

**SEAVANS**  
Integrated Bridge System

# AUTO PILOT PR-6000



0062/

**TOKIMEC**

**TOKIMEC NEW AUTO PILOT  
PR-6000 SERIES SEAVANS PR-6000  
COMPATIBLE WITH IBS**

A term of "SEAVANS" means generic name of TOKIMEC's Integrated Bridge System.



**FEATURES**

● **Interface with IBS**

Possible to arrange the steering system configuration of Integrated Bridge System (IBS)

● **Gorgeous automatic control system**

Every adaptive (single or dual) control is supplied with PID single line as a standard.

● **Splendid man-machine interface**

"Individual alarm indication" and "Group alarm" are improved to be more visual and useful.

● **Consideration in detail**

- Compatible with the remote control steering mode like IBS.
- Possible to connect with digital output gyrocompass.
- Self-check function is available, and datum of accident is recorded for judgement.

**BASIC SPECIFICATIONS**

**1. STEERING MODE**

AUTO	Automatic steering mode using micro-processor. (ADPT: Adaptive control/PID: PID control)	
HAND	Follow up steering mode using steering handle.	
NFU	None follow up steering mode using NFU lever. Remote control steering mode (option).	
RC	P/W: Remote control unit at port side S/W: Remote control unit at starboard side	W/H: Remote control unit in wheel house NAV: navigational equipment

**2. AUTOMATIC STEERING METHOD**

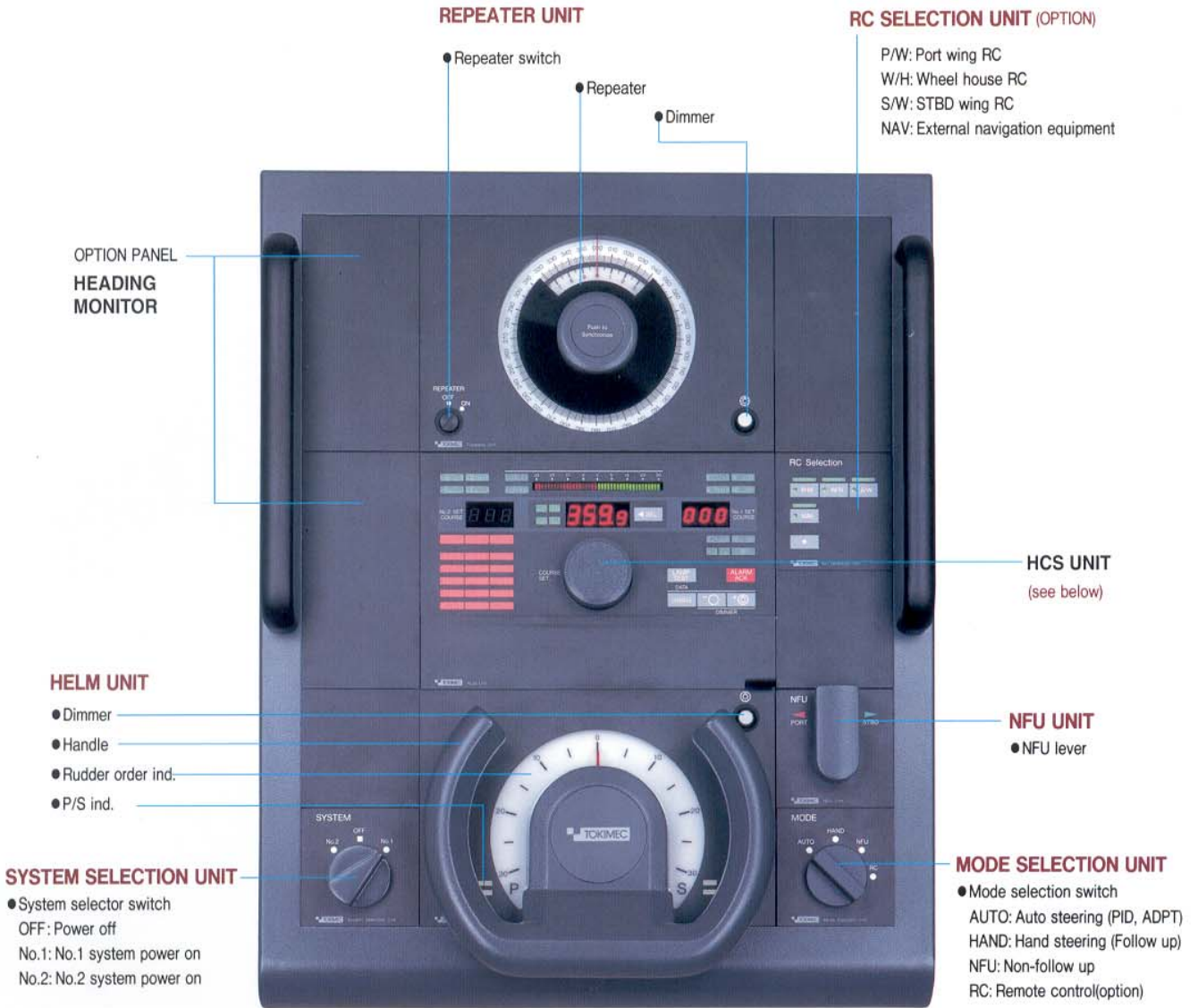
(1) Adaptive control mode

Basic system	MRACS (Model Reference Adaptive Control System) interface automatically estimates ship dynamics by accounting for course heading, ship speed and rudder angle.
Identification	Estimation of ship dynamics in HAND steering mode and automatic course change
Course-keeping	Changeover to and from CONFINED SEA and OPEN SEA.
Course-change	MRACS navigates course changes at a constant rate of turn.
Adjustments	Crew adjustments required for steering mode (CNF/OPN), SPD, PILOT WATCH, and RUDDER LIMIT.

(2) PID control mode

Basic system	PID control system
course-keeping	Automatic servo control with course deviation signal and rudder angle signal inputs.
Course-change	the same as above
Adjustments	Crew adjustments required for WEATHER, RUDDER, RATE, PILOT WATCH and RUDDER LIMIT.

## FACIA PANEL



## HCS UNIT



## MODELS

**PR-6**     -

### AUTOMATIC STEERING CONTROL MODE

- 1:PID Single line
- 2:PID Dual line
- 3:ADPT Single line and PID Single line
- 4:ADPT Single line and PID Dual line
- 5:ADPT Dual line and PID Dual line

### STAND TYPE

- 1:Stand type (Gyro Stand Alone)
- 2:Gylot type (Single Gyro Built in)
- 3:Console type (Single Gyro Built in)
- 4:Unit type (Gyro Stand Alone)
- 5:Console type (Gyro Stand Alone)
- 7:Gylot type (Dual Gyro Built in)
- 8:Console type (Dual Gyro Built in)
- 9:Unit type (Gyro Built in)

### GYROCOMPASS CONNECTION

- 1:Single
- 3:Dual

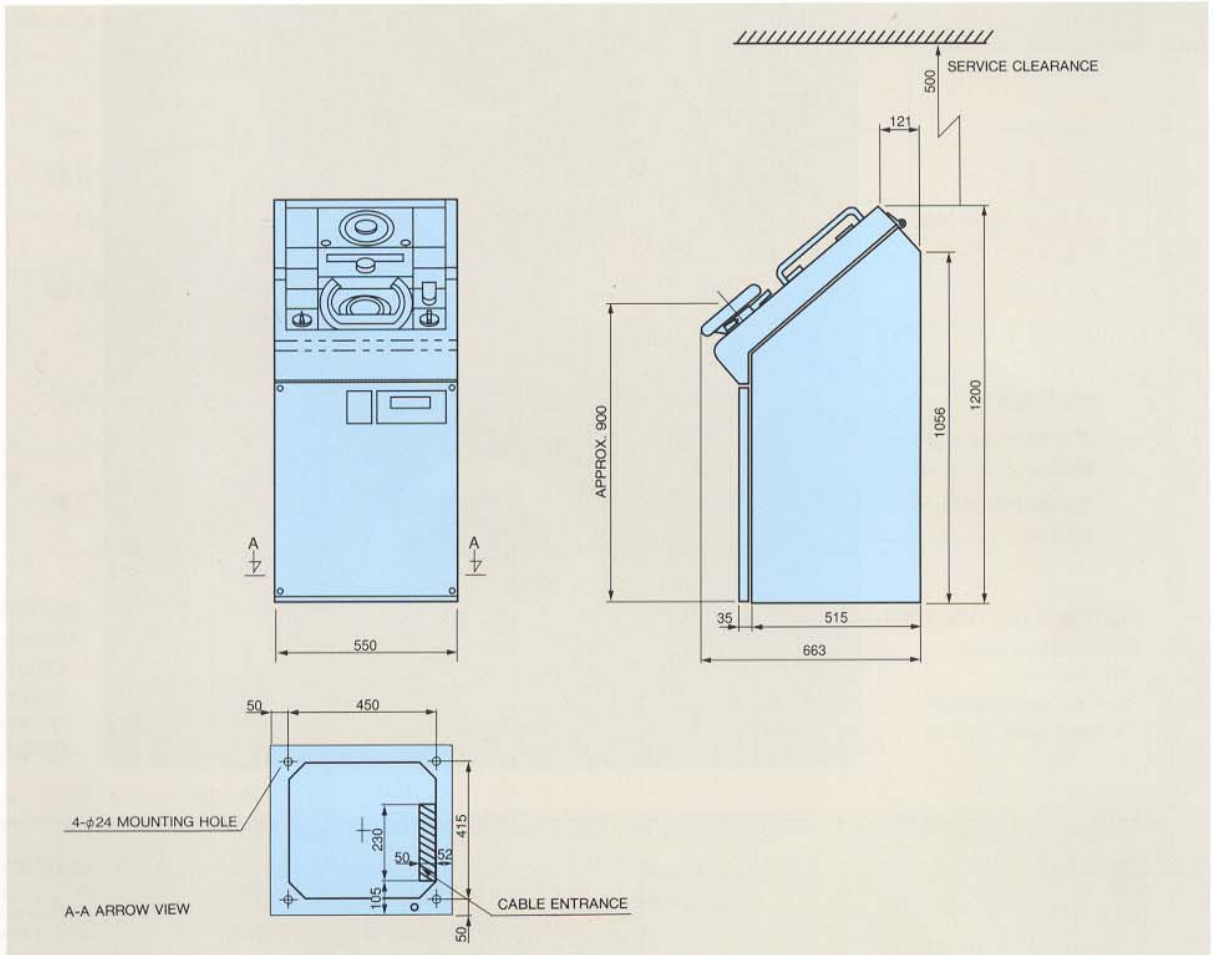
### POWER UNIT CONFIGURATION

- DM:Torque motor control  
(Single loop steering gear of MITSUBISHI/UNIVERSAL)
- DW:Torque motor control  
(Single loop steering gear of KAWASAKI)
- DT :Continuous control (Single loop steering of HATLAPA)
- E□:Solenoid valve control
- L□:Electrical hydraulic system
- P□:Electrical motor system

### GYRO COMPASS TYPE

- A:TG-8000
- B:TG-8500

## DIMENSIONS



Before operating this equipment, you should first thoroughly read the operation manual.

Design and specifications are subject to change without prior notice, and without any obligation on the part of the manufactures.

# TOKIMEC

## TOKIMEC INC.

Control Division | Marine Systems

Head office : 2-16-46, Minami-Kamata, Ota-ku, Tokyo 144-8551 JAPAN  
Phone: +81-3-3737-8631 Fax: +81-3-3737-8666

Shanghai Representative office : C-805, Part C of Orient International Plaza  
No.85 Lou Shan Guan Road, Shanghai, 200336, CHINA  
Phone: +86-21-3223-1252 Fax: +86-21-6278-7667

TOKIMEC U.S.A., INC. : 445 South Figueroa St. Suite 3770, Los Angeles CA 90071 US  
Phone: +1-213-689-4747 Fax: +1-213-689-0303

[www.tokimec.co.jp/marine/](http://www.tokimec.co.jp/marine/)



**MARAC**  
ELECTRONICS S.A.

165, Marias Kiouri & Tripoleos str. • GR-188 63 Piraeus, Hellas  
Tel.: +30210 4314361 • Fax: +30210 4314234  
[www.marac.gr](http://www.marac.gr) - E-mail: [info@marac.gr](mailto:info@marac.gr)