## SAMSUNG





### V series Quick Guide



Produced by Clinical Training Center / SAMSUNG MEDISON CO.,LTD

### 1. Default StressEcho protocol

Protocol	View	Stage
Two Stage Exercise Stress	PLAX, PSAX, A4C, A2C	Rest, Peak
Three Stage Bicycle Stress	PLAX, PSAX, A4C, A2C	Rest, Peak, Post
Four Stage Pharmacological Stress	PLAX, PSAX, A4C, A2C	Stage 1 - 4
Diastolic Stress	MV-PW, TDI, LVOT-PW, TR, PSAX-BASE, PSAX-Mid, PSAX-APEX, 4CH, 2CH, MR	Baseline, Legs UP, 25W, 50W, 75W, 100W, 125W, REC2, REC5, REC10
Dobutamine Stress	PLAX, PSAX, 4CH, APLAX, 2CH, MV-PW, TDI, LVOT-PW, TR-CW	Baseline, 5, 10, 20, 30, 40, Atropine, Recovery

#### **★**Tips

The default protocols cannot be deleted or transferred to external storage media. In addition, once the default protocol is revised, it cannot be save with the same name.

### 2. Probe and Preset

🥒 PA1-5A	EA2-11AR	🦨 LA2-14A	🦨 CA1-75	
		Default User		
Abdomen	Pediatric	Vascular	1) Cardiac	Thoracic
Abdomen	Ped Abd	Carotid	Adult Echo	Lung
Renal	Neo Head	Arterial	Ped Echo	
Bowel	Ped Hip	Venous	Aortic Arch	
Aorta				

\* Available application and preset

Application	Cardiac
Probe	PA1-5A
Mode	2D/Color/PW/CW

### 3. StressEcho protocol Set up (1)



	After entering patient information, press [StressEcho] button on
54 03520110	the touch screen to enter protocol screen.

#### Tips

In order to set up of protocol, patient information is mandatary.

StressEcho

### 3. StressEcho protocol Set up (2)

Protocol		(1)					
Two Stage E:		$\checkmark$	Setup	Auto Assign Captu Auto Next Stage C	ire Unit:Beats, 1 apture Method : Prospective		
	PLA	x in	РЭАХ	, .	A4C	A2	c
Rest							
Peak							
	Start/Continue	End Protocol	Release	Release All			Close

STRESS1			✓ NEW	Delete			
Template							
	(4)					Capture	
(5)	$\sim$	PLAX 🔫	PSAX ·	• A4C •	A2C 🔫		
Rest		1	2	3	4	Beats	
	-					Beats	
Stage2			10			Beats	
Stage3		13	14	15	16	Beats	
Rest	E		18	19	20	Beats	
3							
3							
3. Grid	St	age Viet	<i>w</i>	Capture Method			
Grid	St				Retrospective		
Grid		5 — +	<i>w</i>	Capture Method			
Grid	Option	s — +	× 4 — +	Capture Method Prospective Timer	Retrospective		
Grid	Option	5 — +	× 4 — +	Capture Method	Retrospective		

Click the [Setup] button at the monitor
screen.
Click the combo button to select the protocol to modify or press the New button. You can set up a new protocol by selecting [New].
Set the number of views and stages with +, - button.
Select or input the name of each view.
Select or input the name of each stage.
<ul> <li>Go to 'Select Cine' after [Continuous Capture] per stage.</li> <li>After acquiring images using [Continuous Capture] in each stage, the Cine Selection screen appears.</li> <li>Go to Review Screen after end of protocol.</li> <li>After all images are assigned, the Review screen appears.</li> </ul>

## 3. StressEcho protocol Set up (3)

Template         PLAX <th <th<="" th=""><th>Ur 2 Cy</th><th>apture nit ycle/ me</th><th>Select Beats / Time. Select the image acquisition interval. (Beats: 1 - 4, Time: 2 - 4)</th></th>	<th>Ur 2 Cy</th> <th>apture nit ycle/ me</th> <th>Select Beats / Time. Select the image acquisition interval. (Beats: 1 - 4, Time: 2 - 4)</th>	Ur 2 Cy	apture nit ycle/ me	Select Beats / Time. Select the image acquisition interval. (Beats: 1 - 4, Time: 2 - 4)
Grid       Stage       View       Capture Method         S       -       +       4       -         Additional Options       Imer       Retrospective       Retrospective         Go to "Select Clne" after continuous capture per stage       Show Protocol Timer (T1)       Show Stage Timer (T2)         Go to Review Screen after end of acquisition       Show Stage Timer (T2)       Show Stage Timer (T2)		apture ethod	<ul> <li>Select the video acquisition.</li> <li>Prospective: The image after that is saved based on the time when the save button is pressed.</li> <li>Retrospective: The previous image is saved based on the time when the save button is pressed.</li> </ul>	
	Tir	mer	<ul> <li>On screen timer display settings.</li> <li><u>Show Protocol Timer(T1)</u>: Displays the protocol record time.</li> <li><u>Show Stage Timer(T2)</u>: Displays the current stage's time record.</li> </ul>	

StressEcho

### 3. StressEcho protocol Set up (4)

STRESS1         NEW         Delete           Template         Captura Unit. Cycluminet.         Auto Show Auto Continuas Cine Autopin Reference. Next Stage Capture Preview PLAX         PSAX         + A4C         + A2C         +         +         1         2         3         4         Beets         +         1         + <th>1</th> <th>Auto Assign</th> <th>Once images are acquired, they are automatically assigned each stage and view.</th>	1	Auto Assign	Once images are acquired, they are automatically assigned each stage and view.
Stage2       9       10       11       12       Beats       + 1       +         Stage3       13       14       15       16       Beats       + 1       +         Rest       •       17       18       19       20       Beats       + 1       +         Grid       Stage5       •       Cuburs Method       -       +       +       +         Grid       Stage       Vew       Cuburs Method       Retrospective       -       +	2	Show Reference	The same view of previous stage will be displayed in dual window as a reference image. This can only be used if the 'Auto assign' is selected.
Additional Options So to Select Cine after continuous capture per stage Show Stage Timer (T2) Show Stage Timer (T2) Control Control Contro	6	Auto Next Stage	When last view of the current stage is assigned, the next stage will be processed automatically.
Auto Auto Continuous Cine Assign Reference Next Stage Capture Preview	4	Continuous Capture	Acquires and saves images continuously, and then later assigns on the Cine Selection screen.
	5	Cine Preview	Shows previews of acquired images before save.
	6	Save as	Press [Save As] and enter a new protocol name to create.
	•	Apply & Exit	Apply any changes made in the Protocol

Apply & Exit Template editor and exit the screen.

StressEcho

### 4. Start StressEcho protocol

Patient   Worklist   O/R   Auto ID Creation   + New Patient   Study Information   Abdomen   Kine   Cine   Study Information   Abdomen   Kine   Cine   Study Information   Big: Physician   Register   SondSync	(1					
Patient   Worklist   Worklist   Q/R   Q/R   Auto ID Creation   + New Patient   Start EzCam+   Aotra   SonoSync   DiCOM Destination   oup 1   Set   Begitter   Start ExClam   Aotra ID   SonoSync   DiCOM Destination   oup 1   Set   Begitter   Start ExClam   Acces 15   ADD   None   2021 0714   Vaccher 1302   None   2021 0714   Adomen   Start Exam   Start Exam   Acces 15   ADD   None   2021 0714   Adomen   Vaccher 1302   None   2021 0714   Adomen   Start Exam	Patient	Patient ID	Last Name	Date of Birth	Indication	
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O/R     None       Auto ID Creation     Abdomen       + New Patient     Accession No.       Start EzExam+     Internet       Aotion     None       SonoSync     None       DiCOM Destination     Register       0011     Search       Patient ID     Patient ID       DiCOM Destination     Patient ID       0012     Search y Patient ID       Patient ID     Patient ID       Patient ID     Patient ID       None     2021 07.14       Vacciaria     None       2021 07.14     Candiac       None     2021 07.14       Vacciaria     None       2021 07.12     Abdomen	10.00					
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SoneSync DiCOM Destination oup 1 Set SoneJitar Begitter Set t Etzian+ Acta • • • • • • • • • • • • • • • • • • •	Auto ID Creation					
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SondSync     Ref. Physician       SondSync     Operator       DICOM Destination     F       ptitent ID     Patient ID       Patient ID     Patient ID       Patient ID     Patient ID       Patient ID     Patient ID       Patient ID     Patient Name       DicOM Destination     F       F     None       DBMO     None       VIS OAE 15     None       ADD     None       ADD     None       2021071410147     Cardiac       2021071410147     Abdomen       20210712101914     None	Start EzExam+		Weight		Diag. Physici	
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	tocol					
3)	Two Stage Exercise Stress>New 🔹		Auto Assign Capture Unit Auto Next Stage Capture			
	Two Stage Exercise Stress	PSAX		44C	A	2C
	Three Stage Bicycle Stress					
	Four Stage Pharamacological Stress					
	Diastolic Stress					
	Dobutamine Stress					
	Two Stage Exercise Stress>New					
	Peak					
	Start/Continue End Protocol	Release	Release All	Cine Selection		Close

1	Patient	Input patient Information.
2	Start Exam and StressEcho	Tap the [Start Exam] button and StressEcho on the touch screen.
3	Protocol	When you press the combo button, a list of the protocol appears. Select preferred protocol to begin.
4	Start/ Continue	Press [Start/Continue] button to start the protocol. The screen will switch to diagnosis mode.

#### StressEcho

## 5. Acquire images (1)



Press the [Store Clip] button on the control panel to acquire images for each view and stage. A matrix box that indicates a StressEcho image acquisition is displayed on the left side on the screen.

To change a stage and acquire images, press the key of indicator on the control panel and click the next stage at the matrix. \* In case [Auto Next Stage] is selected in the template, it will be advanced to the next stage automatically in the Matrix.

#### Tips

- Matrix indicates steps of StressEcho image acquisition.
- It displays StressEcho images by aligning them with view on the horizontal axis and stage on the vertical axis.

Acquire

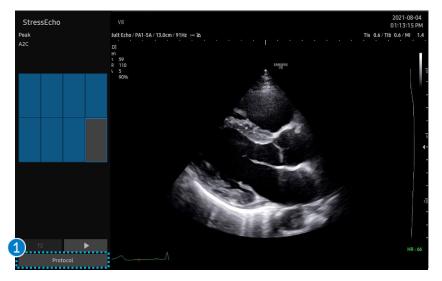
Next stage

• The grid turns to blue, when the image acquisition is completed.

[Matrix]

#### StressEcho

## 5. Acquire images (2)



Puch

20 StressEcho ECG
Harmonic
S-Harmonic
S-Harmonic
Side by side
Side by side
Strandard
Str

After acquiring all stage images, press Protocol [Protocol] button using pointer key or Screen [StressEcho] on the touch screen. It goes to protocol screen.

#### **★**Tips

You can 'image assign' at the end of each stage, but most of them do image assignment after scanning because the stressEcho test is complicated.

**StressEcho** 

## 6. Assign images





	Select Stage	Select a stage. It displays the acquired StressEcho images by stage.
	Select mage	Select images from thumbnail list. Currently selected image is highlighted in blue.
3 4	Assign	Assign proper view of image to the template by Set button. Complete image assignment for each stage.
<b>4</b> R	Release	You can switch to another image from thumbnail. Click the picon on the top right corner or press the [Release] or [Release All].

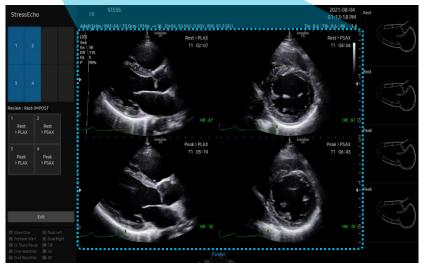
**★**Tips

In case [Auto assign] is selected, images will be automatically assigned. When it necessary to switch image from thumbnail, you can also switch the image manually.

StressEcho

### 7. StressEcho Image review (1)

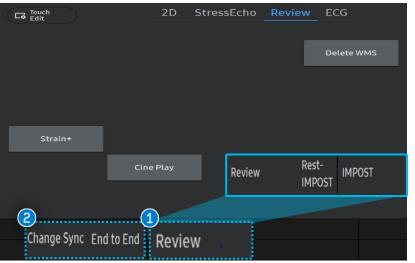




<ul><li>Select</li><li>image</li></ul>	Select image from stress echo image area.
2 Review	Press [Review] button. It goes to review screen.

## 7. StressEcho Image review (2)





Select Review image

Change

sync

If you want to review another images, just click on the Matrix with pointer key or turn the [Review] button at the bottom of the touch screen.

Cine loops can be synchronized and play. There are 4 types of Change Sync.

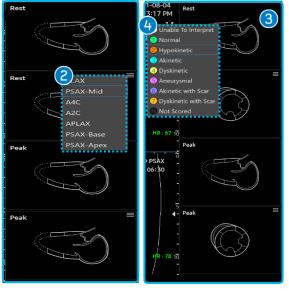
- Normal: Each original cine loops are played.
- Long: 4 cine loops are played based on a cine loop having longest among the 4 cine images.
- Short: 4 cine loops are played based on a cine loop having shortest among the 4 cine images.
- End to End: It synchronizes the beginning and end of the 4 cine loops and plays.

StressEcho

### 8. Wall motion scoring



1	WMS	Click the E (Select WMS View) icon using the trackball and the [Set] button.
2	Select a view	Select the view that you want to enter WMS.
3	Select a segment	Select a segment that you want to enter WMS using the trackball and the [Set] button. The score menu will be appeared.
4	Score Value	Select a score value from the pop-up menu. Segment's score and color will be displayed in each segment.



## 9. Report review

ID		N	lame	
Date of Bi	rth(Age)	Gender	Exam Date	2021-08-04
Indicatior	1			
Diag. Phys	sician	Ref. Physician	Operator	
Index	Segment		Rest	Peak
1	Basal Anterior		0	0
2	Basal Anteroseptal		1	4
3	Basal Inferoseptal		0	0
4	Basal Inferior		0	0
5	<b>Basal Inferolateral</b>		3	4
6	<b>Basal Anterolateral</b>		0	0
7	Mid Anterior		1	4
8	Mid Anteroseptal		2	5
9	Mid Inferoseptal		3	3
10	Mid Inferior		1	4
11	Mid Inferolateral		7	5
12	Mid Anterolateral		3	3
13	Apical Anterior		0	0
14	Apical Septal		0	0
15	Apical Inferior		0	0
16	Apical Lateral		0	0
17	Арех		0	0
	WMS Sum		21	32
	WMS Index		2.63	4.00

1 Report	Tap the [Report] button on touch screen. All result of StressEcho will be displayed.
2 Print	You can print the Report page.
3 Export	You can export the Report file.

# [Appendix] Continuous Capture (1)

Two Stage Exer	cise Stress	٠						
Template Rest • Peak •		PSAX		A4C 3 7	A2C 4 8	Cept Beat Beat		Nor Auto Costraco Cre Prevez Next Stag
	Stape 2 — + tions leect Cine' after contin view Screen after end		tage	Capture Method Prospective Timer Show Protocol Ti Show Stage Time			Save As	Apply & Exit Cancel

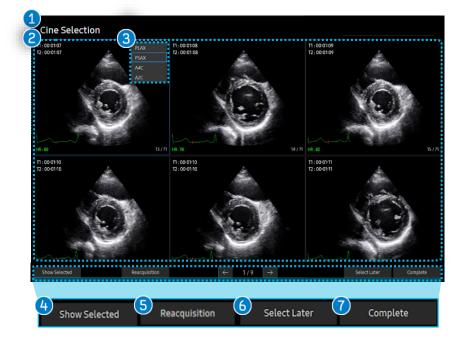


Capture Setup	In order to use [Continuous Capture] tick a box and press [Apply & Exit]. <i>* StressEcho → Template Editor</i>
Continuous Capture	Press the [Play] icon S below the Matrix. *Continuous capture is only available when EKG is connected. ** It stored all cine data per beat, allowing you to assign the displayed images to each stage and view.
Capture Status	When the continuous capture starts, the capacity bar that indicates stored image than maximum capability will be increased in number. When it reaches 100%, cine storing will be automatically stopped and it will bring you to the page of [Cine Selection].

You can pause or end current stage by icons below the capacity bar .

End Stage

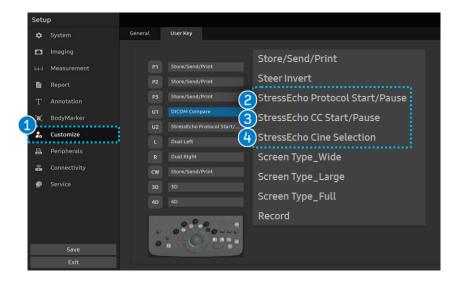
## [Appendix] Continuous Capture (2)



1	Cine Selection	When the capacity bar hits 100% or [End Stage] is pressed, it automatically displays [Cine Selection] with current stage.
2	Review image	Review acquired images that are automatically played.
3	View Assignment	Pick a image for each view and select name of view corresponding the image.
4	Show Selected	It only displays the selected images.
6	Reacquisition	Whole acquired images will be deleted and new acquisition will begin.
6	Select later	It saves the all acquired images and you can resume the images later in "Protocol".
7	Complete	Finishes assigning the images for the current stage. There are three options in [Complete]; Deleted, Remain and Cancel. * If you want to delete all images except selected cine, tap on the [Delete].

**StressEcho** 

### [Appendix] Assign to Userkey



1	Customize	You can customize the StressEcho User key in Setup. ■ Setup → Customize → Userkey
2	Protocol Start/Pause	StressEcho Protocol Start/Pause.
3	CC Start /Pause	Continuous Capture Start/Pause. (Acquires and save images continuously)
4	Cine Selection	Enter Cine Selection screen directly.

Tips

Cine Selection is only available when "Continuous capture" is being used.

- The features, options may not be commercially available in some countries.
- Sales and shipments are effective only after the approval by the regulatory affairs. Please contact your local sales representative for further details.
- This Quick guide does not include all of the details of instruction, fore more detail, please refer to V series User Manual.
- Do not distribute this document to customers unless relevant regulatory and legal affairs officers approve such distribution.
- This User Quick Guide is based on V series V1.05.
- Disclaimer: Some Images in this content were obtained from other system.

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