Parallel Connections

Switch Settings

Connecting the Optional Communications Cables

Connecting the Optional Synchronization Cables

Connecting the Output Cables

Connecting the Load

Turning the Units On and Checking Operation

Disconnecting Parallel Operation

NOTE The parallel information in this section does not apply to AC6903 units.

Switch Settings

WARNING Risk of Electric Shock

Before making any load or sense connections be sure to turn the POWER switch off and turn off the circuit breaker of the switchboard. Even with power turned off, residual voltage may remain at the output terminals. Do not touch the output terminal block for at least 20 seconds after the power is tuned off.

Always attach the OUTPUT terminal cover so that the terminals are not exposed during operation.

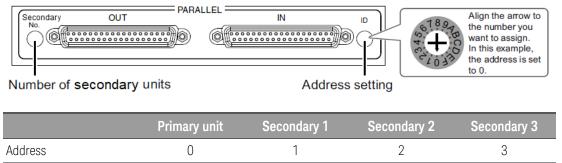
- **CAUTION** Use load cables with a thickness (conductor cross-sectional area) equivalent to that of the load cable for each instrument.
- **NOTE** Refer to **Keysight Sales and Support Office** for information about ordering the optional AC69PAR1 parallel interface connector for making your wiring connections, and the AC69SYN1 Synchronization cable for synchronizing the power switches.

Refer to **Rear Panel at a Glance** for the location of the parallel connectors.

The power capacity of each phase is limited to 48 kVA, and the maximum current is limited to 480 A.

If the response is set to high-speed (FAST), it is changed to normal speed (MEDIUM) during parallel operation.

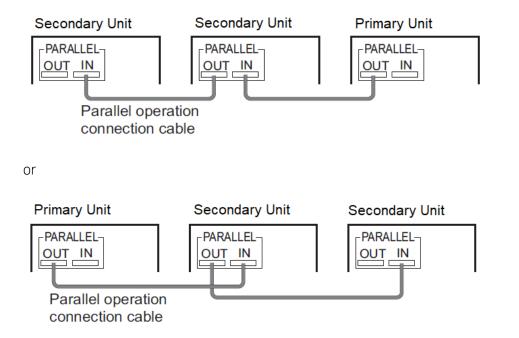
The following table describes the switch settings for up to three secondary units connected to one primary unit.



No. of secondary units	1	1		
No. of secondary units	2	2	2	
No. of secondary units	3	3	3	3

Connecting the Optional Communications Cables

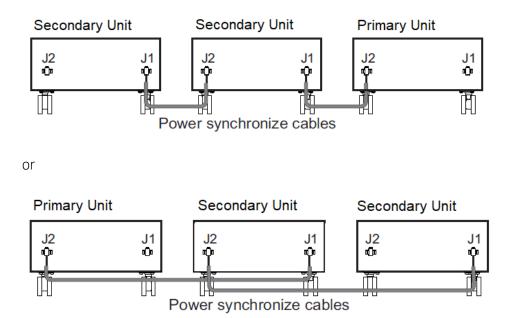
Signals flow from the OUT connector to the IN connector. Make sure the IN and OUT connections are correct. The connector is always installed in the OUT connector of the primary unit.



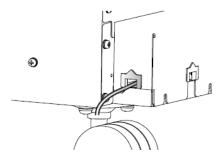
Connecting the Optional Synchronization Cables

Connect the optional power synchronize cables. With these cables installed, you can configure the paralleled system so that when the primary unit is turned on, all the secondary units also turn on.

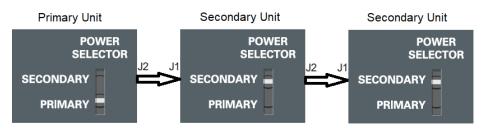
Signals flow from the J2 connector to the J1 connector. Make sure the J1 and J2 connections are correct. The connector is always installed in the J2 connector of the primary unit. Push the power synchronize cables in until they are locked in place



Route the synchronization cable out through the openings in the sides of the terminal cover. Do not pinch the synchronization cables by the cover.



Set the front panel switches the match the rear panel synchronization settings. When you operate the primary unit's POWER switch, the secondary units' power supplies turn on synchronously.



Connecting the Output Cables

Refer to the following figure, and connect the OUTPUT terminal block and relay terminals.