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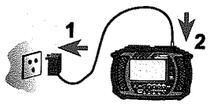
QUICK START GUIDE

MEASUREMENT AND ANALYSIS

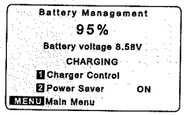
⚠ PRECAUTIONS

- Never attach the accelerometer or tachometer to a high potential voltage source.
- Ensure the cables cannot be entangled with any moving machinery.
- Never place the mounting base near any object sensitive to magnetic fields.
- Handle the instrument with care - handle it as you would a camera.

STEP 1 POWER UP

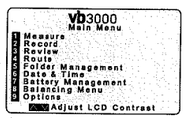


With the instrument off, plug the power transformer into a standard power outlet and then its connector into the instrument charger socket.



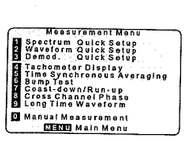
Charge the battery then disconnect the power transformer. After this we recommend you set the Date and Time

MENU



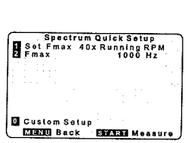
This is the screen from where you will begin all instrument operations.

STEP 2 SET UP INSTRUMENT AND SENSOR

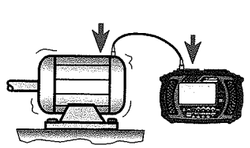


Press RESET 1 to access the Measurement Menu. From here you can select the type of measurement to take.

RESET 1

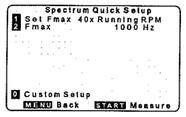


Press HELP 2 and use the keypad to enter an Fmax value for your vibration spectrum. Alternatively press RESET 1 and enter the machine running speed (RPM). The instrument will set the Fmax to 40x this value.

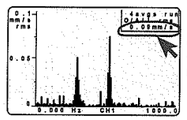


Connect the sensor connector to the channel 1 input of the instrument and attach the sensor firmly to the measurement point using the magnetic mounting base.

STEP 3 MEASURE VIBRATION

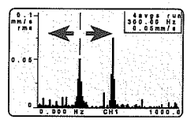


START



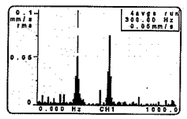
Overall vibration level

The vibration spectrum and overall vibration level are displayed.



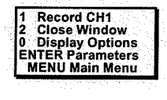
Press ▲ or ▼ to move the cursor and read the vibration levels.

STEP 4 RECORD VIBRATION



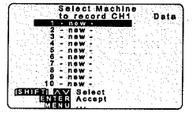
With the vibration spectrum displayed press MENU to record the measurement.

MENU



A pop-up menu appears.

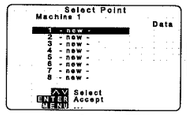
RESET 1



Press ▲ or ▼ to highlight a machine.

OPTIONAL

ENTER

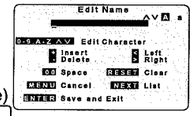


Press ▲ or ▼ to highlight a point.

OPTIONAL

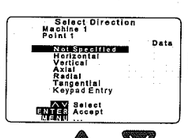
EDIT NAME

- Press HELP 2
- To move the cursor (the flashing underscore) press SHIFT < 9 or > 0



- To enter a digit (where the cursor is) press the appropriate digit key. To enter an alphabetic character press the key with the character shown above or below it until the character appears.
- When you have finished editing the name, return to the previous screen by pressing ENTER

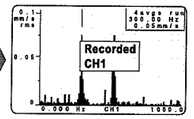
ENTER



Press ▲ or ▼ to highlight a direction.

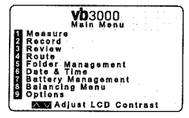
OPTIONAL

ENTER

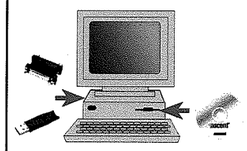


The spectrum is recorded.

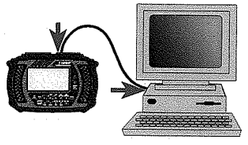
MENU twice



STEP 5 TRANSFER RECORDED DATA TO PC



Install the Ascent software on the PC by inserting the CD-ROM and following the on-screen instructions. Attach the security dongle when prompted.



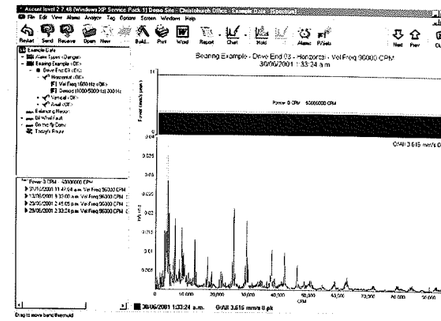
Connect the instrument to an available COM port on the PC using the data-transfer cable then power up the instrument by pressing ON OFF



On the PC, start the pro by clicking **Start› Programs›Commtest›As**



Click the **Receive** button to transfer data from the instrument to the PC.



The area on the left of the screen is the Navigator . Th upper part (navigator tree) displays the structure of machines, points and measurement locations. The low part lists the content of the selected item. Recordings a labeled with the time, date and description of the type measurement taken. To plot a recording double-click it

For detailed instructions on how to use the Ascent program consult your Software Reference Guide or the online tutorials accessed from the **Help** menu.

You have now successfully recorded vibration data and plotted the data on your PC. To save the data click the **Save** button on the toolbar.

Your instrument and software have far more capabilities than those mention in this document. To find out how you can more fully utilize them, please refe to the Instrument and Software Reference Guides.

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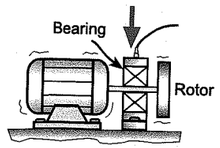
QUICK START GUIDE

MACHINE BALANCING

INTRODUCTION

- Please read the **PRECAUTIONS** section on the other side of this card.
- This is a quick start guide to **single plane** balancing only and is typically suited for rigid rotors with diameters at least twice their lengths. For information on dual plane balancing please refer to the Instrument Reference Guide.
- Good results can be obtained **only if** the vibration is caused by **uneven mass distribution** in the rotor. Attempting to balance a rotor with other problems will not, in general, reduce the vibration level.

STEP 1 SET UP SENSOR

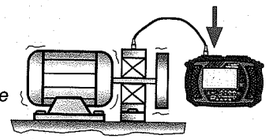


Attach the sensor firmly along the centerline of the bearing using the magnetic mounting base.

Ensure the sensor is...

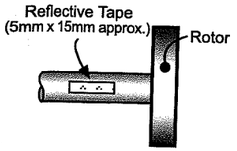
- ☑ *Close to the bearing*
- ☑ *Along the bearing centerline*
- ☑ *Firmly attached*

It is important to attach the sensor properly, otherwise results will be inaccurate.

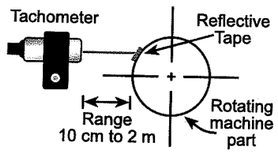


Attach the sensor connector to the channel 1 input of the instrument.

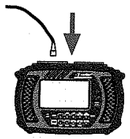
STEP 2 SET UP TACHOMETER



Stop the machine and stick a piece of reflective tape on a machine part that rotates at the speed of the rotor.



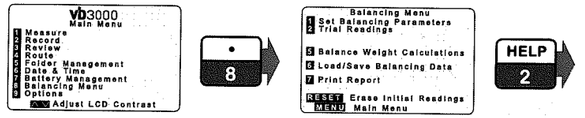
Attach the tachometer to a stationary surface so the sensor is offset slightly from the centerline of the shaft but parallel to the reflective tape.

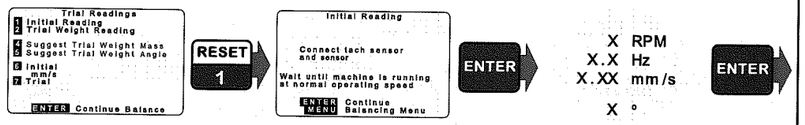


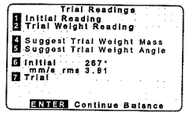
Attach the tachometer connector to the tach input of the instrument.

STEP 3 TAKE INITIAL READING

Clean the rotor then start the machine and let the rotor settle to its normal operating speed.



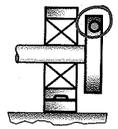




Ensure your instrument is connected by referring to the on-screen messages.

The instrument will display the rotor speed, vibration level and vibration phase angle. Allow the readings to stabilize.

STEP 4 ATTACH TRIAL WEIGHT



Ensure the added weight...

- ☑ *Will not loosen when the rotor spins*
- ☑ *Will not obstruct machine motion*
- ☑ *Includes the weight of any mechanism used to hold it in place*

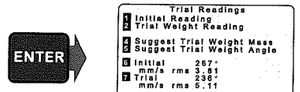
Stop the machine and establish a weight reference mark on the balancing plane. Use this to measure the angular position of trial and final balance weights. Attach a small trial weight to the rim of the rotor. If necessary, consult the manual on how much weight to use.

STEP 5 TAKE TRIAL WEIGHT READING

Start the machine and let the rotor settle to its normal operating speed.



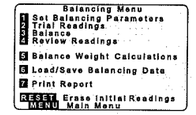
X RPM
X.X Hz
X.XX mm/s
X °



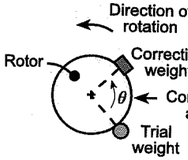
The instrument will display the vibration level and phase angle with the added weight. Allow the readings to stabilize.

Note: You can use any weight unit without informing the instrument! It will simply express the final balance weights in the same (implied) units.

STEP 6 ATTACH CORRECTION WEIGHT(S)



The instrument will display the weight required to correct the original imbalance and the position to attach/remove the correction weight.

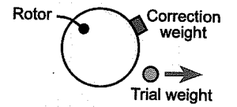


Stop the machine. At (or remove) the spec weight in the direction WR) and angle indicat the instrument. The dis angle will be relative to chosen weight reference

Ensure the correction weight...

- ☑ *Will not loosen over time*
- ☑ *Will not collect dirt over time*
- ☑ *Will not obstruct machine motion*
- ☑ *Includes the weight of any mechanism used to hold it in place*

STEP 7 REMOVE TRIAL WEIGHT

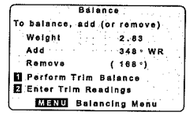


This step is optional as the trial weight can be le if the appropriate parameter has been set (refe the manual, Section 9: Set Balancing Paramete

STEP 8 CHECK RESULTS



Start the machine and let the rotor settle to its normal operating speed.



The instrument will displa the vibration level with th imbalance corrected.

You have now completed a basic machine balancing routine. To further red the vibration level, press **Enter** from the last screen to trim balance the roto For more information please refer to the Instrument and Software Referenc Guides.

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