

SAMSUNG



HERA Z20 Quick Guide



1. Probe and Preset

Patient	LM2-18	СМV1-10 👕	EV2-12	CV1-8A	
Probe	Default	User			
	Abdomen	GYN	OB	Urology	Probe App. Order
Report	Abdomen	Uterus	1st Trimester	Prostate	
	Renal	Adnexa	2nd Trimester	Bladder	
SonoView	Bowel	Penetration	3rd Trimester		Overwrite
->	Aorta		NT		Reset
			Fetal Heart		
Utility			1st FetalHeart		
			Biopsy		
			•		Quick Preset Edit

* 5D Limb Vol.^M can be operated under the following conditions :

Probe	Application
CV1-8A	All OB presets
CMV1-10	* Select proper preset regarding to fetal gestational age.

★ Tips

To display EFW based on A Vol. or T Vol., set the EFW Author of fetal weight equation to [Lee1] or [Lee2] in the setup.

*For instructions, refer to the appendix of this manual

2. Activate 5D Limb Vol.™ (Before 3D Acquisition)





1	3D Button	Press [3D] button on the control panel.
2	5D Ready	Tap [5D] to activate 5d features.
3	5D Limb Vol.	Tap [5D Limb Vol.] to activate 5D Limb Vol.
4	Preset	Select preferred preset between default and users. Each 5D feature can have its own preset parameters.
6	Parameters	3D scan [Angle] and [Quality] are customizable. * Recommended 3D scan angle 2 nd Trimester : 40-45 Early 3 rd Trimester : 55-65 Late 3 rd trimester : 70-Max Angle
6	Image acquisition	Scan the upper arm or thigh of fetus.

★ Scan Acquisition Tips

- · Adjust image depth to fill at least two thirds of the screen.
- · Optimize gain to enhance limb soft tissue borders.
- · Adjust size and position of 3D ROI to include the entire limb (bone + soft tissue).
- Breath hold during 3D sweep to reduce motion artifact.
- Obtain volume acquisition when fetus is not moving.

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5D Limb Vol.™

3. Activate 5D Limb Vol.™ (After 3D Acquisition)



1	Image acquisition	Scan the upper arm or thigh of the fetus.
2	5D Quantifications	Tap to activate 5D features.
3	5D Limb Vol.	Tap to activate [5D Limb Vol.].





4. Bone Editing





1	Limb Type	Select limb type between arm (AVol) or leg (TVol).
2	Skip	To skip bone editing process, tap [Skip].

★ Tips

In case of using [Skip] on this progress, next two step which are [Bone Editing] and [Limb Seed Selecting], should be done for more accurate result.





Bone Editing (Optional) If you do not skip [Bone Editing], place the arrow on the middle of bone and [Set]. HERA Z20

5D Limb Vol.™

5. Bone Editing and Limb Seed



1	Bone Editing	Re-measure by clicking on both ends of the bone if auto caliper placement is incorrect.
2	Limb Seed	Draw two perpendicular lines on the transverse limb, starting with the longest axis, then press [Auto Contour] or [Manual Contour].



AutoContour	Locate and measure the volume of fetal limbs automatically.
ManualContour	Locate and measure the volume of fetal limbs manually by using contour tool.

\star Tips

Slices of a 3D image will be displayed as images rendered in 3D. You may select ★ [Slab 3D] type among Surface, Xray, Max and Min.

6. Result and Edit



	3D rendered limb image and volume
Result	data will be provided at the bottom
	right.



2 Edit Type	When edit is needed, select proper type of edit among [Adjustment], [Redrawing] and [Revert Adjustment].
Assign to Report	Tap to apply the calculated result including Limb Vol. and EFW to the report.

7. 5D Limb Vol.™ Result in Report

20240523-4			Na	ame	51				
2024-05-23									
2023-12-21	GA(Clin)	22w	0d	EDD(GA)		2024-09-26	Pctl.	Criteria	EDD(GA)
15w6d	EDD(AUA)	202	4-11-07	Composi	te GA	Average			
AVol)	l ee1	16	7 a	607	20	24-11-03	16w4d		
TVol)	Lee2	9/	la la	307	20	24-11-21	14w0d		
try									
			2	3				GA	
1.75	cm	1.75			Last	Hadlo	ck	15w1d±10	d
3.07	cm	3.07			Last	Hadlo	ck	15w5d±90	d
12.51	cm	12.51			Last	Hadlo	ck	18w1d±15	d
10.06	cm	10.06			Last	Hadlo	c <mark>k</mark>	14w5d±80	d
		8.80	9.40	9.40	Last				
9.40	IIII								
9.40 9.40	ml	8.80	9.40		Last				
9.40 9.40	ml	8.80	9.40		Last				
9.40 9.40 ons 0.8	ml	8.80	9.40 06 ~1.25]		Last	ampbell			
9.40 9.40 ons 0.8	ml 0	8.80	9.40 06 ~1.25))	Last Ca	ampbell			····;
9.40 9.40 ons 0.8	ml 0	8.80 (1.	9.40 06 ~ 1.25)	2	Last	ampbell			
9.40 9.40 ons 0.8	0 167	8.80 (1.	9.40 06 ~1.25) 1 163	2	Last	ampbell 3 167			
	2024-05-23 2023-12-21 15w6d AVol) ,TVol) 1.75 3.07 12.51 10.06	2024-05-23 2023-12-21 GA(Clin) 15w6d EDD(AUA) AVol) Lee1 TVol) Lee2 1.75 cm 3.07 cm 12.51 cm 10.06 cm	2024-05-23 2024-05-23 15w6d EDD(AUA) 202 AVol) Lee1 16 TVol) Lee2 94 17y 1.75 cm 1.75 3.07 cm 3.07 12.51 cm 12.51 10.06 cm 10.06	2024-05-23 GA(Clin) 22w0d 15w6d EDD(AUA) 2024-11-07 AVol) Lee1 167 g ,TVol) Lee2 94 g try 1 2 1.75 cm 1.75 3.07 cm 3.07 12.51 cm 10.06	2024-05-23 Composition 2023-12-21 GA(Clin) 22w0d EDD(GA) 15w6d EDD(AUA) 2024-11-07 Composition AVol) Lee1 167 g 602 ,TVol) Lee2 94 g 302 try 1 2 3 1.75 cm 1.75 3.07 12.51 cm 12.51 10.06	2024-05-23 Composite GA 2023-12-21 GA(Ctin) 22w0d EDD(GA) 15w6d EDD(AUA) 2024-11-07 Composite GA AVol) Lee1 167 g 6oz 20 ,AVol) Lee2 94 g 3oz 20 try 1 2 3 1 1.75 Last 3.07 cm 3.07 Last 12.51 Last 10.06 Last	2024-05-23 Clinic Composite GA 2024-09-26 15w6d EDD(AUA) 2024-11-07 Composite GA Average AVol) Lee1 167 g 6oz 2024-11-03 ,AVol) Lee2 94 g 3oz 2024-11-21 try 1 2 3 1.75 Last Hadloo 3.07 cm 3.07 Last Hadloo 12.51 Last Hadloo 10.06 cm 10.06 Last Hadloo Last Hadloo	2024-05-23 Entry Entry ST 2023-12-21 GA(Clin) 22w0d EDD(GA) 2024-09-26 PctL 15w6d EDD(AUA) 2024-11-07 Composite GA Average PctL AVol) Lee1 167 g 6oz 2024-11-03 16w4d ,TVol) Lee2 94 g 3oz 2024-11-21 14w0d try 1 2 3 1.75 cm 1.75 Last Hadlock 3.07 cm 3.07 Last Hadlock 12.51 cm 12.51 Last Hadlock 10.06 cm 10.06 Last Hadlock 10.06	2024-05-23 Composite GA Average 2023-12-21 GA(Clin) 22w0d EDD(GA) 2024-09-26 Pctl. Criteria 15w6d EDD(AUA) 2024-11-07 Composite GA Average Pctl. Criteria AVol) Lee1 167 g 6oz 2024-11-03 16w4d ,TVol) Lee2 94 g 3oz 2024-11-21 14w0d try 1 2 3 GA 15w1d±10 3.07 cm 3.07 Last Hadlock 15w5d±9r 12.51 cm 12.51 Last Hadlock 15w5d±9r 10.06 cm 10.06 Last Hadlock 14w16±15

1 Report

Limb volume and EFW(Estimated Fetal Weight) calculated by limb volume obtained will be displayed.

* Appendix – Assign EFW table

	General Menu	Application	Applicatio	on Options AutoCald	: Tables			
	Preset General	* +		Description				
Measurement				Growth			EFW	
			*			*	EFW1	Lee1
Report			•			*	EFW2	Lee2
			•			•		
BodyMarker			•				EFW1(GA)	Shinozuka
							EFW2(GA)	Shinozuka
							EEW/1 Descentile	Hadlock
					Hadlock		CFW1 Percentile	Hellisma
Connectivity							CFW2 Percentile	wittiams
Connectivity	APAD			APAD			EFW1 Measure Sequence	BPD
							(Lee1)	
			•					AVol
							Composite GA Author	
	FID Set All Authors To	Hansmann		TID Set All Authors To	Hansmann		composite GA Aution	
							Average	

		Go to [Measurement] in the setup,
1	Assign	Setup \rightarrow Measurement \rightarrow Author \rightarrow
	Author	EFW→ EFW1, EFW2
		Assign [Lee1] or [Lee2] for the EFW table

EFW1 EFW2	Lee1	•
EFW2	1 2	
	Leez	Ŧ
EFW1(GA)	Shinozuka	
EFW2(GA)	Shinozuka	
EFW1 Percentile	Hadlock	
EFW2 Percentile	Williams	
EFW1 Measure Sequence (Lee1)	BPD	
	AVol	

🛨 Tips

To display EFW based on AVol. or TVol., set the EFW Author of fetal weight equation to [Lee1] or [Lee2].

- [Lee1] is calculated by BPD, AC and AVol.
- [Lee2] is calculated by BPD, AC and TVol.

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- Do not distribute this internal document to customers unless relevant regulatory and legal affairs officers approve such distribution.
- This product is a medical device, please read the user manual carefully before use.
- This document is provided to help you understand the feature.
- This User Quick Guide is based on HERA Z20 V1.00.
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