

## ICOS ATC TEST LAB

**INSTRUCTION PROCEDURE** 

Ref.	ATC-NS-IN-PR-010						
Date	27/07/2023	Version	1.0				
Page	1	Nb Pages	4				

Document title: G2000 Serie (	Re-calculat G2301, G24	te the Wave Length 01)	Monit	or offset o	n a PICARRO				
Document History:									
Date	Version	Revision	Au	thors	Comments				
27/07/2023	1	0	Carole	Philippon	Creation				
Diffusion:									
🗆 ATC inte	□ ATC internal								
Repository:									
1. ATC Docur Directory "DOC	nent Managemei CUMENTATION_I	nt System: COS\ATC-Network Support	(NS)\PR	-Procedure"					
2. Webobs De	ocuments:								
Equipments > Model > CO/CO2/CH4/H2O Picarro Analyzer G2401 or CO2/CH4/H2O Picarro Analyzer G2301 > Documents									
Disclaimer:									
The contents of th copyrighted under or opinions preser ICOS.	is document (inc applicable law a nted herein are s	luding any attachments) ma and are intended solely for ι olely those of the author an	ay be pri use by th d do not	vileged, confid ne intended rec necessarily re	ential or ipient. Any views present those of				
Document appr	oved by:	Approval date:		Signature:	/				
C. Philippon		27/07/2023		Thillepar					



Ref.	ATC-NS-IN-PR-007						
Date	07/11/2018	Version	1.1				
Page	2	Nb Pages	4				

## Introduction

When a G2301 or G2401 reports negative or fixed (like 0.00) values, even after the procedure to reload the factory calibration of the Wave Length Monitor (wait at least 1 hour to see if the concentrations are still impacted), it may be necessary to re-calculate the Wave Length Monitor offset.



## Procedure

- 1. Make sure the instrument is measuring ambient air. This means the inlet of the analyzer open to room air and nothing connected to it (no dryer, no water trap...).
- 2. Make sure the instrument is warmed up, and measuring (doesn't matter if the values are off).
- 3. Create a backup of the following folders (located in C:\Picarro\G2000)
  - AppConfig
  - InstrConfig
  - HostExe
  - CommonConfig

)rganize 👻 Include in library 👻	Share with   New folder		) III 🔹 🛄	0
Favorites	Name	Date modified	Туре	
E Desktop	🍌 AppConfig	5/1/2018 7:33 PM	File folder	
🚺 Downloads	CommonConfig	5/1/2018 7:34 PM	File folder	
📃 Recent Places	DatViewer	4/30/2018 6:04 PM	File folder	
	🍶 HostExe	7/27/2023 5:57 AM	File folder	
Libraries	InstrConfig	5/1/2018 7:34 PM	File folder	
Documents	👗 Log	7/27/2023 1:32 PM	File folder	
J Music	installerSignature.txt	2/1/2017 9:11 PM	TXT File	
E Pictures	unins000.dat	4/30/2018 6:04 PM	DAT File	
Yideos	🔀 unins000.exe	4/30/2018 6:04 PM	Application	
Picarro CFKADS2301				
🏭 Picarro (C:)				
Vetwork				
	× [	m	1	



- 4. Go to the folder 'Diagnostics' on the Desktop, followed by the folder 'Integration'.
- 5. Launch the 'Integration Mode Switcher', make sure 'Integration' is selected. One of the Windows launched is the Picarro Controller.

Irganize 🔻 🔳 Open Sh	are with 🔻 New folder		•	
🕆 Favorites	Name	Date modified	Туре	
🧮 Desktop	😥 ConfigManager	4/30/2018 6:04 PM	Shortcut	
bownloads	😥 Configuration Tool	4/30/2018 6:04 PM	Shortcut	
🔛 Recent Places	EEPROM Access	4/30/2018 6:04 PM	Shortcut	
	😥 Integration Backup	4/30/2018 6:04 PM	Shortcut	
🖥 Libraries	😥 Integration ConfigManager	4/30/2018 6:04 PM	Shortcut	
Documents	😥 Integration Coordinator Launcher	4/30/2018 6:04 PM	Shortcut	
J Music	😥 Integration Mode Switcher	4/30/2018 6:04 PM	Shortcut	
E Pictures	😥 Integration Tool	4/30/2018 6:04 PM	Shortcut	
Videos	😥 Test Coordinator Launcher	6/20/2011 4:29 PM	Shortcut	
Picarro CFKADS2301 Picarro (C:)	Picarro Mode Switcher Picarro Mode	e Switcher		
🙀 Network	Select Measurement Mode	Launch	-	
	Copyrgitericano,	Inc. 1999-2023		

- 6. In the Cavity Ring-Down Spectrometer Controller, go to 'Interface' (top left), select 'Full' and enter the password: picarro
- 7. Click on 'Load Calibration', and select the following files:

Warmbox: Beta2000\_WarmBoxCal\_active.ini Hotbox: Beat2000\_HotboxCal.ini Both files are located in C:\Picarro\G2000\InstrConfig\Calibration

Interface Fi	le Parar	neters	Help												
Command/Log	Laser1	Laser2	Laser3	Laser4	WarmBox	HotBox	Pressure	Accelerometer	WavelengthMonitor	Ringdowns	ProcessedLo	ss Statistics	Shell		
Start	Engine	La La	aser 1 aser 3	Lase	er 2 er 4/SOA			Load Cali	bration	$\supset$		Stop	) Acquisiti	ion	
		V V	arm Box	V Hot	Box	W	/arm Box	Beta2000_WarmB	loxCal_active.ini						
Stream File		Hot Box		Beta2000_HotBoxCal.ini			Sequence CFKADS_mode: _CFKADS_v4.sch			ADS_v4.sch					
Log															
Seq	Date/Tim	ne		Source		Level	Code	Message							
73606	2023-07-27 13:34:46 RDFrequencyC			quencyC	L1	C-1	WLM Cal for virtual laser 1 done, angle per FSR = 0.0772, PZT sdev = 159.3'								
73607	2023-07	7-27 13:3	4:47	RDFre	quencyC	L1	C-1	WLM Cal for vi	rtual laser 2 done, ang	2 done, angle per FSR = 0.07989, PZT sdev = 44.5					
73608	2023-07	7-27 13:3	4:47	RDFre	quencyC	L1	C-1	WLM Cal for virtual laser 4 done, angle per FSR = 0.08096, PZT sdev = 137.6'							
73609	2023-07	7-27 13:3	4:47	RDFre	quencyC	L1	C-1	WLM Cal for virtual laser 5 done, angle per FSR = 0.07764, PZT sdev = 104.3'							
73610	2023-07	7-27 13:3	4:47	DataM	anager	L1	C-1	Limiting laser temperature adjustment step size to maxStep=0.000100, deltaOrig=-0.000280 delt				a:			
73611	2023-07	7-27 13:34:47 DataManager		anager	L1	C-1	Limiting laser temperature adjustment step size to maxStep=0.000100, deltaOrig=-0.000280 delt.			2					
73612	2023-07	7-27 13:3	4:47	DataM	anager	L1	C-1	Limiting laser temperature adjustment step size to maxStep=0.000100, deltaOrig=-0.000284 delt				2			
73613	2023-07	7-27 13:3	4:48	DataM	anager	L1	C-1	Limiting laser temperature adjustment step size to maxStep=0.000100, deltaOrig=-0.000284 delt							
73614	2023-01	7.77 12.2	4.40	DataM	ananer	1.1	C-1	Limiting lacer to	Limiting lacer temperature adjustment step size to mayStep =0.000100. deltaOrig =_0.000284. delt						

8. In the 'Integration' folder (see step 4), launch the 'Integration Tool'. Launching/starting this tool can take some time.



9. After the Picarro Integration Tool has launch, select 'Calculate WLM Offset'. The system now starts this procedure, depending on the instrument it can take up to 30 minutes. After completion, in the Picarro Integration Tool, in the white box is a message "WLM Offset Completed" (or similar).

Dicarro Integratio	n Tool	
Help	1001	
	Analyzer Information	
Analyzer	CHAS2K2100	
Name	C1A32K3100	· · ·
Mane Bas	3100-CFKADS2301	
Warm Box		
WLM		
Laser(s)		
Hot Box		
Cavity		
	Toba continue Tarat	
	Integration rest	
	Write Instrument Name	
	Make Integration INI Files	
	Calibrate WB Laser/WLM	
	Update Laser/WLM EEPROM	
	Create WB Cal Table	
	Run Calibrate FSR	
	Run Calibrate System	
$\sim$	Calculate WLM Offset	
	Run Threshold Stats	
	Run Flow Control	
	Write Software Version	
Config file specified UntegrationTool.ini	at command line:\CommonCon	fig\Config\Utilities
	Close	
	Close	
C	opyright Picarro, Inc. 1999-2011	· · · · · · · · · · · · · · · · · · ·

- 10. Close the Picarro Integration Tool.
- 11. Launch again the normal Picarro Gui, by using the 'Picarro Mode Switcher' on the desktop.