

Manual Supplement Rev. 3 for QA-ES III Electrosurgical Analyzer Getting Started Manual (Rev. 1)

Manual Title:	QA-ES III Getting Started	Supplement Issue:	3
Part Number:	4473063	Date:	5/21
Print Date	December 2015	Page Count:	6
Revision/Date:	1		


This supplement contains information necessary to ensure the accuracy of the above manual.

About This Manual Supplement

This document is a manual supplement against the QA-ES III Getting Started Manual (Rev. 1 | 12/15). This document acts as an erratum to the original manual. Any changes detailed in this document reflect the most up-to-date information about the product.

Change #1, 781, 248

On page 2, add the following to the **Symbols** table:

	Conforms to relevant South Korean EMC Standards.
---	--

On page 17, under **Electromagnetic Compatibility (EMC)**, add:

Korea (KCC).....Class A Equipment (Industrial Broadcasting & Communication Equipment)

Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.

Change #2, 18

On page 4, under **Safety Information**, add these warnings:

- The chassis ground of the ESU must be tied to the Ground Lug (Item 12 on Figure 1) of the QA-ES III using one of the safety leads, provided as a standard accessory, during all testing for ESUs with operating frequencies >1 MHz.
- The ESU and QA-ES III must be plugged in to the same power receptacle.
- Do not exceed 2-meter power leads for both the ESU and the QA-ES III.

- Avoid connecting the ESU and/or QA-ES III to power strips with long power leads or into tables fitted with outlets (that also have long power leads).
- Stay clear of the ESU, its leads, and the QA-ES III during powered operation and testing.

Change #3, J252

Starting on page 51, replace the *Technical Specification* section through the **HF Leakage Current** sub-section with:

Technical Specifications

Specifications apply for a period of one year from date of the most recent calibration.

Measures.....Cut and coag waveforms
 Monopolar and bipolar outputs

Power and current measurements.....true RMS

Bandwidth30 Hz to 5 MHz at -3 dB including loads

Delay Time for single measurements0.2 seconds to 4.0 seconds from Foot Switch activation to start of measurement

Duty Cycle

Variable Load10 seconds on, 30 seconds off, at 100 W, all loads
 Fixed 200 Ω Load10 seconds on, 30 seconds off, at 400 W

Load Bank

Load Resistance

2500 – 2900 Ω	1kHz – 3000 kHz
4200 – 4300 Ω	1kHz – 1800 kHz
4600 – 5100 Ω	1kHz – 1800 kHz
All other settings	1kHz – 1000 kHz

System Bandwidth.....3 MHz at -3 dB including loads (2 MHz for 10 Ω setting)

Power

Ranges.....0.0 W to 99.9 W
 100 W to 500 W

Accuracy.....< 10 W: $\pm 5\% + 1\text{ W}$, 10 W: $\pm 5\%$

Current

RMS0 mA to 5,500 mA

Accuracy..... $\pm(2.5\%$ of reading + 1 mA)

Voltage

Peak10 kV Peak to Peak

Accuracy..... $\pm(10\%$ of reading + 50 V)

Crest Factor.....1.4 to 16.0

Defined as the ratio of Peak voltage to RMS voltage (V_{pk} / V_{rms}), using the larger of the 2 peaks (positive or negative)

Vessel Sealing Measurement

Loop Current, RMS0 mA to 5500 mA

Accuracy $\pm(2.5\%$ of reading + 1 mA)

HF Leakage Current

Fixed Load	200 Ω
Load Accuracy	$\pm 2.5\%$
Power rating	400 W
Additional Fixed Load.....	200 Ω
Current, RMS	0 mA to 5500 mA
Accuracy.....	$\pm(2.5\%$ of reading + 1 mA)
Bandwidth	1 kHz – 6.5 MHz, $\pm 5\%$, 1 kHz – 10 MHz, -3 dB

Change #4, CK 5/7/21

Under **Technical Specifications**, which starts on page 51, change the following bandwidth spec:

From:

Bandwidth 30 Hz to 5 MHz at -3 dB including loads

To:

Bandwidth..... 3 MHz at -3 dB including loads (2 MHz for 10 Ω setting)