Selecting Memory Modules

Select a memory module from Table 2.M for your PLC-5 processor.

Table 2.M
PLC-5 Processor Memory Modules

Nonvolatile Memory Backup (EEPROM)		RAM Memory (CMOS)	
Words	**Catalog Number (and Processor)**	**Words**	**Catalog Number (and Processor)**
8 K	1785-MJ	4 K	1785-MR (PLC-5/15 and -5/25)
16 K	1785-MK (PLC-5/25)	8 K	1785-MS (PLC-5/15 and -5/25)

Selecting a Replacement Battery

A battery ships with your PLC-5 processor. Select a replacement battery using Table 2.N and Table 2.O. See the Allen-Bradley Guidelines for Handling Lithium Batteries, publication ICCG-5.14, for more information.

Table 2.N
Processor Batteries

Processor	Battery[1]	Function
PLC-5/10, -5/12, -5/15, and -5/25	1770-XY, AA lithium	Retains the processor memory and the memory in an optional CMOS RAM module if the processor is not powered.

[1] The 1770-XY is a 3.6 Volt AA size lithium thionyl chloride battery manufactured by Tadiran as their part number TL 5104 and type AEL/S.

Table 2.O
Average Battery Life

Battery	Temperature	Power Off 100% (Average)	Power Off 50% (Average)
1770-XY	60° C 25° C	329 days 2 years	1.4 years 3.3 years

Selecting Complementary I/O

You configure complementary I/O by assigning an I/O rack number of one I/O chassis (primary) to another I/O chassis (complementary). You complement I/O functions in the primary chassis with opposite functions in the complementary chassis. Use chapter 4, “Assigning Addressing Mode, Racks, and Groups,” in conjunction with the following selection of complementary I/O hardware.

Use the following modules in either primary or complementary I/O chassis opposite any type of module:

- Communication Adapter Module (1771-KA2)
- Communication Controller Module (1771-KE)
- PLC-2 Family/RS-232-C Interface Module (1771-KG)
- Fiber Optics Converter Module (1771-AF)
- DH/DH+ Communication Adapter Module (1785-KA)
- DH+/RS-232C Communications Interface Module (1785-KE)

Use the following modules in either primary or complementary I/O chassis opposite any type of module. However, these modules do not work as standalone modules; each one has an associated master module. Use care when placing the master modules in the I/O chassis (refer to the paragraph on Master/Expander I/O modules):

- Analog Input Expander Module (1771-E1, -E2, -E3)
- Analog Output Expander Module (1771-E4)
- Servo (Encoder Feedback) Expander Module (1771-ES)
- Pulse Output Expander Module (1771-OJ)

Selecting a PLC-5 Processor Backup System

A PLC-5 processor backup system contains **two** of each of the following hardware components:

- Classic PLC-5 processor module

Processor	Catalog Number
PLC-5/15	1785-LT Series B
PLC-5/25	1785-LT2

- 1785-BCM Series C Backup Control Module (for 2 channels)
- 1785-BEM Backup Expansion Module (for 2 additional channels)
- Power supply
- Local chassis

Important: The PLC-5 backup system does not back up I/O in the processor-resident local chassis. Do not install I/O in the processor-resident local chassis of a backed up system.

Refer to the PLC-5 Backup Communication Module User Manual, publication 1785-6.5.4, for more information on configuring a PLC-5 processor backup system.

Selecting Link Terminators

Terminate remote I/O links by setting switch assembly SW3. If you cannot use an 82-Ohm terminator because of devices that you place on your I/O link (see the table below for a list of these devices), you must use 150-Ohm terminators. Using the higher resistance reduces the quantity of devices to 16 that you can place per remote I/O link. Also, this limits your communication rates to 57.6 kbps and 115.2 kbps.

DH+ Network Terminator

Terminate your DH+ network with a 150-Ohm, 1/2-watt terminator.

If you have this processor:	Terminate a DH+ link by:
PLC-5/10, -5/12, -5/15, or -5/25	Setting switch assembly SW3 of the PLC-5 processor (refer to your Classic 1785 PLC-5 Family Programmable Controllers Hardware Installation Manual, publication 1785-6.6.1).

Connecting a Programming Terminal to a Processor Module

Connect the programming terminal directly to the processor through the D-shell DH+ COMM INTFC connector on the front panel. You can also connect the programming terminal remotely to a DH+ link through the 3-pin connector or at a remote station.

Choosing Cables

Select cables from the options listed below. See chapter 3, “Placing System Hardware,” to determine the lengths that you will need for cables in your system.

Remote I/O Link

Use Belden 9463 twinaxial cable (1770-CD) to connect your PLC-5 processor to remote I/O adapter modules.

Connect your I/O devices using:

- single-conductor wire (analog and some discrete applications)
- multi-conductor cable (analog and some discrete applications)
- multi-conductor shielded cable (some specialty I/O modules and low-voltage dc discrete modules)