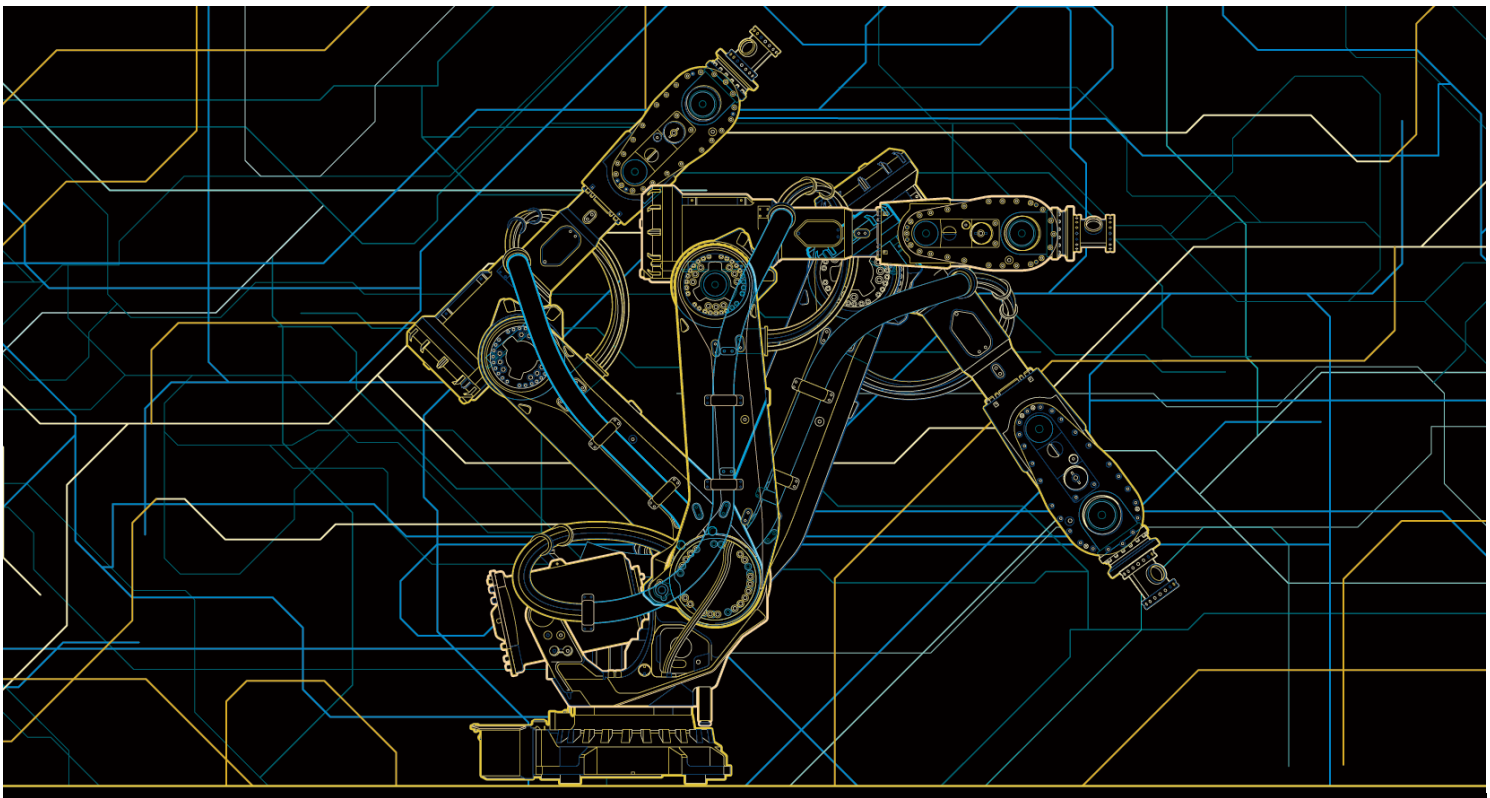

Application manual
Programming ABB RPC S-series Integrated Power Source

Power and productivity
for a better world™

Trace back information:
Workspace RW 6-0 version a3
Checked in 2014-11-11
Skribenta version 4.1.349

Application manual

Programming ABB RPC S-series Integrated Power Source

RobotWare 6.0

Document ID: 3HAC050970-001

Revision: -

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Table of contents

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Overview of this manual

About this manual

This manual contains information on how to:

- Create and operate jobs.
- Edit parameters.
- Read power source information and execute advanced functions.
- Backup and restore of XML files.

Usage

This manual is intended to be used for:

- Programming
- Maintenance

Who should read this manual?

This manual is intended for:

- Robot programmers
- Maintenance personnel

Prerequisites

The reader must be familiar with:

- Industrial robots and the relevant terminology.
- System parameters and how to configure them.

References

Reference	Document ID
Application manual - Arc and Arc Sensor	*3HAC050988-001*
Introduction and Safety - Arc Welding Products	*3HAC050981-001*
Technical reference manual - System parameters	*3HAC050948-001*
Technical reference manual - RAPID Instructions, Functions and Data types	*3HAC050917-001*

Revisions

Revision	Description
-	Released with RobotWare 6.0.

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1 Safety

1.1 Safety

Safety of personnel

A robot is heavy and extremely powerful regardless of its speed. A pause or long stop in movement can be followed by a fast hazardous movement. Even if a pattern of movement is predicted, a change in operation can be triggered by an external signal resulting in an unexpected movement.

Therefore, it is important that all safety regulations are followed when entering safeguarded space.

Safety regulations

Before beginning work with the robot, make sure you are familiar with the safety regulations described in the manual *Operating manual - General safety information*.

1.2 Safety for arc welding

Safety instructions for arc welding

Safety instructions can be found in the manual *Introduction and Safety - Arc Welding Products* for all steps that involve risk of personal injury or material damage. In addition, they are included in the instructions for each step.

General warnings, where the intention is to avoid problems, are only included in the instructions.

WARNING

All personnel working with the welding robot system must have a full understanding of the applicable safety instructions.

2 Integrated Power Source application

2.1 Overview

Supported power sources

Integrated Power Source is an administrative interface for power sources in the FlexPendant. The following power sources are compatible with the Integrated Power Source:

- RPC Synergic 300
- RPC Synergic 400
- RPC Synergic 500

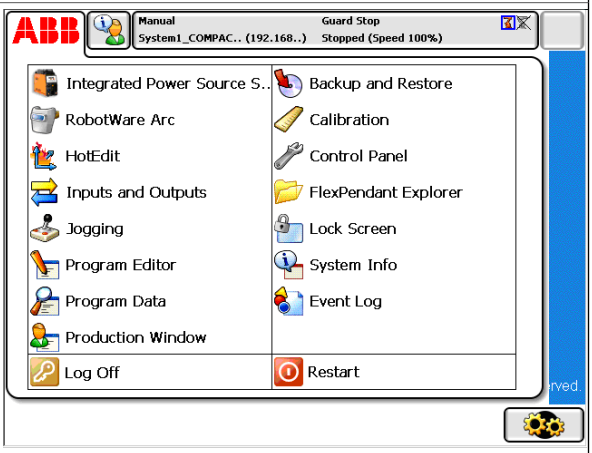
Firmware requirements

Integrated Power Source can only work with the power source of required firmware:

- Panel version : 5A8 or later
- Robot Interface version : 9A7 or later

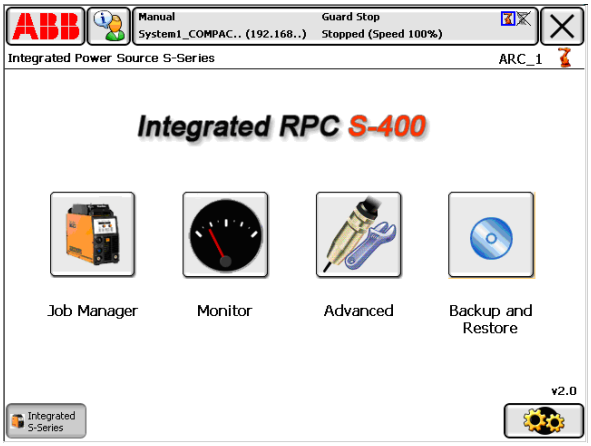
2.2 Starting Integrated Power Source

Starting the Integrated Power Source program tool

	Action	Info
1	Tap the **ABB** menu.	
2	Tap **Integrated Power Source S-Series**.	 en1000001318

Integrated Power Source start window

Once the program is loaded, the start window of Integrated Power Source is displayed (a desktop with icons). The power source functions can be accessed from this window.



en1000001319

2.3 Active arc welding system

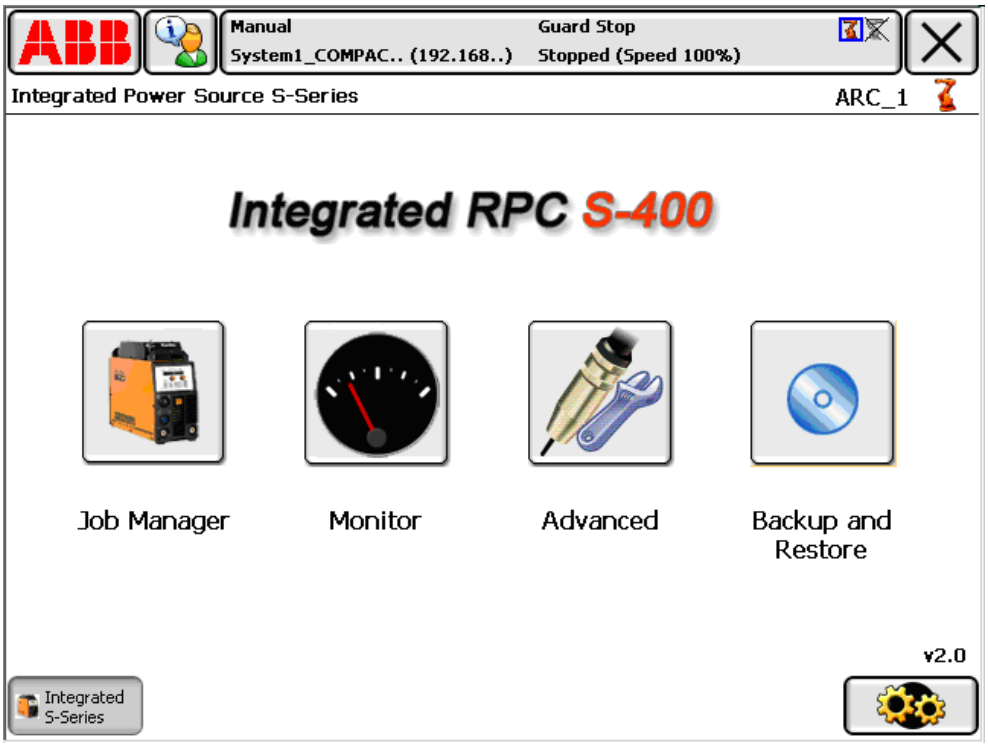
General

The selection of the AW system determines which equipment is active when manual operations (Gas On, Manual Wire feed, Editing jobs) are executed.

For information on how to change active arc welding system, see *Selecting arc welding system on page 23*.

Active power source information

The name of the active arc welding system is indicated in the upper right-hand corner. The Integrated Power Source supports up to four robots and each robot can have one RPC S-Series power source.



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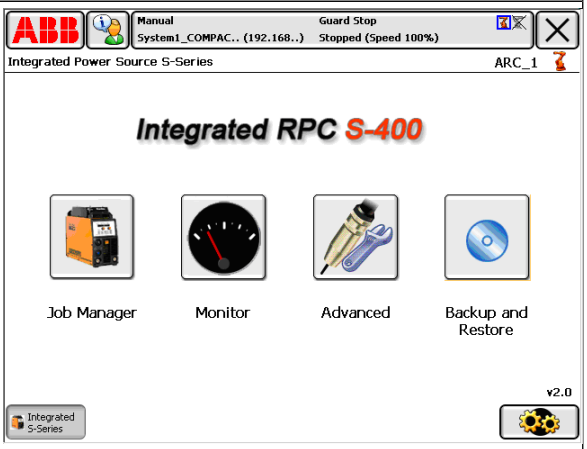
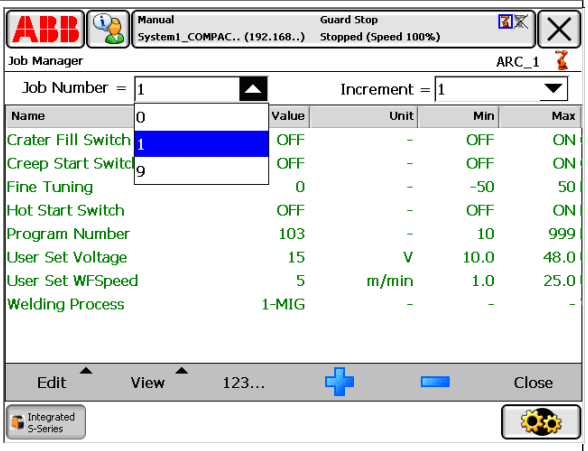
3 Integrated Power Source application details

3.1 Job Manager

3.1.1 The Job Manager view

Opening the Job Manager view

	Action	Info/illustration
1	Tap the **Job Manager** button in the start window to open the **Job Manager view**.	 en1000001319
2	Select a job from the combo box. All used jobs stored in the power source are selectable in the combo box.	 en1000001320 The parameters of the selected job are listed.

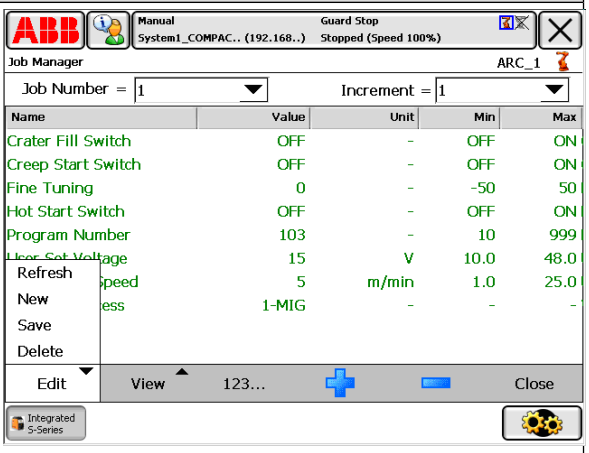
Refreshing the job parameters

Note

All modifications of the job are lost when refreshing. To preserve the modifications, save the job.

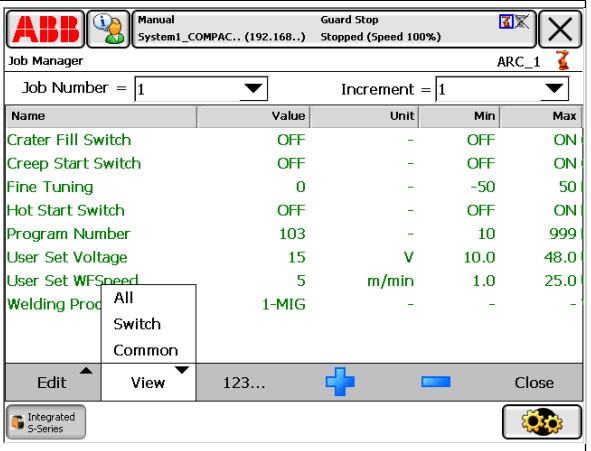
Continues on next page

3.1.1 The Job Manager view
Continued

	Action	Info/illustration
1	In the **Job Manager view**, tap the **Operate** menu and select **Refresh**.	 en1000001322

Filter the job parameters

It is possible to filter the parameter list, showing only the common parameters or showing only the switch parameters.

	Action	Info/illustration
1	In the **Job Manager view**, tap the **View** menu and select which parameters to view.	 en1000001323

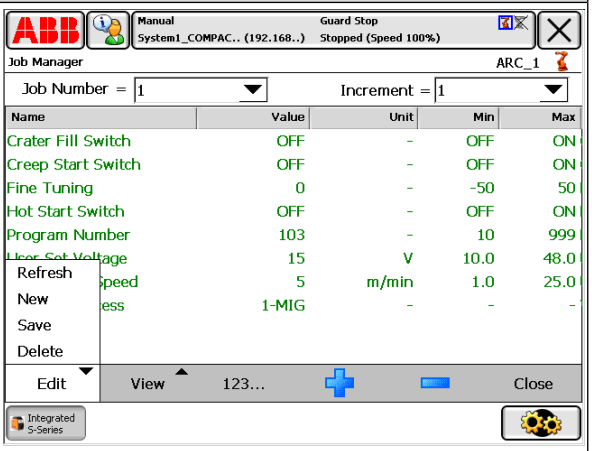
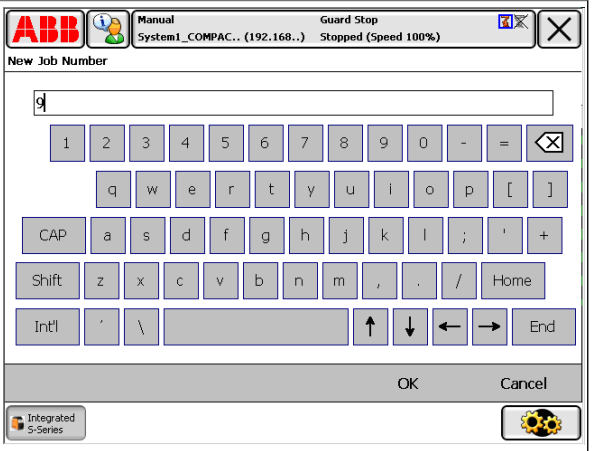
3.1.2 Handling jobs

Creating a new job

Note

A new job number should be numeric from 0 to 89.

If the new job number is the same as one of the used job numbers, the job will be replaced with default parameters.

	Action	Info/illustration
1	In the **Job Manager view**, tap the **Operate** menu and select **New**.	 en1000001322
2	Enter the new job number and tap **OK**.	 en1000001324

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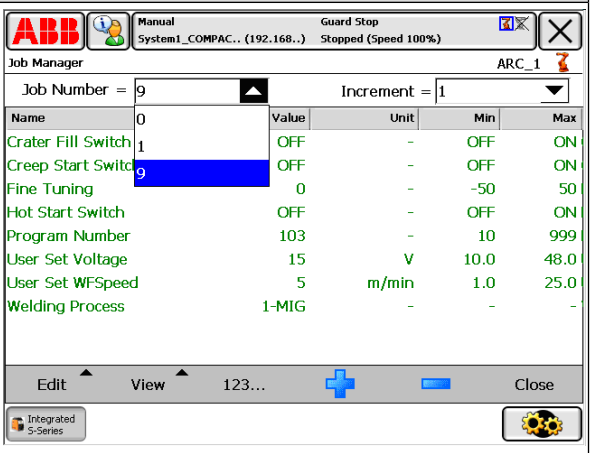
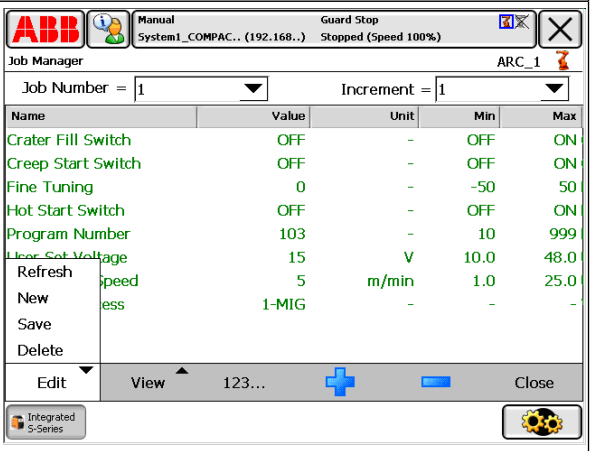
3.1.2 Handling jobs
Continued

	Action	Info/illustration
3	To view the parameters for the new job, select the new job in the **Job Number** combo box.	 en1000001325

Saving a job

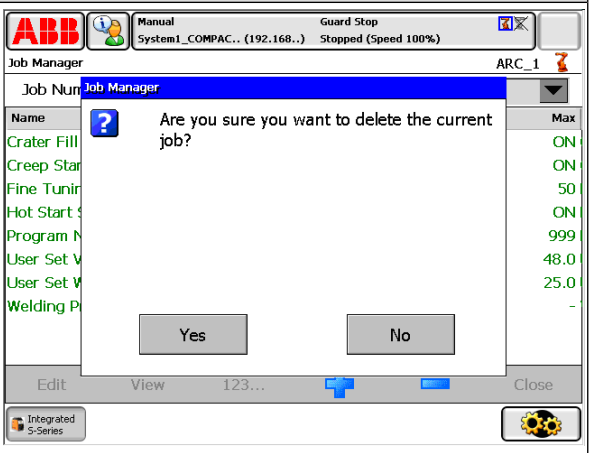
When editing the parameters of a job, the job needs to be saved.

	Action	Info/illustration
1	In the **Job Manager view**, tap **Operate** and select **Save** to save the job selected in the **Job Number** combo box.	 en1000001322

Deleting a job

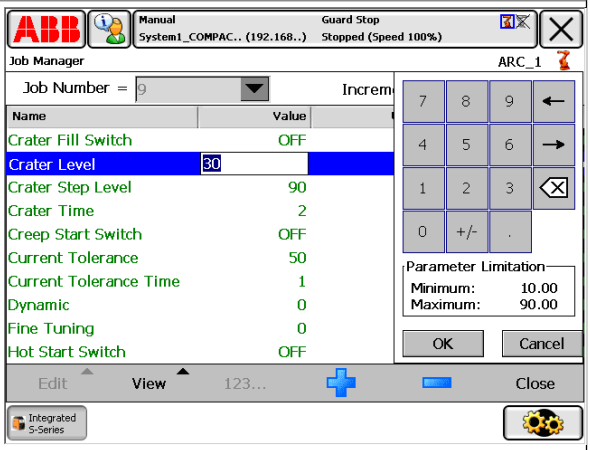
	Action	Info/illustration
1	In the **Job Manager view**, select the job number in the **Job Number** combo box.	
2	Tap **Operate** and select **Delete**.	

Continues on next page

	Action	Info/illustration
3	In the dialog box, tap **Yes** to confirm the deleting of the job.	 en1000001329

3.1.3 Editing job parameters

Editing parameter values

	Action	Info/illustration
1	In the **Job Manager view**, select the job from the **Job Number** combo box.	
2	Double-tap the parameter or select it and then tap the button **123....**	
3	Enter the new value on the numeric keypad and tap **OK**.	 en1000001332

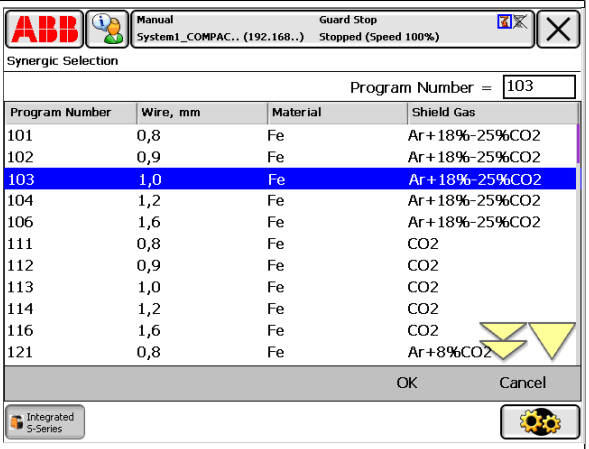
Editing job number

Note

All the modifications of the job are lost when changing the job number. To preserve the modifications, save the job.

	Action	Info/illustration
1	In the **Job Manager view**, select the job from the **Job Number** combo box.	
2	Double-tap the parameter (or select it and then tap the button **123...**).	

Continues on next page

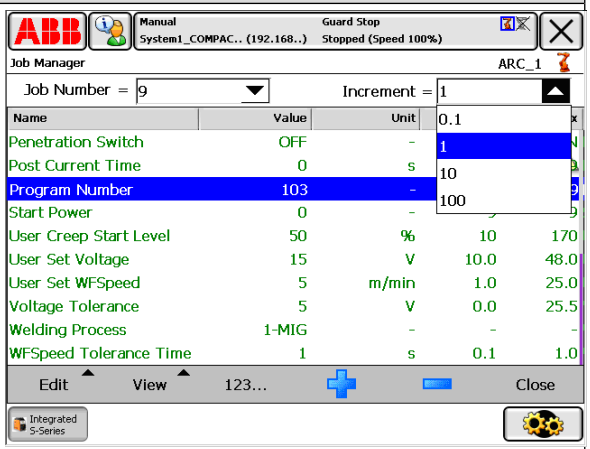
	Action	Info/illustration
3	Select program number from the list or enter the new job number in the field **Program Number**. Tap **OK**.	 en1000001334

Incremental changes of parameter values

The parameter values can easily be increased or decreased in incremental steps.

Note

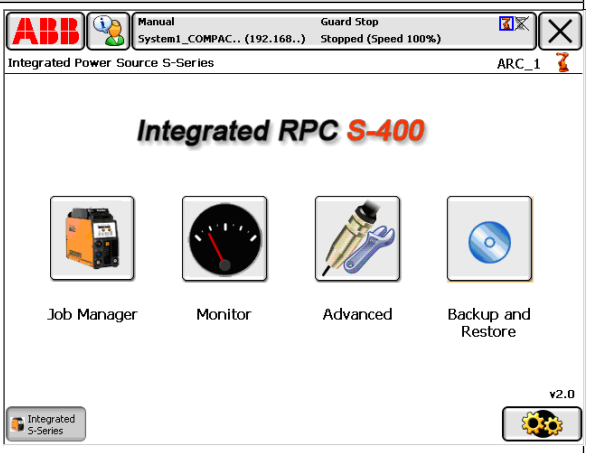
Switch parameters can only have value 0 or 1. The increment size for these parameters must therefore be 1.

	Action	Info/illustration
1	Tap the **Increment** drop down list and select size of the incremental steps.	 en1000001335
2	Tap the **+** (plus) button to increase the value of the selected job parameter. Tap the **-** (minus) button to decrease the value of the selected job parameter.	

3.2 Monitor

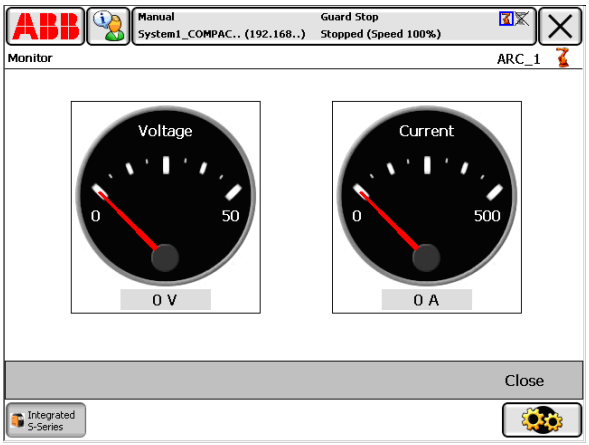
3.2.1 The Monitor view

Opening the Monitor view

	Action	Info/illustration
1	Tap the **Monitor** button in the start window to open the **Monitor view**.	 en1000001319

About the Monitor view

The **Monitor view** displays one voltage meter and one current meter. They show values that are measured and returned by the power source.

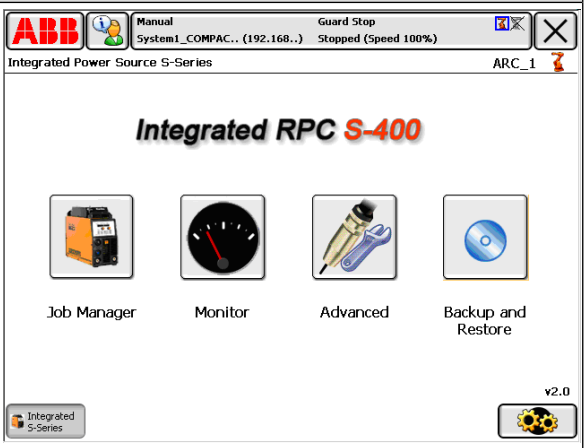
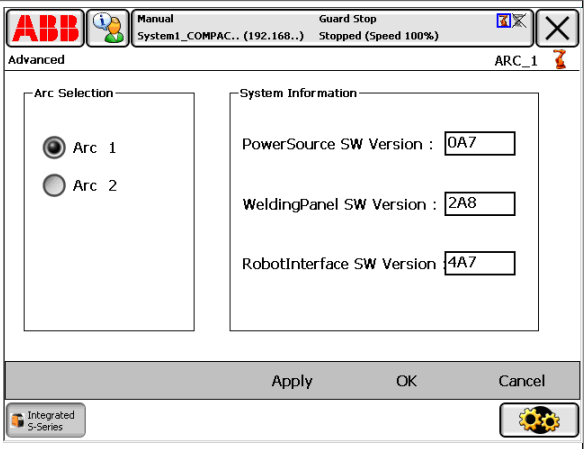


en1000001337

3.3 Advanced

3.3.1 The Advanced view

Selecting arc welding system

	Action	Info/illustration
1	Tap the **Advanced** button in the start window to open the **Advanced** view.	 en1000001319
2	Select arc welding system from the list of available systems under **Arc Selection**.	 en1000001362
3	Tap **OK** or **Apply** to apply the change of arc welding system.	

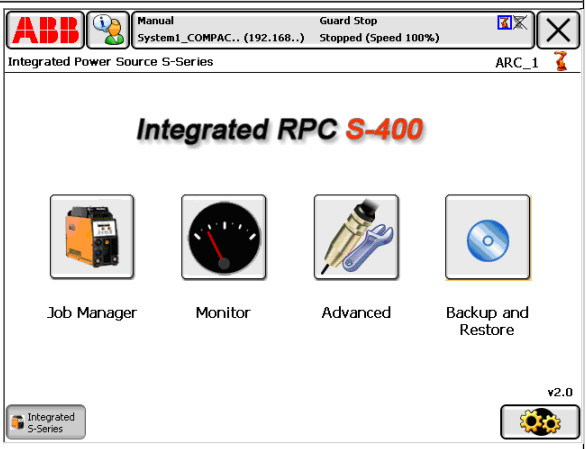
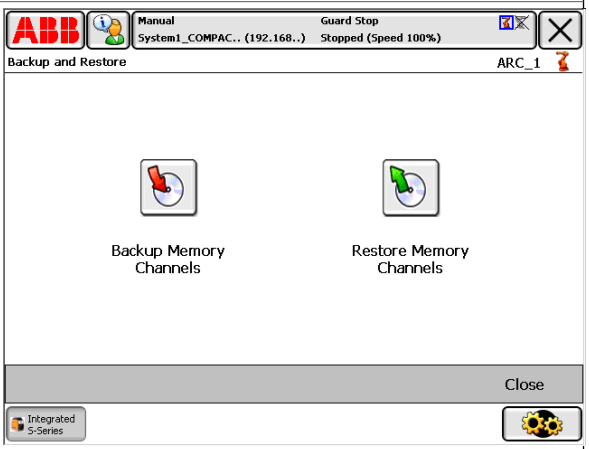
3.4 Backup and Restore

3.4.1 The backup and restore function

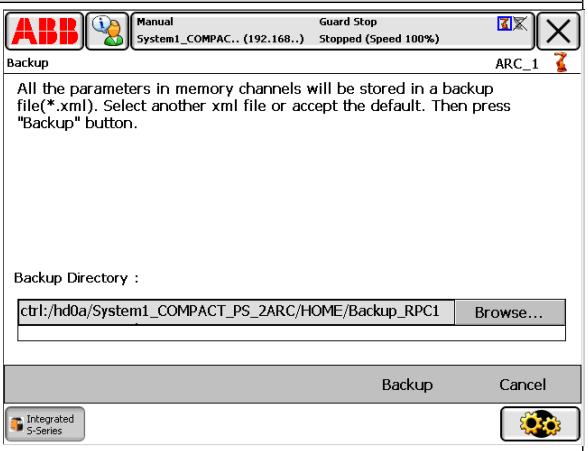
About backup and restore

The backup and restore function is used to back up the parameters of all the used jobs in a specified XML file and to restore all the jobs from a specified XML file.

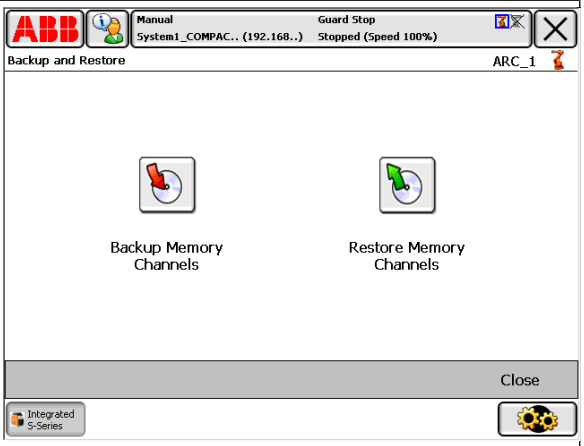
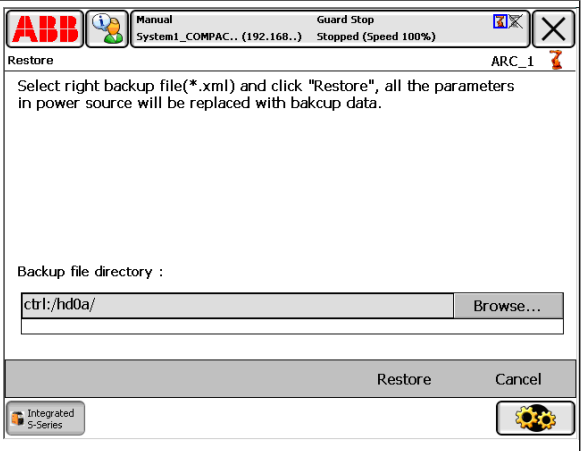
Creating a backup of the current jobs

	Action	Info/illustration
1	Tap the **Backup and Restore** button in the start window to open the **Backup and Restore** view.	 en1000001319
2	Tap **Backup Memory Channels**.	 en1000001363

Continues on next page

	Action	Info/illustration
3	A default file for saving the backup is suggested. To select another file, tap **Browse**. Tap **Backup** to start the backup process to the selected file.	 en1000001364

Restoring a backup of jobs

	Action	Info/illustration
1	In the **Backup and Restore** view, tap **Restore Memory Channels**.	 en1000001363
2	Tap **Browse**.	 en1000001365

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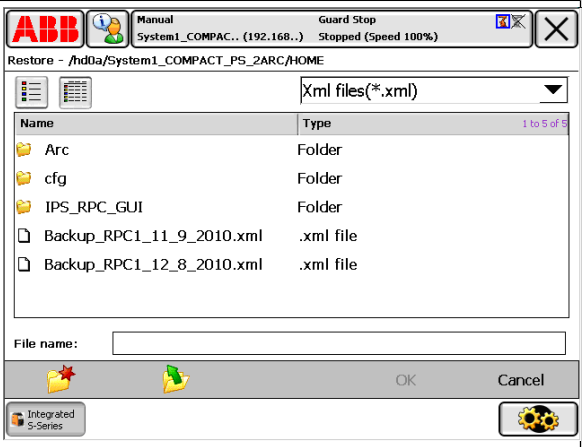
3.4.1 The backup and restore function

Continued

	Action	Info/illustration
3	Browse to the directory, select the file to be restored and tap **OK**.	 en1000001366
4	Tap **Restore** to start the restoring process from the selected file.	

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