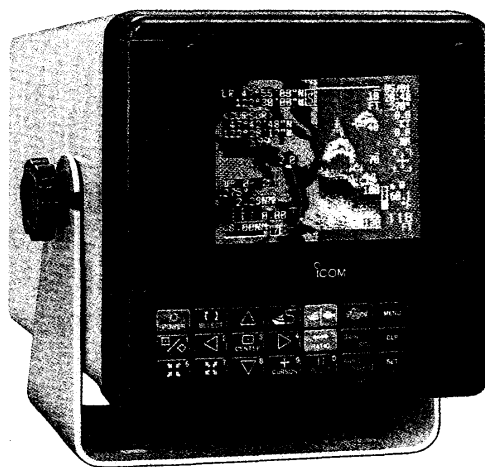




INSTRUCTION MANUAL

MARINEPLOTTER/SOUNDER

FP-601



Icom Inc.

GENERAL CAUTION

The FP-601 is a supplemental aid to navigation only and is not intended to be a substitute for accurate and current nautical charts.

DO NOT try to install a transducer by yourself. If a through hull transducer is selected for your boat, have a dealer install it.

DANGER! HIGH VOLTAGE

- **NEVER OPEN THE UNIT**

This product contains high voltages that are FATAL. This product has no user-serviceable parts inside. All repairs and adjustments **MUST** be made by a qualified electronics technician.

- **HIGH VOLTAGES**

High voltages of up to tens of thousands of volts are used in this equipment. Although prudent measures for safety have been adopted, sufficient care must be taken in the operation, maintenance and adjustment of the equipment.

Electric shock of 1000 volts or more causes electrocution and death; even an electric shock of only 100 volts can be fatal.

- **PREVENTION OF ELECTRIC SHOCK
(FOR QUALIFIED ELECTRONICS TECHNICIANS ONLY)**

To prevent such accidents, turn OFF the power source and do not reach inside until you have: ① discharged capacitors through a wire securely grounded at one end; and ② checked that no electrical charges remain inside the device.

Also, it is safest to wear dry wool gloves. **NEVER** use both hands simultaneously; keep one hand in your pocket.

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the FP-601.

SAVE THIS INSTRUCTION MANUAL – This instruction manual contains important safety and operating instructions for the FP-601.

FOREWORD

Thank you for purchasing Icom's FP-601 MARINE-PLOTTER/SOUNDER.

The FP-601 consists of both a plotter and a sounder. You can use both simultaneously or separately on the 6 inch color CRT.

If you have any questions regarding the operation of the FP-601, contact your nearest authorized Icom Dealer or Service Center.

EXPLICIT DEFINITIONS

The following explicit definitions apply to this instruction manual.

WORD	DEFINITION
WARNING	Personal injury, fire hazard or electrical shock may occur.
CAUTION	Equipment damage may occur.
NOTE	If disregarded, inconvenience only. No personal injury, fire hazard or electrical shock will occur.

PRECAUTIONS

NEVER let metal, wire or other objects touch any internal part of the FP-601.

NEVER place the FP-601 within the reach of children.

NEVER expose the FP-601 to rain, salt water or any other liquids.

NEVER connect the FP-601 to AC or more than 40 V DC. This will damage the FP-601.

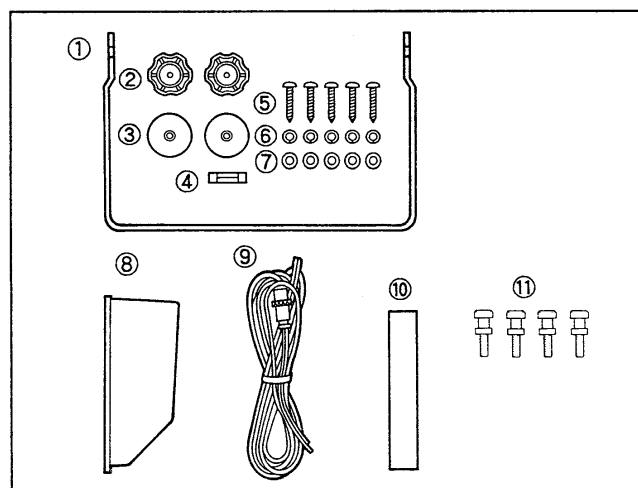
AVOID using the FP-601 near any magnetic materials, such as a loudspeaker or a large power transformer, as this can cause distortion on the CRT screen.

AVOID placing the FP-601 near heating equipment or in direct sunlight or where hot or cold air blows directly onto it.

AVOID using the FP-601 in areas where the temperature is over + 50 °C or under 0 °C.

AVOID using strong agents such as benzine or alcohol for cleaning the FP-601 as they may damage the surfaces.

UNPACKING



Accessories included with the FP-100: Qty.

① Mounting bracket	1
② Mounting knobs	2
③ Rubber washers	2
④ Spare fuse (5 A)	1
⑤ Self-tapping screws (M6 x 30)	5
⑥ Spring washers (M6)	5
⑦ Flat washers (M6)	5
⑧ Viewing hood	1
⑨ DC power cable (OPC-275)	1
⑩ Sponge	1
⑪ Hood screws	4

TABLE OF CONTENTS

GENERAL CAUTION	i	3 PLOTTER OPERATION	11 ~ 48
DANGER! HIGH VOLTAGE	i	3-1 Selecting plotter mode	11 ~ 16
IMPORTANT	ii	■ Plotter mode	12
FOREWORD	ii	■ Plot screen	13
EXPLICIT DEFINITIONS	ii	■ Navigation monitor screen	14
PRECAUTIONS	ii	■ GPS monitor screens	15
UNPACKING	ii	■ Loran-C monitor screens	16
TABLE OF CONTENTS	ii ~ iv	3-2 Chart operation	17 ~ 22
PREOPERATION	v ~ vi	■ Changing the chart scale	17
		■ Moving the chart	18
		■ Memorizing a chart into the FP-601 memory	19
1 PANEL DESCRIPTION	1 ~ 5	■ Selecting the navigation receiver	20
■ Front panel	1	■ Selecting the position data	20
■ Display explanation	3	■ Various indications	21
		■ Distance measurement	22
2 FIRST APPLYING POWER	6 ~ 10	3-3 Track operation	23 ~ 24
2-1 Notice	6	■ Track indication	23
2-2 Initial setting in the set mode	7	■ Track color selection	23
2-3 Initial setting for chart	8	■ Plotting interval	24
2-4 Initial setting for GP-2000	9	■ Erasing the track	24
2-5 Initial setting for RX-1191	10	3-4 Event mark	25 ~ 28
		■ Programming event marks	25
		■ Erasing event marks or changing event type and color	27
		■ Listing-up event marks	28
		3-5 Navigation function	29 ~ 41
		■ Function description	29
		■ Programming waypoints	29
		■ Erasing waypoints	31
		■ Changing waypoint Lat/Lon data	32
		■ Destination navigation (Basic navigation)	33
		■ Programming, erasing and reprogramming routes	37
		■ Route navigation	38
		■ External navigation	41
		3-6 Plotter alarms	42
		■ Alarm types	42
		■ Alarm setting	42
		3-7 RAM card	43 ~ 44
		3-8 GPS data correction	45
		3-9 Loran-C data correction	46 ~ 48

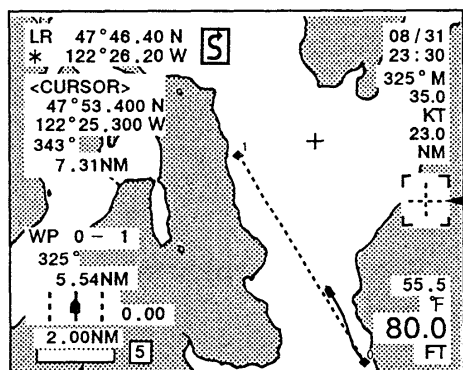
4 SOUNDER OPERATION	49 ~ 68	5 COMMON FUNCTIONS	69 ~ 74
4-1 Selecting sounder mode	49 ~ 54	■ CRT brightness	69
■ Sounder mode	50	■ Key illumination	69
■ Compulsory settings	51	■ Trip log	70
■ Basic screen	53	■ Heading data	71
■ Basic + bottom lock screen	54	■ Speed data	71
4-2 Basic settings	55 ~ 56	■ GPS/Loran-C priority	72
■ Depth range setting	55	■ Positioning correction	72
■ Phase shift setting	55	■ True or magnetic bearing	73
■ Sensitivity adjustment	56	■ Declination	73
■ Sensitivity of outer layer adjustment	56	■ Built-in simulator	74
4-3 Advanced settings	57	6 INSTALLATION AND CONNECTIONS ...	75 ~ 78
■ Auto function	57	■ System connections	75
■ Pause function	57	■ Installation	77
4-4 Sounder menus	59 ~ 62	7 MAINTENANCE	79 ~ 80
■ Interference rejection	59	■ Troubleshooting	79
■ Noise reduction	59	■ Preventive maintenance	80
■ Display speed setting	60	■ Fuse replacement	80
■ Bottom discrimination	60	■ Incorrect display	80
■ Range of bottom lock	61	■ Backup battery	80
■ Display background color	61	8 MENU MODE CHART	81 ~ 82
■ Depth scale	62	9 SCREEN FLOW CHART	83 ~ 84
■ Data indication	62	10 LORAN-C MAP	86
4-5 Display interpretation	63 ~ 66	11 SPECIFICATIONS	87
■ Color bar and time mark	63	12 OPTIONS	88
■ Echo from the sea bottom	63		
■ Fish school echos	64		
■ Second echo	64		
■ Plankton and tidal current	65		
■ Thermoclines	65		
■ Aeration	66		
■ Spurious bottom lines by side lobes	66		
4-6 Sounder alarms	67 ~ 68		
■ Alarm types	67		
■ Alarm setting	68		
■ Alarm operation	68		

PREOPERATION

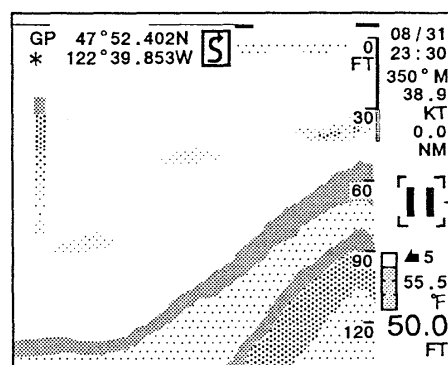
The following descriptions will assist in operation.

• Condition indicator

The condition indicator shows the selected function or condition, or appears when the condition matches a pre-set condition.



Condition indicator



Condition indicator

INDICATION	DESCRIPTION	INDICATION	DESCRIPTION
	ERROR INDICATOR Appears with a beep sound when you push a key or rotate the dial which is not applicable for the setting, selection or choice.		CENTER INDICATOR Appears when the center function is activated in the plotter mode or combination mode.
	CURSOR INDICATOR Appears when the cursor is ON in the plotter mode or combination mode.		TRACK ERASING INDICATOR Appears while track erasing is being performed in the plotter mode or combination mode.
	PAUSE INDICATOR Appears when the pause function is activated in the sounder mode or combination mode.	SOUNDER ALARM INDICATORS Appear with alarm beeps when the sea condition matches the pre-set alarm condition. See p. 67 for details.	
PLOTTER ALARM INDICATORS Appear with alarm beeps when your vessel position matches the pre-set alarm condition. See p. 42 for details.			

• Data card descriptions

TYPES OF DATA CARDS

Icom offers 3 types of optional data cards as described below. The ROM cards should be programmed to suit your navigation needs.

EX-1140 ROM CARD	Offers pre-programmed charts. 1 or 2 charts are programmed into each card in the factory.
EX-1141 ROM CARD	Offers pre-programmed charts. Several charts are programmed into each card in the factory.
EX-1142 RAM CARD	Used for programming of displayed track, event marks, waypoints and routes. The card has memory space for storing 2 sets of separate data.

DATA CARD PRECAUTIONS

The displayed chart on the screen is only for navigation reference. **USE AN ACTUAL MARINE CHART** when you need to make a decision.

NEVER bend the data card or place any heavy objects on the card.

NEVER throw or drop the data card.

AVOID leaving the data card in a dusty area and **NEVER ALLOW** dust to enter the connector.

Since the usual life of the internal battery of a RAM card is approx. 5 years, your important data such as event marks and routes should be recorded into a notebook.

DATA CARD INSTALLATION

Insert the data card into the card slot straight and smoothly until the card stops with the Icom logo mark on the right side as shown in the figure at right.

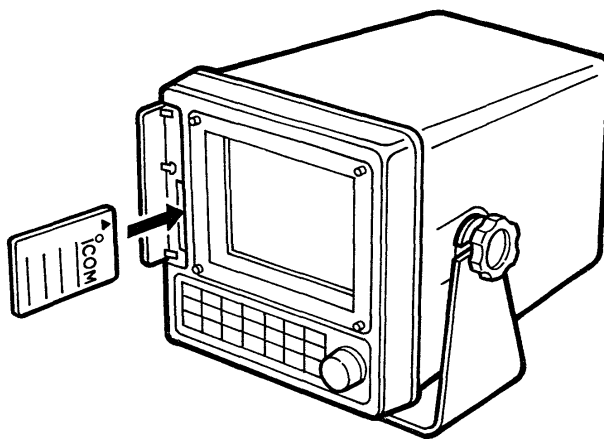
- When a data card is not inserted completely, the card will not operate.

To pull out the data card, pinch the card, then pull the card straight and smoothly.

CAUTION:

NEVER insert or pull out the data card under the following conditions:

- When the center function has been activated.
- While selecting a chart.
- While the displayed chart is moving.
- When reading, programming or erasing the data with a RAM card.

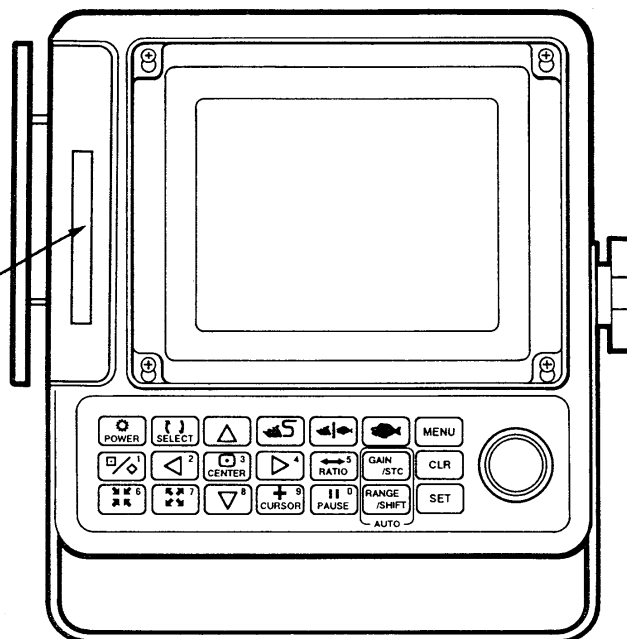


• Cyan letters in the menu mode

In the menu mode, function names or positioning data, etc. may appear in cyan letters.

These cyan letters indicate that you **CANNOT** set the function or edit the positioning data, because the function or positioning data will be incorrect if they are reset.

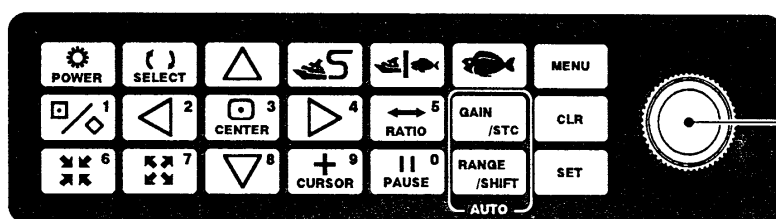
Front panel



CARD SLOT (pgs. vi, 8 and 43)
Accepts optional data cards.




The following data cards are available.



















- **EX-1140/EX-1141 ROM CARD**
For digitized chart recall.
- **EX-1142 RAM CARD**
For waypoints, event mark memory.



DIAL

- Select an item, value or condition in the set and menu modes.

KEY	FUNCTION	Ref. page
	<ul style="list-style-type: none"> - Turns power ON. - Turns power OFF when pushed for 3 sec. 	6
	<ul style="list-style-type: none"> - Programs and clears event marks or waypoints. Use this key together with [SET] and [CLR]. - Starts and cancels navigation functions. Use this key together with the dial and [SET]. - Selects item number "1" or enters the digit "1" in the menu mode. 	25 ~ 36
	<ul style="list-style-type: none"> - Reduces the scale of the displayed chart. <ul style="list-style-type: none"> • This key continuously changes the chart scale when pushed and held. - Selects item number "6" or enters the digit "6" in the menu mode. 	17

KEY	FUNCTION	Ref. page
	<ul style="list-style-type: none"> - Changes between plot screens 1 and 2, GPS monitor screens 1 and 2, or Loran-C monitor screens 1 and 2 in the plotter mode. - Performs as the selecting key in the menu mode. - Changes event type. 	12, 17
	<ul style="list-style-type: none"> - Moves the cursor to the left. - Selects item number "2" or enters the digit "2" in the menu mode. 	18
	<ul style="list-style-type: none"> - Magnifies the scale of the displayed chart. <ul style="list-style-type: none"> • This key continuously changes the chart scale when pushed and held. - Selects item number "7" or enters the digit "7" in the menu mode. 	17
	Moves the cursor upwards.	18
	<ul style="list-style-type: none"> - Moves the chart with the cursor or vessel position being in the center. <ul style="list-style-type: none"> • When the cursor is OFF, the vessel is in the center. • When the cursor is on, the cursor is in the center. - Selects item number "3" or enters the digit "3" in the menu mode. 	18
	<ul style="list-style-type: none"> - Moves the cursor downwards. - Selects item number "8" or enters the digit "8" in the menu mode. 	18
	<ul style="list-style-type: none"> - Selects the plotter mode when the sounder mode has been selected. - Selects a screen when the plotter or combination mode has been selected. <ul style="list-style-type: none"> • Plot screen → Navigation screen → GPS monitor screen → Loran-C monitor screen - Exits the menu mode. 	11 ~ 12
	<ul style="list-style-type: none"> - Moves the cursor to the right. - Selects item number "4" or enters the digit "4" in the menu mode. 	18
	<ul style="list-style-type: none"> - Turns the cursor ON and OFF. - Selects item number "9" or enters the digit "9" in the menu mode. 	22, 25, 29, 33, 40
	<ul style="list-style-type: none"> - Changes between the plotter or sounder mode and the combination mode. - Exits the menu mode. 	11, 49
	<ul style="list-style-type: none"> - Changes the rate of plot screen to sounder screen in the combination mode. - Selects item number "5" or enters the digit "5" in the menu mode. 	83
	<ul style="list-style-type: none"> - Pauses the sweep of the sounder display in the sounder mode. - Selects item number "0" or enters the digit "0" in the menu mode. 	57
	<ul style="list-style-type: none"> - Selects the sounder mode when the plotter mode has been selected. - Selects a screen when the sounder or combination mode has been selected. <ul style="list-style-type: none"> • Basic screen ↔ Basic + bottom lock screen - Exits the menu mode. 	49 ~ 50
	<ul style="list-style-type: none"> - Sets the sensitivity level. Use this key together with the dial. - Sets the STC level when pushed and held for 3 sec. Use this key together with the dial. 	56
	<ul style="list-style-type: none"> - Sets the depth range. Use this key together with the dial. - Sets the phase shift of the depth range when pushed and held for 3 sec. Use this key together with the dial. 	55
	<ul style="list-style-type: none"> - Selects the menu mode. - Returns to the previous window in the menu mode. 	84
	<ul style="list-style-type: none"> - Clears event marks or waypoints in the plotter mode. - Clears drawn track when pushed and held in the plotter mode. - Cancels settings. 	—
	<ul style="list-style-type: none"> - Determines the input data. - Selects a navigation receiver being used, positioning data method and track indication ON/OFF. Use this key together with the dial. 	20, 23

Count on us!

