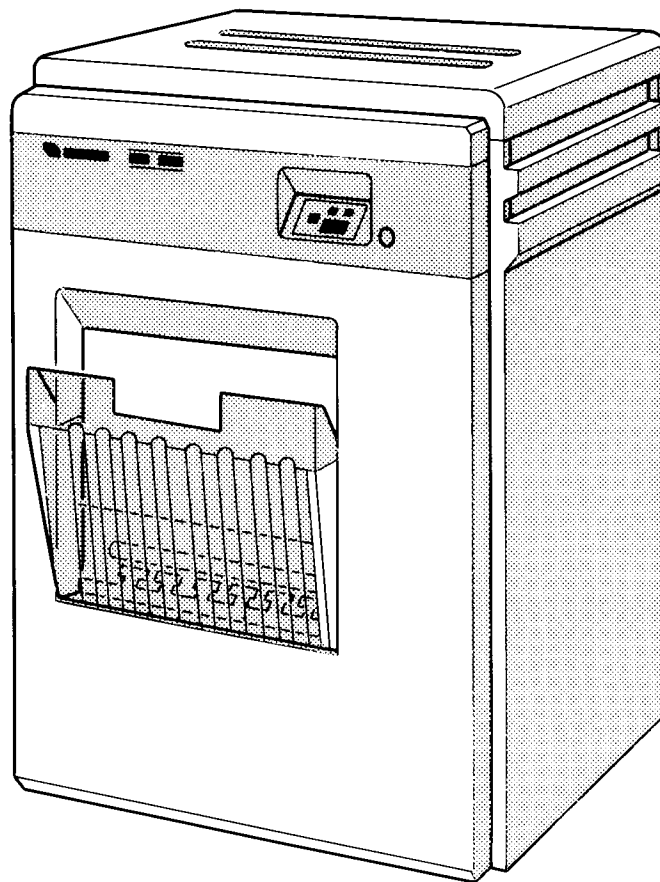




**FUJI FILM INSTALLATION MANUAL**

**NDT &  
FUJI MEDICAL FILM PROCESSOR  
FPM4200**



**XM3-287E4**

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## 1. INTRODUCTION

The FPM4200 Fuji Medical film processor is designed to achieve maximum production efficiencies in a minimum of space.

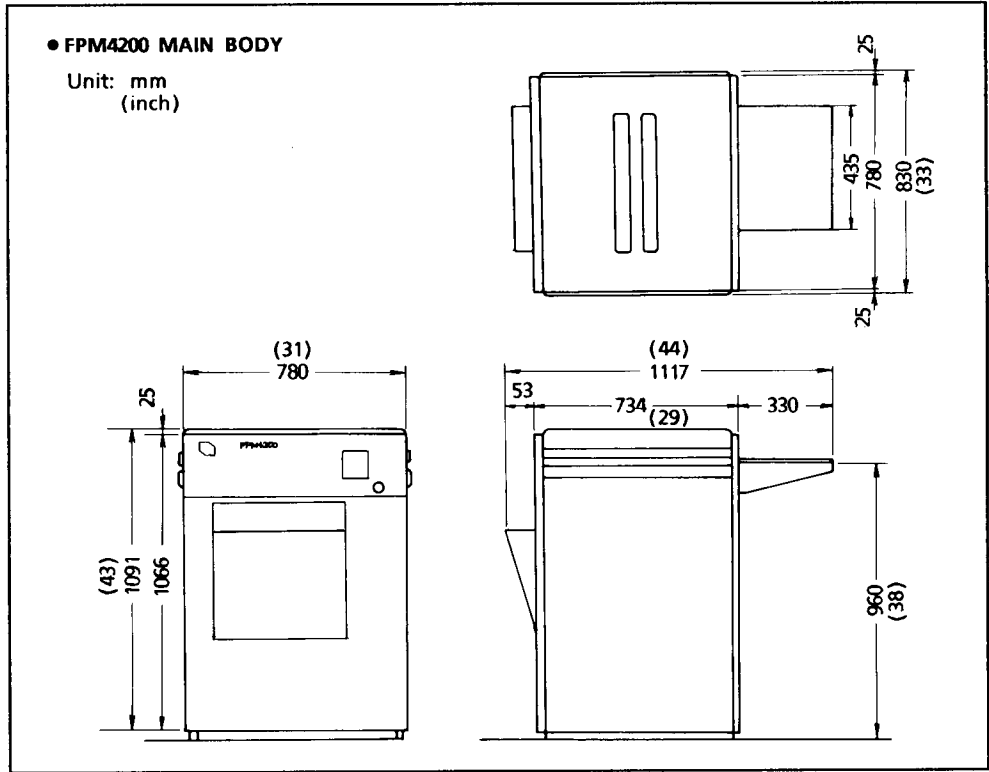
In order to fully understand and use the capacities of this processor it is essential that all sections of this manual be read and digested for the sake of complete and correct maintenance and operational procedures. Further, it is important that general installation planning be carried out with care. Should any technical information be required or any technical problems be anticipated, consult your local Fuji Film dealer for assistance.

### SUGGESTIONS

1. The room space and work flow should be given adequate consideration when determining an installation layout.
  - Refer to the section on "INSTALLATION ORIENTATIONS."
2. Examine the environmental conditions of the room where the processor is to be installed and make changes if necessary to meet environmental requirements.
  - Refer to the section on "ENVIRONMENTAL REQUIREMENTS."
3. Prior to installation be sure that your electrical power service is adequate. If it is inadequate, arrange for the essential increase in amperage and call in an electrician to do the necessary electrical work.
  - Consult an electrician.
4. Prior to installation be sure that plumbing standards are met for the particular water supply system to be used and complete piping before the processor is brought in.
  - Consult a plumber.
5. Divide the installation work into the basic essentials (e.g., room partitioning, plumbing and electrical work) and incidentals, and finish all work not directly related to processor connection.
  - Refer to the sections on "INSTALLATION PROCEDURES."

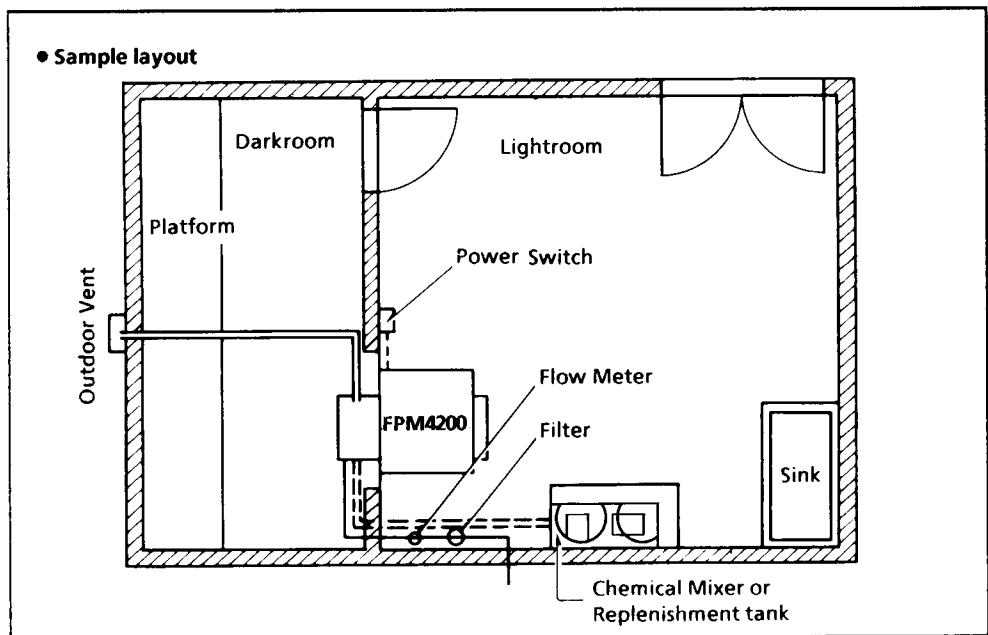
## 2. INSTALLATION ORIENTATIONS

### 2.1 OUTSIDE DIMENSIONS



### 2.2 STANDARD LAYOUT

● A sample layout for the FPM4200 processor is indicated below.



## **3. ENVIRONMENTAL REQUIREMENTS**

### **3.1 ROOM CONDITIONS**

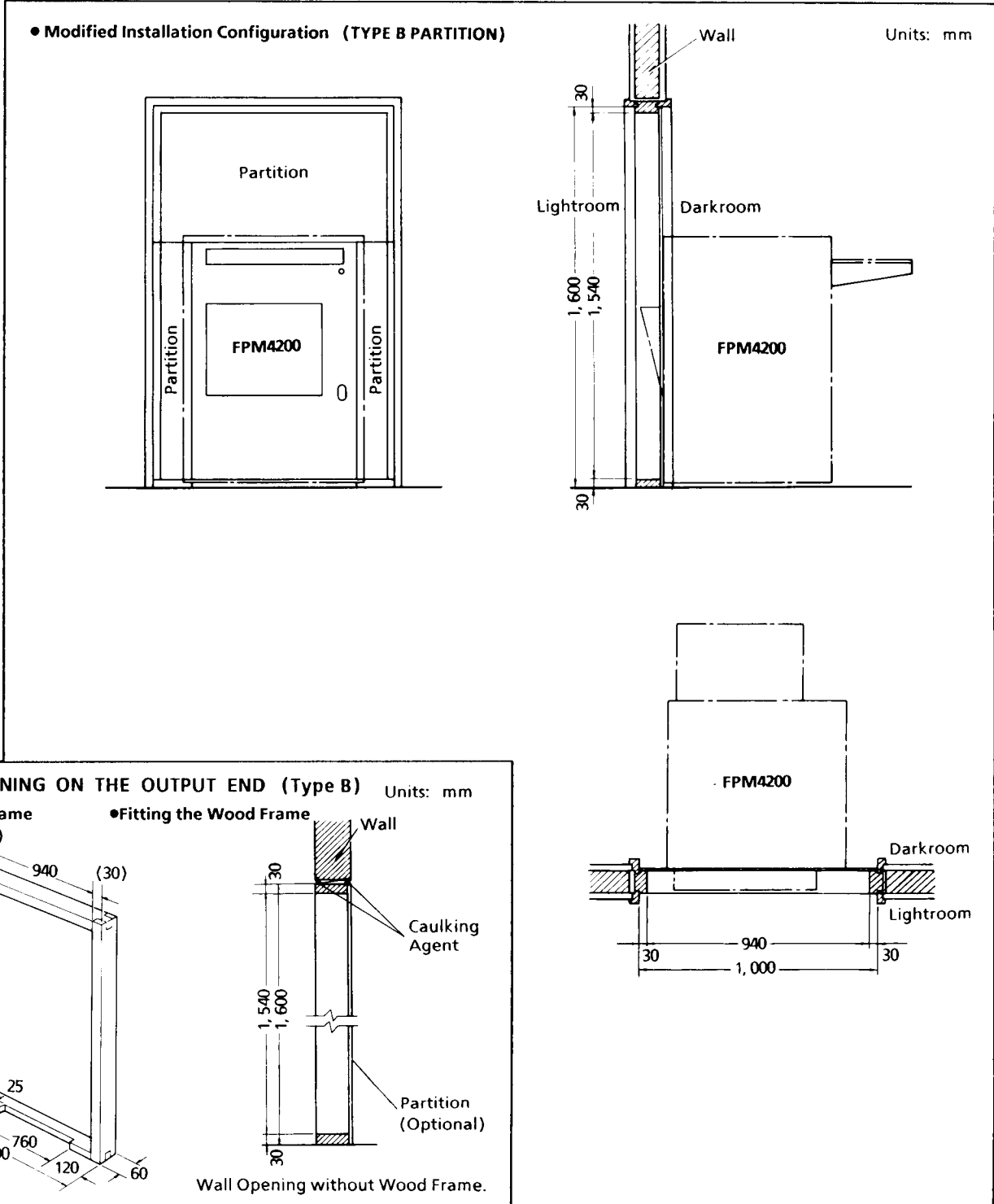
1. A ventilator should be installed in the processor room for the following reasons.
  - (1) As films are dried through the introduction of room air, drying may be faulty or insufficient if the room temperature or humidity increases too greatly.
  - (2) Protection of the processor against corrosion has been given adequate design consideration through the use of non-corroding materials such as stainless steel. However, if processor room ventilation is inadequate or the room humidity is allowed to rise to objectionable levels, not only will the life of the processor be shortened but its operation may become somewhat erratic leading to possible failure.
  - (3) The processor room will need a ventilator especially when the processor is to be installed using the standard, darkroom or modified standard installation layouts.
2. Avoid installing the processor in a location where it may be directly exposed to sunlight. Direct exposure to sunlight may lead to operational difficulties. If such a site cannot be avoided, set up a light barrier using light-tight curtains.
3. In cold-winter climates the solutions and water in the processor and in the water supply and drainage systems may freeze overnight unless provision is made to prevent their temperatures from falling below certain levels. Even if freezing does not occur, heating may be required for excessively long periods prior to operation the next morning. To avoid such delays make provisions for maintaining liquid temperatures above certain levels at night.

### **3.2 FLOOR CONDITIONS**

1. The FPM4200 processor weights about 250 kg (550 lbs) when loaded with solutions for operation and requires a floor area of 0.55 sq. m (714 x 780 mm) = 6 sq. ft (2.3 x 2.6 ft). Consult an expert to make sure that the floor support structures are adequate.
2. Be sure to waterproof the floor, since solution and water spattering is unavoidable as in cleaning. Acid and alkali (pH 3.8 to 12) resistance and ease in cleaning should be given adequate consideration.
3. If floor drainage is not adequate or if the floor is always damp, such conditions will not only shorten the life of the processor but become the cause of operational difficulties. Therefore an adequate floor drain should be provided without fail.

«Partitioning at the Output End»

This layout requires that the main body of the FPM4200 processor lie primarily in the darkroom.



## 4. INSTALLATION PROCEDURES

### 4.1 ROOM PARTITIONING

When the FPM4200 processor is to be installed across a wall between a darkroom and a lightroom, make an opening in the wall and fit a wood frame into it. The wall opening is made in one of two ways depending on the type of installation layout.

For these two installation orientations, partition boards are available as optional accessories.

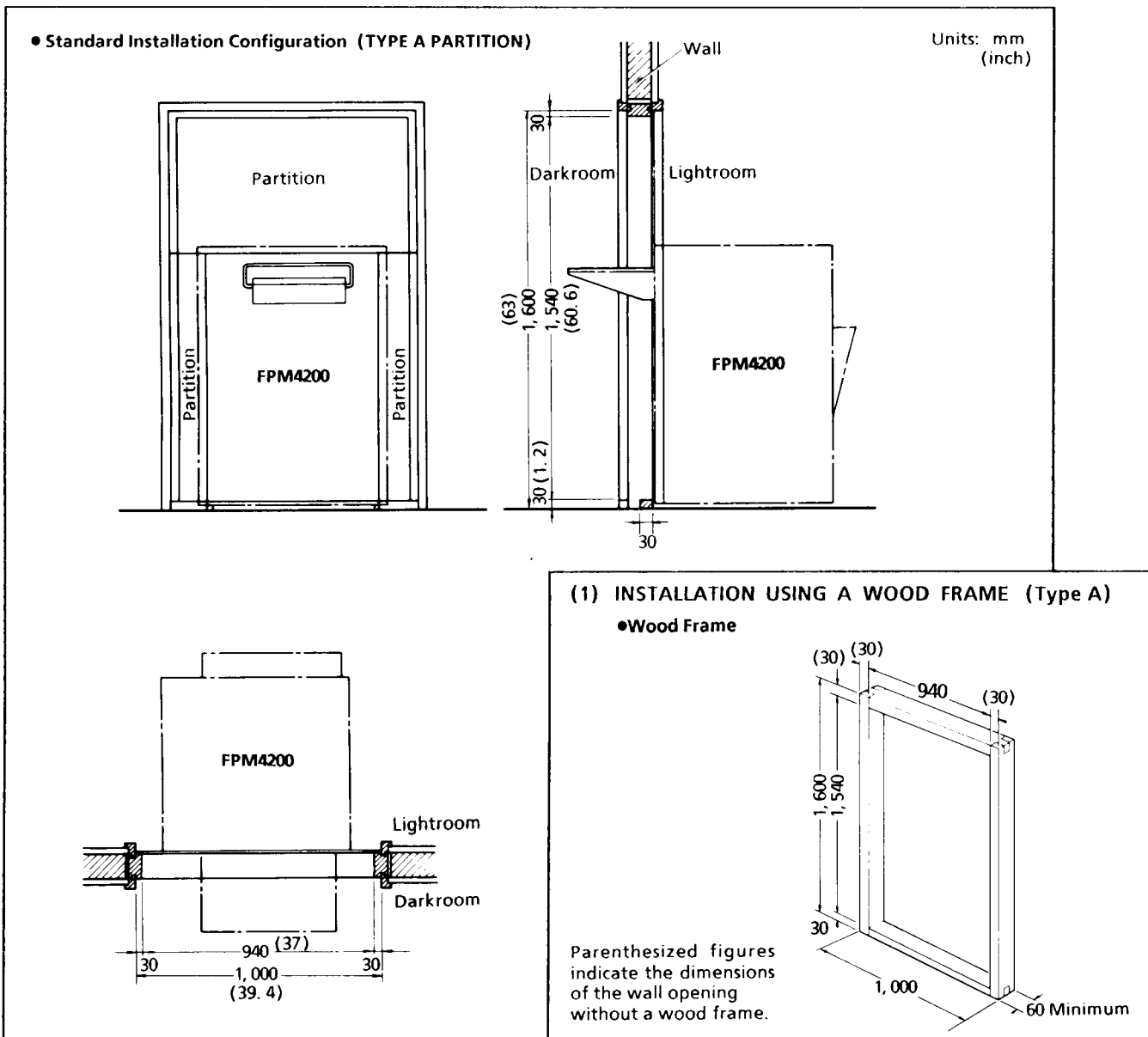
Type A Installation: Parts Number 821F0012

Type B Installation: Parts Number 821F0013

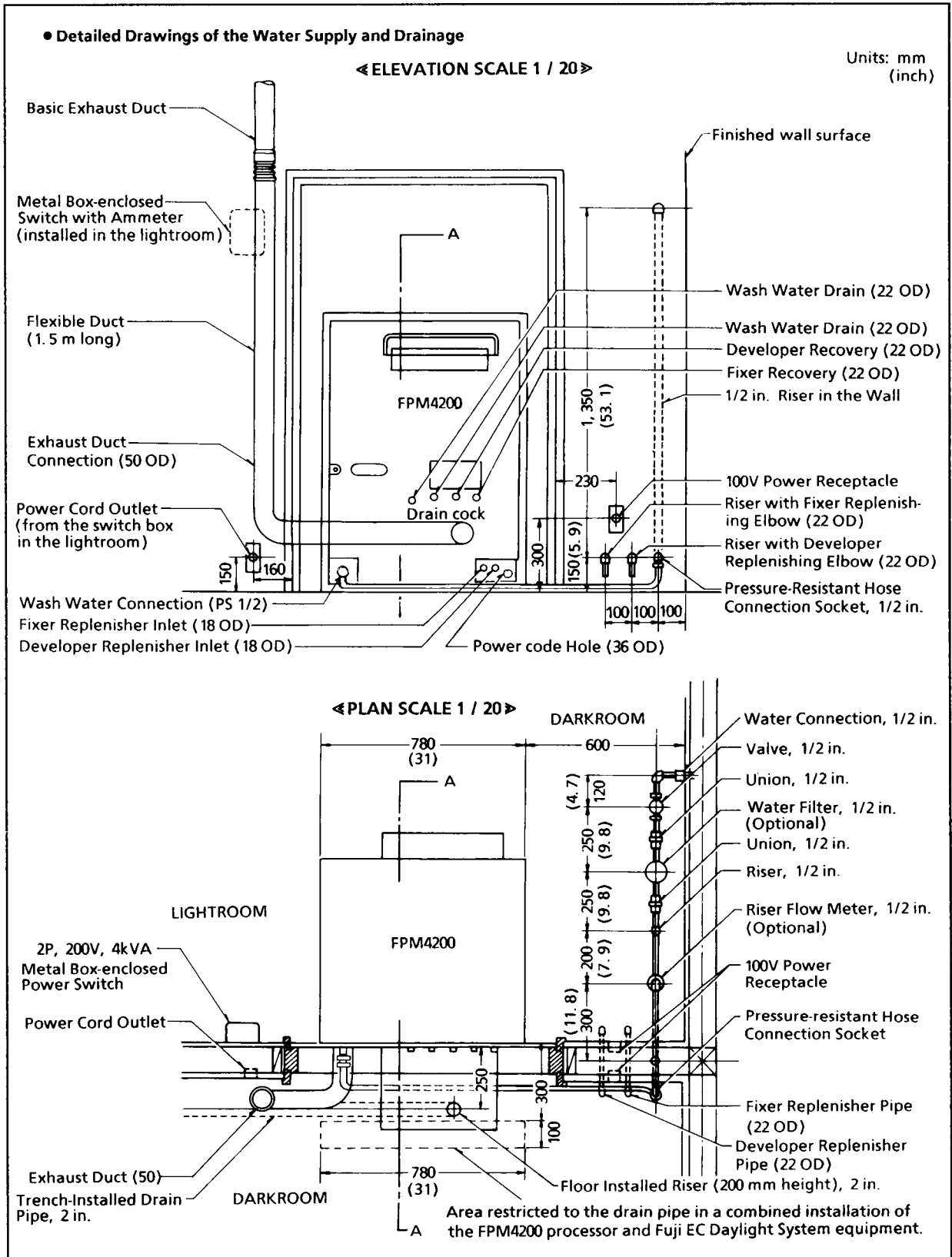
For further details as to installation procedures refer to "Service Bulletin" # 57.

◀Standard Installation Layout▶

This layout requires that the main body of the FPM4200 processor lie primarily in the lightroom.



## 4.2 PLUMBING DRAINAGE AND EXHAUST SYSTEM



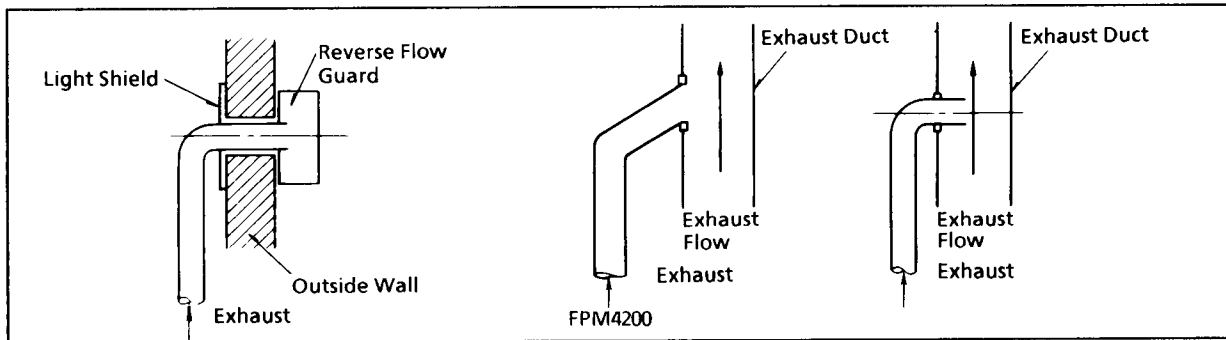


◀ Exhaust Orientation ▶  
**EXHAUST SYSTEM**

	Running	Stand By
Exhaust Output	1.0 m <sup>3</sup> /min.	1.0 m <sup>3</sup> /min.
Exhaust Pressure	15 mmHg	15 mmHg
Exhaust Temperature	30 — 35°C	30 — 35°C
Exhaust Heat Output	100 kcal/h or 400 BTU	100 kcal/h or 400 BTU
Room Heat Output	140 kcal/h or 560 BTU	120 kcal/h or 480 BTU

The FPM4200 exhaust must be ventilated directly to the outside. The methods employed are indicated in the illustrations below. The ventilation fan installation should be carried out as indicated but in any case reverse flow must be prevented.

For exhaust connections with the FPM4200, use the flexible ducting provided with the processor.

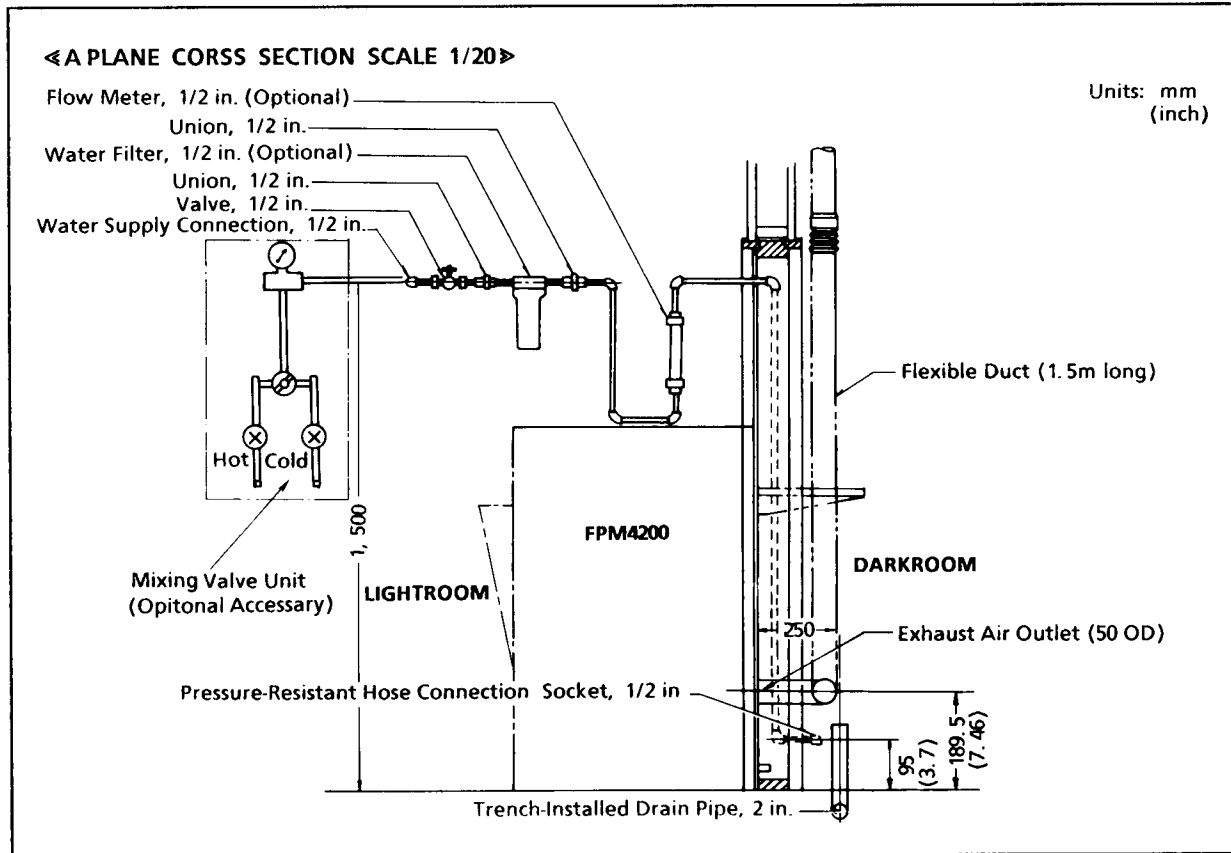


◀Waste Water Flow Rate▶

① Waste water flow rate	5 lit. /min or less during operation, 10 lit. /min when emptying one tank and 30 lit. /min when emptying 3 tanks at the same time.
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◀Drain Specifications▶

1. Install a 1 1/2 in. or 2 in. drainpipe with a run height differential of 200 to 300 mm from the floor.
2. Connect the processor drain cocks to the floor drain using the accessory hoses cut to suitable lengths.
3. Install a trap in the drain system to shut out odor.

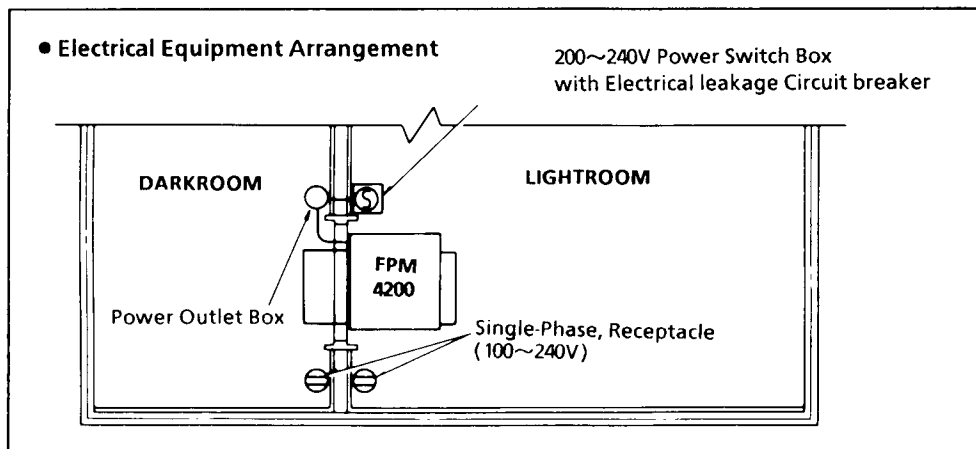
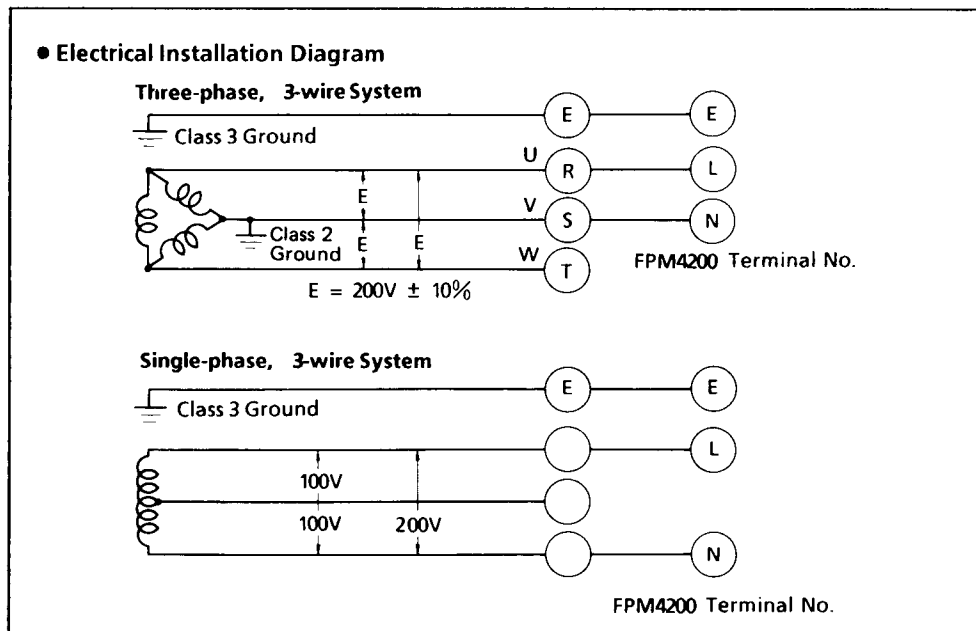


### 4.3 ELECTRICAL SYSTEM

① Power Requirements	200~240V AC, single-phase, 50/60 Hz
② Voltage Regulation	Within $\pm 10\%$ of 200~240V
③ Max. Power Consumption	26A
④ Grounding	Class 3 ground

#### ◀ Electrical Work ▶

1. Install an Electrical Leakage circuit breaker at an easily accessible location on the processor room wall. For more information, refer the Service Bulletin No. 72.
2. Be sure to short the processor to ground, using a class 3 ground.
3. When the FPM4200 has been installed, connect the power cord to the ammeter power switch.





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