INSTALLATION INSTRUCTIONS

MODEL CBCSM1
Current Sensor Connecting Block

Figure 1 – CBCSM1 Current Sense Connecting Block

Figure 2 – CSM1 Module (sold seperately)

FEATURES

The CBCSM1, used in conjunction with the CSM1 Current Sense Module (sold separately), will sense the AC Power State of a component and pass a control voltage to another components Control Input or voltage controlled device. This allows the CSM1 to operate as a *general purpose* current sensor instead of being used exclusively with an MRC44 or MRC88 Controller. The CBCSM1 will provide Positive or Negative logic on its Pull UP or Pull DOWN terminal connections.

NOTE: Requires CSM1 Current Sense Module and 781RG Power Supply both sold separately.

CSM Input: Interfaces with the 3.5mm Stereo Mini plug of the CSM1 Current Sense Module. The CSM1 detects the Power State of the component and passes a 'sense' voltage to the CBCSM1 Connecting Block.

PULL UP: This output will pass a 12vDC voltage whenever the CSM1 detects a power ON state (Green threshold LED ON). When the CSM1 detects a power OFF state (Green threshold LED OFF), the PULL UP terminal will be switched to GND (0v). See **Table 1**.

PULL DOWN: This output will be directly opposite of the PULL UP terminal. The PULL DOWN terminal is switched to GND (0v) whenever the CSM1 detects a power ON state and will pass 12vDC whenever the CSM1 detects a power OFF state. See **Table 1** below.

Component Power State		PULL UP Voltage	PULL DOWN Voltage	CSM1 Threshold LED Indicator
ON		+12vDC	0v (GND)	ON
OFF		0v (GND)	+12vDC	OFF

Table 1: Power ON/OFF Voltage States

HARDWARE CONNECTIONS

1. Plug the CSM1 (shown in Figure 2) into an unswitched AC Power Source.
2. Plug the 3.5mm stereo mini plug from the CSM1 into the jack labeled **CSM Input** on the CBCSM1 Current Sensor Connecting Block.
3. Connect a 12v Power Supply to the 2.1mm Coaxial Power jack on the CBCSM1
4. Interface the desired logic output of the CBCSM1 (Pull Down or Pull Up) to the controlled source as in **Figure 3.**

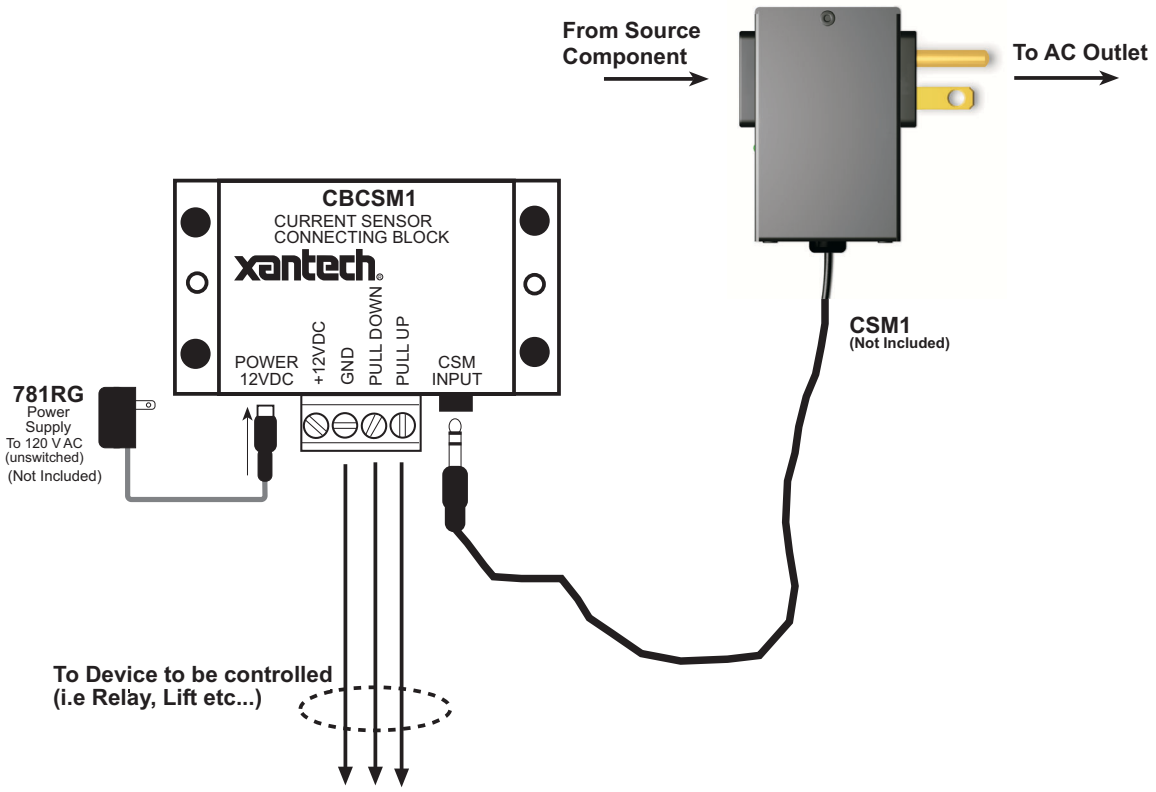

Figure 3: Installation Connections

CSM1 Threshold Adjustments

a. First, make sure the 3.5mm mini-plug is plugged into the appropriate sense jack on the CBCSM1 and that it is powered ON via a 781RG Power Supply (not included). (The CSM1 gets low-voltage DC power from the CBCSM1 – not from the AC line.)
b. Select the correct position of the RANGE slider switch – the HI position is for devices with a high current draw when ON, the LO position is for devices with a low current draw when ON (based upon the lowest current draw state of the component when ON).
c. Manually turn the component ON.
d. Using a small (1/8" wide) blade screwdriver, rotate the current control to the full CLOCKWISE position (LO CURRENT).
e. Rotate the control COUNTER-CLOCKWISE (towards the HI CURRENT position) until the Threshold Adjustment LED goes OFF (Make 'note' of this position).
f. Turn the component OFF manually.
g. Rotate the control CLOCKWISE until the Threshold Adjustment just goes ON.
h. Set the control to a point midway between this and the setting in step 'e' above. This should be the correct setting.

NOTE 1: If you have trouble with the threshold adjustment correctly detecting the ON and OFF states of the component, try changing the RANGE slider to the opposite position and then try the adjustment again.

NOTE 2: If the Threshold Adjustment LED does not go ON and OFF with the component power, make minor adjustments to the threshold adjust until the LED is in proper sync.

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