

Expansion Memory

IC697MEM731/732/733/735

GFK-0531E
August 1997

32-Bit CMOS Expansion Memory

Features

- Available in 128 KBytes, 256 KBytes w/256 KBytes non-volatile flash memory, 256 KBytes and 512 Kbytes.
- For expansion of CPU780/781/782/788/789.
- Memory retained by battery on CPU.
- Does not require additional slot.
- Configurable for data and program storage.
- Error checking by CPU checksum routine.
- Installation requires only a #1 Phillips screwdriver.
- Field Installable.
- Parity generation and checking for each byte of SRAM.

Functions

CMOS Expansion Memory is available in four versions; 128 KBytes, 256 KBytes w/256 KBytes non-volatile flash memory, 256 KBytes and 512 Kbytes. This memory must be used to provide logic and data memory in the PLC CPU780/781/782/788/789 Central Processor Unit modules. It is installed as a daughter board and resides in the same slot as the module it serves. This board is required for proper operation of these CPUs since the base board contains no RAM memory.

Memory is retained in the event of power loss by the battery on the base board housing. Flash memory is retained in the event of a power loss *with or without* the battery connected.

Logic program memory is continually error-checked by the PLC CPU as a background task. Memory parity errors are reported to the PLC CPU when they occur.

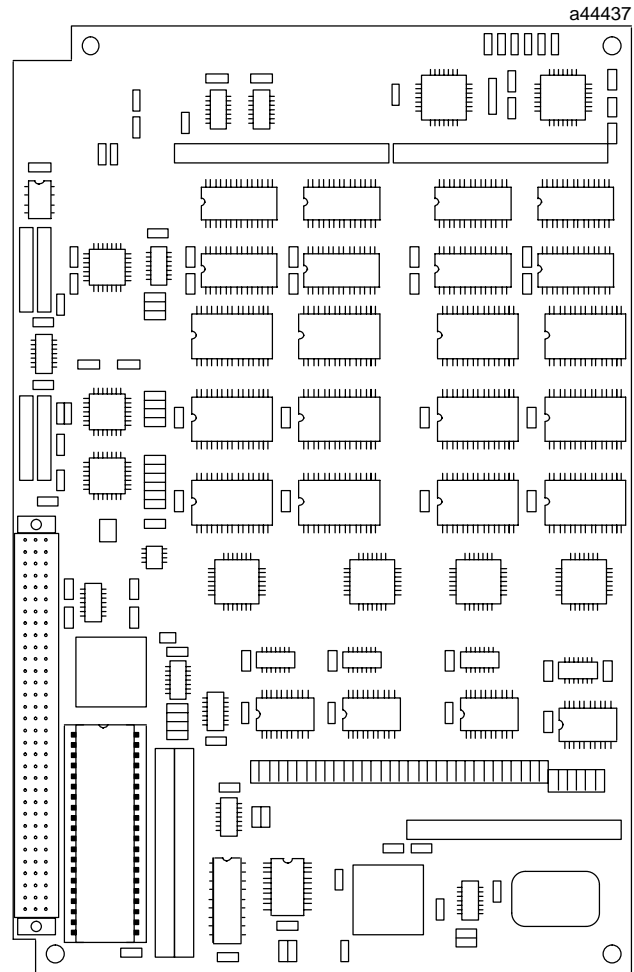


Figure 1. Example of 32-Bit CMOS Expansion Memory Board

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Installation

- Installation should not be attempted without referring to the *Programmable Controller Installation Manual* and applicable data sheets (Refer to References 3, 4, 5 and 6).
- Align the expansion memory board and CPU connectors.
- Align the captive screws on the expansion memory board with the standoffs already installed on the CPU.
- Push the expansion memory board onto the CPU connector ensuring that the mating screws remain aligned with their respective standoff.
- Screw each expansion memory board screw into the standoffs with a #1 Phillips screwdriver, firmly tightening each screw.
- Make sure rack power is off before installing the CPU module. Place module in rack.
- Turn power on.
- Clear memory with MS-DOS® or Windows® programming software following instructions in the *Programming Software User's Manual* (Refer to Reference 1).

Batteries

The Lithium battery (IC697ACC701) is installed as shown in Figure 2. This battery maintains user memory when power is removed and operates the calendar clock on the PLC CPU. Be sure to install the new battery before removing the old battery. Specific indication of a low battery state is detailed in References 3, 4 and 5.

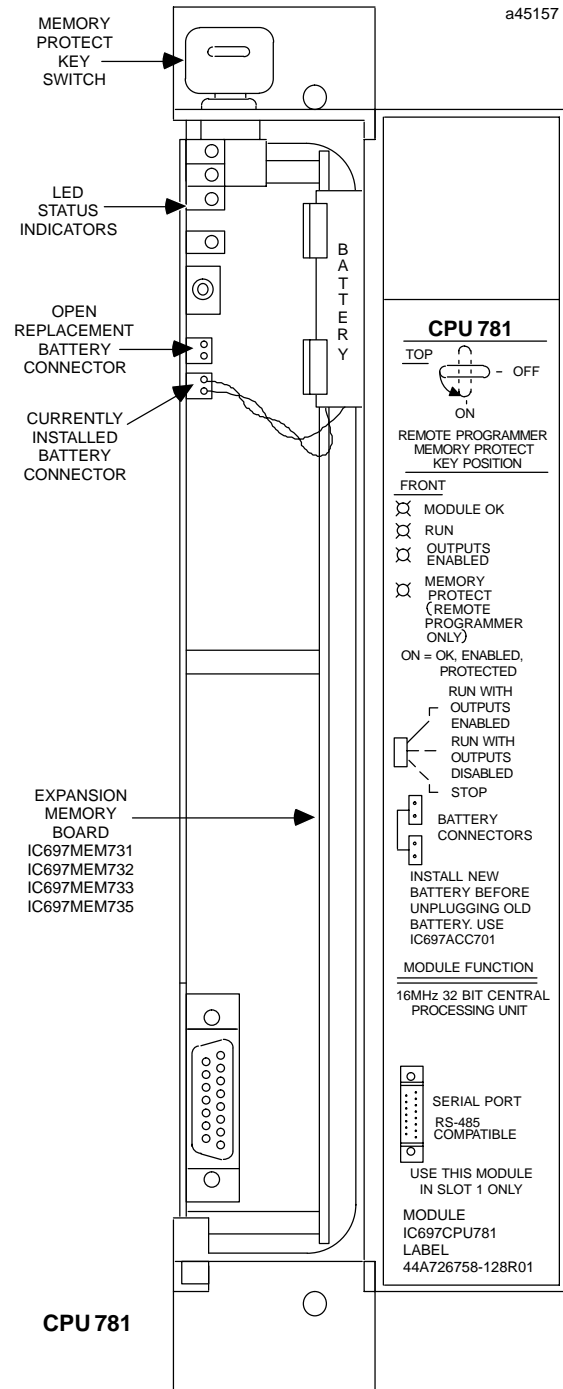


Figure 2. Example of Location of Expansion Memory and Battery on CPU 780/781/782/788/789 (CPU781 Shown)

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Table 1. References

Reference	Title
1	ProgrammingSoftware User's Manual
2	ProgrammableLogic Controller Reference Manual
3	ProgrammableController Installation Manual
4	Data Sheet for IC697CPU781, 32-Bit, 16 MHz, Expandable
5	Data Sheet for IC697CPU782, 32-Bit, 16 MHz, Expandable, Floating Point
6	Data Sheet for IC697CPU780, 32-Bit, 16 MHz, Expandable, Floating Point, for Redundancy Applications
7	Data Sheet for IC697CPU788/789 32-Bit, 16 MHz, Expandable for Genius Triple Redundancy Systems

Table 2. Specifications for CMOS Expansion Memory Modules †

Battery Shelflife: Memory retention:	10 years at 20°C (68° F) 6 months nominal without applied power
Current required from 5V bus:	2.25 amps (includes expansion memory board and CPU module)
VME	System designed to support the VME standard C.1

† Refer to GFK-0867B, or later for product standards and general specifications.

Table 3. Ordering Information

Description	Catalog Number
128 KByte, 32-Bit CMOS Expansion Memory	IC697MEM731
256 KByte w/256 KByte Non-Volatile Flash memory, 32-Bit CMOS Expansion Memory	IC697MEM732
256 KByte, 32-Bit CMOS Expansion Memory	IC697MEM733
512 KByte, 32-Bit CMOS Expansion Memory	IC697MEM735
Lithium Battery	IC697ACC701

Note: For Conformal Coat option, or Low Temperature Testing option please consult the factory for price and availability.

