

User Manual



Revision 1.2





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The AccuGuide System is proudly made in the USA.





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About AccuGuide

Congratulations on purchasing the state-of-the-art Range-Of-Motion and Exercise Guide System, AccuGuide, the most advanced system designed to work with most workout equipment that you already own in either a clinical or home care environment. Designed for ease of use and accuracy, this device will facilitate your daily Physical Therapy and Physical Rehabilitation management regimen while adding a new dimension of information never before available.

To get the most from your AccuGuide System, we recommend that you read through this manual carefully.

Thank you again for purchasing the AccuGuide System.



What's in the box

The package includes several parts; please verify that you have received everything.



Parts included:

- 1) 1 x AccuGuide Device with attached USB cable
- 2) 1 x 15 Foot USB Extension Cable
- 3) 1 x Carabiner used to attach the AccuGuide Cord
- 4) 1 x Attachment Loop
- 5) AccuGuide comes with a One Year Warranty



Quick Start Guide

Follow the steps below to get your new AccuGuide System up and running as quickly as possible:

AccuGuide Device Drivers

The AccuGuide device and software was designed for Windows based computers and laptops. When AccuGuide is plugged into a USB port on your computer for the first time, Windows will automatically identify the device as new and setup the correct device drivers as needed.

1) Make sure your computer is ON and is connected to the internet, this is important as Windows requires an internet connection so the device driver files can be downloaded

2) Attach the AccuGuide device using its USB cable into any available USB port on your computer; do not use the extension cable at this time

3) Do NOT unplug AccuGuide from the computer until Windows has installed the device driver's successfully



Figure 1 - After Connecting the AccuGuide Device



4) Clicking on the "*Click here for status.*" will show the details of the driver installation process

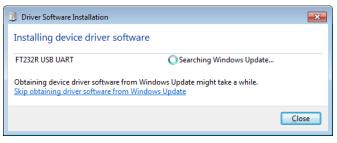


Figure 2 - Windows searching for the drivers

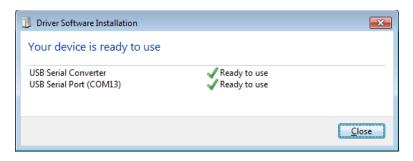


Figure 3 - After Windows installed the drivers

- 6) You are now ready to install the latest version of the AccuGuide Software, please leave the AccuGuide plugged into your computer while doing the software installation
- 7) Using your browser, go to <u>www.a2dfitness.com</u>
- 8) Go to the "DOWNLOADS" page



9) Click on the AccuGuide Software Installation section

10) You will be prompted for the access password



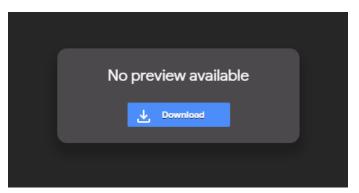
NOTE: Please contact your sales person or A2D Fitness directly to receive access to the latest AccuGuide software

11) Enter the provided password then click the arrow to continue

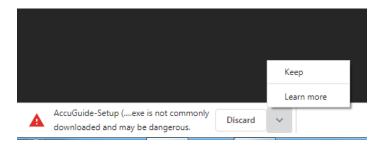




12) Click on the download link to continue



- 13) Then click on the blue 'Download' button to begin the download of the AccuGuide Setup Software
- 14) You may see a warning after the setup file has been downloaded



15) Click 'Keep' to allow the file to be saved

16) The 'AccuGuide-Setup.exe' file can now be found in the 'Downloads' folder



- 17) Now double click on the "*AccuGuide-Setup.exe*" file found in the '*Downloads*' folder. This will start the AccuGuide Software Installation Wizard, carefully read and follow all instructions
- 18) After the installation process has completed you are now ready to use your AccuGuide system, Congratulations!
- 19) When the AccuGuide Software is started, you will see a message on the bottom of the display "Found AccuGUIDE Using COM X" Where X is the COM PORT Number assigned by Windows. The important thing is that if you see this message then all drivers were installed correctly and the AccuGuide software is ready for use

ANGE:	0	MAX:		0	[REPS	0	T	(ME:	- []
					20 FPS						
-10 0	10	20	30	40	50			80	90	100	1
MESSAGE	Found Ac	cuGUIDE U	sina COI	M13			JOM:(mm)	PAU	SE	START	





20) You may also want to download the latest user manual found under the installation section; you can always get the latest version of software and documentation from our website at any time

Setting up AccuGuide

The AccuGuide application software was designed to work with a minimum screen resolution of 1280 x 720. You can maximize the size of the AccuGuide display window by dragging the corners of the window or simply clicking the Maximize box in the top right corner of the window.

Using the magnets located on the bottom and the back of the AccuGuide Device, mount AccuGuide close to any moving part of the metal exercise equipment, now extend the retractable cord and secure to the part of the machine that moves during the exercise. You may need to use the Carabiner and Attachment Loop to secure the retractable cord end.

Be sure that any moving parts of the exercise machine will not collide with the AccuGuide Device or its USB cable. If needed use the 15 foot USB Extension Cable to connect AccuGuide with your computer and manage the USB cable around the machine as needed to mitigate any trip hazards.



WARNING: The retractable cord must **not** be over extended as this can cause damage to the AccuGuide Device. The maximum extension of the cable should not exceed 44 Inches or 112 Centimeters. Damage to AccuGuide caused by over extending the retractable cord is not covered under warranty!



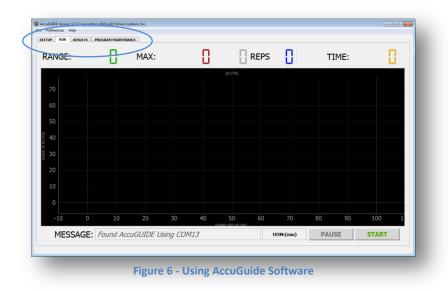
Figure 5 - AccuGuide Attached to Equipment

Running AccuGuide Software

You can start the AccuGuide software by either double clicking on the desktop shortcut (if you created one during the installation process), or by clicking on the AccuGuide icon from the start menu.



NOTE: Please make sure that the AccuGuide Device is plugged into an available USB port on your computer or laptop with the AccuGuide Device LED flashing red BEFORE starting the AccuGuide Software, also, NEVER un-plug the AccuGuide Device while the AccuGuide Software is running, you should always EXIT the software first before disconnecting AccuGuide.



The AccuGuide software has four main tabs located at the top left corner of the display; these tabs are used to access the various features of the AccuGuide software.

Let's look at each tab in detail to see what and how the tabs features are used.



SETUP TAB

Below is the SETUP tab with all of its controls

) AccuGUDE Version V2.1 Copyright(c) 2019 A2D Fitness Systems, Inc. ie Preferences Help	
SETTUP RUN RESULTS PROGRAM MAINTEMANCE	
EXERCISE SETTUP	
Programs: DEFAULT PROGRAM	
Concentric Movement is Downward: 🗇	
SECONDS	
Concentric Duration: 4.00	
Amortization Phase: 1.00	
Eccentric Duration: 6.00	
Rest Between Reps: 2.00	
o+ukunteo Reps To Complete: 0	
Reps to complete.	
Guide Tolerance: 10	
Guide folerance: 10 👘 1 = naro, 23 = casy	
	4

Figure 7 - SETUP Tab

The Exercise Setup tab is used to do just that, you can use a previously setup and saved exercise program or customize any part of the currently selected program. As you can see from the display in Fig 7, you can specify the durations for every part of an exercise movement, Concentric, Amortization and Eccentric phase durations and also the Rest period duration. Also notice at the top of the settings page is the *"Concentric Movement is Downward"* checkbox, this is checked when an exercise like a Lat-Pulldown will be performed, this insures that the real time display is appropriate for the downward concentric movement, more on this later. Next you can specify the target number of repetitions and also the Difficulty Level. We will look at the Difficulty Level and how it's used later in the RUN Tab section.



The RUN tab is the main tab used to display the real time information when the user is performing an exercise or movement.

RANGE:	0	MAX:		0		REPS	0	T	IME:	- (3
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§ 40											
-5 30 30											
-10 0				40	50					100	i
MESSAGE	Found Acc	CUGUIDE L	Jsina COI			U	IOM:(mm)	PAU	ISE	START	

Figure 8 - RUN Tab

Assuming that all of the specifications for the exercise and user have been specified in the SETUP tab then we are now ready to begin an exercise or movement.

- When the exerciser is in position and ready to begin the exercise, click on the "START" button to proceed
- A message dialog will be displayed prompting the user to move to the "STARTING position" of the exercise and hold at that position

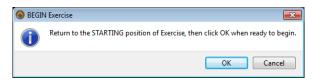




- You as the Trainer or Clinician will click on the "OK" button once the user is in the start position
- 4) Next a message dialog will be displayed prompting the user to move to the "ENDING position" of the exercise and hold at that position



- You as the Trainer or Clinician again clicks on the "OK" button
- 6) Lastly a message dialog will be displayed prompting the user to "*Return to STARTING position*" of the exercise and hold



 The Trainer or Clinician clicks on the "OK" button to complete the exerciser's calibration process

Using the specifications from the SETUP tab and the users' range of motion calibration information, the pathway trainer is displayed in the graph area; see Fig 9 on the next page showing the grey pathway trainer.





The yellow dot moves to reflect the exerciser's real-time movement, while the grey pathway represents the target movement profile that scrolls from right to left along its time axis.

The width of the pathway is set by the "*Difficulty Level*" percentage found on the "*SETUP*" tab. The smaller the value for the Difficulty Level, the thinner the pathway will be and consequently more difficult for the exerciser.

The exerciser watches the yellow cursor while performing the exercise and works to keep the cursor inside of the grey pathway. All information regarding the exerciser's performance with respect to the target exercise profile is recorded and can be viewed and or printed as needed.





- 8) The "RANGE" value is displayed in Inches, Centimeters or Millimeters and can be changed by selecting the required unit of measure from the "Preferences" menu from the top left of the AccuGuide window. AccuGuide is incredibly accurate with a resolution of less than one Millimeter
- 9) The "*MAX*" value is the highest range of motion achieved during the concentric movement
- 10) The <u>grey</u> "**REPS**" value is the number of repetition cycles completed by the grey pathway



11) The <u>blue</u> "**REPS**" value is the number of repetitions that the exerciser has completed. If a target number of reps has been set in the SETUP tab then a message will be displayed when the target has been reached, however more reps can be performed if desired



- 12) "TIME" is the total session time that has transpired so far
- 13) The "PAUSE" button does exactly that, it pauses the process, meaning that pathway stops scrolling to the left and the session time counter also stops. The yellow cursor is still active however, this allows the exerciser to move to the correct location of the movement before the trainer or clinician clicks on the "CONTINUE" button. After clicking on the "CONTINUE"



button, the pathway resumes scrolling and the session timer continues to increment, it does not reset

RESULTS TAB

The RESULTS Tab is used to view and or print the comprehensive data that was captured during all phases or each repetition for the entire set.

AccuGUIDE Version V2.1 Copyright(c) 2019 A2D Fitr ile Preferences Help	ness Systems, Inc.	
SETTUP RUN RESULTS PROGRAM MAI	INTERMACE	
PRINT RESULTS SETTUP		
Report Heading:	Set Report Title in the RESULTS tab	
Patient Name:		
Gender:	* MALE O FEMALE	
Tested Side:	* LEFT © RIGHT © BOTH	
Doctors Name:	Set Doctors Name here, in the RESULTS tab	
Testers Name:	Set Testers Name here, in the RESULTS tab	
Patient Diagnosis:		_
	PREVIEW PRINT	
	PREVIEW PREVI	
		4
	Figure 12 - RESULTS Tab	

Before viewing or printing, edit the fields as needed:

- "Report Heading" this information is shown at the top of the report, it can be set once and forgotten as it is saved and recalled each time you run AccuGuide so there is no need to keep re-typing it
- "Patient Name", this field however is not retained when AccuGuide is exited but is retained during the session until changed



- "Gender", click on the radio button for the patients Gender. This setting is not retained
- "Tested Side", click on the radio button to indicate the side of the patient being tested. Additionally this setting is not retained
- 5) "Doctors Name", this setting is retained across sessions
- 6) "*Testers Name*", this setting is also retained across sessions
- 7) "Patient Diagnosis", this setting is not retained

Report Review

Clicking on the "**PREVIEW**" button will generate the results report that can be viewed, printed or saved to file. Fig 13 shows the results report.

					Set F	leport T	itle in t	the RE	SULT	S tab							
			n the RESULT						G	ame: ender: Ha ested Side est Date: 4		19					
Diagno	ie:															_	
Progr	am	Unit O			tric Amorti				Guide			an Time Ta					
Name	T PROCEAM	Measu	re Directi		iec) Time (S		e (Sec) Ti 6.0	z.0	Tolera 10.0					OM * 19) to (*	(824 **		
		centric High		minimum, gre	r equal to the ster or equal to	the value s	hown to me	et the mir	inum RO		Foranhie	Eccentric	Beet	Rest	Rest	- 1	
No.	ROM Met	ROM	Accuracy%	Fast%	Slow%	Skill%	High%	Low%	Skill%	Fast%	Slow %	Skill%	High%	Low%	Skill%		
	1 Yes	14 to 184		0.00	6.17	93.83	0.00	0.00	100.00	0.00	0.00	100.00	5.00		95.00		
	2 Yes	3 to 179	96.55	0.00	0.00	100.00	0.00			0.00	0.00	100.00	15.00		85.00		
	4 Yes	7 to 173	92.34	18.52	0.00	81.48	0.00			0.00	0.00	100.00	0.00		100.00		
	i Yes	2 to 179	100.00	0.00	0.00	100.00	0.00	0.00	100.00	0.00	0.00	100.00	0.00	0.00	100.00		



Saving Reports to an File

You may want to save reports to file so you can store and recall them at any time for review. The easiest way to do this is to use "CutePDF Writer", it's a virtual printer, once installed all you do is select "CutePDF Writer" from the printer selection dialog in AccuGuide, and then you will be asked to provide the name and destination folder for the file. CutePDF will then save the AccuGuide report to the chosen folder as a PDF formatted file. A few simple steps to install this free utility are all it takes. Please follow the steps below to install "CutePDF Writer".

1) Using your browser, go to <u>www.cutepdf.com</u>

Home	Products	Support	Buy Now		Company
_	Cute	PDF Writer			CutePDF Professional
Free D (1.56 r	ownload HB) Nore	asily from almost ocument. REE software for ommercial, gov o	ional quality PDF files any printable personal, r edu use. <i>ithe "50 Best free</i> <i>mputer Shopper</i> . o popup ads! ce 2004.	PDF Pro (3.88 M6) W Buy Now Volume Discount Corp. Licensing	Easy-to-use PDF Utility. Seamlessly integrate with CutePDF Writer. Make PDF booklets, impose (n-Up pages), combine PDF files, add watermarks, edit forms, add comment add headers and footers, rearrange pages, security, digital signature, scan FTP and much more. Now includes the Form Filler for Freel One-Off License Fee. 30-Day Return FREE Upgrade and Support for life! Windows 10 Ready Learn More
_	Cust	om PDF Co	nverter		CutePDF Editor - FREE!
PDI		ptimized for term itrix) environmen		PDF	 It takes no time at all to edit your PDF files easily - for Free!
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関 Buy No	w 🗸 F	ne-Off License Fe REE Upgrade and O 3rd-party offer			✓ Learn More
	•	indows 10 and S	erver 2016 Ready		Start to Edit PDF Now - FREE!

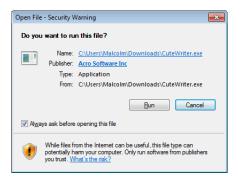
 Click on the "Free Download" button in the "CutePDF Writer" section to start the download



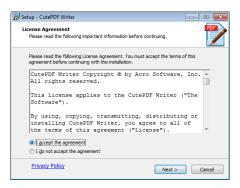
 After the download has completed, click on the "CuteWriter.exe" file icon in the system tray



4) The install wizard will now start

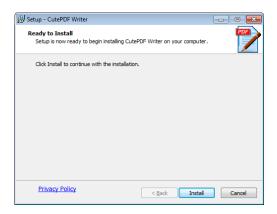


5) Click the "Run" button to begin the installation process





 Click the "I accept the agreement" then click the "Next" button

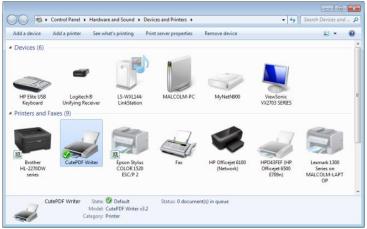


- Click on the "*Install*" button to start the installation process
- 8) The installation only takes a few moments to complete, once finished you will be taken back to the website. At this point you have completed the installation

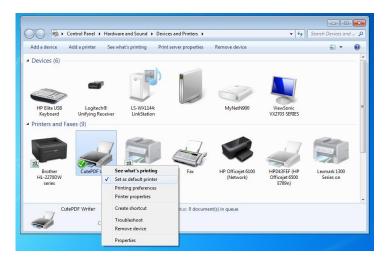




9) To confirm that everything was installed okay, go to the Windows Start Menu, click on "Devices & Printers", you should now see the CutePDF Writer in the available printers dialog



10) To make the CutePDF Writer the default printer, simply right click on the CutePDF Writer printer icon and select the "Set as default printer" option





11) To send reports from AccuGuide to CutePDF Writer, simply select it from the printer selection dialog after clicking the "*PREVIEW*" or "*PRINT*" button on the "*RESULTS*" Tab

TUP RUN RESULTS PROGRAM MAX	RTEMAKE
PRINT RESULTS SETTUP	
Report Heading:	Set Report Title in the RESULTS tab
Patient Name:	
Gender:	MALE O FEMALE
Tested Side:	LEFT ○ RIGHT ○ BOTH
Doctors Name:	Set Doctors Name here, in the RESULTS tab
Testers Name:	Set Testers Name here, in the RESULTS tab
Patient Diagnosis:	
	PREVIEW PRINT

12) Click on the printer icon in the top right corner to show the Print options dialog

Add Printer Brother HL-2		Epson Stylus COLOR 152 Fax P Officejet 6100 (Netwo	
Status: Re Location: Comment:	ady	Print to file Preferences Find Printer	50 (** 0)
C Pages:	C Current Page 1 s page number or a single tample, 5-12	Number of copies: $1 + \frac{1}{2}$ 1^{23} 1^{23}	
	F	rint Cancel Apply	i l



- 13) Select "CutePDF Writer" from the Select Printer Dialog
- 14) Now Click on the "*Print*" button to start the PDF file save process
- 15) Select the "*Save in*" folder and enter the name for the report in the "*File name*" field

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Save as type: PDF Files (*.pdf)	▼ Cancel	
Move up to CutePDF Pro and get advanced control ove Easily merge & split PDFs, add security, digital signature, header/footer, make booklets, n-Up, save PDF forms, se Help <u>htt</u>	stamps, bookmarks or	1

16) Click on the "*Save*" button to complete the process and save the report as a viewable or printable PDF file recallable at any time



Report Format

					Set H	Report T	itle in	the RE	SULI	S tab					
	Set Doctors I	Name here, <mark>i</mark> r	the RESULTS	tab						ame:					
ster: Se	iet Testers N	ame here, in	the RESULTS t	ab					T	ender: M ested Sid est Date:		19			
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Program	m	Unit Of		ric Concent				Rest	Guide		rget Sessie			linumum	
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-EFAULI	T PROGRAM	UOM:(n	im) Upward	4.0	1.0		6.0	2.0	10.0)	5 1	1:10	0 to 188	(* 19) to	(** 169)
			should be at m						Amort		: Eccentric	Eccentri	c Rest	Rest	Rest
	Minimum			Concentric											
	ROM Met	ROM	Accuracy%	Fast%	Slow%	Skill%	High9	6 Low%	Skill%	Fast%	Slow%	Skill%		Low%	
	ROM Met Yes	ROM 14 to 184	Accuracy% 97.32	Fast% 0.00	Slow% 6.17	Skill% 93.83	High9 0.0	6 Low% 0 0.00	Skill% 100.00	Fast% 0.00	0.00	Skill% 100.00	5.0	0.00	95.00
No. 1 2	ROM Met Yes Yes	ROM 14 to 184 11 to 182	Accuracy% 97.32 98.47	Fast% 0.00 4.94	Slow% 6.17 0.00	Skill% 93.83 95.06	High9 0.0 0.0	6 Low% 00 0.00 00 0.00	Skill% 100.00 100.00	Fast% 0.00 0.00	0.00	Skill% 100.00 100.00	5.0 0.0	0.00	95.00 100.00
	ROM Met Yes Yes Yes	ROM 14 to 184 11 to 182 3 to 179	Accuracy% 97.32 98.47 96.55	Fast% 0.00 4.94 0.00	Slow% 6.17 0.00 0.00	Skill% 93.83 95.06 100.00	High9 0.0 0.0 0.0	6 Low% 0 0.00 0 0.00 0 15.00	Skill% 100.00 100.00 85.00	Fast% 0.00 0.00 0.00	0.00 0.00 0.00	Skill% 100.00 100.00 100.00	5.0 0.0 15.0	0.00 0.00 0 00.00 0 00.00 0	95.00 100.00 85.00
No. 1 2	ROM Met Yes Yes Yes Yes	ROM 14 to 184 11 to 182	Accuracy% 97.32 98.47	Fast% 0.00 4.94	Slow% 6.17 0.00	Skill% 93.83 95.06	High9 0.0 0.0	6 Low% 0 0.00 0 0.00 0 15.00 0 25.00	Skill% 100.00 100.00	Fast% 0.00 0.00	0.00	Skill% 100.00 100.00	5.0 0.0 15.0 0.0	0.00 0.00 0 0.00 0 0.00	95.00 100.00 85.00 100.00

Let's take a look at the comprehensive report information:

- Report title at the top, and as mentioned previously this can be customized to your requirements
- The Doctors and Testers name are on the left side with the patient information and report date are on the right side of the page header
- Patient Diagnosis is under the patient information and to the left of the page
- 4) The next section details the exercise program parameters, first is the Program Name, this is the name given when the exercise program was setup or modified from the "PROGRAM MAINTENANCE" Tab



- "Unit Of Measure" will be Inches, Centimeters or Millimeters depending on the setting selected from the Preferences Menu
- 6) "*Concentric Direction*", this reflects the checkbox setting as discussed in the "*SETUP*" Tab section
- "Concentric Time", this is the setting from the "SETUP" Tab
- "Amortization Time", this is the setting from the "SETUP" Tab
- "Eccentric Time", this is the setting from the "SETUP" Tab
- 10) "*Rest Time*", again, this is a setting from the "*SETUP*" Tab
- 11) "*Difficulty Level*", this is also a setting from the "*SETUP*" Tab
- 12) "Target Reps", this is the set value from the "SETUP" Tab or if set to "O" Zero, this indicates unlimited repetitions with a maximum of 99
- 13) "Session Time", is the total duration of time from the start of the set until the "STOP" button was pressed



- 14) "*Target ROM*", this is the range of motion measured during the calibration process when the exerciser was prompted to move from the start to end position of the exercise
- 15) "*Minimum ROM*", this is the minimum range-ofmotion that must be achieved by the exerciser in order for AccuGuide to count the repetition. If the exerciser does not meet the minimum ROM requirement, then the grey rep counter will increment but the blue rep counter will not. This does not mean that the repetition information was discarded, if fact every detail of the rep will be recorded including the users ROM that did not satisfy the minimum ROM requirement

The value as set in the "*Difficulty Level*" is used to calculate the "*Minimum ROM*". For example, if the calibrated ROM was 188mm and the Difficulty Level was set to 10% then the Minimum ROM range would be 19 to 169 (rounded up), meaning that the lowest eccentric range must be equal or lesser to 19, and the concentric range must be equal or greater than 169. If either of the two requirements are not met, then AccuGuide will not increment the blue "*REP*" counter and the "*Minimum ROM Met*" column on the report will indicate "*No*" for that same repetition.



The next section of the report reflects the exercisers actual performance in relationship to the program settings, guide tolerance and the exercisers calibrated range-of-motion.

16) The 1st column, "Rep No.", the repetition number

- 17) 2nd column, "*Minimum ROM Met*", "*Yes*" or "*No*".This facilitates a quick confirmation of ROM targets
- 18) 3rd column, "*Overall ROM*", this indicates the minimum eccentric and the maximum concentric range
- 19) 4th column, "**Overall Accuracy**%", this column quickly indicates the accuracy of the exerciser for all of the individual phases of the repetition, concentric, amortization, eccentric and rest phase combined
- 20) 5th column, "*Concentric Fast*%", indicates the percentage of time that the exerciser was moving faster than the pathway guide during the concentric movement phase
- 21) 6th column, "Concentric Slow%", indicates the percentage of time that the exerciser was moving slower than the pathway guide during the concentric movement phase
- 22) 7th column, "*Concentric Skill%*", this column indicates the overall accuracy of the concentric phase



- 23) 8th column, "Amort High%", indicates the percentage of time that the exerciser was above the pathway guide during the amortization phase
- 24) 9th column, "Amort Low%", indicates the percentage of time that the exerciser was below the pathway guide during the amortization phase
- 25) 10th column, "*Amort Skill%*", this column indicates the overall accuracy of the amortization phase
- 26) 11th column, "*Eccentric Fast*%", indicates the percentage of time that the exerciser was moving faster than the pathway guide during the eccentric movement phase
- 27) 12th column, "*Eccentric Slow*%", indicates the percentage of time that the exerciser was moving slower than the pathway guide during the eccentric movement phase
- 28) 13th column, "*Eccentric Skill%*", this column indicates the overall accuracy of the eccentric phase
- 29) 14th column, "*Rest High*%", indicates the percentage of time that the exerciser was above the pathway guide during the rest phase



- 30) 15th column, "*Rest Low*%", indicates the percentage of time that the exerciser was below the pathway guide during the rest phase
- 31) 16th and last column, "*Rest Skill%*", this column indicates the overall accuracy of the rest phase

Information for all 16 columns is repeated for each repetition performed with a maximum of 99 repetitions per set.



PROGRAM MAINTENANCE TAB

The last tab on the right is the "**PROGRAM MAINTENANCE**" tab and is used to add, modify or delete custom exercise programs.

JGUIDE Version V2.1 Copyright(c) 2019 A2D Fitness Systems, Inc. Indexences Help	
TUP RUN RESULTS PROGRAM HADITEBARCE	
PROGRAM MAINTENANCE	
Programs: DEFAULT PROGRAM	
Program Name/Description:	
program vanie/ Description.	
seconos	
Concentric Duration: 4.00	
Amortization Phase: 1.00	
Eccentric Duration: 6.00	
Rest Between Reps: 2.00	
Reps To Complete:	
ADD DELETE	
Figure 16 – PROGRAM MAINTENANCE Tal	

1) To add a new user specific program, the first entry in the dropdown list box "DEFAULT PROGRAM", must be selected as seen in Fig 15. This will enable the "ADD" button. To add your new exercise program enter the the the of "Program name program in Name/Description" filed, next check the "Concentric *Movement is Downward*" if applicable, if checked this will invert the Y axis of the pathway making it more intuitive for exercises that move in a downward direction for the concentric phase



- Now select the desired time durations for each repetition movement phase, Concentric, Amortization, Eccentric and the Rest time between reps
- 3) You can set a specific number of repetitions to be performed of set the "*Reps To Complete*" to "*0*" zero which indicates that an Unlimited number of reps can be performed
- After setting all of the parameters as needed, click on the "SAVE" button

ccuGUIDE Version V2.1 Copyright(c) 2019 A2D Fitness Syn Preferences Help	ems, inc.	
ETTUP RUN RESULTS PROGRAM MAINTENA	α	
PROGRAM MAINTENANCE		
	DEFAULT PROGRAM -	
-		
Program Name/Description		
Concentric Movement is Downward		
Concentric Duration	SECONDS	
Amortization Phase		
Eccentric Duration		
Rest Between Reps	1.00 c	
Reps To Complete		
	SAVE DELETE	
	SAVE DELETE	

Figure 17 - Add New Exercise Program



AccuGUIDE Version V2.1 Copyright(c) 2019 A2D Fitness Systems, Inc.								
File Preferences Help SETTUP RUN RESULTS PROGRAM MAINTENANCE								
SETTUP RUN RESULTS PROGRAM MAINTENANC	L							
PROGRAM MAINTENANCE								
Programs:	My New Program							
Program Name/Description:	2 Up, 2 Hold, 3 Down 2 Up, 4 Down							
Concentric Movement is Downward:	2 Rest, 2 Raise, 0 Hold, 4 Lower 3 Rest, 3 raise, 3 Hold, 3 Lower							
Concentric Duration:	0.5 Rest, 3 Up, 2 Hold, 4 Down 0.5 Rest, 3 Up, 4 Down							
Amortization Phase:	4 Rest, 3 Raise, 2 Hold, 1 Lower							
Eccentric Duration:	0.5 Rest, 4 Up, 2 Hold, 7 Down 0.5 Rest, 4 Up, 7 Down							
Rest Between Reps:	My New Program 🔽							
	0=UNLIMITED							
Reps To Complete:	10							
	SAVE DELETE							
Figure 18 - New Exercise Program Added								

- 5) The "My New Program" has been added to the end of the available programs list, now you can select it at any time from the "SETUP" tab to set the exercise parameters as specified
- 6) To modify a program, simply select the program from the available programs list, make the required changes and then click the "SAVE" button



ETTUP RUN RESULTS PROGRAM MAINTENANC	CE
PROGRAM MAINTENANCE	
Programs:	My New Program
Program Name/Description:	My New Program
Concentric Movement is Downward:	♥ seconds
Concentric Duration:	3.50
Amortization Phase:	2.00
Eccentric Duration:	4.00
Rest Between Reps:	3.00 v o=unlimited
Reps To Complete:	
	SAVE DELETE

Figure 19 - Modify Existing Program

7) To delete a program, select the program from the available programs list and then click the "DELETE" button

NOTE: The "*DEFAULT PROGRAM*" cannot be deleted, but its program settings can be modified and saved if desired.



Calibration

AccuGuide must be calibrated to ensure accurate range measurements for all of the units' of measure, Millimeters, Centimeters and Inches. It is not required to calibrate the units of measure that will not be used, for example if you intend to only use the Millimeters unit of measure then calibrating Centimeters and Inches is not required, however it is recommended to calibrate all of the measurement units as it only takes a few minutes and it only needs to be done once.

To begin the calibration process, place the AccuGuide device next to some books with a ruler as shown below, make sure AccuGuide is connected to your computer or laptop, start the AccuGuide software and follow the steps below:





 From the "*Preferences*" menu, select the unit of measure that you would like to calibrate

AccuGUIDE V2.3 Copyright(c) 2020 A2D Fitness Systems, Inc.							
File Preferences Help							
SE	Set Range UOM	\checkmark	Millimeters	NANCE			
	Allow Multiple Sets		Centimeters				
			Inches				
	RANGE:	_	- 11	_	MAX:		
				J			

Figure 20 - Preferences Menu

 Next, from the "File" menu, select the "UOM Calibration Adjust" option

AccuGUIDE V2.2 Copyright(c) 2019 A2D Fitness Systems, Inc.						
File Preferences H	elp					
Calibration +	UOM Calibration Adjust					
Exit	UOM Calibration Factory Reset					
RANGE		MAX:				

Figure 21 - File Menu



 Now the current calibration value will be displayed with UP and DOWN adjustment arrows next to it

AccuGUIDE V2.2 Copyr		itness Systems, I	nc.	
File Preferences Help		RAM MAINTENA	NCE	
RANGE:	ľ	0	.9926 👤	MAX:

Figure 22 - Calibration Adjustment

- Click the *"START"* button to begin, make sure that the tether is at a comfortable stop against AccuGuide, click *"OK"* when prompted to move to the Start of the exercise
- 5) Next move the tether out to about 320mm if calibrating Millimeters, 32cm if calibrating Centimeters or 13 Inches if calibrating Inches and click "OK" when prompted to move to the Ending position. This measurement does not need to be precise
- Now return the tether to its starting position and click "OK" to begin receiving data from AccuGuide



7) Now move the tether to a precise position (we used 280mm) using the bottom of the rubber bumper rings as the marker and secure it into position, have someone hold it or you can use a piece of tape

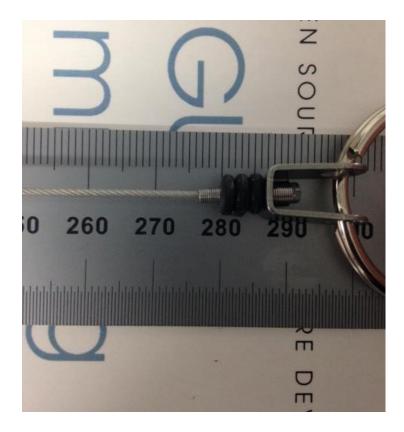


Figure 23 - Precise Calibration Measurement



- 8) Now click the UP/DOWN arrows (see Fig 22) to adjust the calibration value until the *"RANGE"* reading reads exactly 280mm or whatever measurement you used in Step 7
- 9) You can verify the reading by returning the tether to its starting position and then moving it to a different position on the ruler and checking the reading, adjust the calibration factor value as needed. As the measurement units are so small, it's okay to have a slight variance of a few units either way
- 10) When you are satisfied with the calibration, you should complete the same steps for the remaining un-calibrated Units Of Measure. You will first need to un-check the *"UOM Calibration Adjust"* option from the *"File"* menu so you can select another Unit Of Measure from the *"Preferences"* menu. You can then return to Step 1 and follow all of the steps for calibration
- 11) If you need to reset all of the calibration values to the factory settings, simply select "UOM Calibration Factory Reset", from the "File" menu, you can then re-calibrate again as needed



Allow Multiple Sets Option

The "Allow Multiple Sets" option can be used to default the Range-Of-Motion for the next exercise to be performed to the Range-Of-Motion that was determined by the previously completed exercise. This eliminates the need to specify the start and end position for the new exercise about to be performed. Program changes to the concentric and eccentric time parameters can be made before the start of the next set if required just as normal.

If multiple sets are required, first check the option in the "*Preferences*" menu. This option by default is un-checked.

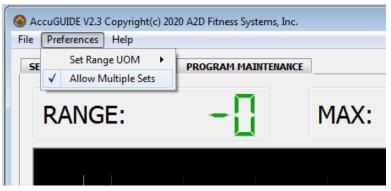


Figure 24 - Allow Multiple Sets Option

After checking the *"Allow Multiple Sets"* option the normal calibration process for the exercise must be first completed, moving to the *"Start Position"*, then the *"Ending Position"* and then back to the *"Start Position"*. Now, when the user completes the exercise and the *"STOP"* button is pressed, a button with *"NEXT SET"* will be shown in the bottom right corner of the display.

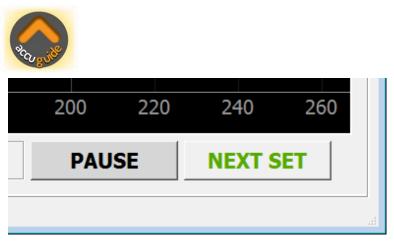
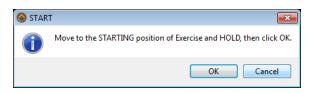


Figure 25 - Next Set Button

After completing the first exercise after the "Allow Multiple Sets" option has been set, the normal "START" button is replaced with the "NEXT SET" button. At this time changes to the exercise parameters can be changed as normal from the "SETUP" Tab if required, then to begin the next exercise (set), click the "NEXT SET" button and the following prompt will be displayed.



If the "Yes" option is selected, this will start the exercise (set). If "No" is selected then it is assumed that you do not want to use the previous calibration settings, you will again be asked for the exercise "Start Position", "END Position" as normal for a new exercise. If want to stop completely when there are no further sets or new exercises to be performed, click on the "Cancel" button in the "START" message window.





After each set, reports should be viewed and or printed as reports are reset at the start of each set as they are with exercises.

Warranty Policy

A2D Fitness Systems, Inc. (Company) warrants only to the purchaser (Customer) of the Product that the product will be free from defects in materials and workmanship under the normal use and service for which the Product was designed for a period of **12 months from the date of purchase** of the Product by the Customer.

Customer's exclusive remedy under this Limited Warranty shall be the repair or replacement, at Company's sole option, of the Product, or any part of the Product, determined by A2D Fitness Systems, Inc. to be defective. In order to exercise its warranty rights, Customer must notify Company in accordance with the instructions described under the heading "Obtaining Warranty Service".

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• If the Product was purchased directly from A2D Fitness Systems, Inc., please contact Customer Service at <u>info@a2dfitness.com</u> If the Product was purchased from any Third party; please contact them to arrange for a return.

For Technical assistance, please contact us at info@a2dfitness.com

A2D Fitness Systems Inc. will provide Customer and Technical assistance for as long as you own your AccuGuide System.



The latest User Manual (this document) can be found on our website <u>www.a2dfitness.com</u> from the "Downloads" page.

We recommend reviewing the entire document to ensure that you get the most from your AccuGuide System.

Thank you for using AccuGuide, should you have any questions please contact us at info@a2dfitness.com