



## Calibration Certificate

Name & Address of Customer: Department of Central Pathology  
Government Medical College and Hospital

City: Purnia State: Bihar PIN: -----

Phone -----

E-mail -----

Name of Instrument: Astira (240/400)

Type: Random Access Fully Automatic Biochemistry Analyser

Serial No: 23ST240PCS0401

Calibration Date: 11/09/2024

Next Calibration Due: 10/09/2025

This is to certify that above said instrument has been validated of hardware calibration for Filters, Aspiration, and Temperature & Lamp according to the procedures provided by Q-line Biotech India

This calibration is carried out by using Standard Operating Procedures (S.O.P.) provided by Q-line Biotech India, shown in the attachment.

These instruments conform to CE-IVD & EU directives of use. Calibration carried out on site by: - **Mr Pradyuman Nath Gupta**

### Signature & Stamp

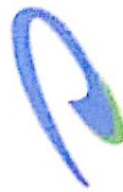
Name of Engineer/ Application Specialist: -Ajit Mohan Dubey

Asst. Sr. Manager Application

POCT Services



Encls. - SOP of Validation/Calibration along with data.



## Validation / Calibration - SOP

### Astira

- ❖ Power Supply Measure Input power Supply Voltage: 229 V (230 V AC  $\pm$  10 V)  
Check Earthling: 2.2 V (0 - 5 V)
- ❖ Ambient temperature: 26° C (10 - 35 ° C )

### Cuvette blank Check

- ❖  $\rho$  340nm  $\rho$  405nm  $\rho$  505nm  $\rho$  546 nm  $\rho$  578 nm  $\rho$  620 nm  $\rho$  660 nm  $\rho$  700 nm
- ❖ The light check value shall be less than or equal to 18000.

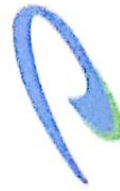
Filter	Cuvette blank Check (8000-Range 18000)	Status
340	15003	Pass
380	14190	Pass
405	14384	Pass
450	13134	Pass
480	12883	Pass
505	12674	Pass
546	12472	Pass
570	12339	Pass
600	12231	Pass
660	12031	Pass
700	11930	Pass
800	11757	Pass



## Light Intensity Check

The light check value shall be less than or equal to 18000.

Filter	Light Intensity check (< 18000)	Status
340	15334	Pass
380	14531	Pass
405	14700	Pass
450	13398	Pass
480	13123	Pass
505	12856	Pass
546	12649	Pass
570	12495	Pass
600	12365	Pass
660	12136	Pass
700	11990	Pass
800	11729	Pass



### Reagent Calibration of the Instrument

Customer is advised to verify the hardware calibration by reagent calibration. Use Calibrator for the calibration of all parameters.

User can do the same & attach the results in separate sheet with factors after verifying the same with Level 1 & level 2 controls. All control values should fall within acceptable range.

Data sheets of the same should be attached along with this document.

- Switch Off the instrument.
- Ensure all the Recommended Spares / Consumables have been replaced. (if not done during PM and required)
- Clean the instrument.
- Close the cover.

Test Name	QC Range Level 1	Obtained Value	QC Range Level 2	Obtained Value
Albumin	3.06(2.53-3.63)	3.03	4.68(3.84-5.52)	4.9
ALP	158(130-189)	162.8	271(222-320)	273.8
ALT	47.4(38.9-55.9)	46	134(109.9-158.1)	135.9
AMY	82(67-97)	88	239(196-282)	243.3
AST	47.4(38.9-55.9)	47.2	129.5(106.2-152.8)	136.9
CALCIUM	8.68(7.63-9.71)	8.9	11.76(10.35-13.17)	11.79
CHOLESTROL	116(99-133)	116.8	157(133-181)	164.7
CREATININE	0.72(0.58-0.85)	0.8	2.72(2.23-3.21)	2.5
TRIG.	101(85-117)	79.2	188(158-218)	189.2

Recommended Spares for replacement: NIL

We hereby certify that Validation have been carried out under the MOU. Hardware Calibration of Lamp, Filters & Temperature has been done successfully.



Please perform the standardization / Calibration and verify by evaluating controls before processing patient samples.

Next Calibration is due on: 10/09/2025

Signature of Application Specialist

Place

Date

A handwritten signature in black ink is written over a circular stamp. The stamp contains the text "POCT SERVICES" around the top edge, "Lucknow" in the center, and "U.P. INDIA" around the bottom edge. There is also a small star symbol at the bottom of the stamp.

Free license (non-professional use). Start trial license or buy.

**stira** Analyzer Status: 37.0° C Stand-by...

C-MS

Function Guide

- Sample
- Result
- Reagent
- Cal.
- QC
- Setting
- Manage
- Maintain
- Monitor

cuvette blank, light intensity

cuvette blank test  light intensity check

maintain cuvette blank  test cuvette blank

Cuvette No.	340	380	405	450	480	505	546	570	600	660	700	800	Test Date	Test Time
1	15003	14190	14384	13104	12983	12647	12472	12339	12231	12031	11930	11757	2024-09-11	9:37:08
2	145	152	151	147	148	143	139	135	134	140	132	124	2024-09-11	9:44:23
3	674	641	639	624	629	619	606	602	597	580	569	548	2024-09-11	9:37:35
4	5	4	7	0	0	-5	-6	-5	-11	-8	-14	-22	2024-09-11	9:44:31
5	-79	-67	-64	-61	-57	-54	-57	-55	-53	-49	-46	-42	2024-09-11	9:32:01
6	-7	0	13	15	21	20	21	24	19	27	23	21	2024-09-11	9:41:11
7	-18	-19	-20	-20	-17	-20	-22	-22	-25	-26	-26	-26	2024-09-11	9:38:38
8	-126	-128	-127	-119	-111	-110	-106	-101	-102	-102	-99	-91	2024-09-11	9:45:51
9	125	129	137	141	153	154	156	165	165	168	167	167	2024-09-11	9:39:00
10	-128	-125	-120	-112	-100	-96	-92	-86	-88	-76	-72	-62	2024-09-11	9:36:23
11	11	8	9	13	21	22	25	26	26	30	29	31	2024-09-11	9:29:26
12	-69	-69	-62	-56	-44	-42	-39	-34	-37	-25	-19	-12	2024-09-11	9:36:52
13	-128	-133	-129	-119	-110	-108	-101	-98	-98	-86	-82	-77	2024-09-11	9:40:09
14	80	68	69	61	65	62	55	55	46	43	41	34	2024-09-11	9:47:25
15	-110	-115	-112	-105	-100	-99	-96	-95	-92	-93	-94	-93	2024-09-11	9:40:38
16	-29	-40	-39	-37	-31	-34	-35	-32	-35	-22	-28	-31	2024-09-11	9:47:53
17	-32	-50	-50	-49	-44	-44	-45	-43	-43	-34	-31	-30	2024-09-11	9:41:08
18	82	76	77	78	84	85	86	85	84	97	96	91	2024-09-11	9:48:23

Dirty Cuvette  The absolute value of the difference compared with the first cuvette blank is bigger than 1500

Print Execute End Maintenance Quit

Sendng Test Pause Stop system offine Help Log out

2024-09-11 10:30 Wed. Astira (Operator)

Very hot weather Now

Free license (non-professional use). Start trial license or buy.

**Astira**  
C-MS

Analyzer Status 37.0°C Stand-by...

2024-09-11 10:30 Wed.  
Astira (Operator)

Function Guide

- Sample
- Result
- Reagent
- Cal.
- QC
- Setting
- Manage
- Maintain
- Monitor

cuvette blank, light intensity

cuvette blank test  light intensity check

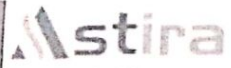
	240	300	435	450	480	505	540	570	600	660	700	800	Test Date
1	15289	14952	14891	13354	13326	12844	12652	12502	12356	12119	11980	11719	2024-09-10
2	15334	14931	14702	13368	13127	12858	12649	12495	12366	12136	11990	11729	2024-09-11
3													2024-09-11

List  Current  Difference between two times

Print Execute End Maintenance Quit

32°C  
Accuracy Cloudly

Search



G-MS

Analyzer Status: 37.0° C Testing is completed. Adding water to cuvette

Sample Disk Status: Testing 1 disk.

2024-09-11 12:58 Wed. Astira Operator

Function Guide

Daily QC

- Sample
- Result
- Reagent
- Cal.
- QC
- Setting
- Manage
- Maintain
- Monitor

	QC name	QC lot No	Item name	sample type	result	IC Effective Dat	tries	target value	SD	esult/stat	Unit	Date	Time
1	ELITROL-1	01-1200	AGR	Serum	2.09		1	0	0			2024-09-11	09:58:59
2	ELITROL-1	01-1200	ALB	Serum	3.03	2025-03-31	1	3.08	0.27		g/dL	2024-09-11	09:58:59
3	ELITROL-1	01-1200	ALP(DEA)	Serum	162.8	2025-03-31	1	158	14		U/L	2024-09-11	09:58:59
4	ELITROL-1	01-1200	ALT	Serum	33.8	2025-03-31	1	43.2	4.35	< -3SD	U/L	2024-09-11	09:58:59
5	ELITROL-1	01-1200	ALT	Serum	46	2025-03-31	2	43.2	4.35		U/L	2024-09-11	11:48:09
6	ELITROL-1	01-1200	AMY	Serum	55.5	2025-03-31	1	62	7.5	< -3SD	U/L	2024-09-11	09:58:59
7	ELITROL-1	01-1200	AMY	Serum	88	2025-03-31	2	82	7.5		U/L	2024-09-11	11:48:09
8	ELITROL-1	01-1200	AST	Serum	47.2	2025-03-31	1	47.4	4.25		U/L	2024-09-11	09:58:59
9	ELITROL-1	01-1200	BUN	Serum	18.35		1	0	0			2024-09-11	09:58:59
10	ELITROL-1	01-1200	CALCIUM	Serum	8.9	2025-03-31	1	8.67	0.52		mg/dL	2024-09-11	09:58:59
11	ELITROL-1	01-1200	CHOL	Serum	116.3	2025-03-31	1	116	3.5		mg/dL	2024-09-11	09:58:59
12	ELITROL-1	01-1200	CHOL:HDL RAT	Serum	4.38		1	0	0			2024-09-11	09:58:59
13	ELITROL-1	01-1200	CREAT(Jaffe)	Serum	0.8	2025-03-31	1	0.72	0.065	> +1SD	mg/dL	2024-09-11	09:58:59
14	ELITROL-1	01-1200	DEIL	Serum	0.9	2025-03-31	1	1.36	0.16	< -2SD	mg/dL	2024-09-11	09:58:59
15	ELITROL-1	01-1200	GLOB	Serum	1.45		1	0	0			2024-09-11	09:58:59
16	ELITROL-1	01-1200	GLUCOSE	Serum	91.8	2025-03-31	1	91.5	6.85		mg/dL	2024-09-11	09:58:59
17	ELITROL-1	01-1200	HDL-C	Serum	26.69	2025-03-31	1	29	2.5		mg/dL	2024-09-11	09:58:59
18	ELITROL-1	01-1200	LDH	Serum	64.1	2025-03-31	1	161	14.5	< -3SD	U/L	2024-09-11	11:48:09
19	ELITROL-1	01-1200	LDL:HDL RAT	Serum	3.71		1	0	0			2024-09-11	09:58:59
20	ELITROL-1	01-1200	LDL-C	Serum	99.1	2025-03-31	1	63	4.5	> +3SD	mg/dL	2024-09-11	09:58:59
21	ELITROL-1	01-1200	LDL-C	Serum	65	2025-03-31	2	63	4.5		mg/dL	2024-09-11	12:40:48
22	ELITROL-1	01-1200	LIPASE	Serum	48	2025-03-31	1	44	6.5		U/L	2024-09-11	09:58:59
23	ELITROL-1	01-1200	TEIL	Serum	1.6	2025-03-31	1	1.75	0.16		mg/dL	2024-09-11	09:58:59
24	ELITROL-1	01-1200	TP	Serum	4.48	2025-03-31	1	4.81	0.29	< -1SD	g/dL	2024-09-11	09:58:59
25	ELITROL-1	01-1200	TRIG	Serum	79.2	2025-03-31	1	101	8	< -2SD	mg/dL	2024-09-11	09:58:59

History Data Query Print Reaction Curve QC Chart Edit QC Refresh QC Report  
Query Condition: Q: Date = 2024-09-11; QC Name = ELITROL-1; QC Lot No. = 01-1200

send LIS results Close

Standby Time Left 00:04:28

Sending Test 
 Pause 
 Stop 
 System Offline 
 Help 
 Log out



Free license (non-professional use). Start trial license or buy.

**Stira** C-MS  
 Analyzer Status: 37.0° C Testing is completed. Adding water to cuvette  
 Sample Disk Status: Testing 1 disk.  
 2024-09-11 12:59 Wed. Astira (Operate)

**Function Guide**

- Sample
- Result
- Reagent
- Cal.
- QC**
- Setting
- Manage
- Maintain
- Monitor

**Daily QC**

	QC name	QC lot No.	item name	sample type	result	IC Effective	Dot times	target value	SD	esult stats	Unit	Date	Time
1	ELITROL-2	02-2210	AGR	Serum	2.38		1	0	0			2024-09-11	09:58:59
2	ELITROL-2	02-2210	ALB	Serum	4.9	2026-01-31	1	4.63	0.42	g/dL		2024-09-11	09:58:59
3	ELITROL-2	02-2210	ALP (DEA)	Serum	273.8	2026-01-31	1	271	24.5	U/L		2024-09-11	09:58:59
4	ELITROL-2	02-2210	ALT	Serum	135.9	2026-01-31	1	134	12.05	U/L		2024-09-11	09:58:59
5	ELITROL-2	02-2210	AMY	Serum	241.3	2026-01-31	1	239	21.5	U/L		2024-09-11	09:58:59
6	ELITROL-2	02-2210	AST	Serum	136.9	2026-01-31	1	129.5	11.65	U/L		2024-09-11	09:58:59
7	ELITROL-2	02-2210	BLN	Serum	57.17		1	0	0			2024-09-11	09:58:59
8	ELITROL-2	02-2210	CALCIUM	Serum	11.79	2026-01-31	1	11.76	0.70	mg/dL		2024-09-11	09:58:59
9	ELITROL-2	02-2210	CHOL	Serum	164.7	2026-01-31	1	157	12	mg/dL		2024-09-11	09:58:59
10	ELITROL-2	02-2210	CHOLMOLRAT	Serum	4.25		1	0	0			2024-09-11	09:58:59
11	ELITROL-2	02-2210	CREAT (Jaffe)	Serum	2.5	2026-01-31	1	2.72	0.24	mg/dL		2024-09-11	09:58:59
12	ELITROL-2	02-2210	DCIL	Serum	3.4	2026-01-31	1	3.78	0.93	mg/dL		2024-09-11	09:58:59
13	ELITROL-2	02-2210	GLOB	Serum	2.06		1	0	0			2024-09-11	09:58:59
14	ELITROL-2	02-2210	HCL-C	Serum	38.73	2026-01-31	1	40	2.5	mg/dL		2024-09-11	09:58:59
15	ELITROL-2	02-2210	LDL-MOLRAT	Serum	3.88		1	0	0			2024-09-11	09:58:59
16	ELITROL-2	02-2210	LDL-C	Serum	190.2	2026-01-31	1	93	7	> +3SD mg/dL		2024-09-11	09:58:59
17	ELITROL-2	02-2210	LDL-C	Serum	115.9	2026-01-31	2	93	7	> +3SD mg/dL		2024-09-11	11:48:09
18	ELITROL-2	02-2210	LDL-C	Serum	91.7	2026-01-31	3	93	7	mg/dL		2024-09-11	12:40:48
19	ELITROL-2	02-2210	LIPASE	Serum	82.1	2026-01-31	1	119	18	< -2SD U/L		2024-09-11	09:58:59
20	ELITROL-2	02-2210	TBL	Serum	6.9	2026-01-31	1	6.46	0.58	mg/dL		2024-09-11	09:58:59
21	ELITROL-2	02-2210	TP	Serum	6.56	2026-01-31	1	7.07	0.42	g/dL		2024-09-11	09:58:59
22	ELITROL-2	02-2210	TRIG	Serum	189.2	2026-01-31	1	170	15	mg/dL		2024-09-11	09:58:59
23	ELITROL-2	02-2210	UREA	Serum	122.34	2026-01-31	1	114.5	8.6	mg/dL		2024-09-11	09:58:59
24	ELITROL-2	02-2210	URIC ACID	Serum	9.49	2026-01-31	1	10.65	0.8	< -1SD mg/dL		2024-09-11	09:58:59
25	ELITROL-2	02-2210	VLDL	Serum	38		1	0	0			2024-09-11	09:58:59

History Data Query    Print    Reaction Curve    QC Chart    Send LIS results    Close

Query Condition: Qc Date = 2024-09-11 ; QC Name = ELITROL-2 ; QC Lot No. = 02-2210

Standby Time Left 00:03:33

Send Test    Pause    Stop    System Off    Help    Log out

Breaking news PM Modi Inaugu...

Windows taskbar with Start button, Search, and system tray icons.

13:00 11-09-2024