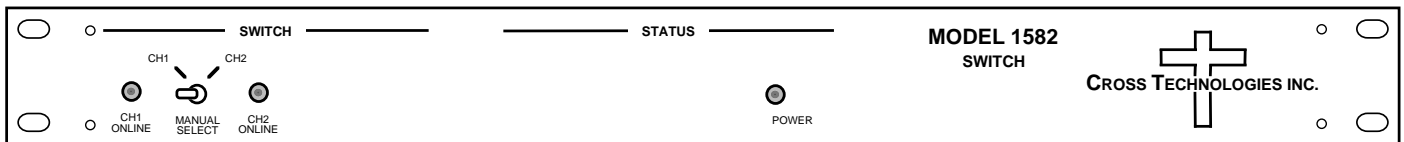


# Instruction Manual

# Model 1582-70M

## Switch, DPDT, Manual Select

November 2018 Rev 0



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# INSTRUCTION MANUAL

## MODEL 1582-70M Switch

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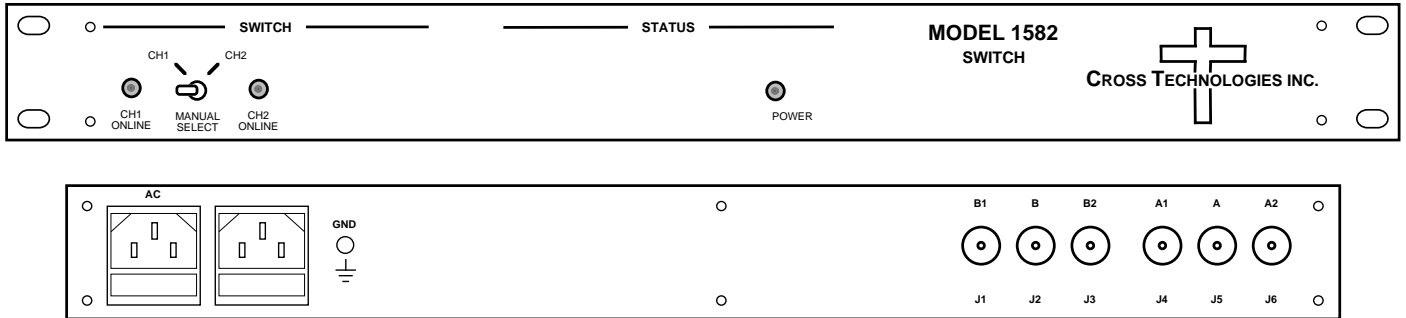
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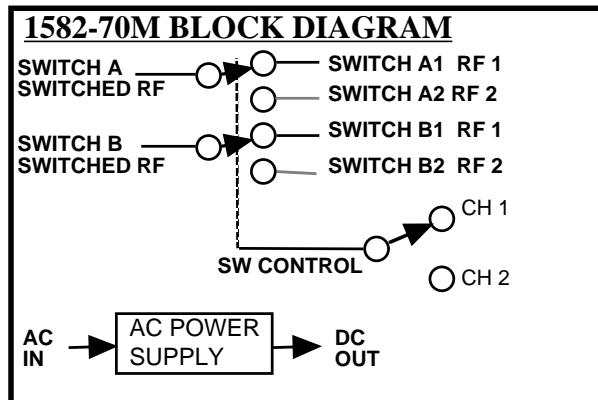
# MODEL 1582-70M Switch

## 1.0 General

**1.1 Equipment Description** - 1582-70M RF Switch, DPDT, Manual Select provides manual DPDT relay switching between CH1 and CH2 RF signals of two separate RF paths. When power is lost the selected channel is CH1. The Manual Select switch selects CH1 or CH2. LEDs indicate switch position as either CH1 or CH2 and Power.



**FIGURE 1.0 1582-70M Switch (Front & Rear Panels)**



**FIGURE 1.1 1582-70M Block Diagram**

## 1.2 Technical Specifications

### 1582-70M Technical Specifications

#### Switch Characteristics

Impedance	75 ohms
Type	No- latching Relay
Isolation	>65 dB DC to 10MHz >50 dB to 1.0 MHz, >40 dB to 1.5 GHz
Insertion Loss	≤1 dB to 1.0 GHz ≤1.5 dB to 2.0 GHz
Configuration	DPDT

#### Controls and Indicators

Manual Select	Manually select CH1, CH2,
LEDs (*=Closures)	C1*, CH2* On-Line, Power

#### Other

Connectors	75 ohm BNC, Female (RF), Other Connectors Available
Mechanical	19 inch standard chassis 1.75" high X 12" deep
Power	Single power supply; 100-240 ±10% VAC, 47 - 63 Hz, 10 watts

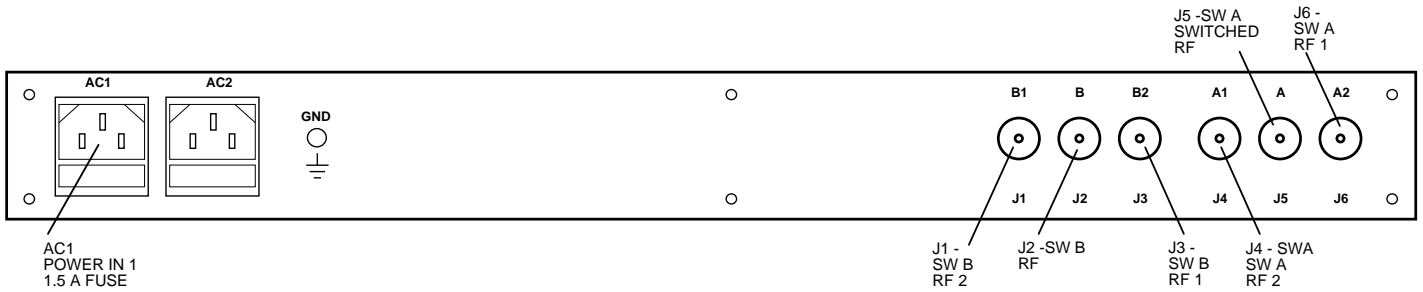
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\*+10 to +40 degrees C; 2000 meters max. elevation; 80% max. humidity; Specifications subject to change without notice

\*Specifications subject to change without notice

## 2.0 Installation

**2.1 Input/Output Connectors** - The following are the input and output connectors.



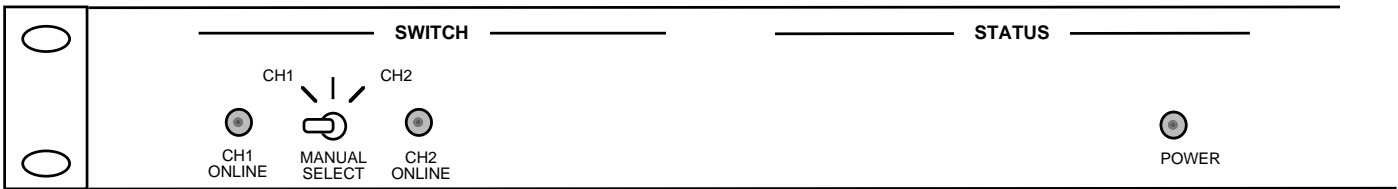
**FIGURE 2.0 1582-70M Rear Panel**

### TABLE 2.0 Input / Output Connectors (FIGURE 2.0)

J1, J2, J3, J4, J5, J6 - RF Connectors (FIGURE 2.0)

**AC1, AC2 - POWER AC Inputs for a single power supply. AC2 not used.**

**2.2 Controls and Indicators** -The following are the controls and indicators.



**FIGURE 2.2 1582-70M Controls and Indicators**

**Item**

**Description**

CH1 ON-LINE LED

Turns yellow when Channel 1 is selected.

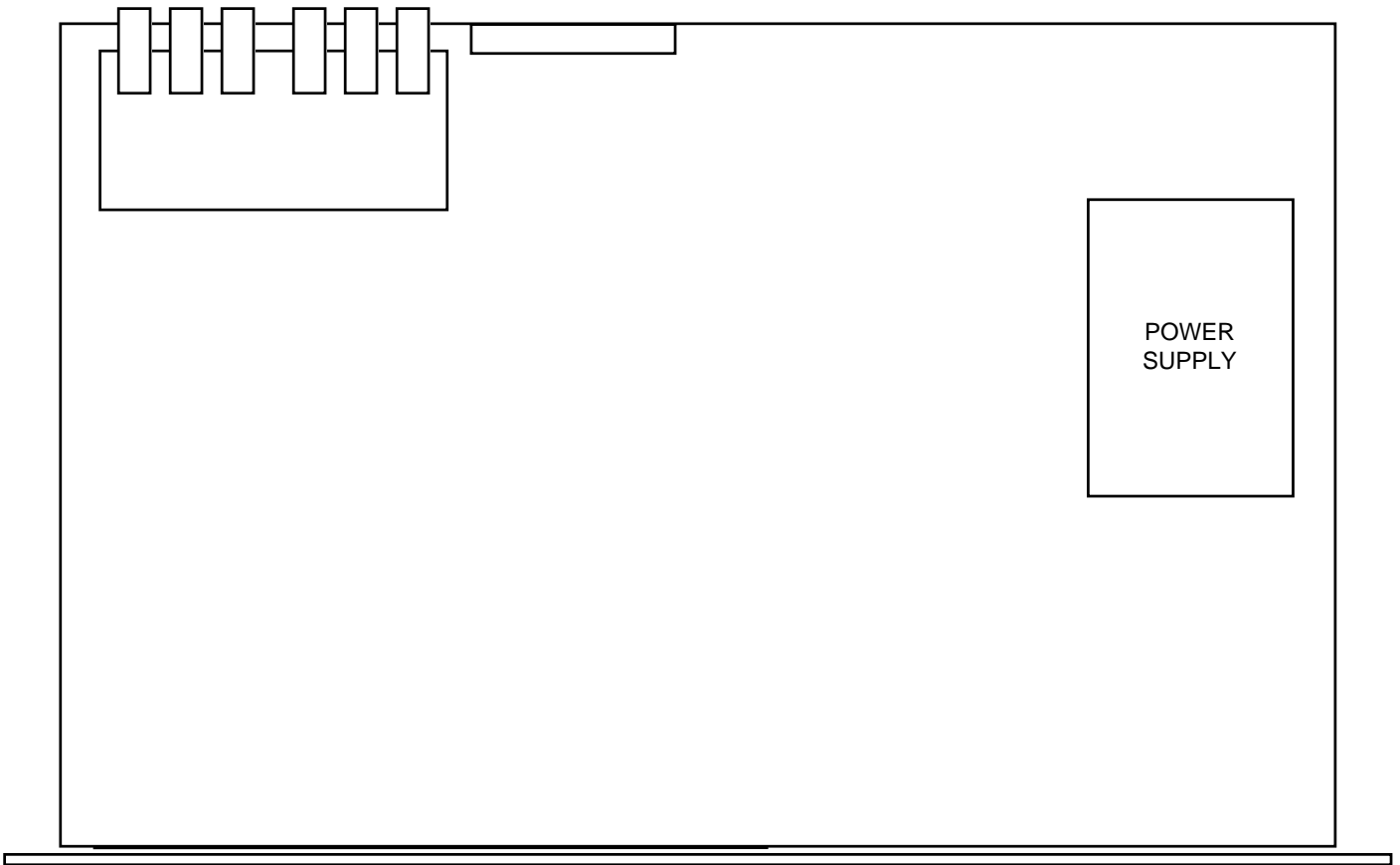
CH2 ON-LINE LED

Turns yellow when the Channel 2 is selected.

POWER LED

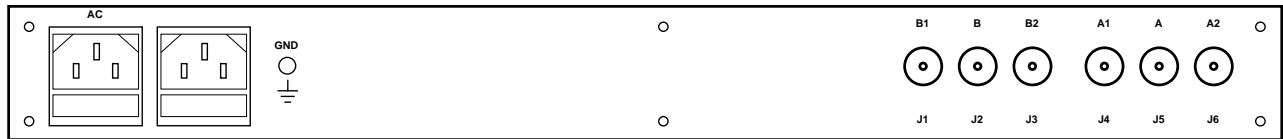
Turns green when power is applied on the rear panel.

**FIGURE 3.0 1582-70M Mechanical Assembly**



## 2.3 Setup Instructions

- a. Install the 1582-70M in the equipment rack.
- b. Connect RF to the BNC connectors (J1 - J3, J4 - J6).
- c. Connect power via a power cord to AC1.
- d. Manually switch between channels 1 and 2 and be sure switching occurs.
- e. Check that Ch1 is selected when switch is in position 2 when power is removed.





### 3.0 Environmental Use Information

- A. Rack-Mounting** - To mount this equipment in a rack, please refer to the installation instructions located in the user manual furnished by the manufacturer of your equipment rack.
- B. Mechanical loading** - Mounting of equipment in a rack should be such that a hazardous condition does not exist due to uneven weight distribution.
- C. Elevated operating ambient temperature** - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack may be greater than room ambient temperature. Therefore, consideration should be given to  $T_{mra}$ .
- D. Reduced air flow** - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised. Additional space between unit may be required.
- E. Circuit Overloading** - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits could have on over current protection and supply wiring. Appropriate consideration of equipment name plate rating should be used, when addressing this concern.
- F. Reliable Earthing** - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connection to the Branch (use of power strips).
- G. Top Cover** - There are no serviceable parts inside the product so, the Top Cover should not be removed. If the Top Cover is removed the ground strap and associated screw **MUST BE REINSTALLED** prior to Top Cover screw replacement. **FAILURE TO DO** this may cause **INGRESS** and/or **EGRESS** emission problems.

#### **4.0 - Theory of Operation Cross Technologies 1582-70M Switch.**

**Introduction** -The 1582-70M switch provides manual control of RF sources or loads depending on the user's application. Control is facilitated by a Front Panel Switch. LED indicators are provided for "CH1" and "CH2" and "Power".

**NOTE:** When switching, pull switch out . The switch is designed so that it will not easily be accidentally switched.



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