

# Advanced-PS™ Data Hiway System Hiway RCD Solid State Switch PWA

## 1. Description

Reserve Controller Director Solid State Switch PWAs are direct replacements for existing electromechanical relay switch PWAs used in all Hiway Reserve Controller Directors (RCDs).

## 2. Benefits

Aging electromechanical relay based switch PWAs are prone to stick in one position or may fail to switch. Accordingly, many sites do not perform the recommended preventive maintenance procedures and are therefore unsure if their Uninterrupted Automatic Control (UAC) systems are working properly. With the use of Solid State Switch PWAs, users of Data Hiway systems with RCDs can return their systems to their original control robustness while also receiving the following benefits:

- Reliability improved due to state of the art components and circuit design
  - Virtually unlimited service life due to solid state relay design
- Reduce power consumption up to 20%
- Simple board for board replacement
- Coexistence and interoperability with original electromechanical designs

## 3. Replacement Details

The 16 solid state switch PWA (80603812-001) is mounted in chassis slot 9 in both Basic and Extended Controller RCDs and in slot 10 in the MC RCD. The 12 solid state switch PWA (80603812-002) is mounted in chassis slots 10 through 12 in both Basic and Extended Controller RCDs and in slots 11 through 13 in the MC RCD.

Both solid state switch types can co-exist with existing electromechanical relay based switch PWAs. However, due to the age and failure modes of the existing switches it is recommended that all existing switch PWAs in an RCD be replaced to insure system robustness.

## 4. Ordering Information

Installation instructions are included with all orders for the Solid State Switch PWAs as shown in the table below:

Table 1. Replacement Kit Contents

Item	Quantity	Model No.	Part No.
RCD SS SW PWA-16 relay	1	J-CDS16	80603812-001
RCD SS SW Installation Instructions	1	MS2-SYS100-3012	

Item	Quantity	Model No.	Part No.
RCD SS SW PWA-12 relay	1	J-CDS12	80603812-002
RCD SS SW Installation Instructions	1	MS2-SYS100-3012	

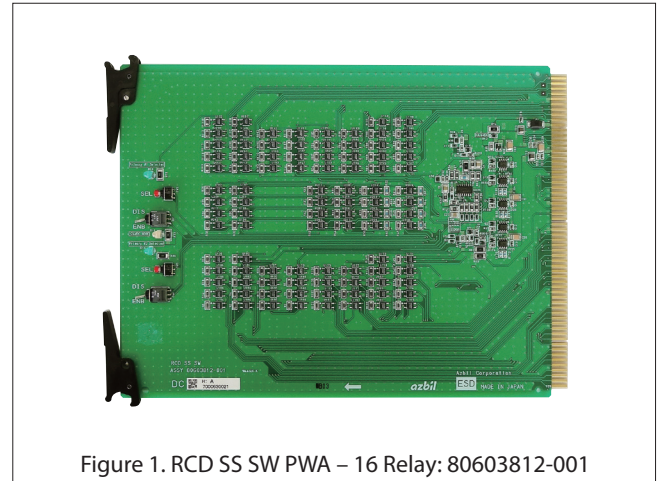


Figure 1. RCD SS SW PWA – 16 Relay: 80603812-001

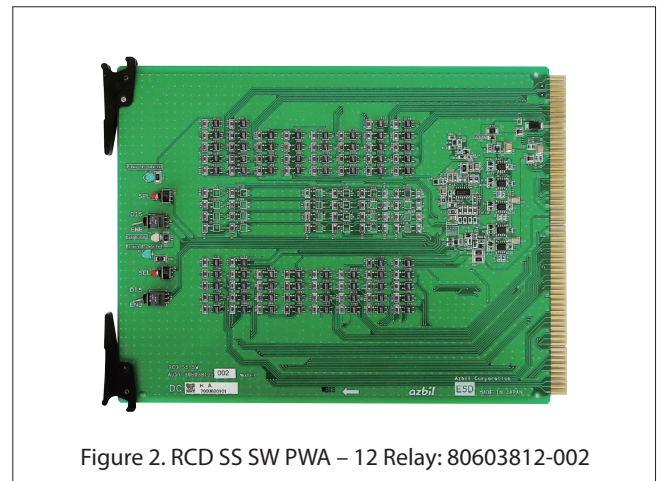


Figure 2. RCD SS SW PWA – 12 Relay: 80603812-002

## 5. Dimensions

Fully compatible with the standard form factor for all Data Hiway Card Files.

## 6. Complied Regulatory Requirements

UL 61010-1

RoHS Directive

Note: Complies with all specifications for CE Marking although its approval is not required as a "grandfathered" product.

Table 2. Environmental Conditions

Item	Specification		
	Normal Condition	Operating Limit	Transportation & Storage
Ambient Temperature (°C)	16 to 49 °C	0 to 50 °C	-10 to +75 °C
Temperature Rate (°C/min)	0.25 °C/min	1 °C/min	5 °C/min
Humidity (%RH)	10 to 90 %RH	5 to 90 %RH	
Vibration frequency (cps)	10 to 60	10 to 60	0 to 60
Acceleration (g)	0.1 @ 0.3 max	0.2 @ 0.3 max	0.5 max
Shocking Acceleration (g)	1	5	25
Duration (ms)	30	30	30
Barometric Pressure (cm/Hg)	53 to 78	53 to 78	28 to 78
Mounting angle	10 °	15 °	

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*Specifications are subject to change without notice.*



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