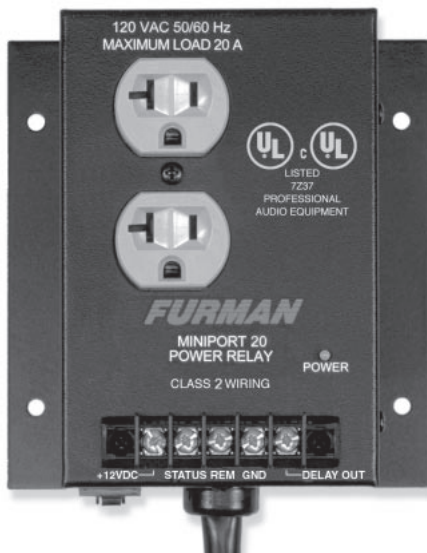


# REMOTE CONTROL PRODUCTS

MODELS: MINIPORT-15, MINIPORT-20, MINIPORT-15Q, MINIPORT-20Q, POWERLINK, RS-1, RS-2, PS-REL

## POWER RELAY MINIPORT-15, MINIPORT-20



MiniPort-20

The **MINIPORT-20** Power Relay is a UL/CUL listed, 20 amp, relay switched 120 VAC outlet, with a terminal strip that allows remote control via safe, inexpensive, low voltage Class 2 wiring.

Also available is the **MINIPORT-15** (not shown), which is functionally identical except for its 15 amp rating.

Both models include an internal 12 VDC supply, and can be controlled from a remote location with maintained or momentary contact switches.

The Furman models RS-1 and RS-2 are maintained and momentary key switch panels (respectively) that fit in a single gang electrical box. For control from more than one location, the RS-2 momentary switch would be appropriate. See overleaf for more information.

Multiple MINIPORTs may be connected together so that all are controlled by a single switch closure, and may be linked so that all turn on simultaneously or one by one, in a delayed sequence. If delayed, the delay interval between the turn-on of one MINIPORT and the next is approximately 3 seconds. (Delayed turn-on is useful in avoiding large inrush currents that can trip house circuit breakers, that would otherwise occur if all amps were turned on simultaneously.) Turn-off always occurs simultaneously, however.

A Furman PowerLink (see overleaf) can also be used to control MINIPORT(s). In this use, the MINIPORT(s) are connected to terminals on the PowerLink, which provide the necessary control functions. MINIPORTs are similarly compatible with the Furman PowerPort and ASD-120 Sequenced Power Distro.

With the addition of a PS-REL AC Relay (see overleaf) to provide control, a MINIPORT can be used to extend the capacity of any other Furman power product — or, for that

matter, any product with a switched outlet, such as a receiver/amp controlled with a wireless remote. When used in this manner, the MINIPORT is switched on or off when the outlet that the PS-REL is plugged into goes on or off.

Both the MINIPORT-15 and the MINIPORT-20 come equipped with two knockout holes for permanent installation with 1/2" conduit — one on the top surface, the other on the bottom. Use of the bottom knockout hole requires removing the AC cord. According to the National Electrical Code, 1/2" conduit can accommodate up to five 20 amp circuits using ten THWN 12 gauge stranded wires; however, local codes should be checked for exact requirements.

MINIPORTs are housed in rugged steel enclosures and come equipped with a heavy duty, 10 foot AC cord. The MINIPORT-15 is fused; the MINIPORT-20 is equipped with a precision magnetic circuit breaker. The MINIPORT-20 and MINIPORT-15 are UL and CUL (Canadian) listed.

Note: Because of its UL listed 20 amp rating, the MINIPORT-20 uses a 20 amp AC plug with perpendicular (not parallel) blades. If in doubt regarding your installation, please consult an electrician or call the factory.

The MINIPORT-20 is an upgrade of an earlier Furman MINIPORT. The primary differences are the ability to use momentary switches, the delayed turn-on option, and the additional knockout holes.

Dimensions: 5.5" (H) x 3.75" (W) x 2" (D). With mounting bracket, width is 5.25".

## POWER RELAY MINIPORT-15Q, MINIPORT-20Q

The **MINIPORT-20Q** (20 amp) and the **MINIPORT-15Q** (15 amp), provide a pair of remotely-activated, relay-controlled outlets, set up for mounting in any standard electrical Quad Box, either directly or with a "mud ring" attached.

Due to the space limitations of a quad box, the "Q" models have a smaller feature set than the MINIPORT-15 and MINIPORT-20. There is no internal power supply; a maintained 10-30VDC supply capable of supplying 10 mA is required to turn on the outlets. This can be supplied by a Furman PowerLink, or ASD-120. UL, c-UL pending.



MiniPort-20Q

# POWERLINK REMOTE SEQUENCER

The **PowerLink** is a compact, low-cost rackmount remote sequencer that provides timing for up to six power control devices, turning them on and off in a preset sequence. The delay interval between steps is user-adjustable via an internal trimpot.



PowerLink

A PowerLink can work with a group of relay-controlled outlets such as MINIPORTs, to create a very flexible power control system that can expand to handle as many circuits as needed. An on or off sequence can be initiated from the PowerLink, using the built-in high-security locking key switch, or, if the key switch is set to enable Remote operation, by one or more momentary or maintained-action switches in distant locations.

The outputs of the PowerLink are low power relay contacts, accessible through rear-panel screw terminal strips. All input and output commons are electrically isolated to avoid the creation of ground loops. Normally open and normally closed relay operation is selectable by internal jumpers. ETL, C-ETL listed.

## RS-1, RS-2 REMOTE SYSTEM CONTROL PANELS



RS-2

The **RS-1 and RS-2 Remote System Control Panels** provide a simple way to control AC equipment from one or more locations, using only inexpensive low-voltage wiring.

The panels can be easily installed in a single gang switchbox with a minimum depth of 1.5". Features common to both

models include a locking key switch and a "System On" indicator LED. The RS-2 includes a momentary "Start ON/OFF Sequence" pushbutton, while the RS-1 is a maintained contact version. The rear of the panels have a circuit board with a full size barrier strip for field wiring connections.

The RS-1 and RS-2 can be used to control the Furman ASD-120 Sequenced Power Distro, the PowerLink, PowerPort Remote AC Controller, the MiniPort Power Relay series, or the PS-8R or PS-PRO Power Sequencers, as well as other equipment that needs a switch contact at a remote location.

Dimensions: 4.75 (H) x 2.75 (W) x 1.5" (D).

## AC RELAY ACCESSORY PS-REL

The **PS-REL AC Relay** senses the presence of 120 VAC and closes a SPDT relay. The relay contacts are available on a barrier strip. It may be used with any product that needs a contact closure in response to AC voltage.

A common application for the PS-REL is to extend the capacity of the switched outlet found on many home theater receiver/amps. In this way, a wireless remote can turn on the receiver, which in turn powers its switched outlet, which triggers the PS-REL, which then activates a Furman power sequencer, MiniPort, or PowerPort system capable of switching many large power amps or other power-hungry equipment in multiple locations, attached to multiple circuits.



PS-REL

## Furman Power Sequencers and Remote Control Products

	Ratings			Protection			Outlets <sup>2</sup>				Features		Comments
	Current, Amps	Input Voltage	Output Voltage	Spike/ Surge <sup>1</sup>	EMI/ RFI <sup>1</sup>	Ex-treme Volt	10 A	15 A	20 A	30 A	Delay Grps <sup>3</sup>	Rem Contr	
PS-8	15	120	120 <sup>5</sup>	1	2			9			3		Line Fault Analyzer
PS-8E	10	230	230	1	2		9				3		Line Fault Analyzer
PS-8R	15	120	120	1	2			9			3	•	Line Fault Analyzer
PS-8RE	10	230	230	1	2		9				3	•	Line Fault Analyzer
PS-PRO	20	120	120	2	2	•		1	8		3	•	Line Fault Analyzer
MiniPort-15	15	120	120					2			0 <sup>4</sup>	•	Surface mount
MiniPort-15Q	15	120	120					2				•	Quad box mount
MiniPort-20	20	120	120						2		0 <sup>4</sup>	•	Surface mount
MiniPort-20Q	20	120	120						2			•	Quad box mount
PowerLink	—	120	—								6	•	Remote control/sequencing signals only
PowerPort	20	120	120	2	2	•			2		1	•	Individually settable turn-on/off delay
ASD-120	120	120/240/208 3ph	120	1					12		6	•	Sequenced Power Distro, six 20A circuits

**Notes:** (1) " 1 " indicates basic protection; " 2 " is PRO level protection. (2) Outlets used are: 10A, IEC-320; 15A, NEMA 5-15 (Edison); 20A, NEMA 5-20; 30A, NEMA L14-30. (3) The number of " delay groups " indicated includes the first (last) group, which turns on (off) instantaneously (except: PowerPort and ASD-120 have no instantaneous group.) (4) First unit turns on instantaneously; additional remote units may be linked for delayed turn-on. No turn-off delay available. (5) Version available for 100V output. Add " J " suffix to model.