

Chapter 2 CVIM Hardware Connection and Powerup Check

Chapter Objectives

The objectives of this chapter are to show you how to connect the CVIM system components and perform a powerup check.

CVIM System Components

The procedures in this chapter cover only those components that are related to the CVIM machine vision system, namely:

- CVIM module, Catalog No. 5370-CVIM.
- Pyramid Integrator chassis:
 - Four-slot chassis, Catalog No. 5110-A4.
 - Eight-slot chassis, Catalog No. 5110-A8.
- Chassis power supply, Catalog No. 5120-P1.
- Video monitor:
 - Color, 13-inch, rack-mounted, 115VAC, Catalog No. 2801-N8.
 - Monochrome, 9-inch, 115VAC, Catalog No. 2801-N9.
 - Monochrome, 9-inch, 230VAC, Catalog No. 2801-N20.
 - Monochrome, 12-inch, 115VAC, Catalog No. 2801-N6.
- Light pen, Catalog No. 2801-N7.
- Camera, Catalog No. 2801-YC.
- Interface modules:
 - User interface box, Catalog No. 2801-N22.
 - I/O interface box, Catalog No. 2801-N21.
 - Interface board, Catalog No. 1771-JMB.
- Interconnecting cables.

Additional components may be required for some CVIM system configurations. These will be identified in the connection procedures.

For complete information on installing the CVIM system in its factory floor location, refer to the Allen-Bradley Pyramid Integrator Installation Manual, Publication 5000-6.2.10, which is supplied with the CVIM module.

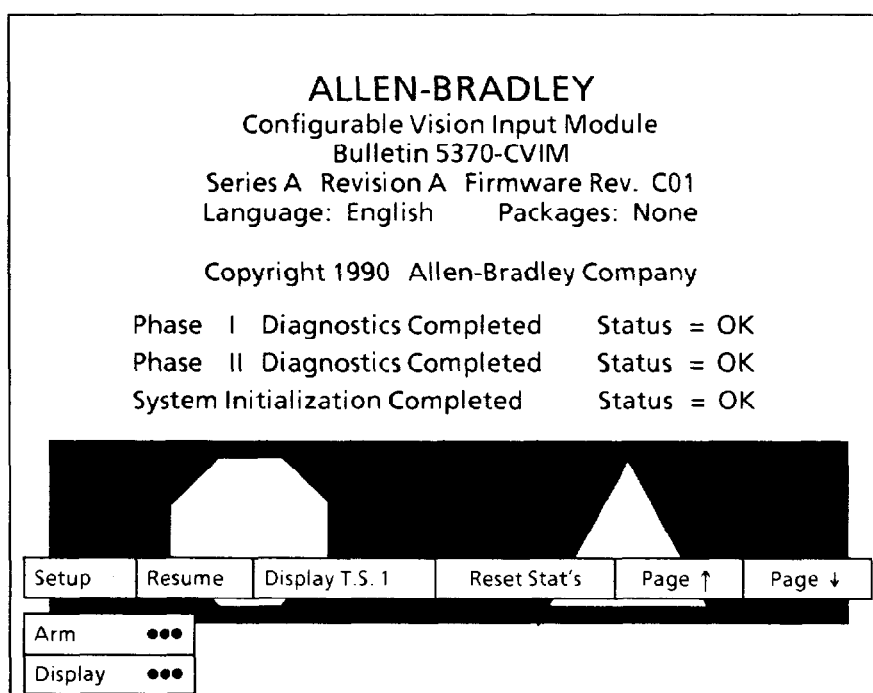
Connecting CVIM System Components

Before you install the CVIM system at its factory-floor site, you may find it useful to connect the basic system components temporarily on a workbench or table top.

There, away from the noise and distractions typically present on a factory floor, you can perform the powerup check and use the *CVIM Quick Start Self-Training Guide*, Catalog No. 5370-ND003, to get acquainted with the user interface.

Powering Up CVIM System (continued)

Your Action	Comment
Insert the CVIM system line cord plug in the AC outlet. If your CVIM system is using a +24VDC power supply, insert the line cord plug in the AC outlet.	
Push in the DC/PWR LOCK handle.	Be sure the lock handle is in as far as possible. The power/lock mechanism connects DC power to the modules and locks them in the chassis. It also prevents anyone from removing a module with DC power applied. On the power supply front panel, the DC light should turn on. On the CVIM module front panel, the red Memory Active and green Trigger 1 lights will be on briefly. The Pass/Fail light should be a steady green. After about 15 seconds, the Memory Active and Trigger 1 lights should be off, but the Pass/Fail light should still be green. If so, the powerup sequence was successful. Assuming the powerup sequence was successful, the monitor screen will display the "banner" message, the test pattern, and several "menu boxes":



Chapter 3 CVIM User Interface

Chapter Objective The objective of this chapter is to acquaint you with the CVIM user interface – the means by which you set up the CVIM system to perform your vision application, operate the system, and monitor its operation.

CVIM User Interface The term “CVIM user interface” refers to the specific devices that enable you to interact with the CVIM system.

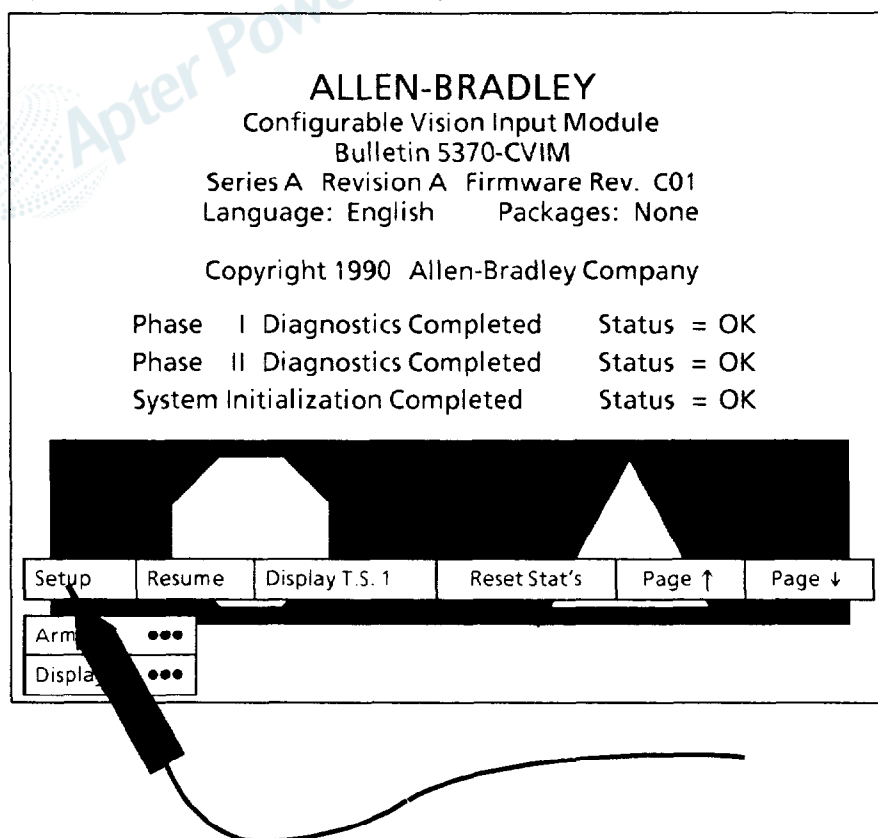
The user interface consists of just two main parts:

1. A light pen.
2. Graphic figures on the video monitor screen.

You will use the user interface to configure the CVIM system for its inspection tasks and, during system operation, monitor the results of those inspections.

Figure 3.1 shows the light pen pointed at a graphic figure on the monitor screen.

Figure 3.1 CVIM Interface: Light Pen and Graphic Figures



Notice that the user interface has *no keyboard*. To interact with the CVIM system, you just point the light pen at a graphic figure on the monitor screen and press the light pen tip against the figure.