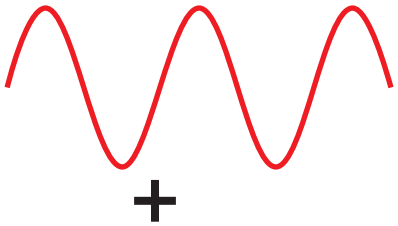
External Signal Input

AC-ADD, AC+DC-ADD mode

GW INSTEK
Simply Reliable Since 1975

ASR-2000 Series Programmable AC/DC Power Source

Add the External signal to the output of the ASR itself.



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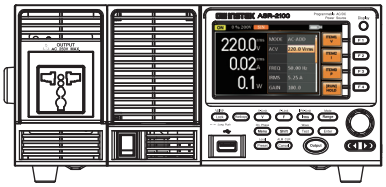
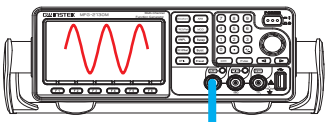
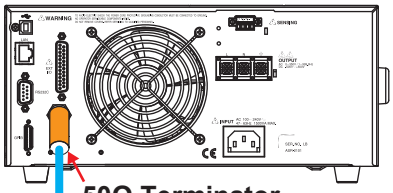


Function Generator:





Ext Vin

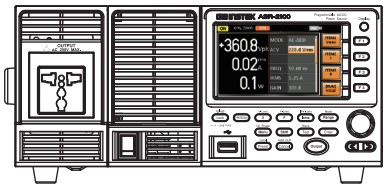
50Ω Terminator

Ext signal

Generally, the output impedance of a function generator is 50Ω. The impedance of the ASR's EXT input is 1 MΩ, so use a 50 Ω terminator for the connection.

ADD mode Output voltage (Vadd) = Ext Vin(V) x Gain (V/V) + ASR Vout

Vadd



Vadd OUTPUT Voltage range:

100V range: 0.0 V to 175.0 Vrms

200V range: 0.0 V to 350.0 Vrms

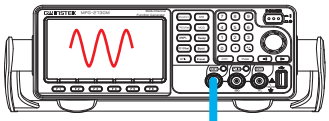
External Signal Input (AC+DC-ADD, AC-ADD)

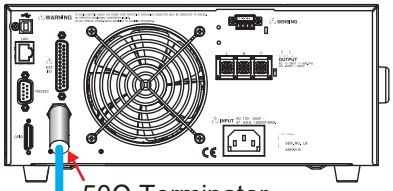
	Specification
Gain setting range	100 V range: 0.0 to 250.0 times (Factory Default: 100) 200 V range: 0.0 to 500.0 times (Factory Default: 200)
Input terminal	BNC connector (Rear Panel)
Input impedance	1 MΩ
Input voltage range	±2.5 V (A/D resolution 12 bit)
Nondestructive maximum input voltage	±10 V
Input frequency range	DC to 999.9 Hz (sine wave) DC to 100 Hz (other than sine wave)
Gain resolution	0.1 times
Accuracy	±5% (DC, or 45Hz ~ 65 Hz, gain is at initial value, with rate voltage output, no load)"

AC-ADD example

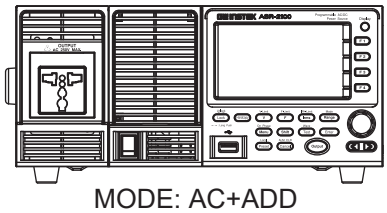
Add the External signal to the output of the ASR itself.

Function Generator:





50Ω Terminator



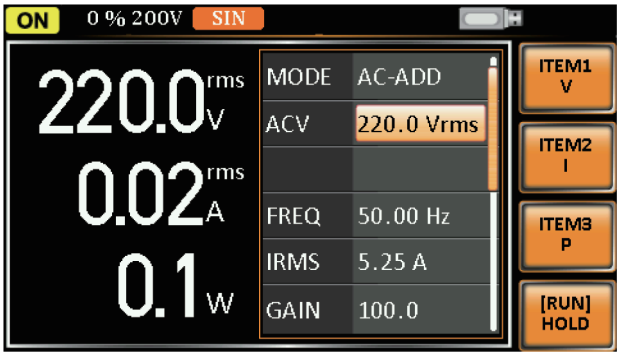
Frequency: 400Hz

Amplitude: 1Vpp (353.5mVrms)

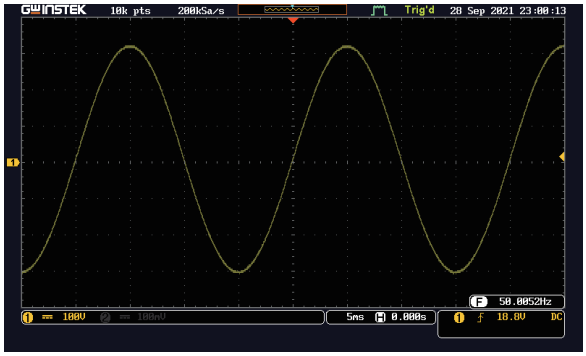
MODE: AC+ADD
ACV: 220Vrms
Freq: 50Hz
GAIN: 100

ASR:

MODE: AC+ADD, ACV: 220Vrms, Freq: 50Hz, GAIN: 100



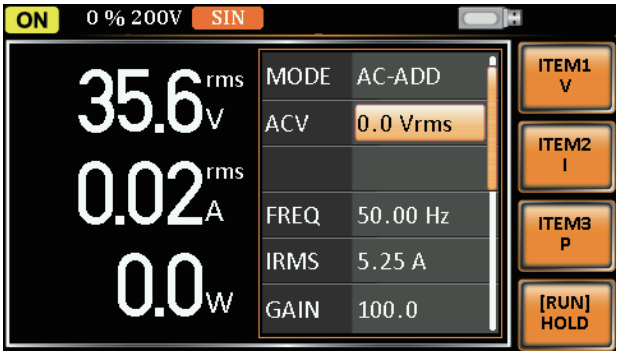
ASR ACV=220V, EXT input=0V



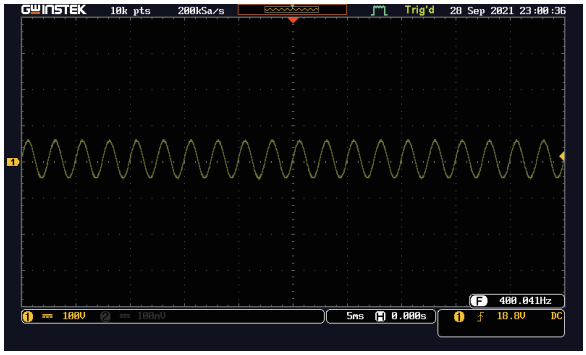
Function Generator: 400Hz, 1Vpp (0.354Vrms)

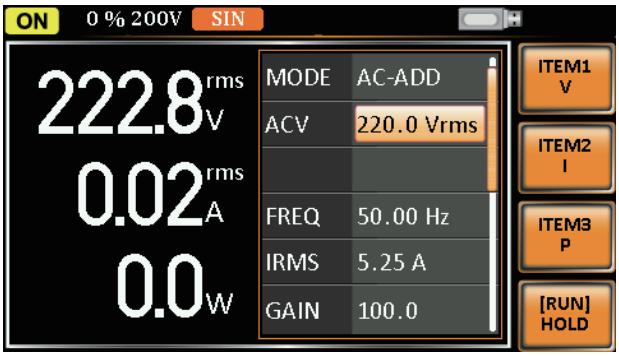
1Vpp x GAIN(100)≒100Vpp (35.4Vrms)

ASR: ACV=0V



ASR ACV=0V, EXT input=1Vpp, GAIN=100





ASR OUTPUT Voltage = 222.8Vrms

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