

FURUNO[®]

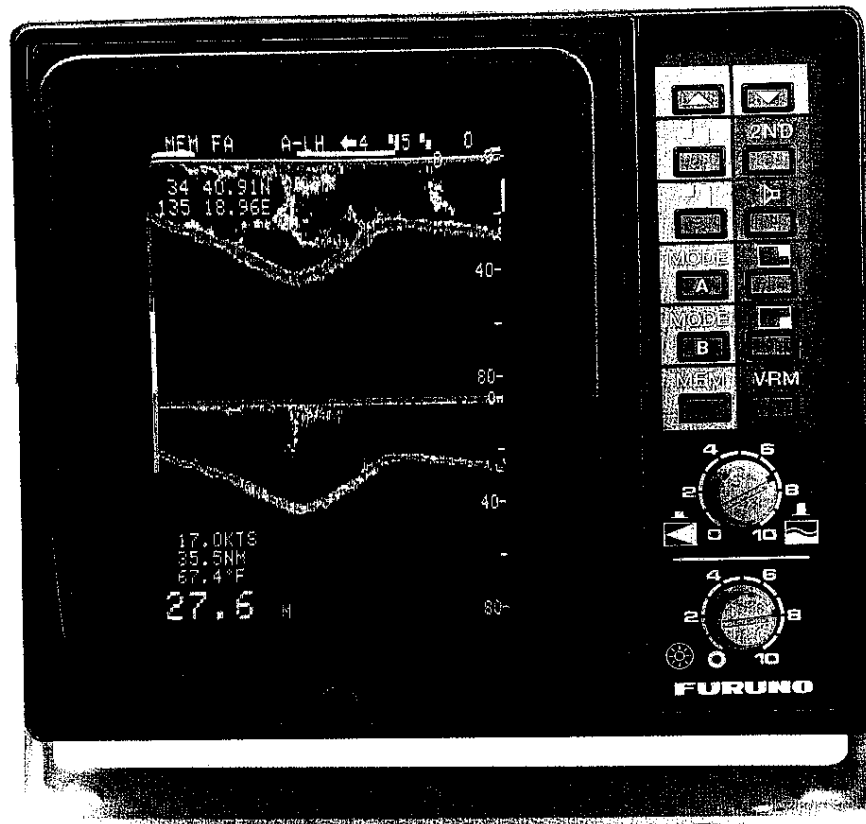
DUAL FREQUENCY

6" MONOCHROME VIDEO SOUNDER

Model **FMV-602**

Compact, high resolution 6" display
presenting echoes in 4-level quantization.





- 50 kHz and 200 kHz dual frequency operation with a newly-designed single transducer for shallow to deep water performance.
- Echoes are presented on high-definition, high-resolution 6" screen.
- 8 basic ranges plus phased ranges covering 0 — 15 ft (0 — 5m) to a maximum depth of 2000 ft (600m).
- Automatic phasing to present the bottom always on lower half of the screen.
- An optional sensor for water temperature, ship's speed and distance run or distance-to-go.
- Versatile display modes — either 50 kHz or 200 kHz alone, with or without bottom-lock; simultaneous 50 kHz and 200 kHz; and when fitted with a sensor, graphic display of water temperature, depth and ship's speed presented.
- 2 "pages" are provided for display. Any display mode may be selected for each page, yet pictures are automatically updated on both pages. Page A or B may be instantly switched for display by operator.
- Built-in Depth Alarm for bottom detection, or Echowatch for fish detection (switchable), with audible alarm.
- Picture advance speed may be manually set in 4 steps, frozen, or interlocked with ship's speed through optional speed sensor.
- 1 picture per page may be stored in instant memory, and recalled for comparison of present and past soundings.

Display of Water Depth, water temperature and Ship's Speed.

The FURUNO FMV-602 is a new compact monochrome video sounder with a dual-frequency transmitter using a single transducer. Steady, non-fading digitized pictures are presented on a 6" rectangular CRT with 4-level quantization depending on received echo strength.

The FMV-602 incorporates both 50 kHz and 200 kHz transceivers for optimum shallow as well as deep water performance. You have a choice of high or low frequency display, either with or without bottom-lock, or a simultaneous dual-frequency display. When fitted with an optional temperature/speed sensor, a graphic display of depth, water temperature and boat speed may also be selected. Alphanumeric navigation data are always indicated on the screen in any display mode, together with ship's position, when fed from a LORAN navigator in NMEA 0183 format.

Two display "pages" are provided and any display mode may be allotted to each page (Ex. high frequency sounding on page A and low frequency sounding on page B). Pages A and B

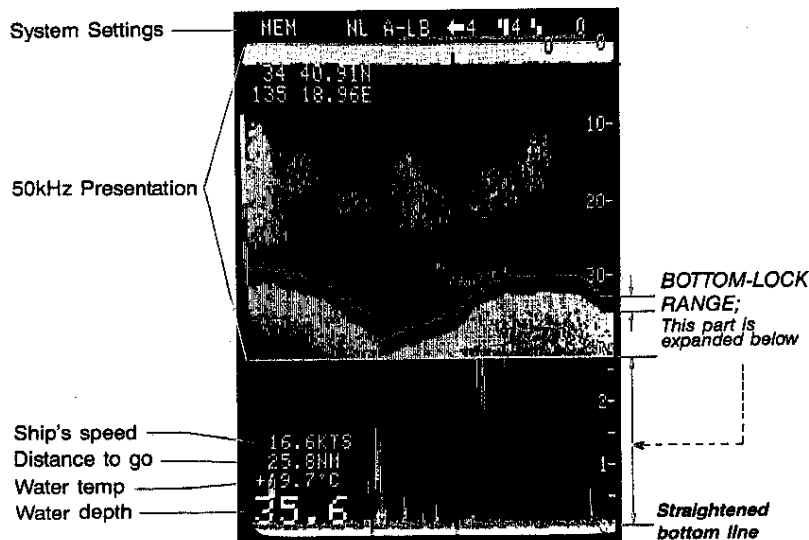
can be instantly switched for display. One screen-shot may be retained in memory on each page (a total of 2 pictures can be stored), and recalled instantly.

A variable depth marker and a noise limiter are standard features. Plus a unique alarm facility is also featured as standard. Two alarm zones may be set; one extends from screen top down towards the bottom and the other from bottom towards the top. When they are overlapped, the overlapped portion becomes a single alarm zone. The alarm works as either a Fish Alarm (Echowatch) or as a Bottom Alarm. An audible alarm is activated when a fish school or the bottom appears at the depth set by the zone(s).

In addition to manual phasing of the range, automatic phasing is provided, so that the bottom is always displayed on the lower half of the screen.

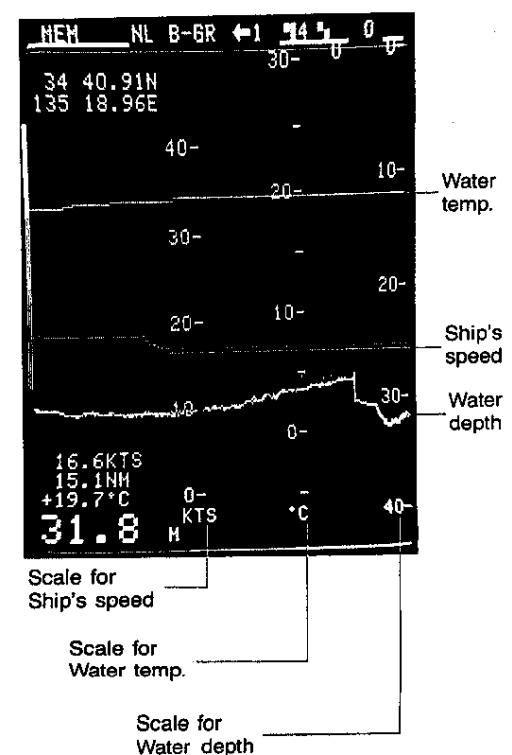
The FMV-602 is also provided with output to external devices in NMEA 0183 format of the depth, together with temperature where the sensor is fitted.

SINGLE 50kHz DISPLAY WITH BOTTOM-LOCK PRESENTATION



GRAPHIC DISPLAY

Historical presentation of ship's speed, water depth and water temperature simultaneously.



FURUNO ELECTRIC CO., LTD.

NISHINOMIYA JAPAN

SPECIFICATIONS OF FMV-602

1. Basic Range

Range		1	2	3	4	5	6	7	8	Bottom-lock
m	Basic (from 0)	5	10	20	40	80	150	200	300	2.5m
	Phase notch	1	2	5	10	20	50	50	100	
	Max. range	325	330	340	360	400	450	550	600	
ft	Basic (from 0)	15	30	60	120	250	500	750	1000	10 ft
	Phase notch	5	10	20	40	50	100	250	250	
	Max. range	1015	1030	1060	1120	1250	1500	1750	2000	

Unit of readout (fathom and passi/braza also available) can be internally switched.

2. Display Mode

Any 2 display modes may be allotted to Page A or Page B

- (1) 200 kHz
- (2) 200 kHz with bottom-lock
- (3) 50 kHz
- (4) 50 kHz with bottom-lock
- (5) 200 kHz and 50 kHz, dual
- (6) Graphic display of depth, water temperature and ship's speed (with optional sensor)

Scale: Water temperature; -5 to +30°C
(30 to 90°F)

Ship's speed; 0 to 50 knots

3. Display

6" rectangular monochrome (amber) CRT

4. Display Advance

OFF (picture freeze), 1/6, 1/4, 1/2, 1/1 lines/tx.

5. Pulselength and Pulse Repetition Rates (PRR)

Range (m)	PL (ms)	PRR (ppm)
0-40	0.2	230 to 610
41-80	0.2	150 to 250
81-240	0.6	130 to 200
241-600	1.2	80 to 110

PRR may be changed by internal setting in ten increments; can be interlocked with ship's speed; in speed interlock mode, is automatically changed by minimum value at a speed less than 2 knots, to maximum value at greater than 20 knots; and is halved on dual-frequency display mode.

6. Transducer (50kHz/200kHz dual freq.)

Type	Beamwidth (50kHz/200kHz)	Mounting/Material
520-5PWB	46°/10°	Transom/Plastic
520-5PSB	46°/10°	Thru-hull/Plastic
520-5MSB	46°/10°	Thru-hull/Bronze

7. Output

150 Wrms (1200 W peak power)

8. Other Functions.

Depth Alarm, Echowatch, Noise Limiter, Variable Depth Marker, Bright echo, Indication of water temperature (choice of centigrade or fahrenheit), Ship's speed, Distance run or Distance to go (sensor required) and ship's position (LORAN required); Memory for display; Output of depth and temperature (NMEA 0183).

9. Power Supply

11-40 VDC, 15W, floating mains
110/220 VAC with extra rectifier

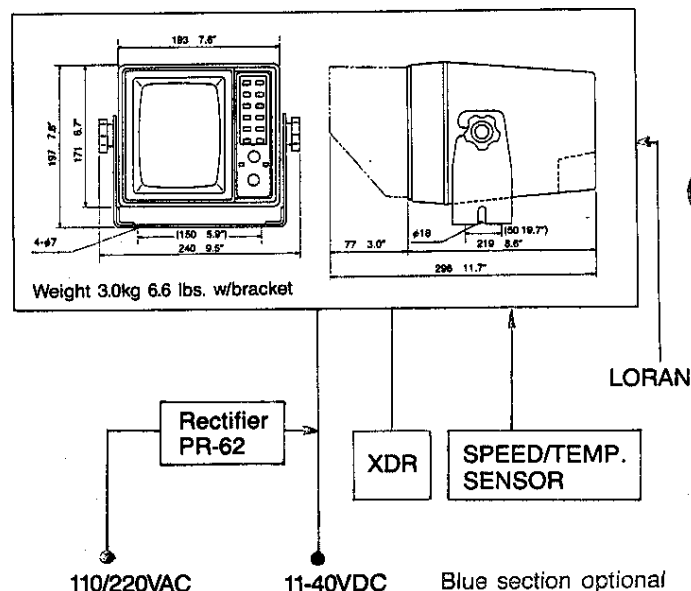
10. Equipment List

Standard

- | | |
|--------------------------------|--------|
| 1. Display Unit with Sun Visor | 1 unit |
| 2. Transducer | 1 unit |
| 3. Installation Materials | 1 set |
| 4. Spare Parts | 1 set |

Optional

1. Speed/temperature sensor
ST-01PTB (Transom/Plastic)
ST-01PSB (Thru-hull/Plastic)
ST-01MSB (Thru-hull/Bronze)
2. Rectifier PR-62
3. Interconnection Cable (5m) with connector for Loran navigator



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE