Overview
The 773230 validation document for SMARTDAC+ applies to advanced security option (option code /AS) models of the SMARTDAC+ GX/GP Series Paperless Recorders and the SMARTDAC+ GM Data Acquisition System. It is a structured format (model) of the protocol for validating installation, configuration, and main functionality. Use of this document in combination with your operating policies and procedures should make things easier for you or your validation staff.

Contents
The following 3 documents are included.
- Installation/Configuration/Function Verification Protocol for the Yokogawa SMARTDAC+ Paperless Recorder GX10/GX20/GP10/GP20/GX60
- Installation/Configuration/Function Verification Protocol for the Yokogawa SMARTDAC+ Data Acquisition System GM
- Installation/Function Verification Protocol for the Yokogawa SMARTDAC+ STANDARD PC Application Software

Installation/Configuration/Function Verification Protocol for the Yokogawa SMARTDAC+ Paperless Recorder GX10/GX20/GP10/GP20/GX60
Applicable Models
- SMARTDAC+ GX10/GX20/GP10/GP20
- SMARTDAC+ GX60/GM90MB/GM90PS
- SMARTDAC+ GX90XA/GX90XD/GX90WD/GX90YD/GX90XP/GX90YA/GX90EX

Installation Test
- Confirmation of the availability of all hardware, firmware, and documentation
- Requirements for the basic operating environment of the GX/GP
- Verification of the basic components of the SMARTDAC+ GX/GP and their installation, including storage media and Ethernet connection

*1 The objective of this installation test is to validate the factory default settings set on instruments. Please implement the actual settings that you will use in the target environment after performing the installation test, and before performing the configuration test and the functional test.

Configuration Test
- Configuration Table
- Verification of the configuration of the GX/GP

Functional Test
- Audit Trail
- Logical Security
- Data Acquisition, Calibration Correction, Electronic Signature, and Data Retrieval
- Computation Function
- Alarm Function (including Alarm Relay and E-mail Notification)
- Remote Control Function
- Simulated Power Failure during Data Acquisition
- Analog Output Function

Installation/Configuration/Function Verification Protocol for the Yokogawa SMARTDAC+ Data Acquisition System GM
Applicable Models
- SMARTDAC+ GM10
- SMARTDAC+ GX60/GM90MB/GM90PS
- SMARTDAC+ GX90XA/GX90XD/GX90WD/GX90YD/GX90XP/GX90YA/GX90EX

Installation Test
- Confirmation of the availability of all hardware, firmware, and documentation
- Requirements for the basic operating environment of the GM
- Verification of the basic components of the SMARTDAC+ GM and their installation, including storage media, Ethernet connection, and Web application

*2 The audit trail function validation is completed upon validation of the audit trail function of the SMARTDAC+ STANDARD software function validation.

*3 If validations are required other than those included in this document (such as Modbus communications, and custom displays), please consult with your validation administrator. Note that the following operation modes and functions do not support the advanced security function:
- High speed measurement mode; dual interval mode;
- and PID control.

*4 The objective of this installation test is to validate the factory default settings set on instruments. Please implement the actual settings that you will use in the target environment after performing the installation test, and before performing the configuration test and the functional test.
Configuration Test
• Configuration Table
• Verification of the configuration of the GM

Functional Test *7
• Audit Trail *5
• Logical Security
• Data Acquisition, Calibration Correction, and Data Retrieval *6
• Computation Function
• Alarm Function (including Alarm Relay and E-mail Notification)
• Remote Control Function
• Simulated Power Failure during Data Acquisition
• Analog Output Function

*5 The audit trail function validation is completed upon validation of the audit trail function of the SMARTDAC+ STANDARD software function validation.

*6 Verification of retrieval of acquired data is completed under “Opening Data Files” in the functional test for the SMARTDAC+ software.

*7 If validations are required other than those included in this document (such as Modbus communications, and custom displays), please consult with your validation administrator. Note that the following operation modes and functions do not support the advanced security function:
High speed measurement mode; dual interval mode; and PID control.

Installation/Function Verification Protocol for the Yokogawa SMARTDAC+ STANDARD PC Application Software

Applicable Models
• SMARTDAC+ STANDARD Universal Viewer
• SMARTDAC+ STANDARD Hardware Configurator

Installation Test
• Confirmation of the availability of all hardware, software, and documentation
• Requirements for the basic operating environment of the SMARTDAC+ STANDARD
• Verification of SMARTDAC+ STANDARD installation

Functional Test *8
• Opening Data Files
• Electronic Signature
• Printing Data Files
• Converting files to Excel or ASCII Format
• Checking and Editing Hardware Settings
• Hardware Configurator communication function
• Verification of Audit Trail Function

*8 If validations are required other than those included in this document, please consult with your validation administrator.

PC System Requirements

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Intel x64 or x86 processor that is equivalent to Intel Pentium 4, 3 GHz or faster</td>
</tr>
<tr>
<td>Main memory</td>
<td>2 GB or more</td>
</tr>
<tr>
<td>Hard disk</td>
<td>200 MB or more of free space</td>
</tr>
<tr>
<td>Printer</td>
<td>A4/Letter sized paper or larger</td>
</tr>
<tr>
<td>Operating System (OS)</td>
<td>Microsoft Windows 7 Home Premium/7 Professional SP1 32-bit/64-bit, Windows 8.1/8.1 Pro update 32-bit/64-bit, or Windows 10 Home/10 Pro x86 (32-bit)/x64 (64-bit)</td>
</tr>
<tr>
<td>Application Software</td>
<td>Microsoft Office Word 2007 or later</td>
</tr>
</tbody>
</table>

Model Code

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>773230</td>
<td>Validation Document for SMARTDAC+</td>
</tr>
</tbody>
</table>

Delivered Format

A license sheet is provided that contains the license key required for installation. The validation document (install program) is available for download at the following URL:
Installed documents are in Microsoft Office Word format.

Trademarks

SMARTDAC+ is a registered trademark of Yokogawa Electric Corporation.
Other company and/or product names used herein are registered trademarks or trademarks of their respective companies.
The company and product names used in this document are not accompanied by the registered trademark or trademark symbols (@ and ™).

All Rights Reserved. Copyright © 2017, Yokogawa Electric Corporation
GS 04L51801-77EN June 26, 2017-00
Subject to change without notice.