

DESCRIPTION

The PCS retrofit kit replaces both PCS1 and PCS2 controllers in PCS 1/2 controlled Power Systems (PPS16 and Forza) with no need to use a PNI card/box for Ethernet communication.

The retrofit kit is based on ACC Extended (ACX) hardware but uses different firmware to keep PCS1/2 functionality, which allows users to keep the existing configuration for system and battery management.

System control is interfaced through the PCS Interface cards and implementation into existing systems is simplified by door/panel replacement and little work on signal cabling.

Order Codes:

19" version - 001-5295-1900

23" version - 001-5295-2300

DC/DC Converter - 100-4315-0000



Replacement Part Ordering Guide

Application	Parts required
Forza System	001-5295-1900
Complete PCS1	001-5294-1900 + 100-4315-0000
PPS16 System	001-5295-2300 + 100-4315-0000

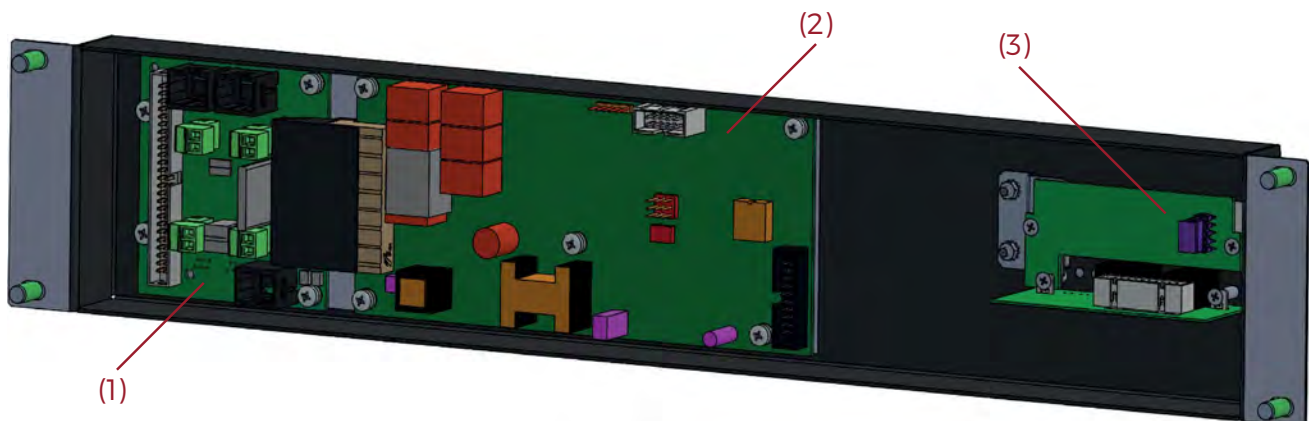
Internal Connections

The retrofit kit includes following PCB's:

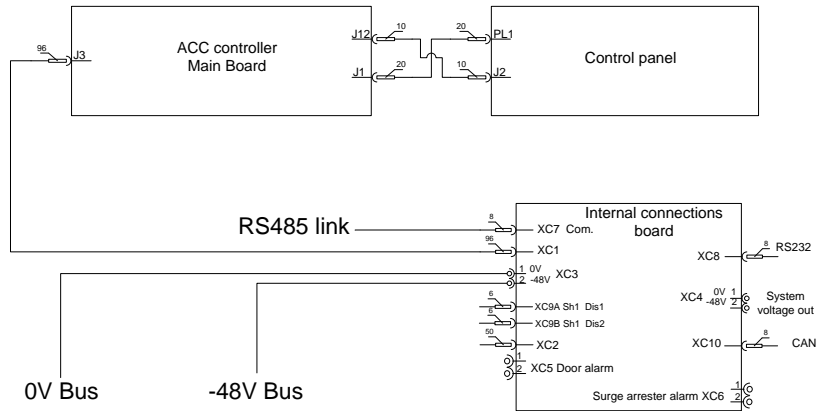
- ACX Display board (1)
- ACX mother board (2)
- ACX Internal connection board (3)

Electrical Parameters

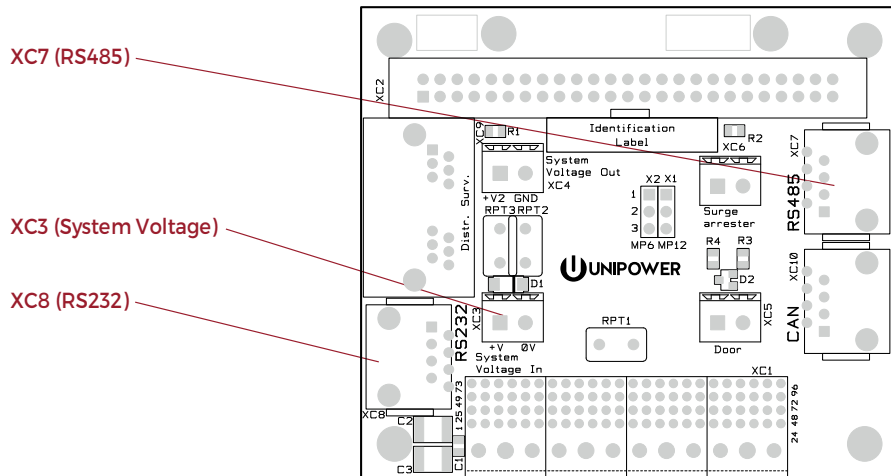
Parameter	Value
Input voltage	18 - 60Vdc
Input current max	<200mA at 48V
Power Consumption	12W max.



Internal Connection



ACX Internal Connection Board



Signals routing and electrical connection

Typically, there are two PCS Interface cards used as the controller interface:

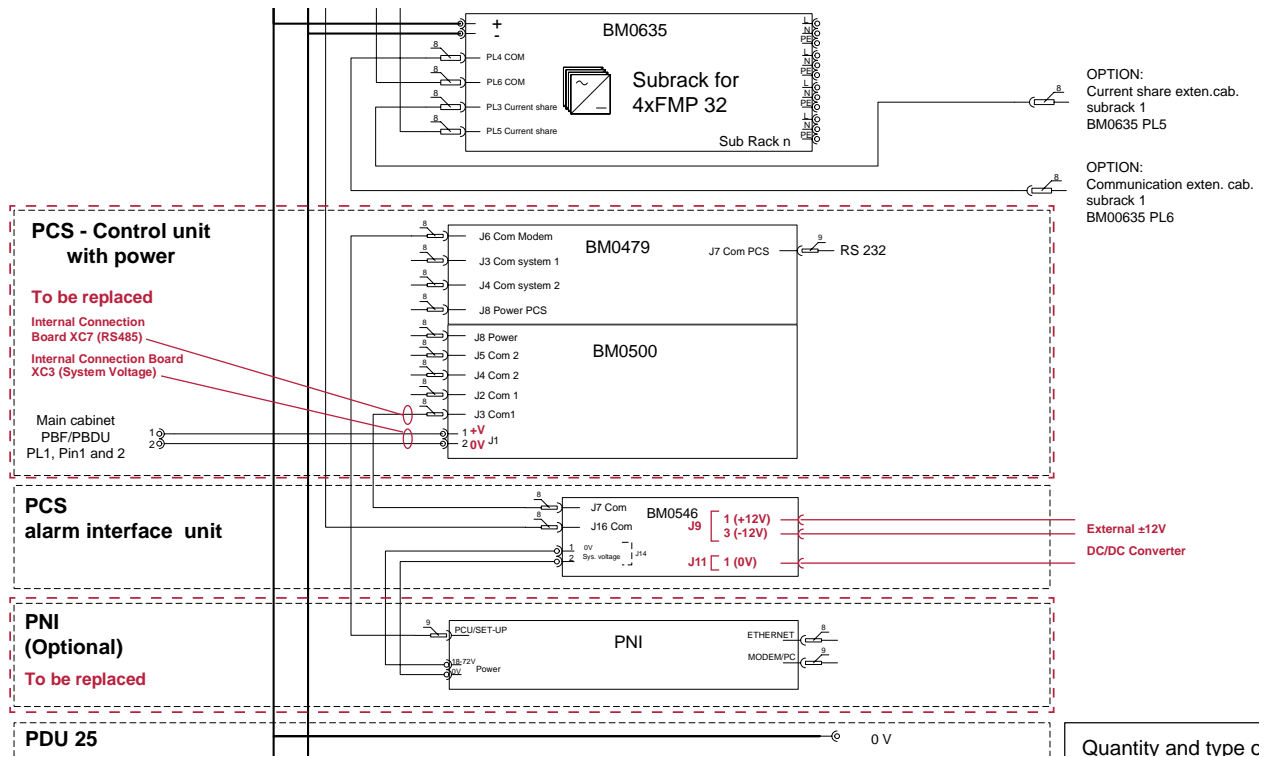
- PCS1 Intelligent Alarm Interface (BM0546 or BM0494)
- PCS2 Intelligent Alarm Interface (BM0685).

Both PCS1 Intelligent alarm cards BM0546 and BM0494 are accessible via an RS485/RJ45 patch cable which also provides a power feed, the ~12VAC provided from the PCS1 Power Board (BM0500). They can be supplied by an external DC/DC converter or the BM0500 board can be retained for the ~12VAC feed.

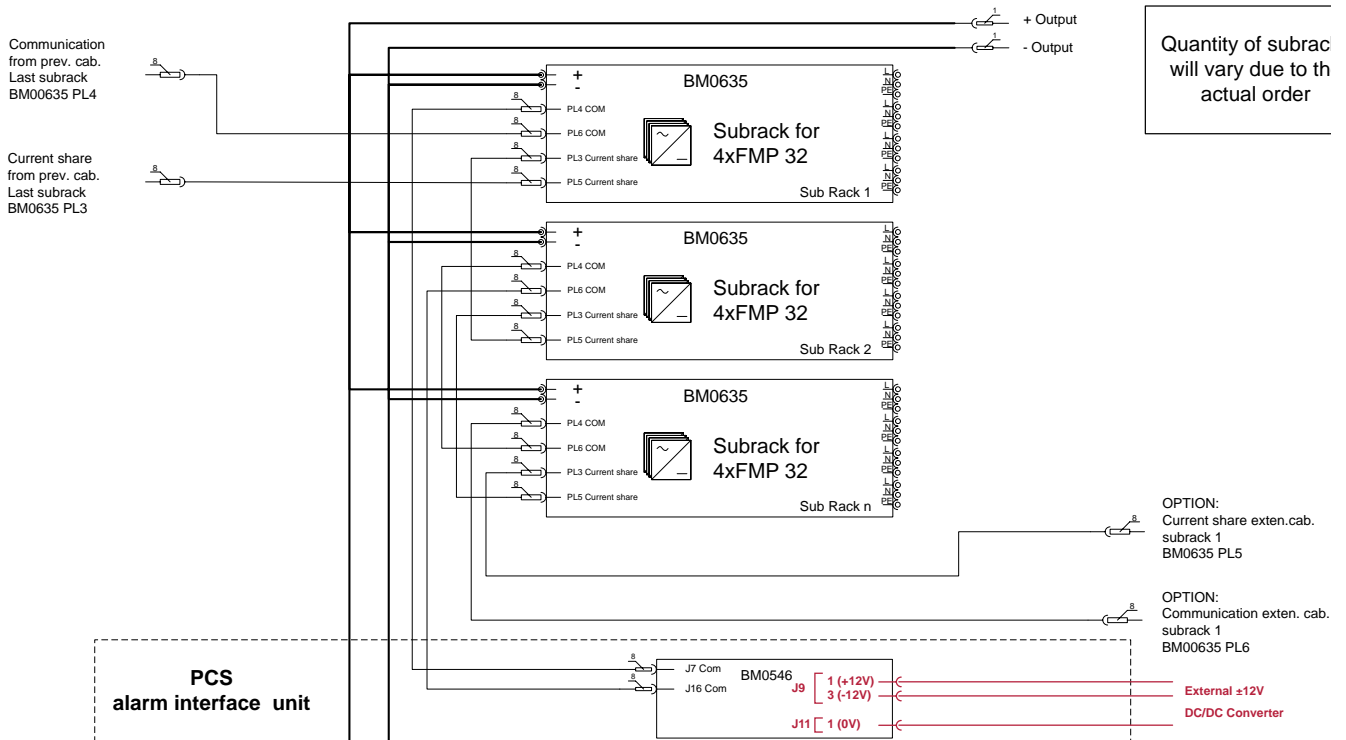
The PCS2 intelligent alarm interface card BM0685 has to be supplied by an external DC/DC converter.

A suitable DC/DC converter for both applications is listed in the ordering guide on page 1 of this application note.

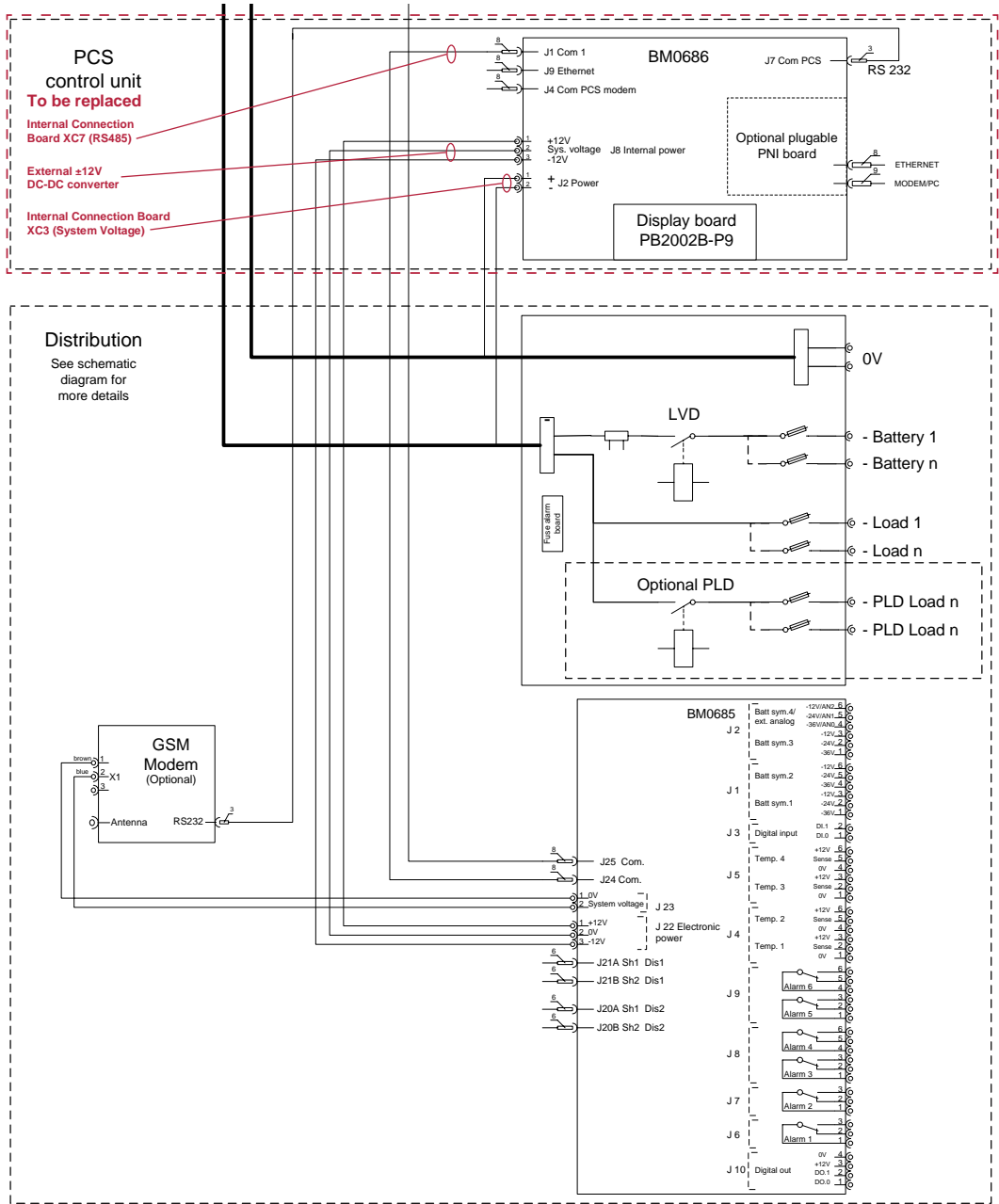
Typical block diagram for PCS retrofit kit connection with a Forza Main Cabinet



Typical block diagram for PCS retrofit kit connection and Forza Extension Cabinet



Typical block diagram for PCS retrofit kit connection and PPS16 Power System



Communication with Power Systems

There are various ways to connect to the PCS retrofit kit. For connection details see the ACC Extended (ACX) Controller manual (accessible at: <http://www.unipowerco.com/pdf/acc-man.pdf>)

Connection via PowCom™ software:

PowCom™ allows network communication through the Ethernet RJ45 connector, direct communication via the USB connector (both on the front panel) or via the RS232 connector located on the ACX internal connection board.

Connecting via Web Interface:

The Power system can also be monitored via an Ethernet 100BASE-T network using the build-in Web Interface software application. The Web interface is accessible via the RJ45 connector located on the front panel.

SNMP:

The SNMP Manager program can access and control the power system by adding the MIB describing the controller manageable objects. For a full list of available objects see PCS_Retrofit-MIB.mib (accessible at: http://unipowerco.com/MIB_files/PCS_Retrofit-MIB.mib)

Mechanical installation

Mechanical work is limited to panel/door replacement. The PCS retrofit kit is universal for both 19" and 23" applications.

23" version:



19" version:



Note: For both 19" and 23" solutions, always check the grounding connection before operating the power system.

Configuration settings **(IMPORTANT NOTE)**

This kit is intended to replace an existing PCS controller and is shipped with a 'default' configuration loaded. To maintain the existing system configuration download a copy from the existing controller so that it can be uploaded into the replacement unit once installed.