

# AUTOPILOT PT500 series



Yokogawa Denshikiki Co., Ltd.

# PT500 AUTOPILOT

*is highly reliable and meets the needs of times.*



PT500 AUTOPILOT

An autopilot controls and automatically maintains ship's course by means of its control algorithm as well as conventional hand-steering whichever activates the steering gear that moves the rudder.

Modern controls such as Track Control Steering (TCS) are also available if appropriate information interchanges are established among relevant equipment like an ECDIS.



DIN-size Modular Design

## FEATURES

- PT500 AUTOPILOT is suitable for a wide range of applications from large tankers to small freighters, and can easily be adapted to any type of steering gears and actuators.
- Two types of model are available and facilitate to configure the optimum system for each vessel.
  - PT500A - - - - Adaptive Control Model
  - PT500D - - - - Digital PID Control Model
- Fully dual redundant control lines; the malfunction of one control line does not affect to another.
- Superior operability and functionality; well arranged panel design ensures the Human Machine Interface (HMI) to avoid miss-operation.
- DIN size modular design; the modular units can easily be incorporated in a console to build up a system.
- Space saving design; CMZ900 Gyrocompass can be inside of the Steering Control Stand in order that bridge space may be saved.

## FUNCTIONS

- Follow-up steering: AUTO mode, HAND mode, REMOTE mode, NAVI mode (TCS)
- Non follow-up steering
- Operation mode ( Economy, Precision 1, Precision 2 )  
Note: BNAAC ( Batch Noise Adaptive Autopilot Controller ) algorithm will be assigned instead of the current Economy algorithm, if selected on placing a purchase order.
- Multi-heading input ( max. 2 input signals of the serial data )
- Off-heading alarm
- Digital remote steering ( option )



Steering Control Stand and CMZ900 Gyrocompass inside



# PANEL ARRANGEMENT and FUNCTIONALITY

- Typical panel arrangement is illustrated below. Actual panel arrangement may be different from this arrangement and subject to the performance specification requirement of the vessel.
- Primary units different between PT500A and PT500D are;
  - PT500A - - - - uses PB343 AUTO STEERING UNIT ( Adaptive Control Type ) and
  - PT500D - - - - uses PB344 AUTO STEERING UNIT (Digital PID Control Type ).

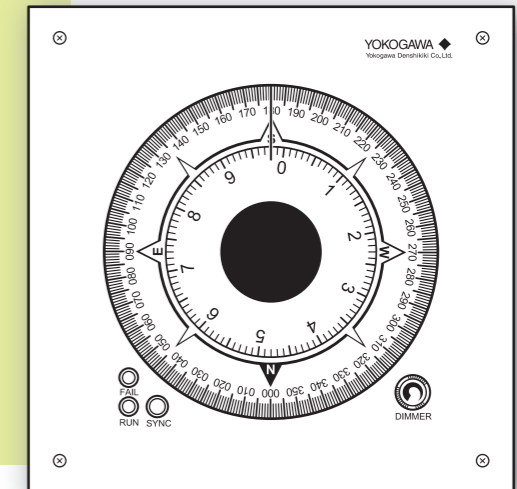
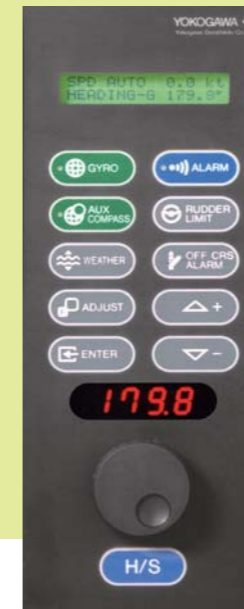
**PB343 for PT500A**



**PB344 for PT500D**



**PB345 for option**

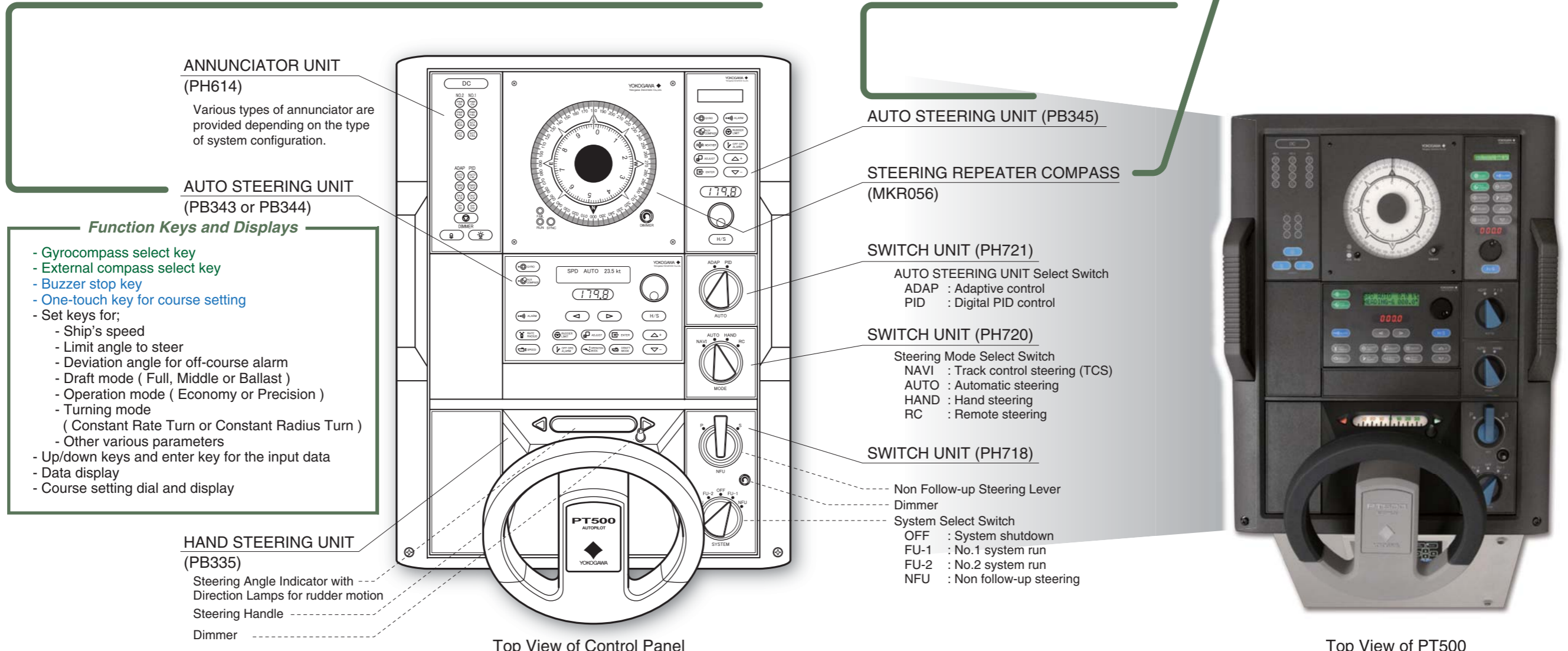


Steering Repeater Compass with Vernier Card

- 10 °/rev. vernier card
- Precise and comfortable reading to steer

Note: TCS and BNAAC algorithm are available only if PB343 AUTO STEERING UNIT is employed.

- Almost equivalent functions to PB344
- PB345 AUTO STEERING UNIT assists PB343 or PB344. Digital control capabilities can then be duplicated and enhanced for the safety voyage.

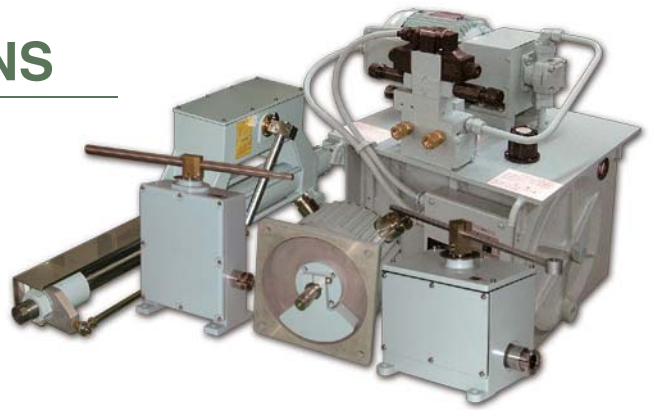


Top View of Control Panel

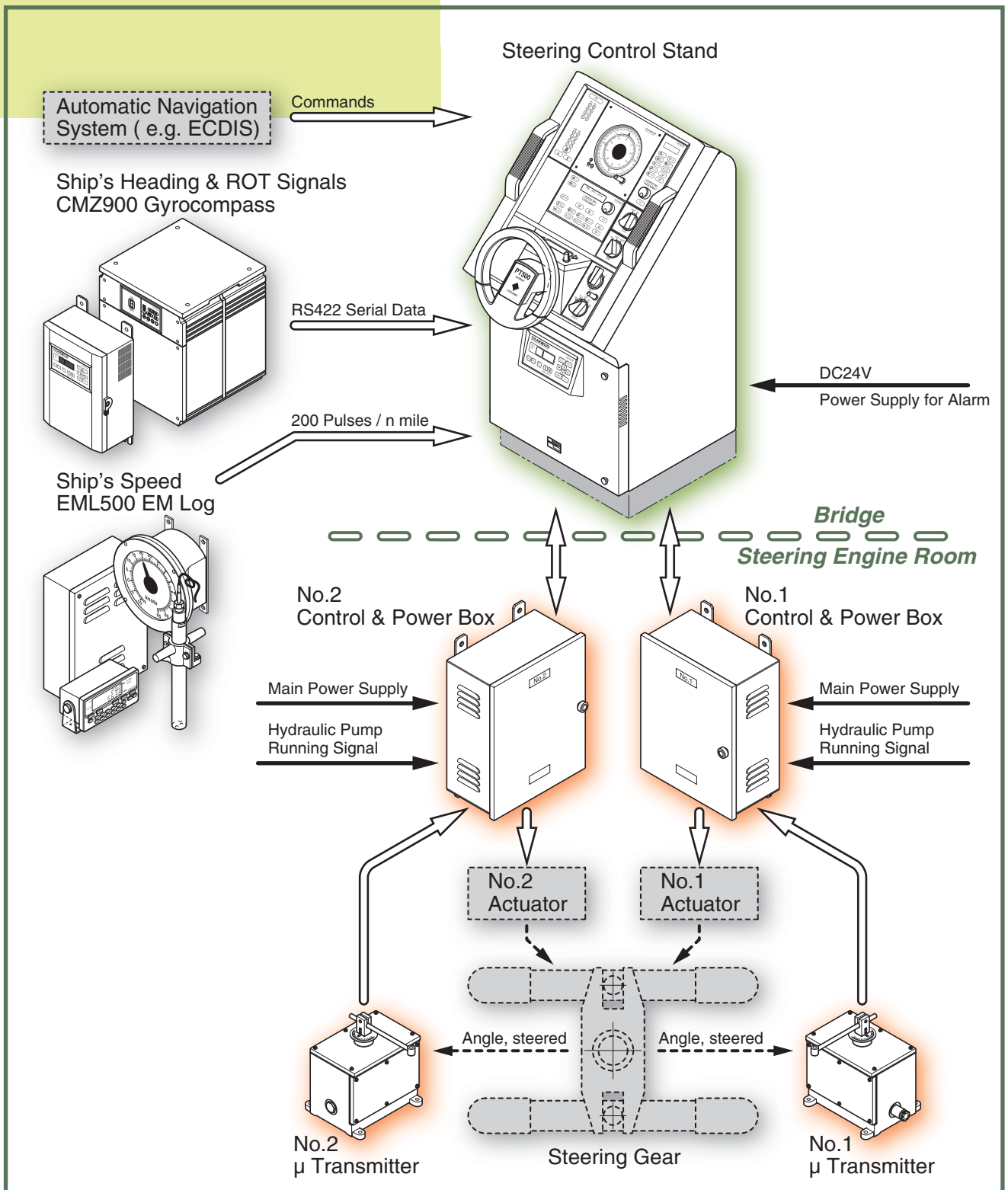
Top View of PT500

# SYSTEM CONFIGURATIONS

- Typical system configuration of PT500 AUTOPILOT is illustrated below.
- Since there are various types of actuator for the steering gears, the system configuration may be optimized and configured depending on the type of actuator to be employed.

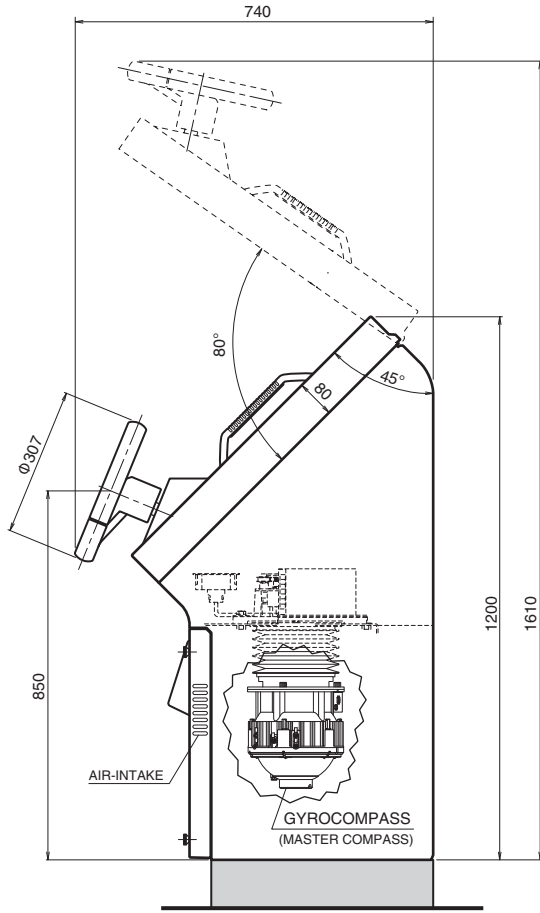
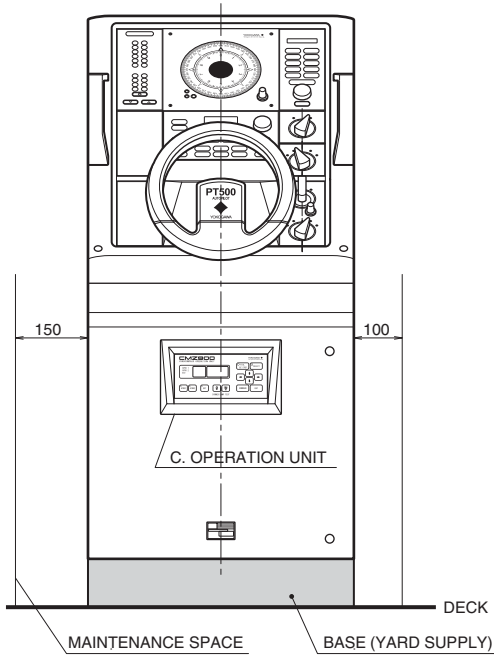


Various Actuators and Feedback Equipment

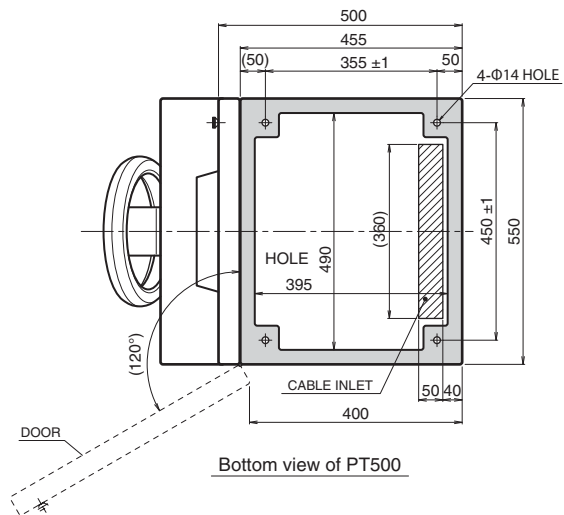


# OUTLINE DIMENSIONS

## PT500 AUTOPILOT ( STEERING CONTROL STAND )



MASS: 107 kg  
117 kg (Gyrocompass Built-in Type)  
Dimensions in mm  
Note: Outline Dimensions for the modular units will be specified in GS80B21B01E.



**YOKOGAWA** ◆

Yokogawa Denshikiki Co., Ltd.

URL : <http://www.yokogawa.com/ydk/>



**Caution:** Please read the manual before using this product.

**Marine Equipment Business Division**

Address : Minami Shinjuku Hoshino Bldg.

5-23-13 Sendagaya, Shibuya-ku, Tokyo, 151-0051 JAPAN

**International Sales Dept.** Phone : (81) 3-3225-5383 FAX : (81) 3-3225-5325  
**Service Dept.** Phone : (81) 3-3225-5392 FAX : (81) 3-3225-5325  
**Domestic Sales Dept.** Phone : (81) 3-3225-5382 FAX : (81) 3-3225-5325

**Osaka Branch** Phone : (81) 6-6345-8566 FAX : (81) 6-6345-8567  
**Imabari Branch** Phone : (81) 898-22-4559 FAX : (81) 898-33-2005  
**Fukuoka Branch** Phone : (81) 92-272-0954 FAX : (81) 92-272-0955

Represented by :