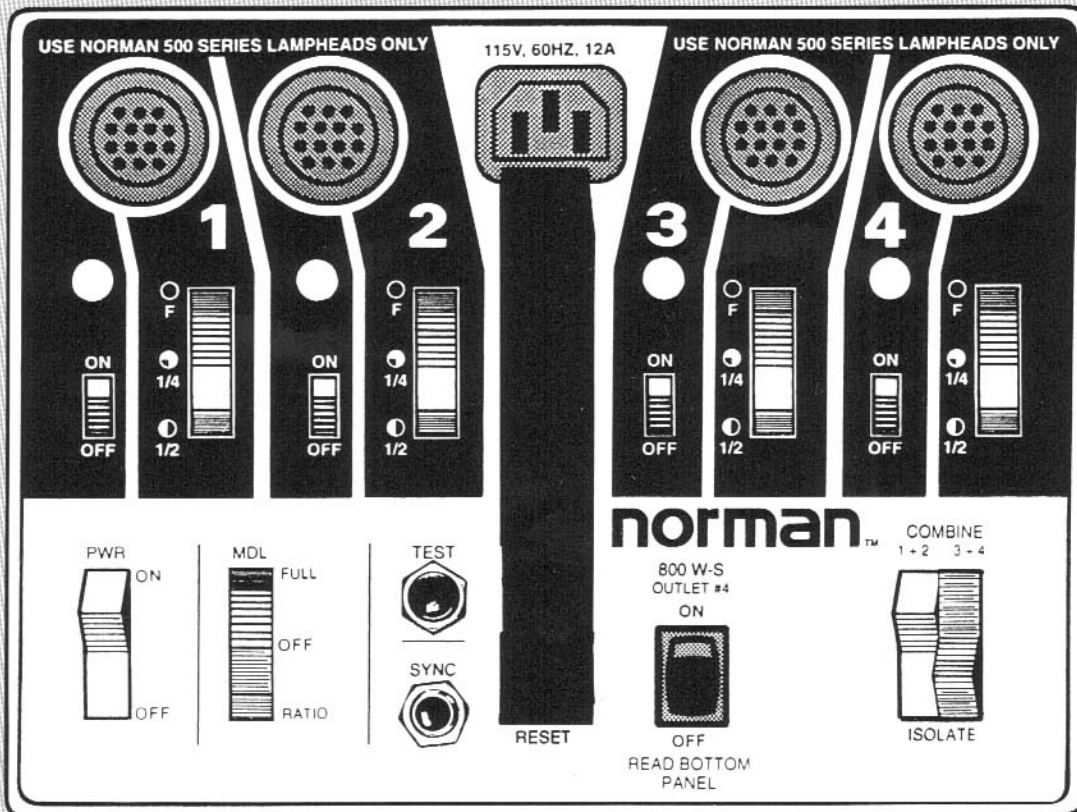




norman

INSTRUCTION MANUAL



P808M

PORTRAIT PAC



P808M

SERIES 500



Welcome to the Norman family of interchangeable flash equipment.

You have just purchased a **Norman P808M Portrait Pac** that will provide you with years of dependable service. It is our sincere desire that you will greatly benefit from the engineering and manufacturing expertise that has brought you this unique system.

The **Norman P808M Portrait Pac** features were originated by a group of portrait photographers whose goal was to obtain a flash unit of maximum versatility and dependability at an affordable price. The resulting P808M is the most versatile portrait unit offered by Norman Enterprises. It also has the traditional quality and affordability photographers have come to depend on from Norman.

Within its small frame is a heavy-duty 800 watt-second circuit that has numerous switching combinations, making it ideal for single-subject as well as for group portrait photography. For example, on the P808M, a single lamphead can be operated from 800 w-s down to 50 w-s. Whether you prefer to use bounce or direct light, the proper amount of output can be achieved with ease.

School photographers can now use the same power supply for undergrads and seniors as well as for class groups.

Features of the Norman P808M:

- Four channels of 200 w-s each; two channels of 200 w-s each and one channel of 400 w-s; two 400 w-s channels; or one 800 w-s channel.
- All 800 w-s on a single lamphead (requires the use of a Series LH500+ Lamphead with higher rated flash tube).
- Each channel has an off-on switch to disable one or more of the lights independently.
- A fail-to-flash alarm system provides an audible signal in the event of a lamphead misfire.
- Plug-in solid-state transformerless circuitry makes the P808M rugged, light weight, and easy to service.
- Interchangeable with the Norman Series 500 equipment line which includes over 50 accessory items; lampheads, reflectors, barn doors, snoots, and umbrellas, etc.
- A two-year limited warranty; including parts and labor.

P808M PRODUCT FEATURES

- 1 AC Inlet
- 2 PWR Switch
- 3 MDL Switch
- 4 Ready/On Lights
- 5 TEST Button
- 6 SYNC Outlet
- 7 RESET 7 Amp Circuit Breaker
- 8 Output Control Switches
- 9 Combine/Isolate Switches
- 10 Channel ON/OFF Switches
- 11 800 W-S OUTLET #4 Switch



SAVE THESE INSTRUCTIONS

IMPORTANT SAFEGUARDS

In accordance with UL 122 and UL 1012 specifications for photographic equipment and power supplies.

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 electric 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.
7. To avoid electric shock hazard, do not bypass the ground pin on the AC power cord or use this appliance with an ungrounded electrical outlet or an ungrounded AC power cord.
8. CAUTION - Designed for indoor use only. Do not operate outside in the rain or inclement weather or in the presence of standing water.

EXPLANATION OF INDICATORS AND CONTROLS

1. AC Inlet

Connects to the AC power cable. The AC input voltage is 115 volt, 60 Hz. The P808_M has a voltage stabilized flash circuit which will provide a constant light output even if the AC line voltage varies from 90 to 135 volts. This compensation for such an unusually wide voltage span was designed to provide constant exposures under the most severe AC line conditions.

2. PWR Switch

Controls the AC power to the flash circuit. When the PWR Switch is turned to the ON position, an audible "beep" will sound for about 1/2 second to indicate that the power is on and reaching the circuits.

The modeling lights are controlled separately by the MDL Switch.

3. MDL (Modeling Lamp) Switch

Turns the modeling lamps on or off. The MDL Switch operates whether the PWR Switch is ON or OFF. It has three positions:

- FULL — The modeling lamps remain at full brightness regardless of the flash settings.
- OFF — The modeling lamps are off.
- RATIO — The modeling lamps automatically ratio to the flash settings. This enables the photographer to use the modeling to accurately see the lighting ratios of the flash outputs.

4. Ready/On Lights

There are four Ready/On Lights. Each one has three functions:

- A. Illuminates to indicate that the AC power is on.
- B. Illuminates to indicate that its respective channel is switched to the ON position. Each channel can be switched on or off by using the Off/On switches located just below each Ready/On Light.
- C. Illuminates to indicate that the unit is ready and is at 100% voltage stabilized output.

5. TEST Button

Depress the TEST Button to test flash or to use in open flash situations.

6. SYNC Outlet

The R4155 Sync Extension Cord (included with unit) plugs into the SYNC Outlet. The female end of the Sync Extension Cord connects to the camera sync cord (not supplied with unit).

Proper polarity on the camera sync cord is important with most cameras (cameras with grounded sync contacts). To check polarity, connect the camera sync cord to the sync extension cord and switch the unit to the ON position. Simply touch any exposed (non-painted and non-anodized) metal on the camera body to any non-painted and non-anodized metal on the flash unit. If the unit flashes, the sync cord polarity is reversed.

— Continued —

EXPLANATION OF INDICATORS AND CONTROLS

— SYNC Outlet Continued —

To achieve the correct polarity reverse the camera sync cord connector at the point where it connects to the sync extension cord. 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.

7. RESET 7-Amp Circuit Breaker

Automatically protects the flash circuit against excessive overloads. If the Ready/On lights are off while the power and modeling lamps are on, the RESET Breaker has probably activated causing the button to pop out about 1/4 inch. To reset, simply wait 30 seconds and depress the RESET button.

If the RESET Breaker continues to activate, contact your Norman service center.

8. Output Control Switches

Each channel has its separate Output Control Switch. This permits each light to be set at full (200 w-s), quarter (50 w-s), or half (100 w-s) power.

It is important to note the settings of the COMBINE/ISOLATE Switches because they operate in conjunction with the Output Control Switches. (See illustrations.)

9. COMBINE/ISOLATE Switches

There are two COMBINE/ISOLATE Switches; (1) For channels 1 and 2, and (2) for channels 3 and 4.

On the "COMBINE" mode, both corresponding channels are tied together, causing the output on a single light to be equal to the sum of both Output Control Switch settings. For example, if the channel 1 Output Control Switch is set at "Full" (200 w-s) and the channel 2 Output Control Switch is also set to "Full" (200 w-s), the light output would be 400 w-s on a single light connected to either the channel 1 outlet or the channel 2 outlet. (See illustrations for additional information.)

On the "ISOLATE" mode, both corresponding channels are separated (isolated), causing both channels to operate independently. In this mode, the corresponding lights can separately be set to "Full," "Half," or "Quarter" power.

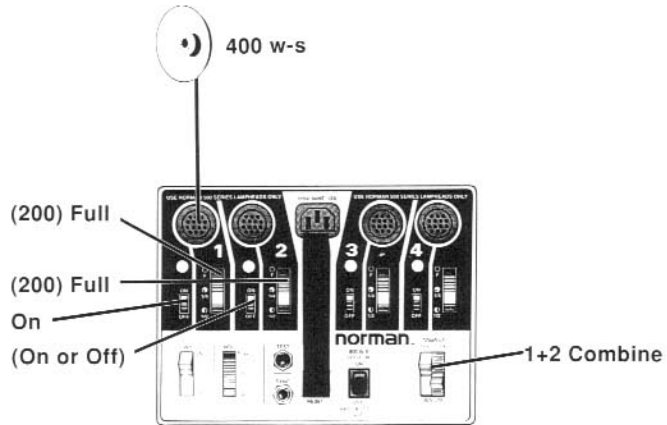
10. Channel ON/OFF Switches

Switches each respective channel on or off. When the switch is off, its corresponding READY/ON Light is off, which indicates that its lamphead is inoperative.

Please note that when combining two channels, the Channel ON/OFF Switch on the unused channel (the one without a lamphead connected to it) may be either in the on or off position. Its power is COMBINED regardless of the position of the Channel ON/OFF Switch on the unused channel. (See the illustration at right).

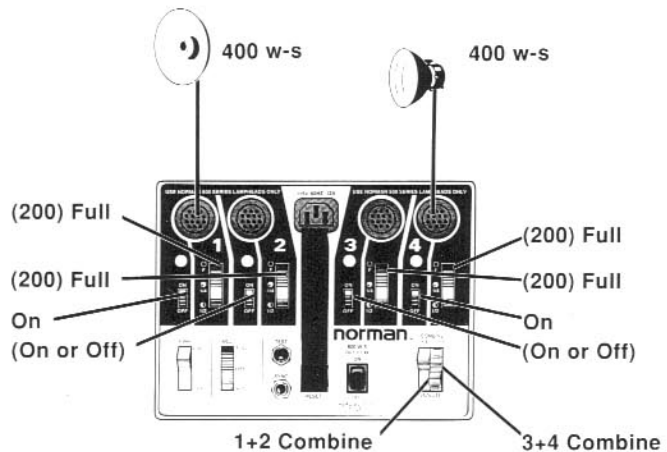
400 W-S ON A SINGLE LAMPHEAD

Place the 1+2 COMBINE/ISOLATE Switch to the COMBINE position and set both the Channel 1 and Channel 2 Output Control Switch to their FULL positions. The lamphead may be connected to either Channel 1 or 2.



TWO 400 W-S LIGHTS

Repeat the above-listed procedure for Channels 3 and 4.



IMPORTANT:

Use Norman Series 500 Lampheads only.
Do not connect lampheads made by other manufacturers, as damage could result.

EXPLANATION OF INDICATORS AND CONTROLS

11. 800 W-S OUTLET #4 Switch

(Located adjacent to the RESET Breaker)

Delivers all 800 w-s to one lamphead on Outlet #4. **This requires the use of a Norman LH500+ Lamphead.** The LH500+ uses a high-power flashtube that provides the same flash duration at 800 w-s as existing Series 500 lampheads do at 400 w-s, thereby preventing the flash duration from becoming excessively long.

When the 800 W-S Switch is "on" all lamphead outlets, except #4, are disabled automatically; their "Ready/On" Lights are off, "Output Control" Switches are inoperative, and the "Combine/Isolate" Switches are disabled. The purpose of disabling the other outlets is to prevent a lighting error if the 800 W-S Switch is "on" accidentally.

If a lamphead other than an LH500+ is utilized at 800 w-s, the output will be reduced to 400 w-s automatically, thereby preventing damage to a flashtube of a lower power rating.

AUDIBLE ALARM FEATURE

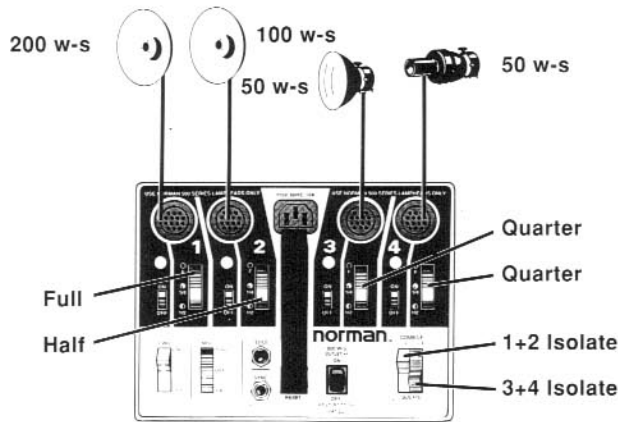
The P808M Portrait Pac is equipped with an audible alarm system that serves two purposes.

Its primary function is to warn the photographer in the event that one or more of the lampheads fail to flash. Should this occur, an audible "beep" will sound for about one second after the unit is flashed. (See page 6 for troubleshooting tips.)

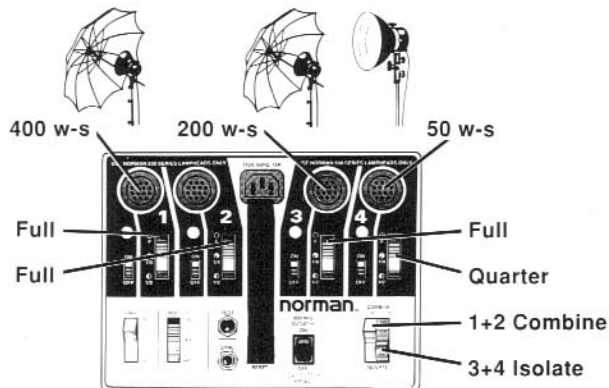
Its second purpose occurs when the PWR Switch is first turned to the ON position. The alarm circuit will "beep" for about 1 second to inform the operator that AC is reaching the circuits. (Note: If all Channel OFF/ON Switches are in the OFF position, this "beep" will not occur when the PWR Switch is first turned to the ON position.)

HERE ARE OTHER TYPICAL MODES OF OPERATION FOR THE P808M:

Standard four-light portrait set-up



Three-light umbrella (or soft box) set-up



TROUBLESHOOTING TIPS

A basic understanding of how the built-in ALARM SYSTEM operates can, in some cases, enable the operator to make on-the-spot repairs in the event of a malfunction. It is important to know that the ALARM SYSTEM is set into operation when it receives a sync pulse from either the camera or from the TEST Button on the unit. In other words, when the camera shutter is triggered or when the TEST Button is depressed, a sync pulse tells the ALARM SYSTEM to start. Once the ALARM SYSTEM starts, it looks at each lamphead circuit to determine if one or more lampheads failed to flash. If so, it will sound to warn the operator. If all lampheads flash, the alarm will not sound.

Therefore, if the lights were to fail to flash and the ALARM did not sound, this would indicate that the ALARM did not receive the sync pulse from the camera. Should this occur, the sync cord is most likely defective or reversed in polarity (see SYNC Outlet section for polarity information). Other possible causes include a defective camera or Sync Extension Cord. To verify this, remove the Sync Extension Cord at the power supply and depress the TEST Button. If the unit flashes manually, the problem is one of the items listed above.

In the event of a lamphead misfire, the unit can be flashed by depressing the TEST Button until the malfunctioning lamphead is isolated. Once this is determined, service by substitution is often the fastest and easiest method of getting back into operation. Here are a couple of steps that can be helpful in this regard.

Replace the malfunctioning lamphead with one from another channel or with a new lamphead. This will determine whether the difficulty is in the lamphead or in the power supply.

If the malfunction moves with the lamphead, the difficulty is obviously in the lamphead. If the malfunction stays with the inoperative channel on the power supply, the difficulty is obviously in the power supply.

If you determine that the fault is in the lamphead you may wish to check to see if the flash tube is the cause. Simply replace the flash tube with either a new one or with a tube from one of the other lampheads. If the lamphead operates with the replaced tube, the flash tube is defective.

Often times these simple steps can prevent costly down-times and enable you to continue. In any event, it is better to learn of the malfunction at the time, as opposed to finding out after the fact.

P808_M SPECIFICATIONS							
MAXIMUM ENERGY STORAGE: 800 watt-seconds							
OUTPUT LEVEL (WATT-SECONDS)	800	400	200	100	50	AC INPUT VOLTAGE: 105-135 Volt, 50-60Hz DC OUTPUT VOLTAGE: 500 Volts DC, stabilized FUSE: (Circuit Breaker) 7 amp at 115 volt AC SIZE: 7" H x 8 ⁵ / ₁₆ " L x 6 ⁷ / ₁₆ " W (Add 1 ¹ / ₂ " for handle height) WEIGHT: 8 lbs. 14 oz.	
LIGHT OUTPUT @ ISO 100	B.C.P.S. (Guide Number)						
Bare Bulb	3,000 (135)	1,500 (95)	750 (68)	375 (48)	188 (35)		
5DL Reflector	3,000 (135)	1,500 (95)	750 (68)	375 (48)	188 (35)		
5E Reflector	10,000 (250)	5,000 (180)	2,500 (130)	1,250 (90)	625 (65)		
5W Reflector	9,000 (235)	4,500 (170)	2,250 (116)	1,125 (84)	588 (60)		
White Umbrella	5,000 (180)	2,500 (130)	1,250 (90)	625 (65)	312 (45)		
Silver Umbrella	6,000 (195)	3,000 (135)	1,500 (95)	750 (68)	375 (49)		
FLASH DURATION							
With LH-500 Lamphead	1/500	1/550	1/1000	1/1100	1/5000		
With LH-500+ Lamphead	1/200	1/200	1/400	1/400	1/400		



NORMAN P808_M/TLC

INSTRUCTION SUPPLEMENT

PREFACE

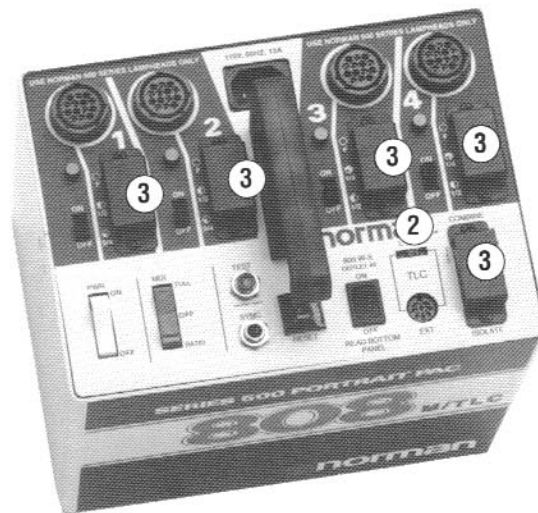
The human eye has a greater tonal range than is reproduced from photographic materials, and reproducing photographs on a printing press condenses the tonal range further. This situation is even more pronounced when printing dark tones because the high density of dots tend to expand (dot gain) and can plug-up on the press, eliminating subject detail. Hence, custom lab work is often required to compensate for dark skin tones when printing school yearbooks.

School portrait photographers have long recognized the need for additional lighting controls at the camera to prevent this costly rework. The purpose of the TLC (Tone Light Control) feature on the **P808_M Portrait Pac** is to provide the means for controlling light to compensate for these varying skin tones.

Several modes of compensation are available. Hence, each studio is encouraged to determine which mode best serves their needs, and the factory offers variations of the TLC feature in accordance with the wishes of each customer. A label, located on the bottom of each pack, describes the particular mode variation being utilized.

TLC PRODUCT FEATURES

- 1 TL Controller
- 2 TLC Homebase (LMD) Switch
- 3 Switch Guards



MODES OF TLC OPERATION — Set by Norman factory

- MODE 1 3-Levels of "Fill" (Outlet #2) Light Boost**
The "Fill" light is: 100 w-s for light ("L") skin tones
150 w-s for medium ("M") skin tones
200 w-s for dark ("D") skin tones
- MODE 2 2-Levels of "Fill" (Outlet #2) Light Boost**
The "Fill" light is: 150 w-s for light ("L") and medium ("M") skin tones
200 w-s for dark ("D") skin tones
- MODE 3 3-Levels of "Main" (Outlet #1) and "Fill" (Outlet #2) Boost**
Both lights boost simultaneously
100 w-s for light ("L") skin tones
150 w-s for medium ("M") skin tones
200 w-s for dark ("D") skin tones
- MODE 4 2-Levels of "Main" (Outlet #1) and "Fill" (Outlet #2) Boost**
Both lights boost simultaneously
150 w-s for light ("L") and medium ("M") skin tones
200 w-s for dark ("D") skin tones

1. TLC CONTROLLER

A. Advance Switch

Depress to advance the light output for the desired skin tone. The corresponding LED indicates the setting. After the flash, the TLC returns to the "Homebase" (see 2. below) position automatically.

B. TLC Indicator Lights

- L Exposure for light skin tones
- M Exposure for medium skin tones
- D Exposure for dark skin tones

The TLC indicator illuminates to indicate the skin tone adjustment. After the flash, the TLC automatically returns to the "Homebase" position, which is verified by the illumination of the corresponding indicator light.

C. SYNC Outlet

The R1200 Sync Cable (supplied) connects from this outlet to the female end of the camera sync cord, thereby preventing the need for a separate cable from the pack to the camera. (Optional sync cable types are available.)

D. Cable

Detachable Phone Cable (R1300) connects to the TLC EXT Outlet on the power pack and to the TLC Controller.

TLC CONTROLLER



2. TLC Homebase Switch ("LMD")

This switch is set by the photographer to match the average skin tone of the majority of the subjects. "L" (light skin tone), "M" (medium skin tone), and "D" (dark skin tone). The switch is located on the pack, and it is flush with the panel to prevent accidental changing during a shoot.

The switch setting is called "Homebase" and once the exposure is made the light outputs automatically reset to the "Homebase" position.

3. Light Output Switches

Protective guards are placed on the light output control switches. This prevents accidental switching of these controls.

When the TLC Controller is in use, the "main" (Outlet #1) and the "fill" (Outlet #2) switches are automatically disabled so that the light outputs are locked on the desired levels in accordance with the TLC feature.

When the TLC Controller is disconnected from the pack, the "main" (Outlet #1) and "fill" (Outlet #2) switches are operational once again.

