulley
3. Back Light Housing
4. Monitor
5. Keyboard
6. C.P.U
7. Mouse

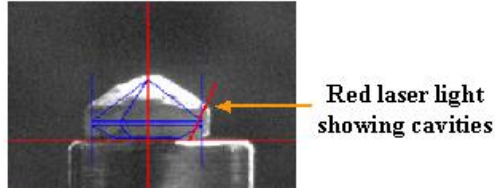
OPERATING INSTRUCTION

1. Take 13-mm die.



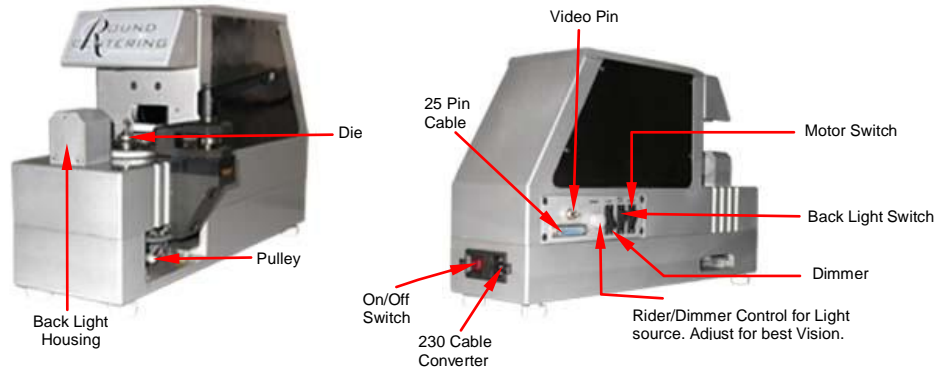
2. Glue the tentative table surface of the stone on the die pot. Take glue as little as possible, to remain between the table surface and the die pot gluing station. **EXTRA GLUE DOES NOT ADD TO THE BONDING STRENGTH.**
3. Now check all the connection & switch on mains.
4. Switch on computer.
5. If Lexus Centering program is not automatically open then double click on Lexus icon on the desktop.
6. Any parameter can be selected by pressing the alphanumeric key as shown in Table 1.0, arrow keys can adjust the parameter. The rate of change can be varied by the + / - keys.
7. Now enter the details of the diamond by pressing “V” and enter the Kpn/Lot No., Packet No, Row Weight, (expected recovery) etc. Press “Alt + X” to come out from the Entry Window.
8. Now put 13mm die (with fixed diamond) in hole of pulley & tighten the die.
9. Select X-line by pressing “X” and use Arrow keys (↑↓) to set the X-line or the Table line to the actual table of the rough diamond. Please see that if there is any glue/Bostik stacked on the table, set the table line accordingly to the actual table of the stone.
10. Press “Ctrl + F1...F12” according to the cut you want for the particular stone. i.e. Excellent, Strong, Flat, etc.

11. Now manually rotate the pulley to see the narrowest portion of the stone on the screen.

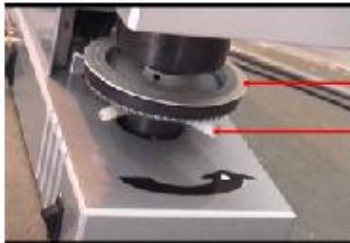


Additionally you can use the laser mapping option (optional) to take into the account of the cavities not seen with black and white picture. For this you have to coat the diamond with a whiteners or similar substance and switch on the laser light. The light will form a red line on the diamond, which should be always less than the blue projected line.

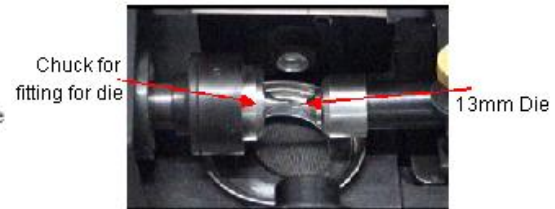
11. Press "Ctrl + R" to make the rotation value "0" and tilting of the graph as "Zero Degree".
12. Press "E" to see diamond from the top view and 'Thru' the die by handle provided right hand side of the machine, decrease the diameter if necessary



1. Now press “E” to see the graph from the front view. Rotate the spindle manually and adjust the Total Height. Look at permissible naturals at the bottom.
2. Press “E” once again & check the best natural (at least 3 naturals) and sign it.
3. To save the parameter press “V” and click on “Save”. Note down ‘Save No.’ on your packet.
4. Additionally you can get the Delta Radius for the piece planned and centered using key “Ctrl +;” . Here the computer will take 40 photographs and will give you the maximum value of the material to be removed in mm or Microns. Multiply this value by 0.8 (i.e 80 % of the maximum radius) and set it in the counter for Counter based 13 mm Econobruter. Please look for Econobruter explanation.
If the removal micron digit is 456 microns then according to above explanation, multiply 456 with 0.8 ($456 \times 0.8 = 364.8$). Match the value for testing the working.
5. Remove the die from the machine & insert it in 13mm Econobruter fix spindle. Follow up the procedure of “Econobruter Operation.”



This pulley should hold by one hand while fitting or removing the die
Move this pin in Anticlockwise while removing the die and Move this pin in clockwise while fitting the die



KEYBOARD COMMAND OF FANCY CENTERING

Key	Function
A	Measure all the 8 Facets of the Diamond
Ctrl+A	Measure the 8 Bottom Facet Only
B	Bottom Angle adjustment *
Ctrl+C	Align the Graph on Center
D	Diameter adjustment *
Ctrl+D	Diameter adjustment For Fancy Shapes
E	Toggle camera Top to Front view and Vice-versa
F	Four Plan refreshing
G	Girdle adjustment *
Alt+G	To go on particular No. of report #
H	Top Height adjustment *
I	Small Label Opening
J	Auto-Plan of the Diamond
K	Para-Distribute
L	Length For Fancy Shapes
Alt+L	To load a particular report #
M	Mouse line
N	Diameter Entry

O	Label Report Opening
P	Graph Position adjustment
Q	GirdleBreak Angle For Princess
Ctrl+Q	Opposite side Bottom Facet Measurement
R	Rotation of the Graph *
Ctrl+R	Rotation Of Graph Zero
S	Single side measure on Right Hand (all parameter)
Ctrl+S	Single side measure on Right Hand (Only Bottom)
Alt+S	To save the report #
T	Top Angle adjustment *
U	Unclear everything on the screen
V	Lot weight entry
W	Rotation with Top camera (motor movement)
X	Table line adjustment
Alt+X	To Exit from Entry Window #
Z	Rappoport Opening
+	Increase Navigation Speed
-	Decrease Navigation Speed
↑	Increase the value of * / Position the Graph / X-line Up
↓	Decrease the value of * / Position the Graph / X-line Down
→	Increase the value of * / Position the Graph Right side
←	Decrease the value of * / Position the Graph Left side
;	Dia-Deviation measurements

Ctrl + ;	Delta Radius Measurement for 13 mm Econobruters
,	Grabbing of Diamond
Alt+1	To open/print report No. 1 in Entry Window #
Alt+2	To open/print report No. 2 in Entry Window #

* indicates that the value of selected item can be increased / decreased by Arrow keys.

indicates that this switch can be used only when Entry Window is activate.

Note:- While measuring the 8 facets, bottom 8 facets, dia deviation on the centering machine, placement of diamond may cause wrong measurement.

TROUBLESHOOTING

Sr. No.	Problems	Reasons	Solutions
1.	Motor functioning improperly.	<ul style="list-style-type: none"> a. 25-pin cable is not firmly connected. b. Steps value is not “200” in “Calibration-1” file. c. Dly value is not “4 to 8” in “Calibration-1” file. d. Motor belt is too tight/loose. e. Power supply box / vacuum box is not switched ON. f. Motor driving card is faulty. g. Motor is faulty. 	<ul style="list-style-type: none"> a. Connect firmly. b. Set the value to “200”. c. Set the value between “4 to 8”. d. Correct the belt tension. e. Switch ON power supply box / vacuum box. f. Change the card. g. Change the motor.
2.	Camera is not swapping while pressing “E” in case of double camera planner.	<ul style="list-style-type: none"> a. 25-pin cable is not firmly connected. b. Relay P.C.B. is faulty. c. Motor driving card is faulty. 	<ul style="list-style-type: none"> a. Connect firmly. b. Change the PCB. c. Change the card.
3.	Machine is not operative from keyboard.	<ul style="list-style-type: none"> a. 25-pin cable not firmly connected. b. Keyboard is not connected. c. Motor driving card is faulty. 	<ul style="list-style-type: none"> a. Connect firmly. b. Connect firmly. c. Change the card.
4.	Run time error.	<ul style="list-style-type: none"> a. Invalid entry in calibration file. 	<ul style="list-style-type: none"> a. Double click on “emergency” icon and press “a” to overwrite all files to get factory setting.

5.	Message of illegal usage of the system.	a. Motor driving card is not firmly fixed in the ISA slot.	a. Shut down the computer, Open CPU and firmly press the motor driving card in ISA slot. Then restart the computer.
6.	Blue screen on monitor.	a. 25-pin cable is not firmly connected. b. Video pin not firmly connected. c. In video Source setting S-video is selected in place of Composite. d. CPU SMPS white connector is not connected to motor card's white connector. e. Camera is faulty.	a. Connect firmly. b. Connect firmly. c. Correct the setting to composite video. d. Connect the white connector. e. Check camera and replace if necessary.
7.	No display on monitor.	a. Display card/RAM is loose. b. Other hardware problem.	a. Shutdown the computer, Open CPU and firmly press all cards /RAM in their respective slots. And then restart the computer. b. Contact your hardware vendor.
8.	Video blinking on screen.	a. Brightness/Contrast not set correctly.	a. Set brightness/contrast correctly.

9.	Black strips on screen.	<ul style="list-style-type: none"> a. Video cable not firmly connected. b. Video cable is faulty. c. Display card is faulty. d. Camera may be faulty. 	<ul style="list-style-type: none"> a. Firmly connect the video cable. b. Change the video cable. c. Contact your hardware vendor. d. Change the camera.
10.	Second camera vision is not available.	<ul style="list-style-type: none"> a. Dcam option is not "1" in colors-def. File. b. Relay P.C.B. may be faulty. c. Camera may be faulty.(it can be seen by blue or black screen in any one camera.) 	<ul style="list-style-type: none"> a. Set Dcam option as "1" in colors-def. File. b. Change the relay P.C.B. c. Change the camera.
11.	A message on the screen " Stone too small to measure".	<ul style="list-style-type: none"> a. Your graph diameter is too small or too large. b. Rat11=0 in calibration-2 file. c. Dia-M is not equal to "0" in colors-def. File. 	<ul style="list-style-type: none"> a. Set graph diameter by pressing "N" and enter your required diameter value & then press enter. b. Set the calibration. c. Set Dia-M=0 in colors-def. File.
12.	Electric leakage current shock on the machine.	<ul style="list-style-type: none"> a. Earthing connection is not proper. 	<ul style="list-style-type: none"> a. Supply a proper earthing connection (+/-3v).
13.	Computer Hangs.	<ul style="list-style-type: none"> a. CPU gets heated up in absence of CPU fan. 	<ul style="list-style-type: none"> a. Contact your hardware vendor & get CPU fan installed
14.	Above problem in repeated manner.	<ul style="list-style-type: none"> a. If you done centering on graph other than graph no. 1 b. Camera lens may be loose. 	<ul style="list-style-type: none"> a. Do centering using graph no.1 b. Tighten the camera lens.

15.	A message on screen "Btvid.file not found"	<ul style="list-style-type: none"> a. Display setting resolution not set to High color (16 Bit), 640 by 480 small font for latest Ez Capture card, High color (16 bit), 800 by 600, large font for old Ez capture card and video blaster card. b. The Capture card is not fitted in its slot. 	<ul style="list-style-type: none"> a. Set display setting correctly b. Firmly fix the capture card.
16.	Colorful strips overlaid on video.	<ul style="list-style-type: none"> a. AGP card is not correct 	<ul style="list-style-type: none"> a. Contact your hardware vendor & get the correct AGP card.
17.	A message on screen "DISK I/O ERROR"	<ul style="list-style-type: none"> a. Hardware configuration is not correct. 	<ul style="list-style-type: none"> a. Contact your hardware vendor.
18.	Not getting correct print.	<ul style="list-style-type: none"> a. Correct printer is not selected as default printer b. Printer cable is not connected properly c. Paper not correctly fed in the printer d. Printer is faulty 	<ul style="list-style-type: none"> a. Set the connected printer as your default printer b. Connect printer cable firmly c. Feed the correct paper in printer d. Contact your hardware vendor.
19.	Repeated message like "MICROSOFT REGISTRY CHECKER"	<ul style="list-style-type: none"> a. Problem with RAM /system memory. 	<ul style="list-style-type: none"> a. Contact your hardware vendor.
20.	Die pot centering done on Dia Centering machine is not correct	<ul style="list-style-type: none"> a. Machine centering is not correct. 	<ul style="list-style-type: none"> a. Do machine centring

21.	Message like "WINDOWS PROTECTION ERROR" or "CONTACT YOUR PROGRAM VENDOR"	<ul style="list-style-type: none"> a. RAM is faulty. b. I/O clashes in hardware. 	<ul style="list-style-type: none"> a. Get you b. RAM changed. c. Contact LEXUS.
22.	Message like "DISK BOOT FAILURE" or "NON SYSTEM DISK" or "C-DRIVE IS NOT READY".	<ul style="list-style-type: none"> a. Harddisk is faulty. 	<ul style="list-style-type: none"> a. Get your harddisk changed and get the new program installed at LEXUS.
23.	Message like "UNABLE TO CONNECT CAPTURE DEVICE".	<ul style="list-style-type: none"> a. The program is started two times. b. The capture card is not firmly fitted in its slot c. Video settings are not set correctly 	<ul style="list-style-type: none"> a. Close one windows/program b. Firmly fix the capture card c. Set the settings correctly
24.	Diameter is not correct	<ul style="list-style-type: none"> a. Calibration is not correct 	<ul style="list-style-type: none"> a. Set the calibration right using calibration die pot
25.	Weight Estimated or calculated is not correct.	<ul style="list-style-type: none"> a. You consider the machine as a weighing machine. b. Dia. Calibration is not correct. 	<ul style="list-style-type: none"> a. This is not a weighing machine So some difference (around max 1%) should be expected. b. Set Dia calibration using right calibration gauge.
26.	A message on the screen "OLE Automation Error"	<ul style="list-style-type: none"> a. Regional language setting changed to any other language other than English 	<ul style="list-style-type: none"> a. Change the Regional language setting to English. In other language “,” Is replaced by “.”

27.	"J" plan is not functioning properly/ A message on the screen "Clean the stone cannot measure."	<ul style="list-style-type: none"> a. Some dirt on the platform or on the diamond. b. Hood or cover of planner is open while measuring by "J";"S";"A". c. Brightness/Contrast is not correct d. Any obstacles in front of camera lens other than diamond. e. Back light lens is not clean f. BRG value is not right in calibration-1 file. g. Ambient light or the top light is too intense, and the stone edge is not with high contrast. h. Tbl-par is too high or low or equal to zero in calibration-1 file. i. <-41-> value is "0" or negative in calibration-1 file. 	<ul style="list-style-type: none"> a. Clean the platform and diamond. b. Close the hood or cover while measuring by "J";"S";"A". c. Set correctly to see the picture in clear black & white. d. Remove the obstacles. e. Clean the back light lens f. Set BRG value between 100 & 150 for Ez-Capture card and 30 for video blaster card. g. Switch off the light during auto cycle. h. Set Tbl-par between 4 to 8 i. Set <-41-> value between 5 to 10 for Ez-Capture video card and 50 for video blaster card.
28.	Class defined in cut class file is not shown in report on the screen	<ul style="list-style-type: none"> a. Regional language setting changed to any other language other than English 	<ul style="list-style-type: none"> a. Change the Regional language setting to English. In other language "." Is replaced by "."

29.	Magenta (pink) Screen	<p>a. Video overlay setting is not correct.</p> <p>b. Display setting is not correct</p>	<p>a. Video setting can be corrected in following sequence</p> <ol style="list-style-type: none"> 1. Click on Start 2. Click on Programme 3. Click on Video Setting 4. Click on Surface Configuration 5. Click on AttemptOverlay Surface 6. Click OK <p>b. Display setting can be corrected in following sequence</p> <ol style="list-style-type: none"> 1. Click Right button of mouse 2. Click on PROPERTIES 3. Click on SETTING 4. Set color as 16 Bit High color 5. Select Screen area 640X480 (Or 800X600 old) 6. Click on ADVANCE setting 7. Select SMALL FONTS (Or large- old) 8. Click on APPLY 9. Click on OK
30.	Message on screen "Floating point invalid"	a. Incorrect data set in Setting files	a. Run Emergency by double clicking on Emergency icon.

UPDATE NOTE ON PLAN.EXE DTD 24/03/05

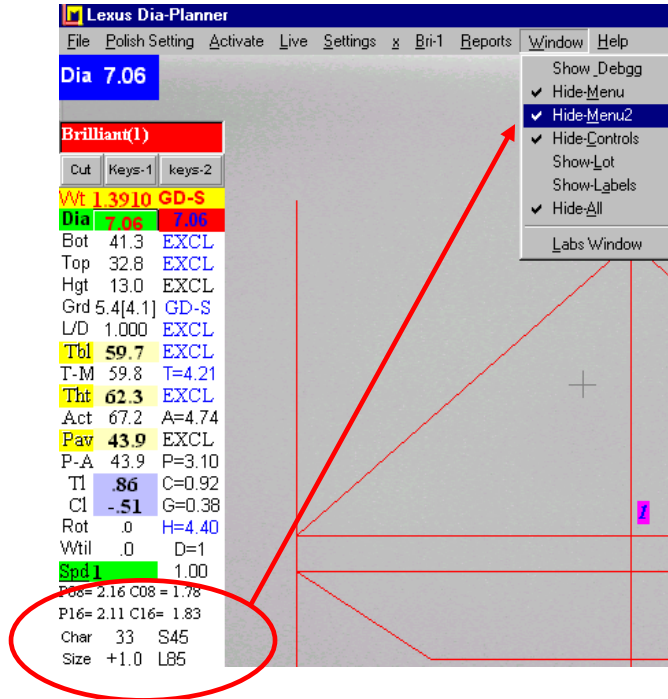
1.Top, Bottom and Table size Suggestion as per Ags Chart, for this,

Double click On Bot Or Top then software suggest Top or Bot size for that table Size for Good fire as per Ags Chart.

2.You can Lock the table while feeding the parameter, for this

Press “Shift+l” and “n” and enter your required table size, now table is Lock (In only planning purpose, in measurement process this options is deactivate, also can be deactivated by “l” button). Now if you change top then software set Crown height for that table, and if you change crown height then software set Top angle for that table

3.Show/ hide option for second menu



4.You can also set these menus as Hide Or See as default, for this,

Go→Ms-Dos→C:\Planner→Write there “Edit DEB” and Press Enter. you can see file like,

File Edit Search View Options Help

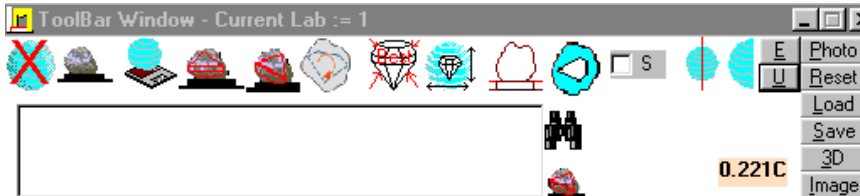
+----- C:\planner\DEB -----+

!0,1,1,1,0, 1

Here, 0 means Hide and 1 means See for default First Option is for Debug, Second Option is for Menu, Third option is for Controls, Fourth Option is for Lot Weight entry, fifth option is for Lables,and Sixth option is for Menu2

UPDATE NOTE ON PLAN3D.EXE DTD 24/03/05

1.Tool bar window new buttons are added.



This button is used for toggle view (Front view and side view in double camera base machine)



Load original calibration file while Lexus client or Link with another Lexus base planner/Analyser/Centering.

Reset

“W”)

This button is used for refresh the Wtill(Makes it zero when movement of image or motor by

Load

Save

Loading Or Saving the images and data from toolbar window.

3D

To see Or Hide the 3D View Of image (3D made by software as per images)

Image

To See Or Hide the images.



To take photograph from Toolbar (Like as “Ctrl+k”)

2.Top, Bottom and Table size Suggestion as per Ags Chart, for this,

Double click On Bot Or Top then software suggest Top or Bot size for that table Size for Good fire as per Ags Chart.

3.You can Lock the table while feeding the parameter, for this

Press “Shift+l” and “n” and enter your required table size, now table is Lock (In only planning purpose, in measurement process this options is deactivate, also can be deactivated by “l” button).

Now if you change top then software set Crown height for that table, and if you change crown height then software set Top angle for that table

4. New Rapaport design

For this you compulsory need to copy .txt file from last.exe in c:\plan3d