
**User's
Manual**

**Model PH8HG
Drop-in Sensor Guide Holder**

IM 12B7M2-01E

vigilantplant.™

◆ Introduction

This manual covers the PH8HG drop-in guide holder. Other related items are described in the following manuals:

Model	Title	IM No.
PH8ERP	KCl Refillable pH Sensor	IM 12B7K1-02E
PH8EFP	KCl Filling type pH Sensor	IM 12B7J1-01E
DO30G	Dissolved-oxygen Sensor	IM 12J5B3-01E
SS300G	MLSS Detector	IM 12E6C1-01E
OR8EFG, OR8ERG OR8TBG, OR8AX	ORP Sensor	IM 12C4J1-01E

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◆ For the safe use of this equipment

(1) About This Manual

- This manual should be passed on to the end user.
- The contents of this manual are subject to change without prior notice.
- The contents of this manual shall not be reproduced or copied, in part or in whole, without permission.
- This manual explains the functions contained in this product, but does not warrant that they will suit the particular purpose of the user.
- Every effort has been made to ensure accuracy in the preparation of this manual. However, should any errors or omissions come to the attention of the user, please contact the nearest Yokogawa Electric representative or sales office.
- This manual does not cover the special specifications. This manual may be left unchanged on any change of specification, construction or parts when the change does not affect the functions or performance of the product.
- If the product is used in a manner not specified in this manual, the safety of this product may be impaired.

(2) Safety and Modification Precautions

- Follow the safety precautions in this manual when using the product to ensure protection and safety of personnel, product and system containing the product.

(3) The following safety symbols are used on the product as well as in this manual.



This symbol indicates that the operator must follow the instructions laid out in this manual in order to avoid the risk of personnel injury, electric shock, or fatalities. The manual describes what special care the operator must exercise to avoid such risk.



This symbol indicates that the operator must refer to the instructions in this manual in order to prevent the instrument (hardware) or software from being damaged, or a system failure from occurring.



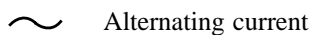
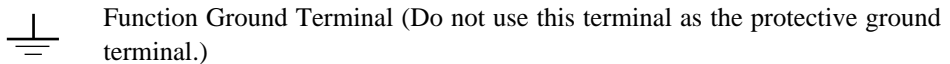
This symbol draws attention to information essential for understanding the operation and functions.



This symbol gives information that complements the current topic.



This symbol identifies a source to which to refer.



◆ After-sales Warranty

- Do not modify the product.
- During the warranty period, for repair under warranty carry or send the product to the local sales representative or service office. Yokogawa will replace or repair any damaged parts and return the product to you.
- Before returning a product for repair under warranty, provide us with the model name and serial number and a description of the problem. Any diagrams or data explaining the problem would also be appreciated.
- If we replace the product with a new one, we won't provide you with a repair report.
- Yokogawa warrants the product for the period stated in the pre-purchase quotation. Yokogawa shall conduct defined warranty service based on its standard. When the customer site is located outside of the service area, a fee for dispatching the maintenance engineer will be charged to the customer.
- In the following cases, customer will be charged repair fee regardless of warranty period.
 - Failure of components which are out of scope of warranty stated in instruction manual.
 - Failure caused by usage of software, hardware or auxiliary equipment, which Yokogawa Electric did not supply.
 - Failure due to improper or insufficient maintenance by user.
 - Failure due to modification, misuse or outside-of-specifications operation which Yokogawa does not authorize.
 - Failure due to power supply (voltage, frequency) being outside specifications or abnormal.
 - Failure caused by any usage out of scope of recommended usage.
 - Any damage from fire, earthquake, storms and floods, lightning, disturbances, riots, warfare, radiation and other natural changes.
- Yokogawa does not warrant conformance with the specific application at the user site. Yokogawa will not bear direct/indirect responsibility for damage due to a specific application.
- Yokogawa Electric will not bear responsibility when the user configures the product into systems or resells the product.
- Maintenance service and supplying repair parts will be covered for five years after the production ends. For repair for this product, please contact the nearest sales office described in this instruction manual.

Contents

◆ Introduction	i
◆ For the safe use of this equipment	ii
◆ After-sales Warranty	iii
1. Specifications	1-1
1.1 Standard Specifications	1-1
1.2 Model and Suffix Codes	1-2
1.3 External Dimensions	1-2
2. Installation	2-1
2.1 Selection of Location	2-1
2.2 Installation Procedure	2-1
2.3 Sensor Mounting	2-2
Customer Maintenance Parts List	CMPL 12B07M02-01E
Customer Maintenance Parts List	CMPL 12B07M02-02E
Revision Record	i

1. Specifications

The PH8HG drop-in guide holder protects the sensor and allows measurement to be conducted at a constant measurement point.

This holder simply hang the sensor in the guide pipe, permitting easy sensor maintenance.

1.1 Standard Specifications

Combined sensors:

PH8EFP KCl Filling type pH sensor
PH8ERP KCl Refillable pH sensor
OR8EFG KCl Filling type ORP sensor
OR8ERG KCl Refillable type ORP sensor
DO30G dissolved oxygen sensor
SS300G MLSS sensor

Mounting:

2-inch pipe mounting vertical or horizontal mounting
(Note) Make sure the mounting pipe is firmly installed.

Weight:

Approx. 3 kg

Holder length:

2 m

Holder material:

Hard polyvinyl chloride or polypropylene resin

Mounting bracket:

Material: iron (galvanized) or stainless steel (SUS304)

Operating temperature (temperature of solution to be measured):

-5 to 50°C (for hard polyvinyl chloride)

-5 to 80°C (for polypropylene resin)

(Note) Sensor specifications may indicate restrictions on the operating temperature.

When the property of the solution to be measured is one of following, use a submersion type holder or flow-through type holder.

- The temperature of the solution to be measured is in excess of 80°C.
- The solution to be measured value is pH 2 or lower or pH 12 or higher.
- Measurement is being conducted in a strong oxidizing solution (aqua regia, chromate, hypochlorite, perchlorate, etc.).
- The solution to be measured contains corrosive agents (ammonia, chlorate, hydrogen sulfide).
- The solution to be measured contains organic solvent or oil components of percent order.

1.2 Model and Suffix Codes

Model	Suffix Code	Option Code	Description
PH8HG	Guide-pipe (*1)
Material	-PV	Polyvinylchloride (fluid temperature 50°C or less)
	-PP	Polypropylene (fluid temperature 80°C or less)
Style Code	*A	Style A
Option, Mounting Bracket (*2)		/MS5	Stainless steel mounting bracket (1 set)

*1 : Pipe length: 2 m

*2 : A set of 2-inch galvanized pipe mounting bracket is provided as standard.

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1.3 External Dimensions

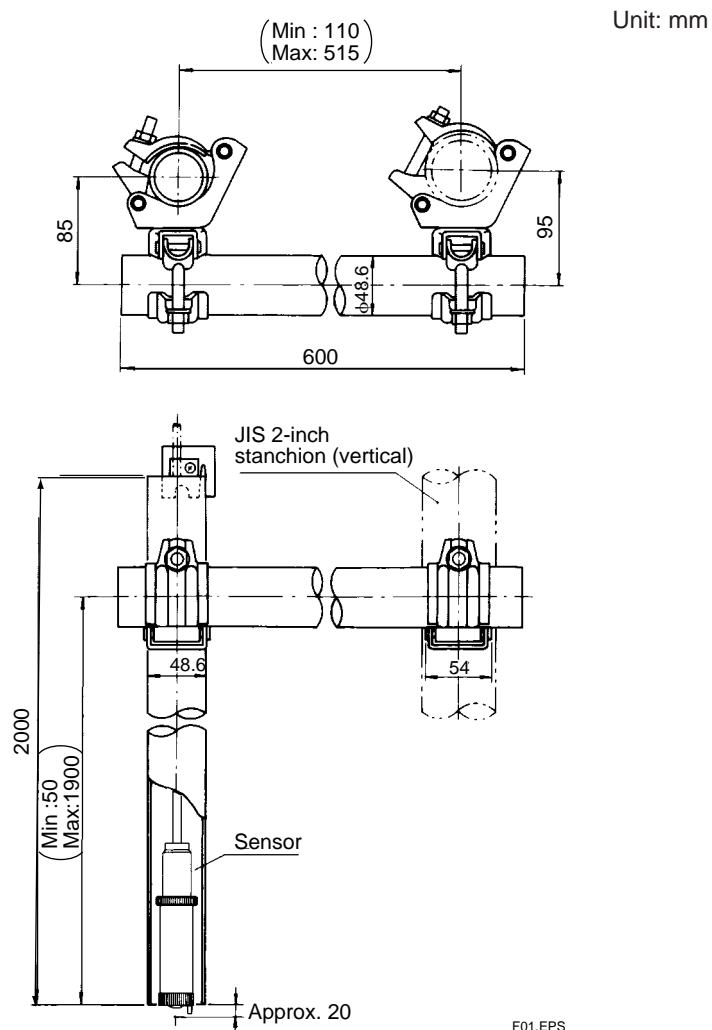


Figure 1. External Dimension of Drop-in Guide Holder

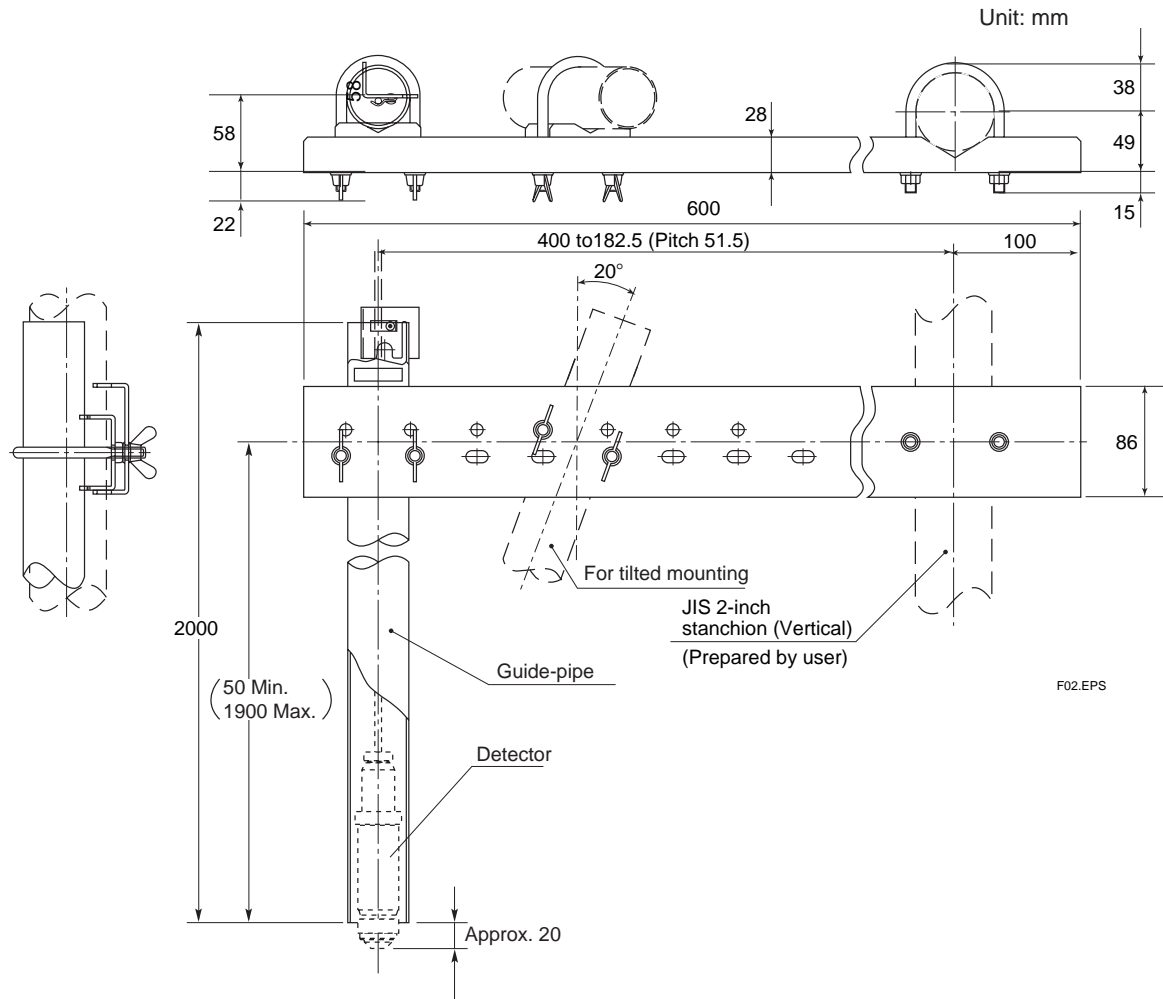


Figure 2. External Dimension of Drop-in Guide Holder Option /MS5

2. Installation

2.1 Selection of Location

Install the holder so that the sensor is correctly positioned at the prescribed measuring point. Normally, the point in the object solution at which at typical measurements can be obtained is selected as the measuring point; therefore, if the solution to be measured is unevenly distributed, the measured values may vary greatly. Avoid such locations.

To determine the installation location of the holder, consider the various operating conditions that will affect the measurement, including the temperature and flow speed of the solution to be measured. Then select a sensor and holder specification that matches the conditions; also be sure that the selected location offers easy maintenance access.

CAUTION**Installation Location of Holders**

The holder should be used in a place that is as vibration free as possible.

Using the holder in a place where it is affected by vibration, may result in damage to the holder.

2.2 Installation Procedure

When unpacked the package, referring to the parts list (CMPL 12B07M02-01E, -02E), check that there are no missing parts in the guide holder.

The guide holder can be attached to a vertically provided pipe (nominal 50A) that has sufficient strength. Attach the holder pipe to the arm pipe while taking the sensor position into consideration.

The stopper is attached to the sensor cable.

*1: A mounting pipe used for device is mounted at the site can be used.

Should it be found that the holder can not be installed vertically and there is no option code, install a pipe (nominal 40A) that functions in the same way as the arm pipe in the horizontal direction.

Should it be found that the holder can not be installed vertically and option code /MS5 has been included, install a pipe (nominal 40A) that functions in the same way as the arm bracket in the horizontal direction.

2.3 Sensor Mounting

Refer to the respective instruction manual of the sensor you will use for details how to mount the sensor..

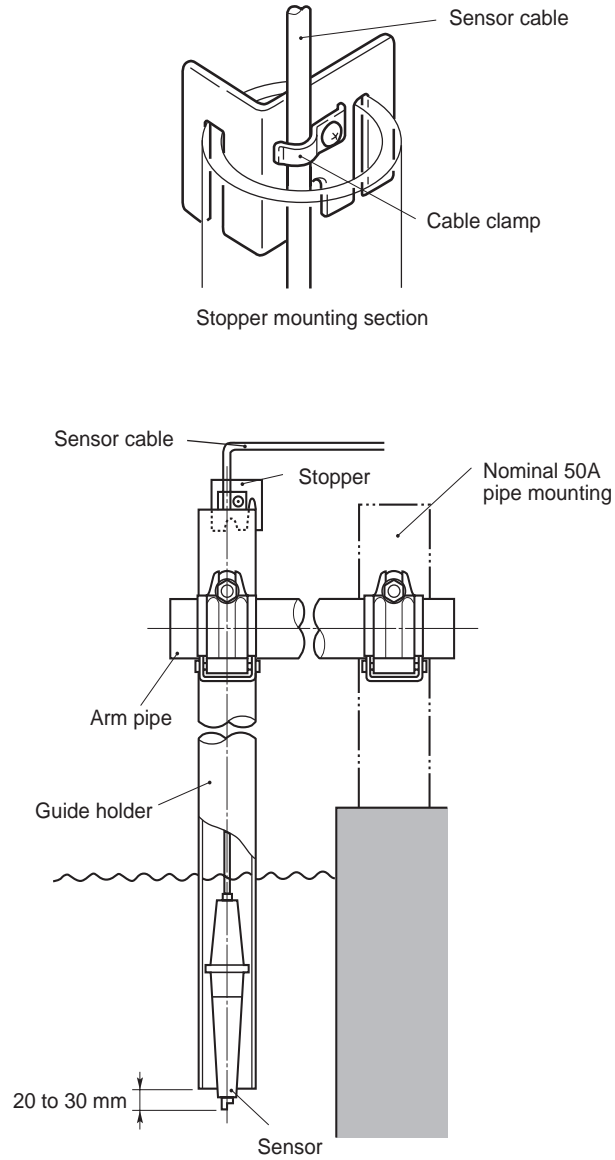
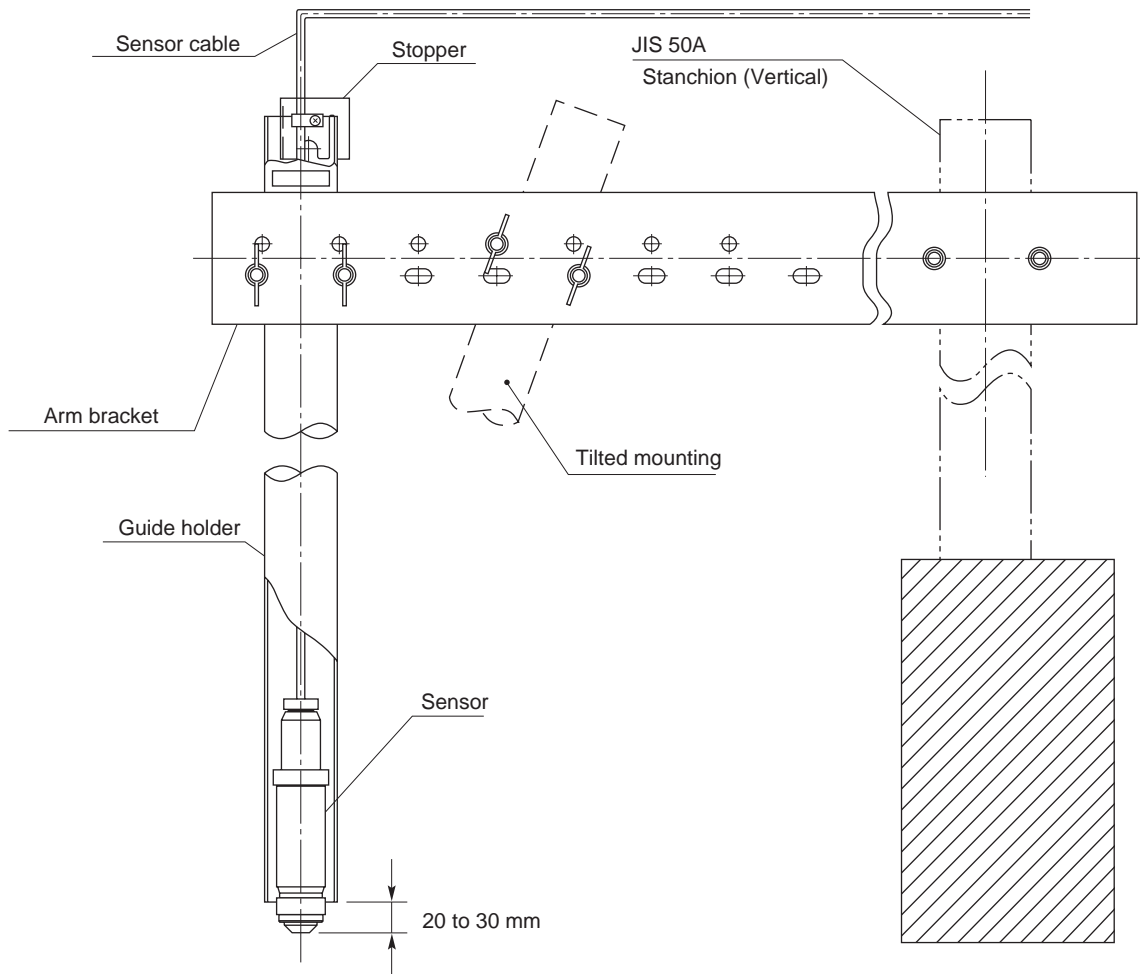


Figure 3. Mounting the sensor to the guide holder

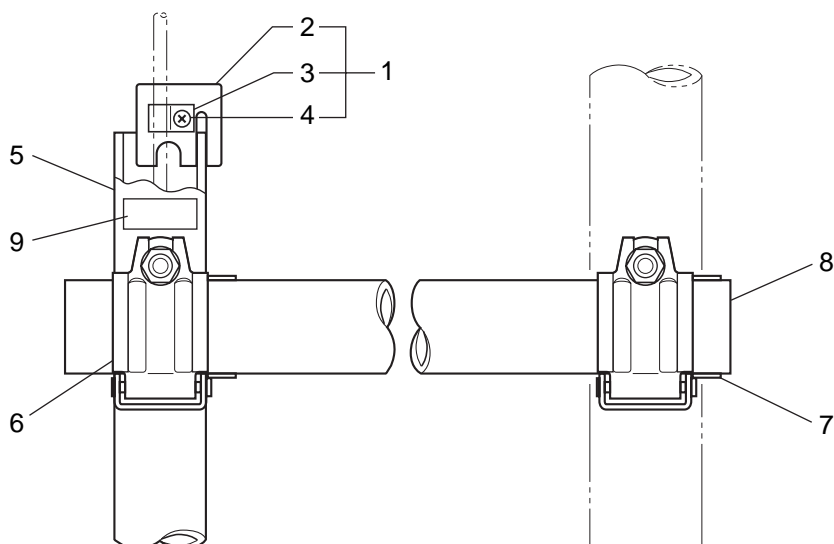


(Note) To incorporate the dissolved oxygen sensor DO30G or SS300G MLSS detector, it is recommended the detector be installed on an angle to prevent the stagnation of bubbles at the sensor trip (detection) section.

Figure 4. Mounting the sensor to the guide holder with option /MS5

Customer Maintenance Parts List

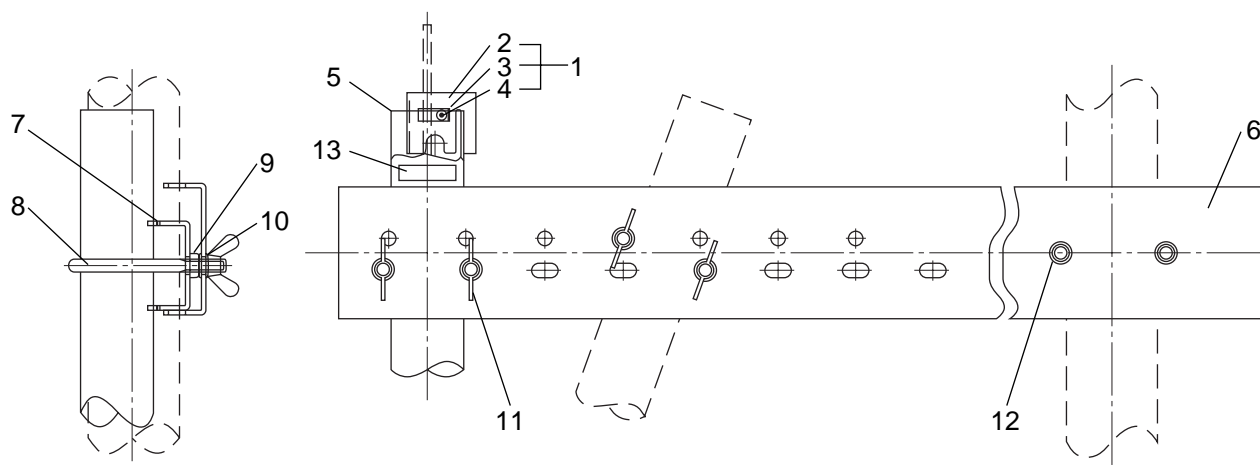
Model PH8HG Drop-In Guide Pipes



Item	Part No.	Qty	Description
1	K9144AA	1	Stopper Assembly
2	K9144AB	1	Bracket
3	K9144AC	1	Clamp
4	Y9408JU	1	Pan H. Screw, M4 × 8
5	Below	1	Pipe
	K9144AK		Hard Polyvinyl Chloride
	K9144AL		Polypropylene
6	L9813VN	1	Clamp
7	L9813VP	1	Clamp
8	K9144AM	1	Pipe
9	K9145NA	1	Nameplate

Customer Maintenance Parts List

Model PH8HG/MS5 Drop-In Guide Pipes



Item	Part No.	Qty	Description
1	K9144AA	1	Stopper Assembly
2	K9144AB	1	Bracket
3	K9144AC	1	Clamp
4	Y9408JU	1	Pan H. Screw, M4 × 8
5	Below	1	Pipe
	K9144AK		Hard Polyvinyl Chloride
	K9144AL		Polypropylene
6	K9145LQ	1	Bracket
7	K9145LR	1	Bracket
8	K9145LP	1	U-Bolt
9	Y9801BU	4	Nut
10	Y9800SU	6	Washer
11	L9800PV	2	Wing Nut
12	L9800JJ	1	U-Bolt
13	K9145NA	1	Nameplate

Revision Record

Manual Title : Model PH8HG Drop-in Guide Holder

Manual Number : IM 12B7M2-01E

Edition	Date	Remark (s)
1st	Aug. 1998	Newly published
2nd	Jul. 2006	Some error corrected
