



Series Six Programmable Controllers

GFK-0144

Arithmetic Control Module

November 1987

GENERAL DESCRIPTION

The Arithmetic Control module performs arithmetic and logical operations for the Series Six Central Processor Unit (CPU). The features and benefits of this module are summarized in Table 1.

Four, AM2903, bit-slice, integrated circuits contained on this module constitute a 16-bit microprocessor that works in conjunction with the Logic Control module to generate system control and timing signals. The Arithmetic Control module is linked to the Logic Control through a ribbon cable connector.

Visible through a lens on the faceplate are two Light Emitting Diode (LED) indicators: One, marked

"CHECK", remains lit to indicate that a self-test has been completed successfully once per I/O sweep; this LED also indicates that no abnormal conditions prevail in the CPU, such as system clock stopped, scan time longer than 300 milliseconds. The other LED, marked "RUN" indicates that the CPU is performing execution sequences and is in the RUN mode. The LEDs operate only when the module is installed in a properly powered CPU rack.

Refer to Table 2 for Arithmetic Control module specifications

Table 1. FEATURES AND BENEFITS

FEATURES	BENEFITS
Contains 2 LED indicators: *CHECK *RUN	Indicates status of CPU to simplify troubleshooting.
Usable in Model 60, 600, 6000 and Series Six Plus CPUs.	Reduces spare-parts inventory.
Bit-slice architecture.	High-speed processing.
Supports all Series Six Instructions sets including Expanded II	Increased functionality and backwards compatibility.

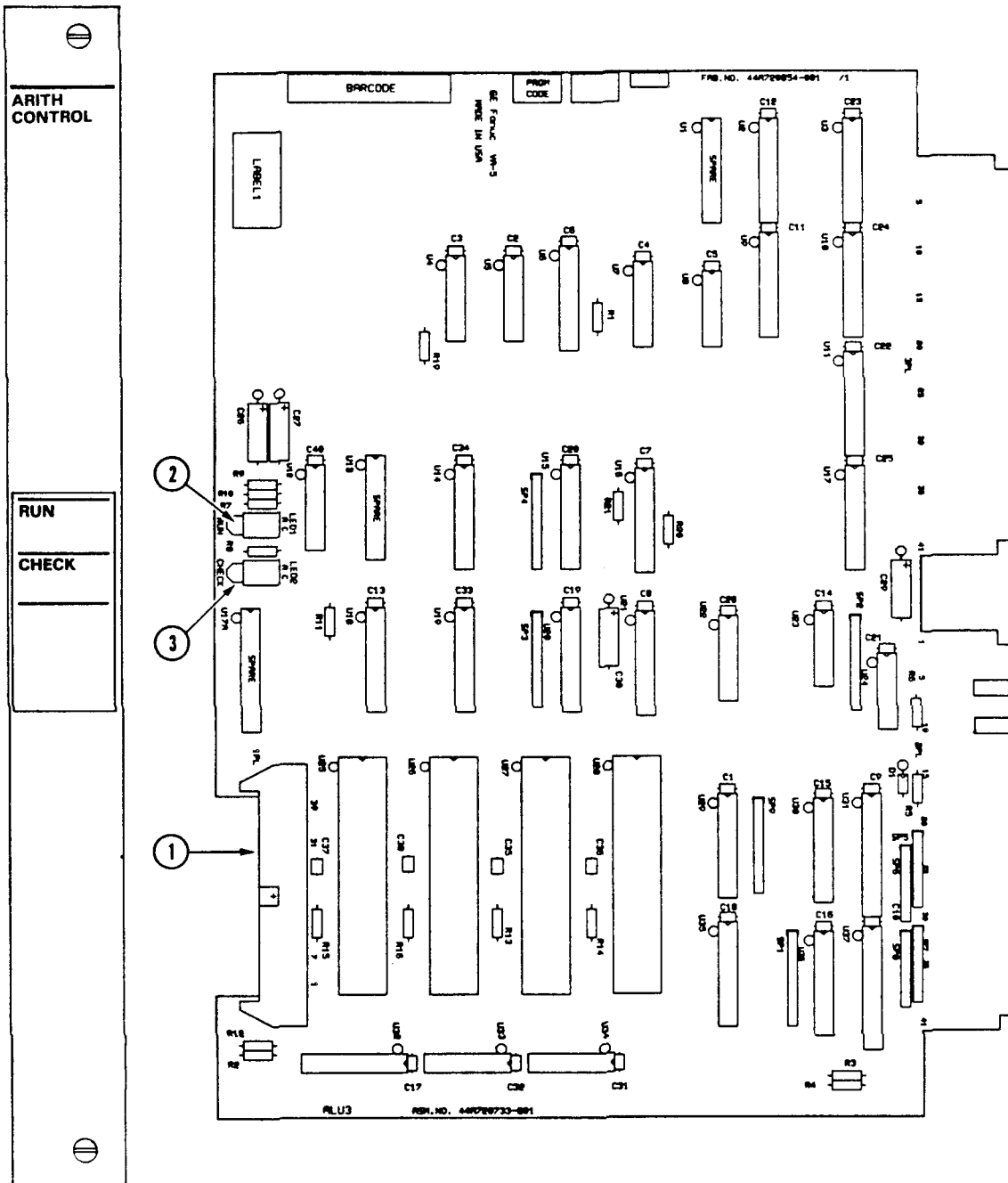


Figure 1. USER ITEMS

1. Socket for ribbon-cable connection to Logic Control module. See the "Installation" section of this sheet.

2. RUN Light

On: CPU execution sequence is proceeding; the self test is passed and the I/O scan is completed at least once each 300 (+/-50 ms). CPU is in RUN mode.

Off: CPU is in STOP mode.

3. CHECK Light

On: CPU execution sequence is proceeding; the self-test is passed at least once each 300 ms (+/-50 ms). CPU could be in RUN or STOP mode.

Off: CPU self-test has not been passed within 300 ms (+/-50 ms) or user program execution takes longer than 300 ms. CPU goes to STOP mode; I/O chain is reset.

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INSTALLATION

The Arithmetic Control module can be installed in a Model 60, 600, 6000 or Series Six Plus CPU. Follow these steps for all models:

1. Use the extraction/insertion tool supplies with the CPU to insert (or remove) this module into the appropriate slot.
2. Connect a short length of ribbon cable (also supplied with the CPU) between this module and the Logic Control module.

3. Fasten the faceplate to the rack using the screws at the top and bottom.

NOTE

Attempting to operate the system without the ribbon cable connected between the Arithmetic Control module and the Logic Control module will cause the CPU to operate unpredictably.

Table 2. SPECIFICATIONS

Dimensions:	
Circuit Board:	8.15 x 11.0 (inches) 208 x 280 (mm)
Faceplate:	12.46 x 1.175 (inches) 317 x 30 (mm)
Power Requirements:	5V DC, 1.7A (Supplied by CPU power supply)
Storage Temperature:	-20 to 70°C (-4 to 158°F)
Operating Temperature:	0 to 60°C (32 to 140° F) (outside rack) Humidity: 5% - 95% (non-condensing)

Table 3. ORDERING INSTRUCTIONS

DESCRIPTION	CATALOG NUMBER
Circuit Board and Faceplate	IC600CB524K
Faceplate	IC600FT'500A

CATALOG NUMBER REVISION SUFFIX

The equipment listed above having the catalog numbers shown and the same equipment having a higher alpha suffix is designed for listing by UL for use as

auxiliary control devices. The equipment is a direct replacement for equipment having the same catalog number but a lower alpha suffix.

For further information, contact your local **GE** Fanuc sales office.