

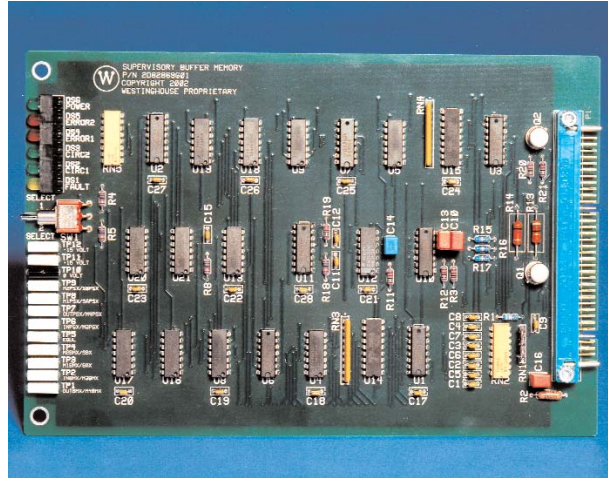
# Supervisory Buffer Memory Cards, Supervisory Logic II Cards, and Slave Cyclor Logic Cards



Repair,  
Replacement,  
and  
Automation  
Services

## Background

Westinghouse is continuing its ongoing design enhancement program to improve the Rod Control System's operation and reliability. System-printed circuit cards are periodically selected for a complete review and redesign. This redesign focuses on addressing known reliability detractors, replacing obsolete components and adding features to improve maintainability. This program enables Westinghouse to now offer its second group of enhanced cards. These cards are the supervisory buffer memory, slave cyclor logic, and supervisory logic II cards.



Supervisory Buffer Memory Card 2D82869G01

### These cards replace earlier cards as follows:

Supervisory Buffer Memory Card

2D82869G01 replaces 3359C83G01

Slave Cyclor Logic Card

2D82868G01 replaces 3359C80G01

Supervisory Logic II Card

2D82871G01 replaces 3360C77G01

The enhanced cards are a fit, form, and function replacement that can be implemented under 10CFR50.59. No systems modifications or wiring changes are required to install these cards.

The enhancements address both heat-induced aging and obsolescence issues posed by older cards. Additional operational improvements have also been incorporated.

The cards use modern state-of-the-art components. These components are more energy efficient and have lower power consumption than older components. As less heat is generated by these new components, reliability is increased.

(Continued on back)

The design also improves heat reduction through improved heat transfer and air flow by means of changes in the physical layout and through the use of low-profile components.

The obsolete Motorola HTL chips have been replaced with CMOS chips with proven track records of reliability.

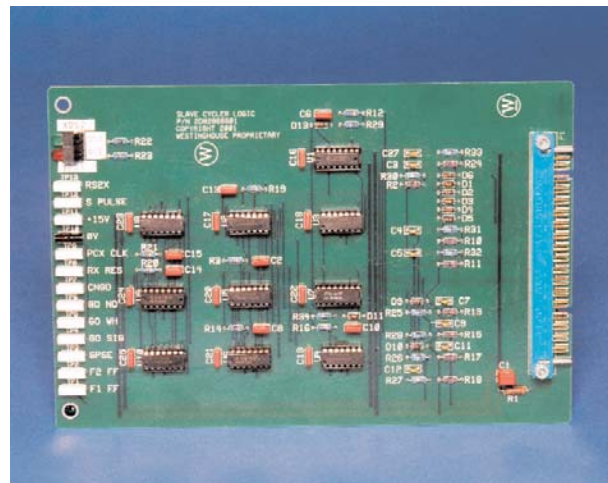
The new cards are qualified for operation in temperatures of up to 120°F system design requirements are 50°F to 104°F.

### Additional Features

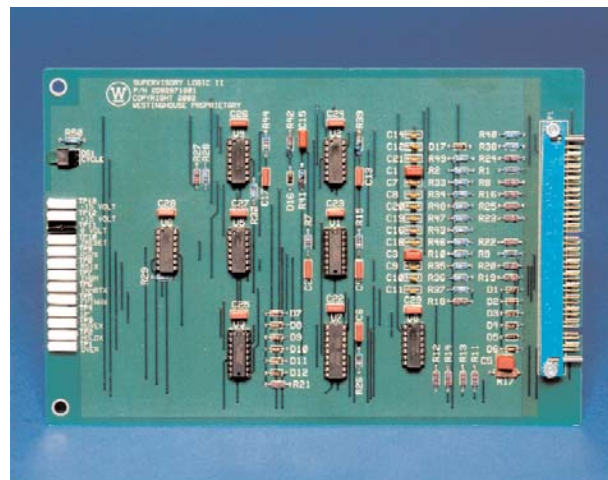
The supervisory buffer memory card is completely redesigned with redundant circuitry to minimize a single failure and improve system reliability. The new cards add seven new test points including a zero volt and a +15 volt and a -15 volt test point and five LEDs for easier troubleshooting and maintenance.

The slave cycler logic card includes ten new test points including a zero unit and a +15 volt test point for easier troubleshooting and maintenance. The existing lamps for DS1 and DS2 are replaced by LEDs for longer life.

The supervisory logic II card includes nine new test points and one LED for easier troubleshooting and maintenance.



Slave Cycler Logic Card 2D82868G01



Supervisory Logic II Card 2D82871G01

Westinghouse Electric Company  
Box 355  
Pittsburgh, PA 15230  
[www.westinghousenuclear.com](http://www.westinghousenuclear.com)

April 2005