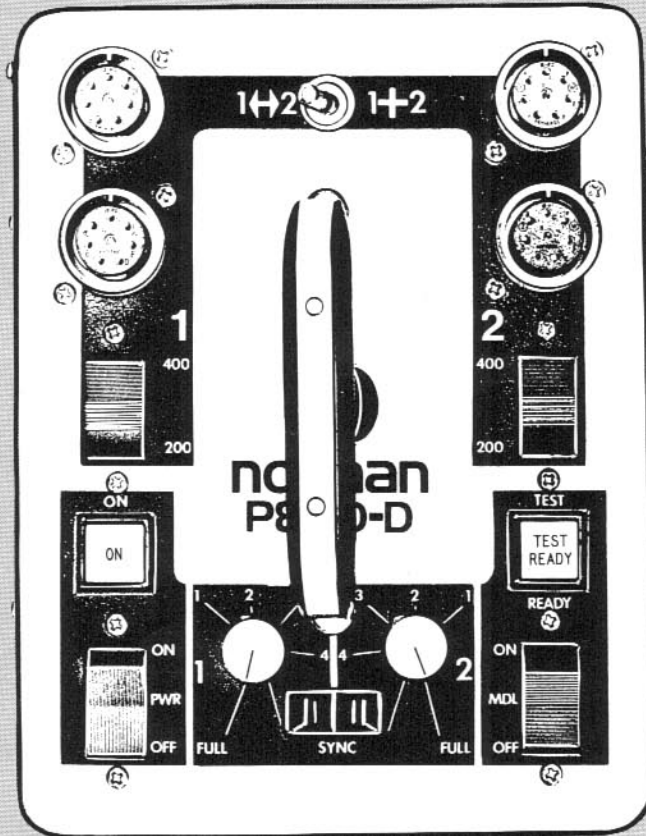


**INSTRUCTION  
MANUAL**



**800**







# 800



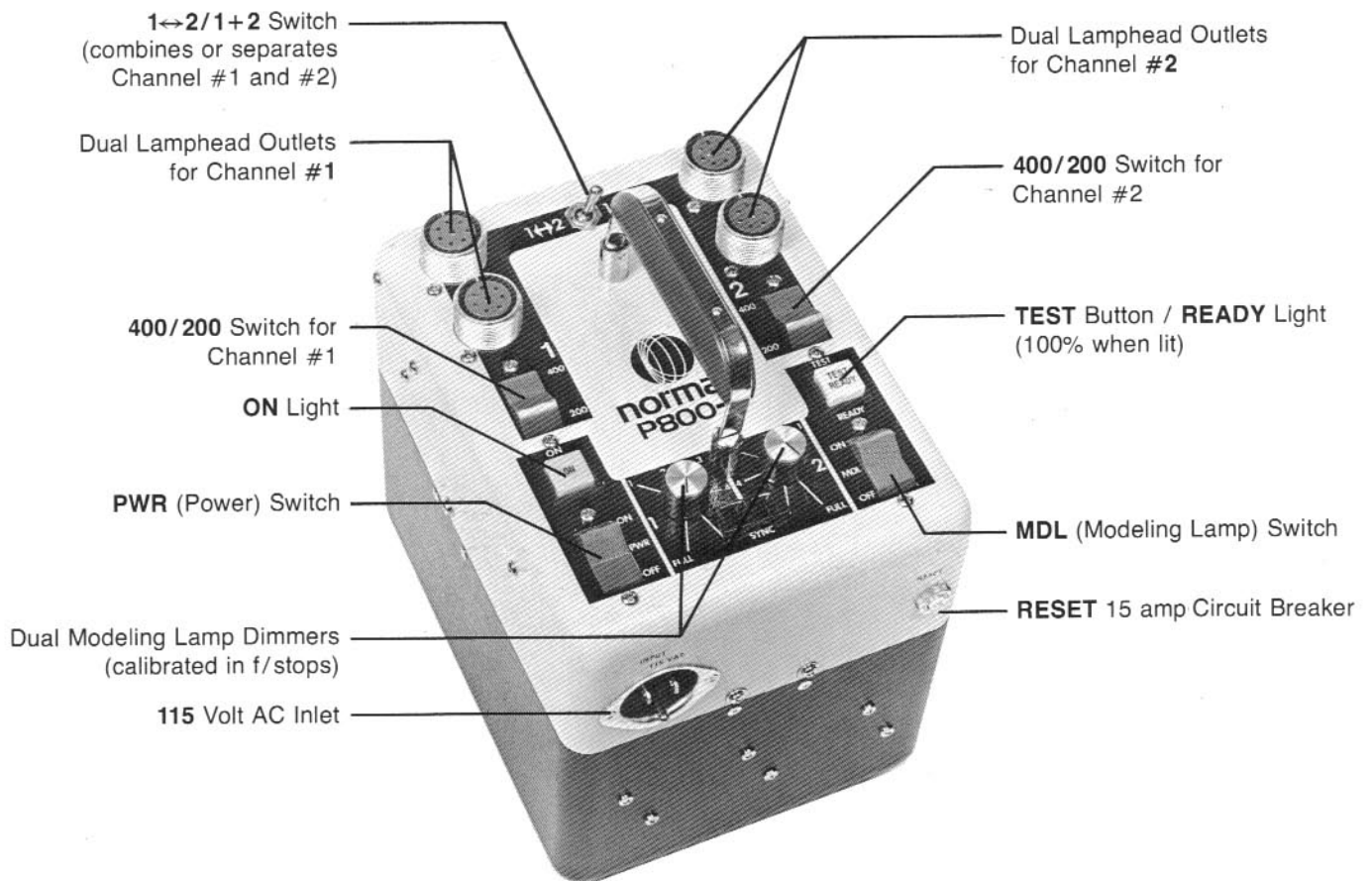
Welcome to the Norman family of *interchangeable* flash equipment!

You have just purchased the Norman 800 flash unit that will provide you with years of dependable service. It has a heavy-duty 800 watt-second circuit and several exclusive features and conveniences not found on other commercially available flash equipment.

-  A ratio feature that allows you to adjust the modeling lamp intensities in direct proportion to the flash outputs.
-  A flash ratio feature that allows you to effectively have two power units in one so you can obtain more light from some lights than others.
-  A heavy duty transformerless circuit that enables you to flash the unit for extended periods without overheating the power supply. This transformerless design has also reduced the weight by 10 lbs. over our previous transformer type units.
-  Interchangeable with the complete Norman Series 900 equipment line which includes over 50 items — reflectors, snoots, barn doors, power supplies, umbrellas, diffusers, etc.

It is our sincere desire that you will benefit from the engineering and manufacturing expertise that has brought you this unique system.

If we can be of service or if you have any suggestions or questions, please do not hesitate to contact us.



## *Save these Instructions*

### **IMPORTANT SAFEGUARDS**

in accordance with UL 122 specifications for photographic equipment.

When using your photographic equipment, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions.
2. Care must be taken as burns could occur from touching the modeling lamp.
3. Do not operate the appliance with a damaged cord or if the appliance has been dropped or damaged until it has been examined by a qualified serviceman.
4. If an extension cord is necessary, a cord with a suitable current rating should be used. Cords rated for less amperage than the appliance may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
5. When practical, unplug the appliance from the electrical outlet when not in use. Never yank the cord to pull from the outlet. Grasp the plug and pull to disconnect.
6. To avoid electric shock hazard, do not disassemble this appliance, but take it to a qualified serviceman when service or repair work is required. Incorrect reassembly could cause an electric shock hazard when the appliance is subsequently used.

## **EXPLANATION OF INDICATORS AND CONTROLS**

### **AC INLET**

Connects to the AC power cable. The AC input voltage is 115 volt, 60 Hz.

### **PWR Switch**

Controls the AC power to the flash circuit. The main capacitors automatically discharge when the PWR switch is off.

NOTE — it is not necessary to turn the PWR switch off when connecting or disconnecting lights on power supplies manufactured after serial #13480.

### **MDL Switch**

Turns the modeling lamps on or off. The MDL switch operates independent of the PWR switch so that the modeling lamps can be turned on with the flash circuit left off.

### **ON Indicator**

Illuminates when the PWR switch is on and when the power is reaching the circuit.

### **TEST/READY Light**

Illuminates when the circuit reaches 100% voltage stabilized output. The unit can be flashed by depressing the TEST/READY light.

### **RESET Circuit Breaker**

Rated at 15 amps. It automatically protects the flash circuit against excessive overloads. If the ON light goes off but the PWR switch and modeling lamps are on, the RESET breaker is probably activated causing the button to pop out about ¼ inch. To reset the breaker simply wait about 30 seconds and depress it back to its normal position.

### **SYNC Outlet**

Triggers the flash. Plug your camera sync extension cord into this outlet. Proper polarity is important with most cameras (cameras with grounded sync contacts). To check polarity, simply touch any exposed (non-painted and non-anodized) metal on the camera body to any exposed (non-painted and non-anodized) metal on the flash unit. If the unit flashes when this is done, reverse the sync cord to achieve the correct polarity. This establishes a common ground between the camera body and the flash unit. If the polarity is incorrect, the unit could self flash or flash intermittently.



# EXPLANATION OF INDICATORS AND CONTROLS

## 1 ↔ 2 / 1 + 2 Switch

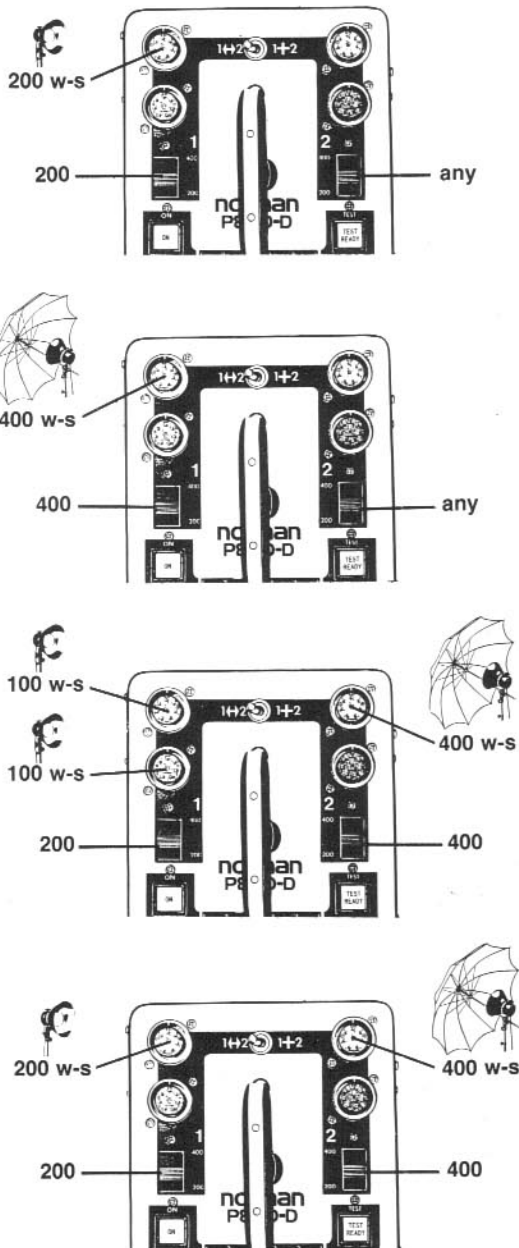
Combines or divides both power supply circuits so you can obtain all the power (800 w-s) into one light, or have two 400 w-s power supplies in order to obtain unique light output combinations. This allows you to obtain 400 w-s in one light (such as an umbrella light) and 200 w-s in another light (such as an accent light).

**1 ↔ 2 Position** — Divides output #1 (left side) and output #2 (right side) into two power supplies.

**OUTPUT #1** — 400 w-s with two lamphead outlets and a full/half power switch. This way you can switch down to only 200 w-s on a single lamphead.

**OUTPUT #2** — The same arrangement as on the output #1 side.

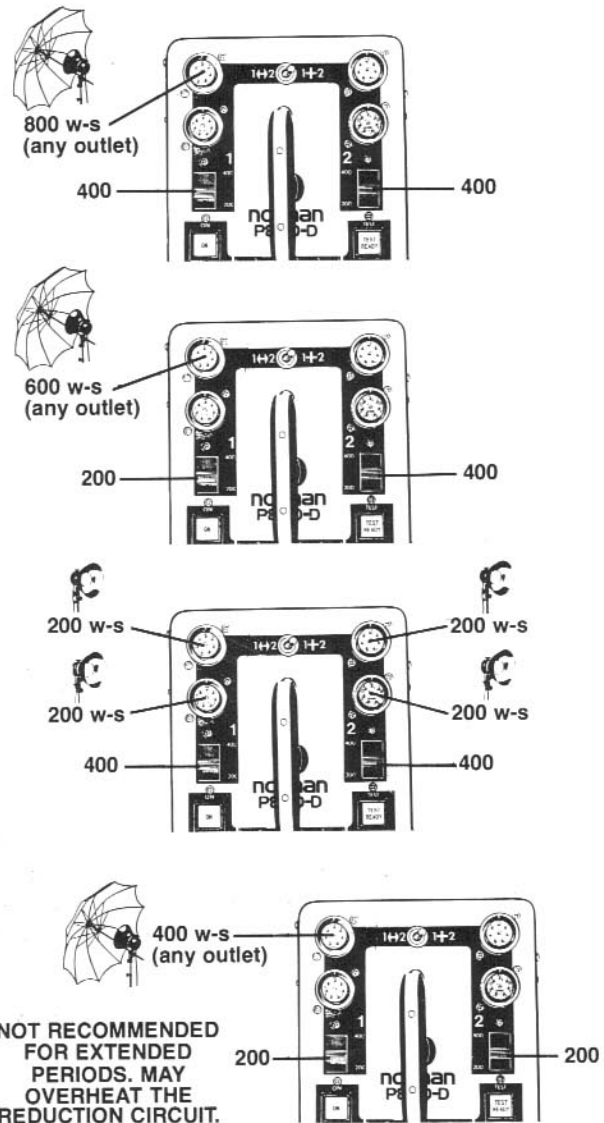
Here are some typical illustrations using this mode of Operation:



**1 + 2 Position** — Combines output #1 (left side) and output #2 (right side) into one power supply that has a total output equal to the sum of both full/half switch settings. This can enable you to obtain 800 w-s on a single lamphead as illustrated below.

**NOTE** — If you require 400 w-s from a single lamphead, we suggest that it be obtained by using the switch in the 1 ↔ 2 position rather than by setting both full/half power switches on 200 w-s with the function switch at the 1 + 2 position.

Here are some typical illustrations using this mode of Operation:



To obtain 400 w-s on one light it is suggested that you place the function switch on the 1 ↔ 2 position and use the light on either channel (output) with that corresponding switch set to the 400 position.

# EXPLANATION OF INDICATORS AND CONTROLS

## MODELING LAMP DIMMERS

Dims the modeling lamps so that they will ratio to the flash outputs. The dimmers are calibrated in one f/stop increments (four stop range). Proper adjustment of the modeling lamps enables you to see the actual light ratios and shadow detail with the modeling lamps. You can also raise or lower the overall modeling lamp brilliance and still maintain the proper balance to the flash. A real asset when photographing people where the modeling lamps are uncomfortably bright for the subject. Also convenient when all the flash outputs are on low power and you need more light to focus on the subject.

**DIMMER #1** — Controls the modeling lamps on the two output #1 connectors.

**DIMMER #2** — Controls the modeling lamps on the two output #2 connectors.

There is a one f/stop relationship between 400 w-s and 200 w-s. Therefore, if one light is at 400 w-s (output #1) and another light is at 200 w-s (output #2), the output #1 (400 w-s) dimmer could be set to full and the output #2 (200 w-s) dimmer could be set to "1" (1 f/stop less than full). This way the modeling lamps on output #2 will be one f/stop weaker than the modeling lamps on output #2 (just like the flash). Refer to illustration #1.

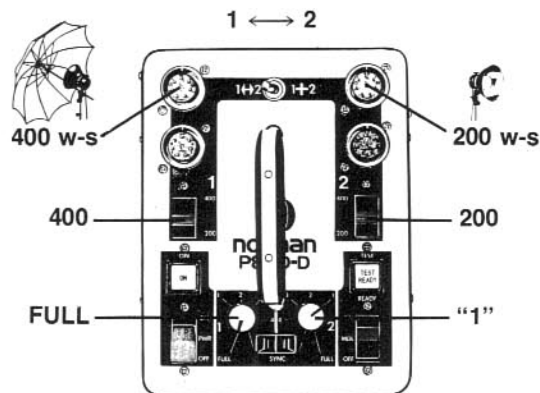


Illustration #1

If a second light were added to output #2 the flash output on that side would be reduced by one more f/stop (to 100 w-s each). Therefore, the output #2 dimmer could be adjusted to "2" (2 f/stops down from full illumination). This would enable you to still compose your lighting with the modeling lamps. Refer to illustration #2.

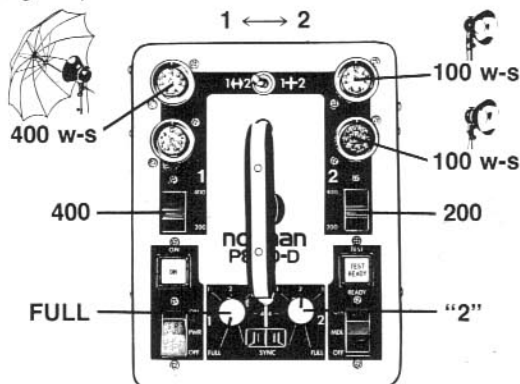


Illustration #2

If the modeling lamps are uncomfortably bright for the subject you can lower them in direct ratio by adjusting both dimmers by the same amount. See illustration #3.

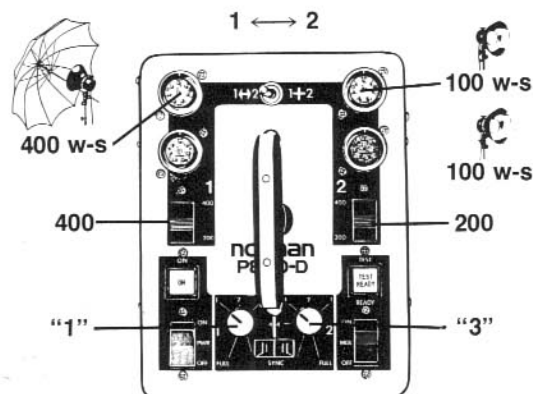


Illustration #3

## P800D SPECIFICATIONS

OUTPUT LEVEL (Watt-Seconds)	800	600	400	200
RECYCLE TIME (seconds to 100% output)	1-1/4	1	6/10	6/10
FLASH DURATION	1/600	1/1200	1/1200	1/1200
LIGHT OUTPUT (B.C.P.S.) Reflector Type 5C	2,000	1,500	1,000	5,000
Reflector Type 5E-2	10,000	7,500	5,000	2,500
Reflector Type 5U-2	30,000	22,500	15,000	7,500
Reflector Type 5W	9,000	6,750	4,500	2,250
Reflector Type 5X	3,000	2,250	1,500	750

### ENERGY STORAGE:

800 Watt-seconds total

### AC INPUT VOLTAGE:

105-135 volts, 50-400 Hz  
(sine wave)

### DC OUTPUT VOLTAGE:

900 Volts (voltage stabilized)

### FUSE (circuit breaker):

15 amperes

### WEIGHT:

15 lbs.

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