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Title: Active Cavity Radiometer (ACR)

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Short Description: The ACR measures the total solar irradiance to determine the magnitude and direction of variations in the total solar radiative output. The ACR is an electrically self-calibrating cavity pyroheliometer capable of measuring the total solar irradiance with an absolute accuracy better than 0.2% and capable of detecting changes in the total irradiance smaller than 0.001%. The data will be used to study the physical behavior of the Sun and the Earth's climate.

Instrument Characteristics:

Mass:	20 kg	
Volume:	0.3 cubic meters	
Power:	15 watts	
Data rate:	0.2 kbps	
Pointing:	Direction:	Sun center
	Accuracy:	better than 2 degrees

General Comments:

The ACR has flown successfully on the Solar Maximum Mission and on STS Missions.

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