

## PACSystems™ RX3i

RACKLESS ENERGY PACK - IC695ACC403

RACKLESS ENERGY PACK CABLE - IC695CBL003

RACKLESS RELACEMENT CAP PACK - IC695ACC413



## Overview

Whenever power is lost, the PACSystems RX3i IC695ACC403 Energy Pack provides the energy required for an orderly backup of user memory in the IC695CPE400 or IC695CPL410 CPU to which it is attached. IC695ACC403 consists of the Energy Pack base, a capacitor pack (Cap Pack), input power connector header, and a custom cable.

The IC695ACC413 is a replacement Cap Pack. The IC695CBL003 is a replacement cable. These replacement parts may be ordered separately. The capacitors used in the Cap Pack have a life expectancy of 5 years.

The IC695ACC403 is also available as part of the IC695CPK400 and IC695CKL410 kits which bundle the CPE400 or CPL410 and Energy Pack together.

## Current Release Information

Catalog Number	Bundled w/CPE400	Date	Firmware Version Primary	Comments
IC695ACC403-BA	IC695CPK400-BAAA	Sep 2019	3.03	Rebranded production release
IC695ACC413-BA		Sep 2019		Spare Part item
IC695CBL003B		Sep 2019		Spare Part item

**Upgrade Strategy:** The Energy Pack firmware is automatically upgraded upon power-up by the CPE400 or CPL410 if an update is necessary.

The firmware upgrade process may take up to four minutes to complete depending on the contents of the update. During the update, the rackless CPU's RUN and OUTPUTS ENABLED LEDs blink GREEN and the rackless CPU may automatically reset one or more times. All LEDs will be off during the automatic resets and the IC695ACC403 Energy Pack will be updated. During an update, the energy pack blinks all LEDs GREEN and performs an automatic reset following its update.

**Do not manually power cycle the CPE400 / CPL410 or remove the CAP Pack from the base of the Energy Pack during the update, as this may place the CPE400 / CPL410 and Energy Pack in an unrecoverable and unusable state.**

**Upgrade Kit:** The ACC403 does not have its own upgrade kit. Its firmware is bundled into the IC695CPE400 or IC695CPL410 upgrade kit. Upgrades are available for download at <https://www.emerson.com/Industrial-Automation-Controls/support>.

## Release History

Catalog Number	Date	Comments
IC695ACC403-BA	Sep 2019	Following Emerson's acquisition of this product, changes have been made to apply appropriate branding and registration of the product with required certification agencies. No changes to material, process, form, fit or functionality.
IC695ACC413-BA		
IC695CBL003B		
IC695ACC403-AA	Sep 2017	Initial Release
IC695ACC413-AA		
IC695CBL003A		

## Functional Compatibility

Subject	Feature	Minimum Version Required
Programmer Version Requirements	ACC403 Energy Pack Support	N/A - PAC Machine Edition Logic Developer PLC is not required to configure the ACC403 Energy Pack
IC695CPE400 Version Requirements	ACC403 Energy Pack Support	PACSystems RX3i CPU Release 9.00
IC695CPL410 Version Requirements	ACC403 Energy Pack Support	PACSystems RX3i CPU Release 9.55 (initial version)
PACSystems Energy Pack Compatibility	<p>The only energy pack compatible with the IC695CPE400 or IC695CPL410 is the IC695ACC403. The CPE400 / CPL410 is not compatible with the ICRXIACCEPK01 RXi Controller Energy Pack, the IC695ACC400 CPE305/310 Energy Pack, or the IC695ACC402 CPE330 Energy Pack.</p> <ul style="list-style-type: none"> <li>It is not possible to connect the CPE400 / CPL410 and the IC695ACC400 CPE305/310 Energy Pack together.</li> <li>It is possible to connect the ICRXIACCCPK01A RXi Capacitor Pack to the IC695ACC403 Energy Pack Base. If this occurs, the capacitor pack operates normally.</li> <li>It is possible to connect the IC695ACC403 CPE400 / CPL410 Energy Pack and IC695ACC413 Capacitor Pack to an ICRXICTL000 controller. If this occurs no errors are logged however user memory may not be preserved under all conditions. Do not use the ACC403 Energy Pack or ACC413 Capacitor Pack with the RXi Controller.</li> <li>It is physically possible to connect the IC695ACC403 CPE400 / CPL410 Energy Pack to an IC695CPE330 controller. If this occurs, no errors are logged. However, it will not allow any future firmware updates to the ACC403 Energy Pack. Do not use the ACC403 Energy Pack with the RX3i CPE330 Controller.</li> <li>It is physically possible to connect the IC695ACC402 CPE330 Energy Pack and IC695ACC412 Capacitor Pack to an IC695CPE400 or IC695CPL410 controller. If this occurs no errors are logged. However, it will not allow any future firmware updates to the ACC402 and the capacitors will reach their end-of-life threshold faster than the RX3i Capacitor Pack IC695ACC413. Do not use the ACC402 Energy Pack or ACC412 Capacitor Pack with the RX3i CPE400 / CPL410 Controller.</li> <li>It is physically possible to connect the ICRXIACCEPK01A RXi Energy Pack to an IC695CPE400 or IC695CPL410 controller. If this occurs no errors are logged. However, it will not allow any future firmware updates to the EPK01A and user memory may not be preserved under all conditions. Do not use the EPK01A RXi Energy Pack with the RX3i CPE400 / CPL410 Controller.</li> </ul>	

## Problems Resolved by this Revision

None

## Operational Notes

Subject	Description
Hot Swap of Cap Pack during Firmware Update results in 2-8-2-5 Blink Code	Insertion or removal of the ACC413 Energy Pack Cap Pack during an Energy Pack firmware update may cause the CPE400 / CPL410 controller to become non-responsive. In order to recover from this condition, the user must cycle power to the controller.
Insertion of Cap Pack During Controller Power-Up may log Failed Battery Fault	If the Energy Pack is powered on without a Cap Pack and then a Cap Pack is inserted during power-up of the controller, a failed battery fault may be logged by the controller. The controller expects the Energy Pack to report fully charged within a certain amount of time. This time limit may be exceeded if the Cap Pack is absent at power-up. The failed battery fault is logged, but once charging completes all fault bits are cleared, as applicable.

## Restrictions and Open Issues

Subject	ID code	Description
Clear All clears PLC_BAT and masks Energy Pack failures	DE715	A Clear All operation clears the values of all %S bits. After this operation the PLC_BAT status bit value may not reflect the actual status of the Energy Pack. For example, an Energy Pack in a failed state prior to the Clear All operation will remain in the failed state after the Clear All. Nonetheless, the PLC_BAT bit will indicate a good state as a result of the Clear All operation. Remove the Cap Pack and reinstall it in order to reassert the PLC_BAT status bit.
EPK Status LED wrong after fully charged cap pack hot insertion	DE3337	The Energy Pack Status LED does not blink when a fully charged cap pack is hot-inserted. If one removes the fully charged cap pack and then reinserts it immediately, the Status LED comes on solid green. However, if you then immediately power down the EPK within 10 seconds of the Cap Pack reinsertion, the system may not back up properly. If you wait 15 seconds or more after reinsertion and then lose power, the system backs up properly. If you insert a replacement ACC413 (uncharged), then the system will operate as expected. It will charge the new cap pack while the Status LED blinks green. Once fully charge, the Status LED will turn solid green and the unit will properly backup the system.

## Product Documentation

PACSystems RX3i Rackless Energy Pack ICC695ACC403 Quick Start Guide	GFK-3000
PACSystems IC695CPE400 RX3i 1.2GHz 64MB Rackless CPU w/Field Agent Quick Start Guide	GFK-3002
PACSystems IC695CPL410 RX3i 1.2GHz 64MB Rackless CPU w/Linux Quick Start Guide	GFK-3053
PACSystems Controllers Battery & Energy Pack Manual	GFK-2741
PACSystems RX7i & RX3i CPU Reference Manual	GFK-2222
PACSystems RX3i System Manual	GFK-2314

User manuals, product updates and other information sources are available on the Emerson Support website <https://www.emerson.com/Industrial-Automation-Controls/support>.

## Technical Support & Contact Information:

Home link: <http://www.Emerson.com/Industrial-Automation-Controls>

Knowledge Base: <https://www.emerson.com/Industrial-Automation-Controls/support>

**Note:** If the product is purchased through an Authorized Channel Partner, please contact the seller directly for any support.

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