

FUJIFILM Mammography QC Program

For digital mammography with superior quality and reliability

FUJIFILM Mammography QC Program is a dedicated quality control (QC) program applicable to the both FCR and FDR mammography system based on IEC61223-3-2 Ed. 2.0.

This QC program enables quantitative measurements, visual inspections and functional checks on the entire mammography system through the installation test, followed by daily/weekly, quarterly, semi-annual and annual tests.

This program provides the ability to detect gradual changes in the entire mammography system before potential problems occur and thus enables the system to keep a stable image quality for both screening and diagnostic mammography.

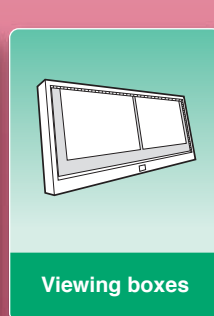
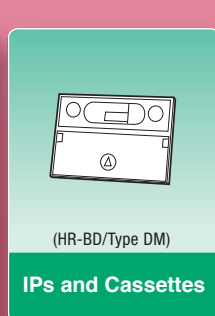
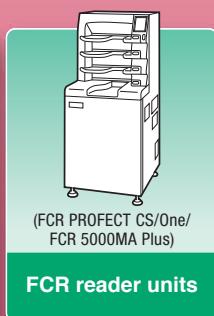


1Shot Phantom M Plus

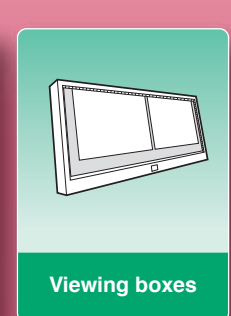
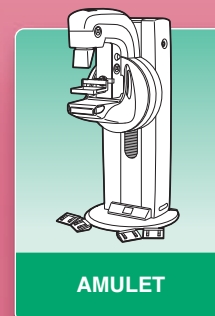
MAMMOASCENT AWS-c, FUJI COMPUTED RADIOGRAPHY CR Console and FUJIFILM Mammography Workstation FCR-1000AWS are required each independent Mammography QC Software and Mammography QC Program as options.

Equipment covered by this QC program

■ FCR Mammography QC Program with AWS-c/Console



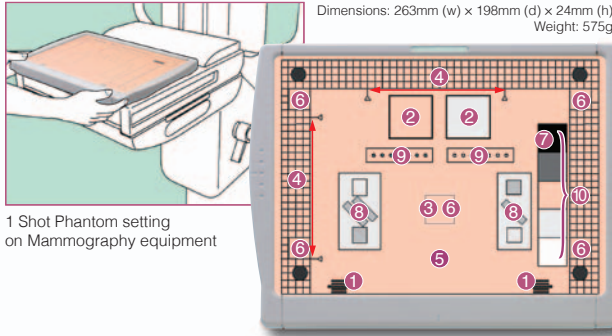
■ FDR Mammography QC Program with AWS



The program consists of the exclusive "FCR 1 Shot Phantom M Plus" and the "Mammography QC Software/Guidebook."

1 With "FCR 1 Shot Phantom M Plus," a daily quantitative test can be performed on 10 test items with a single exposure, enabling wide-ranging analysis of the system in a relatively short time.*

*Approximately 10 minutes in the FUJIFILM laboratory, compared with 5 hours (approx.) using the procedures described in the IEC standard.



1 Shot Phantom setting on Mammography equipment

Test items of 1 Shot Phantom

- 1 Missed tissue at chest wall side
- 2 CNR
- 3 System sensitivity
- 4 Geometric distortion
- 5 System artifact (the whole image)
- 6 Uniformity
- 7 Dynamic range
- 8 Spatial resolution
- 9 LCD
- 10 Linearity/Beam quality

2 The "Mammography QC Software," designed for performing periodic QC, data analysis and managing the QC test log, is installed on the CR Console, AWS-c or AWS that is part of the FUJIFILM mammography system.



1 Shot Phantom image on CR Console



Calculated QC result of 1 Shot Phantom



Test log data on CR Console

3 The "FUJIFILM Mammography QC Program Guidebook" provides instructions on full procedures for quality control, technical explanations and other information necessary for this QC program.

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QC test items covered by FUJIFILM Mammography QC program

Installation test <i>(Only for FCR System)</i>	<ol style="list-style-type: none"> S value confirmation Inter Plate (IP) variation IP fog in storage area 	Quarterly test	Repeat analysis
Daily/Weekly test	<ol style="list-style-type: none"> Test with 1 Shot Phantom <ul style="list-style-type: none"> Missed tissue at chest wall side Contrast to noise ratio (CNR) System sensitivity constancy Geometric distortion System artifact Uniformity Dynamic range Spatial resolution (SR) Low contrast detectability (LCD) Linearity/Beam quality assessment 	Semi-annual test	<ol style="list-style-type: none"> S value confirmation Compression device confirmation Viewing box maintenance
	<ol style="list-style-type: none"> Test with ACR phantom Good practice (Cleaning) <ul style="list-style-type: none"> Mammography X-ray equipment IP/Cassettes Diagnostic monitors Viewing boxes 	Annual test	<ol style="list-style-type: none"> Image performance test <ul style="list-style-type: none"> Additive lag effects (Lag) Multiplicative lag effects (Ghosting) Missed tissue at chest wall side (40mm in height)* Visual and functional tests Spatial resolution test (Magnification) X-ray equipment performance test <ul style="list-style-type: none"> kVp accuracy and reproducibility Half value layer (HVL) Collimation assessment Radiation output AEC system performance test <ul style="list-style-type: none"> AEC density control function AEC reproducibility CNR exposure mode n AGD exposure mode n

Test items evaluated by 1 Shot Phantom
To perform the entire program, other measuring equipment and jigs in addition to 1 Shot Phantom are required.

Applicable for :
 1. FCR reader unit and IP/Cassette type with CR Console or AWS-c workstation
 • FCR PROTECT CS/One (50m/pixel image) IP: HR-BD, Cassette: Type DM
 • FCR 5000MA Plus (50m/pixel image) IP: HR-BD, Cassette: Type DM
 2. FDR Amulet with AWS workstation

* This test is only required in limited countries/areas. Comply with local regulations/guidelines.

Specifications and PC requirements are subject to change without notice. All brand names or trademarks are the property of their respective owners. Not available in the United States.