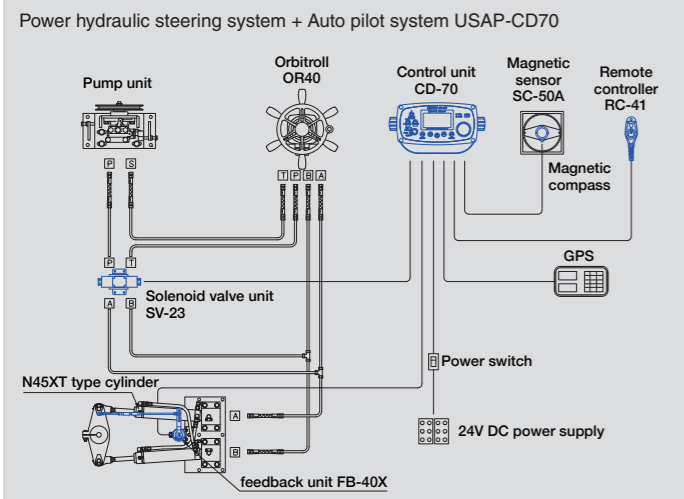
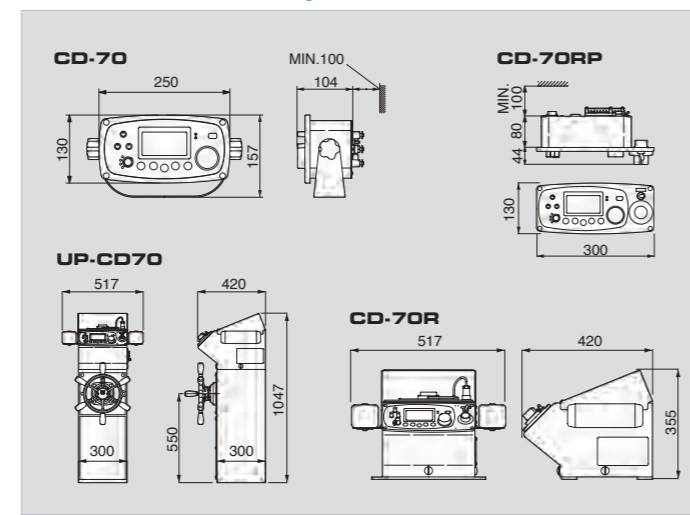


System Diagram



Dimensional Outline Drawing



AUTO PILOT SYSTEM CD-70 SERIES

CD-70
CD-70R
CD-70RP



Standard Components

Control unit CD-70

Magnetic sensor SC-50
Converts and detects the magnetic compass direction into electric signals.

Feedback unit FB-40X
Electrically detects the rudder's steering angle.

or

Feedback unit FB-72A

Select one of the following solenoid valve units if needed when expanding your powered steering system.

Solenoid valve unit SV-23

Solenoid valve unit SV-100A

Proportional solenoid valve unit SV-51

Optional Components

Earth magnetic sensor SR-620
(including SR adapter BX-SR)

Repeater compass EC-50
This electronic compass displays the control unit's heading as an analog display. The direction card is highly visible, and the light can be selected from three colors by using the pushbutton. This compass is extremely convenient for navigation.

Electronic helm ES-33
This remote controller can be used just like a steering wheel. This electronic helm is convenient for steering at the upper bridge or flying bridge.

Rudder angle indicator KI-50
This indicator displays the rudder steering angle.

Controller holder HD-10/20
The controller is easy to store and remove from this holder that can be fixed anywhere inside or outside.

Rudder angle indicator KI-30

Configuration List

	Control Unit	Magnetic Sensor	Solenoid Valve Unit				Feedback Transmitter	Remote Controller
		SC-50	SV-23	SV-100A	SV-51	FB-40X	RC-41	
USAP - CD70	CD70	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	
USAP - CD70 - SV100	CD70	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
USAP - CD70 - PV	CD70	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
USAP - CD70R	CD70R	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	
USAP - CD70R - SV100	CD70R	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
USAP - CD70R - PV	CD70R	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
USAP - CD70RP	CD70RP	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	
USAP - CD70RP - SV100	CD70RP	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
USAP - CD70RP - PV	CD70RP	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

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UNIKAS INDUSTRIAL INC.

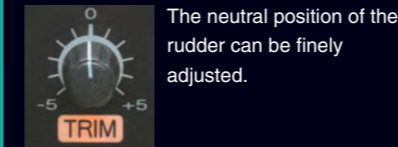
Debut of the new magnificently evolved CD-70!

Professional version Autopilot System **CD-70**

- **Large 4-inch screen**
improves visibility for easy reading of the set bearing, heading, steering mode and rudder bar graph.
- **Ergonomic large course adjustment knob**
allows fine adjustment of the direction by 1° unit in AUTO mode.
- **Rotary mode selection switch**
allows easy operation to switch to MANU, REMO, AUTO and NAVI mode.
- **Analog-type dial on operation panel**
for each rudder angle ratio, weather and neutral trim adjustment allows immediate response to the rudder revision frequency and revision amounts that constantly change according to sea conditions and amounts of cargo.
- **Compact depth size!**
reduced from 110mm to 80mm compared to our previous models.
- **Compatible with Radar/ VDR/ BNWAS !**



Neutral trim adjustment dial



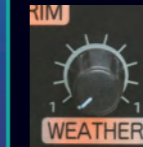
The neutral position of the rudder can be finely adjusted.

Rudder angle adjustment dial



to adjust the rudder angle when correcting the rudder during automatic steering.

Weather adjustment dial



By adjusting the automatic steering sensitivity according to the sea conditions, the rudder revision frequency can be adjusted appropriately.

Night illumination



CD-70R



Wiring/receptacle



Panel mount type remote control provided

CD-70RP



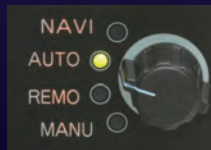
Desk top type

CD-70R



Steering stand type

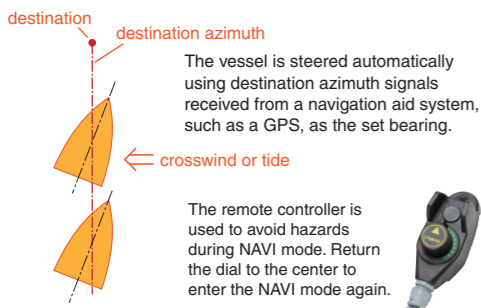
UP-CD70



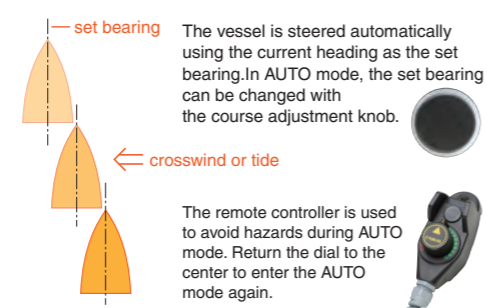
Mode selection switch & Mode display LED

The mode is changed by turning this switch. The LED for the selected mode lights.

NAVI mode

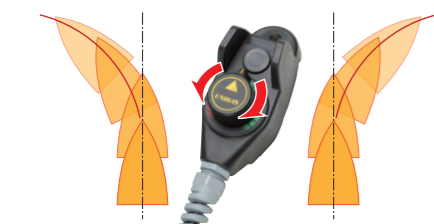


AUTO mode



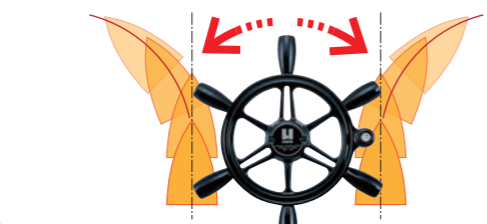
REMO (Remote controller) mode

The vessel is steered by using the remote controller.

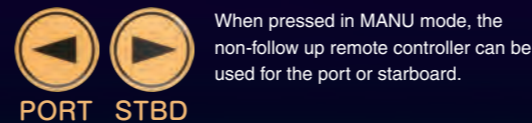


MANU (Manual) mode

The vessel is steered by manual steering or by using the PORT and STBD push button switches.

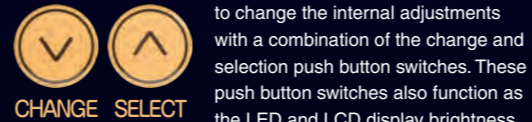


Port/starboard solenoid activation button switch



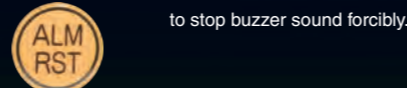
When pressed in MANU mode, the non-follow up remote controller can be used for the port or starboard.

Change/selection button switch



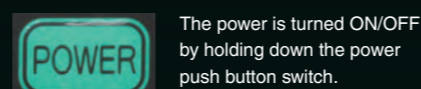
to change the internal adjustments with a combination of the change and selection push button switches. These push button switches also function as the LED and LCD display brightness adjustment push button switches.

ALM RST (Alarm shutoff button switch)



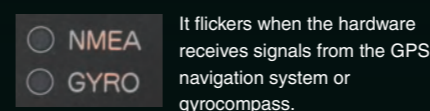
to stop buzzer sound forcibly.

Power button switch



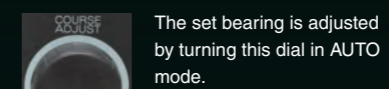
The power is turned ON/OFF by holding down the power push button switch.

NMEA/GYRO reception LED



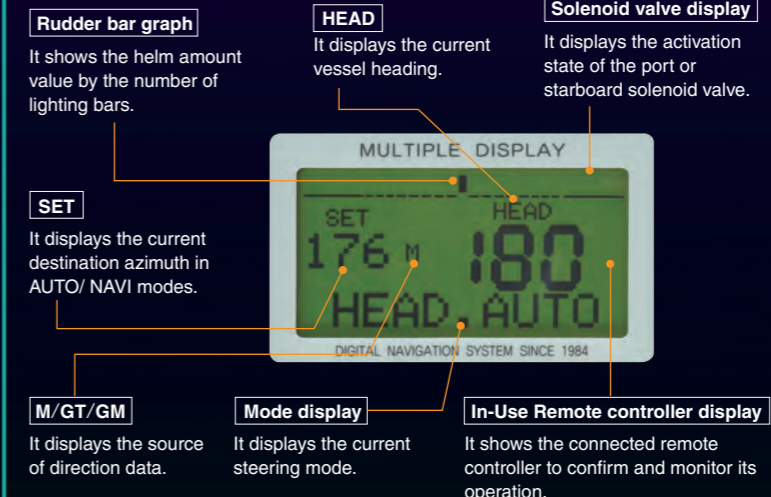
It flickers when the hardware receives signals from the GPS navigation system or gyrocompass.

Course adjustment knob



The set bearing is adjusted by turning this dial in AUTO mode.

LCD Multiple Display



Rudder bar graph

It shows the helm amount value by the number of lighting bars.

HEAD

It displays the current vessel heading.

Solenoid valve display

It displays the activation state of the port or starboard solenoid valve.

SET

It displays the current destination azimuth in AUTO/ NAVI modes.

M/GT/GM

It displays the source of direction data.

Mode display

It displays the current steering mode.

In-Use Remote controller display

It shows the connected remote controller to confirm and monitor its operation.