



This Datasheet for the

## **IC693PCM311**

**Programmable Coprocessor Module, 640 Kbyte (190 Kbyte Basic Program), with Port Expansion Cable**

**<http://www.qualitrol.com/shop/p-14687-ic693pcm311.aspx>**

Provides the wiring diagrams and installation guidelines for this GE Series 90-30 module.

For further information, please contact Qualitrol Technical Support at

**1-800-784-9385**

**[support@qualitrol.com](mailto:support@qualitrol.com)**

## IC693PCM300/301/311 Programmable Coprocessor Module (PCM)

The Programmable Coprocessor Module (PCM) is a high performance coprocessor for the Series 90-30 Modular CPUs (will not work with Embedded CPU models 311, 313, or 323). The PCM supports the Modbus RTU and GE Fanuc CCM protocols, as well as the MegaBasic and C programming languages. A free program for using this module as an RTU Master can be downloaded from the GE Fanuc website. The PCM has two separate ports, both accessed on one front panel connector.

The PCM is available in three versions. Each version is listed below with the total memory on the board and the nominal user-available MegaBasic program memory size.

PCM Catalog Number	Total Memory	User Megabasic memory
IC693PCM300	160K	35K
IC693PCM301	192K	47K
IC693PCM311	640K	190K

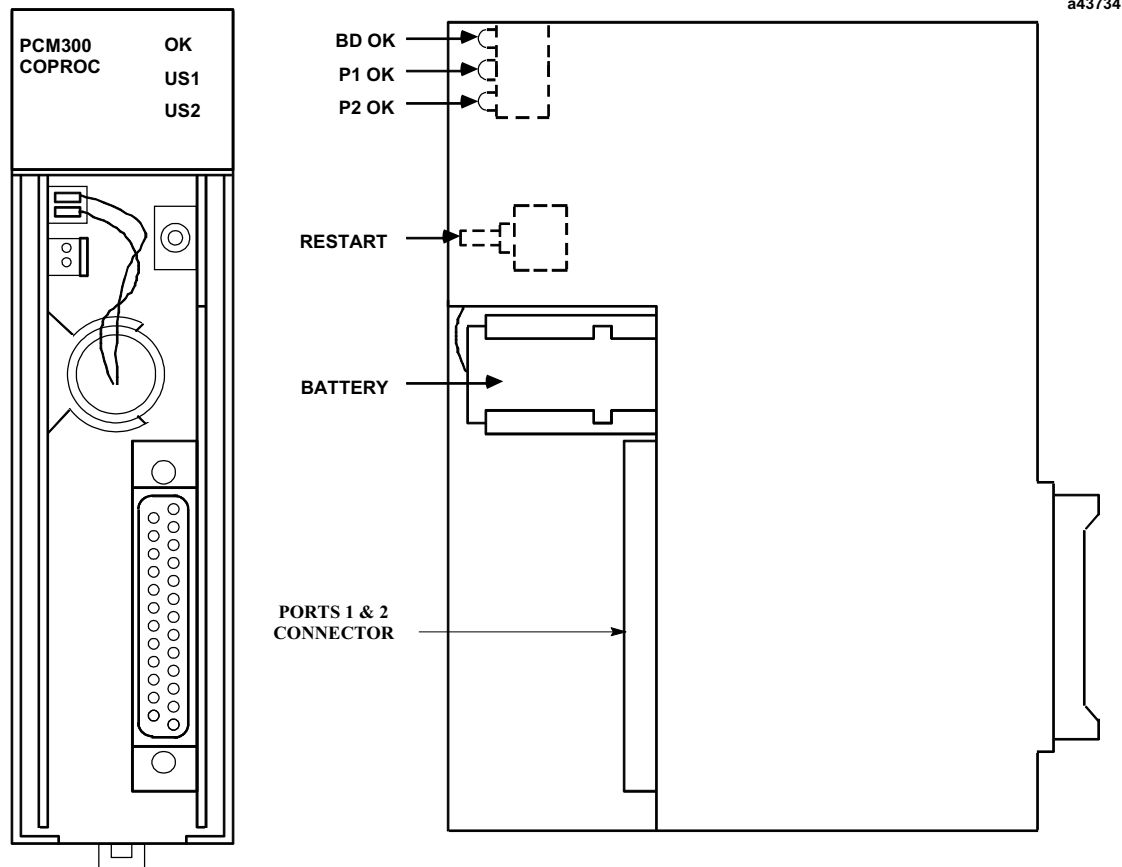


Figure 8-19. Programmable Coprocessor Module (PCM)

## Applications

These modules are used for communicating with programming terminals, CRTs, bar code readers, scales, printers, ASCII devices, RTU master devices, etc.

## PCM Module Location

A PCM can be installed in any slot in the CPU baseplate only, except slot 1 (labeled CPU/1), which must contain the CPU module. A PCM will not work in Expansion or Remote racks or in an Embedded CPU (CPU311, 313, or 323) rack.

## Protocols Supported

Modbus RTU and GE Fanuc CCM.

## LED Indicator Lights

- **OK** -Normally ON. Indicates the basic condition of the module.
- **US1 and US2** - By default, LED US1 flashes to indicate activity on Port 1, and LED US2 flashes to indicate activity on Port 2. Both LEDs stay OFF when there is no port activity. However, the function of these two LEDs can be custom configured by the user. Please see GFK-0255 for custom configuration details.

## Restart Pushbutton

Used to place the module in either the RUN mode or the PROGRAM mode. Please see “PCM Operation Modes” in GFK-0255, Chapter 1.

## Memory Backup Battery

The Lithium battery for backup of RAM memory is installed in a battery mounting clip on the inside of the PCM faceplate. This battery is disconnected for shipment from the factory and must be connected prior to installation of the module. When the PCM is stored for extended periods of time, the battery should be disconnected, unless you wish to retain the program in RAM memory. Order replacement batteries using catalog number IC693ACC301 (package of two).

## Cables

**IC693CBL304/305** - These Wye cables split out the two PCM port connections from the single connector on the front of the PCM modules. One of these cables is supplied with each PCM module. The IC693CBL304 is for the PCM300. The IC693CBL305 is for the PCM301 and PCM311. Please see Chapter 10 for details on these cables.

**IC690CBL701/702/705** - These cables provides a direct RS-232 connection between the PCM and various programmers' serial ports. These cables are not supplied with the PCM modules. Please see Chapter 10 for details on these cables.

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## Programmable Coprocessor Module Documentation

- GFK-0255, *Series 90 Programmable Coprocessor Module and Support Software User's Manual*
- GFK-0256, *Megabasic Language Reference and Programmer's Guide Reference Manual*
- GFK-0487, *Series 90 PCM Development Software (PCOP) User's Manual*
- GFK-0771, *C Programmer's Toolkit for Series 90 PCMs User's Manual*