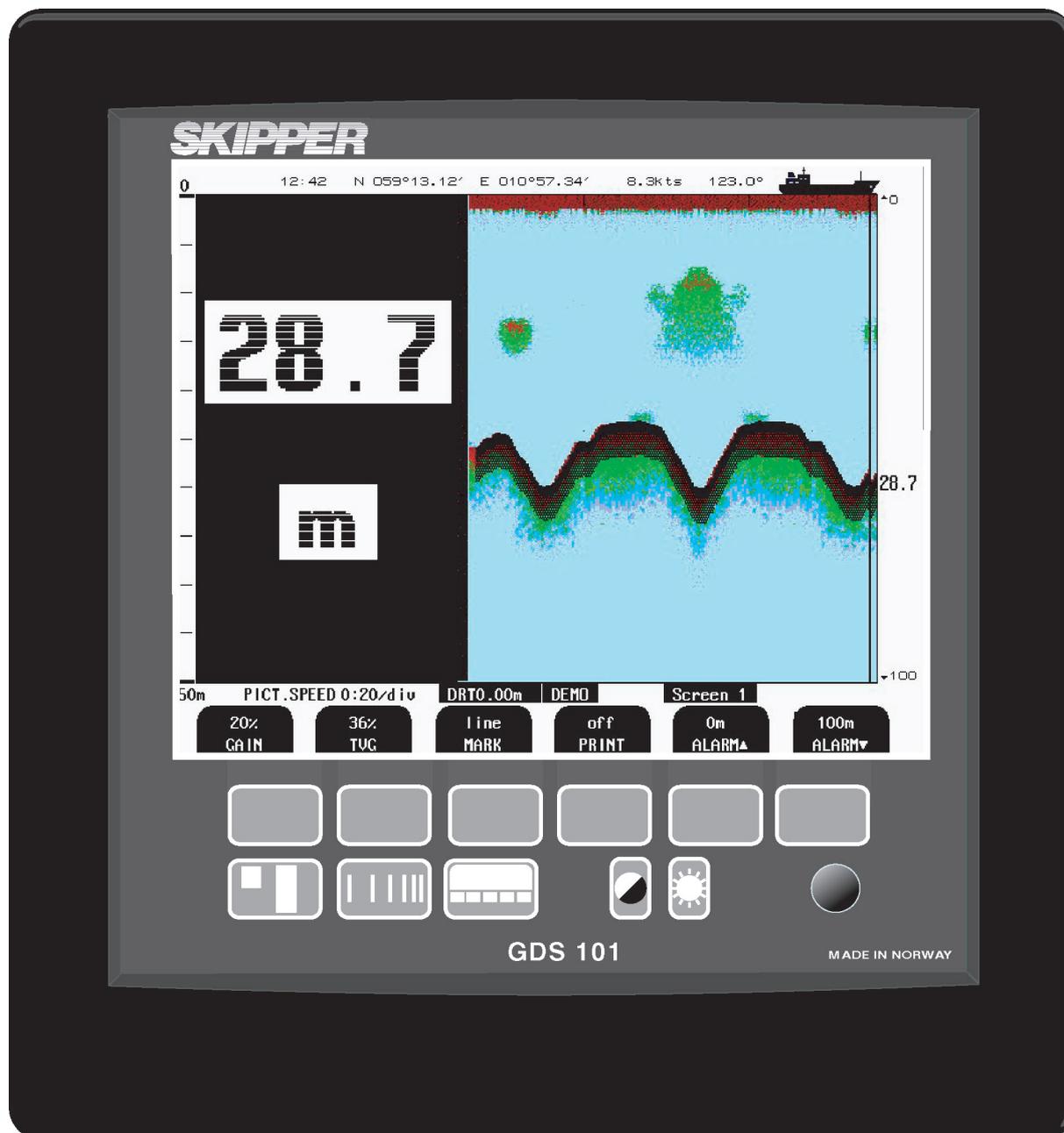


GDS101

Replacement procedure



This instruction leaflet will help you change the unit without losing your settings. Follow the guide step by step.

Estimated time: 10 - 30 minutes

It is recommended that you take a photo of your wiring, and photo or print of the status screen (Screen 9) before you start.

Fill in your values in the **yellow** part of the table. (If the same as default value, you do not need to fill in)

To get to the Setup Menus press and hold

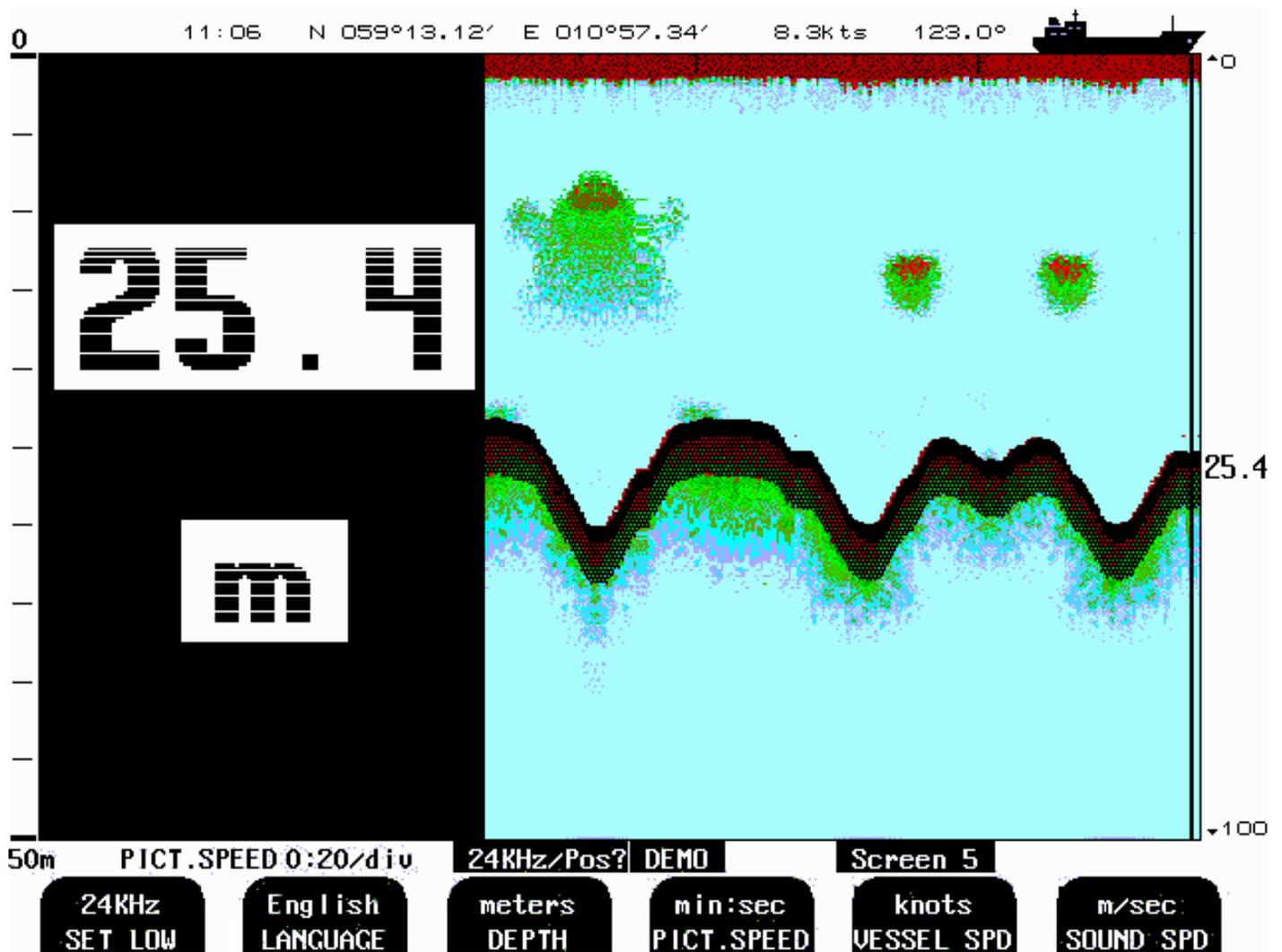


Fig. 2.6 Screen 5, Language and units of measure Setup.

This screen shows the main graphic echo-gram. Left hand digital indication may be enabled from screen 2.

Soft Key 1.	SET LOW	24/28/30/33/38KHz	Adjust indicated frequency of lower frequency channel. (see chapter 5. Low frequency indication)
Soft Key 2	LANGUAGE	English etc.	Screen language selection.
Soft Key 3	DEPTH	m etc.	Unit of measurement for depth.
Soft Key 4	PICT.SPEED	m:s/div etc.	Unit of measurement for picture speed.
Soft Key 5	VESSEL SPEED	knots etc.	Unit of measurement for vessel speed.
Soft Key 6	SOUND SPEED	m/s etc.	Unit of measurement for sound speed.

Setting	What it does	Connection	Is it USED? / Setting	Default
SET LOW	THE Low frequency (38kHz) Channel can be factory modified to these frequencies. This is not normal on exchange units Only available if you have selected the lowest frequency on screen 3	J100 Pin Pin		38 kHz
Language	Display language			English
Depth	Units			1S
Vessel Speed	Units			knots
Sound speed	Units			m/sec

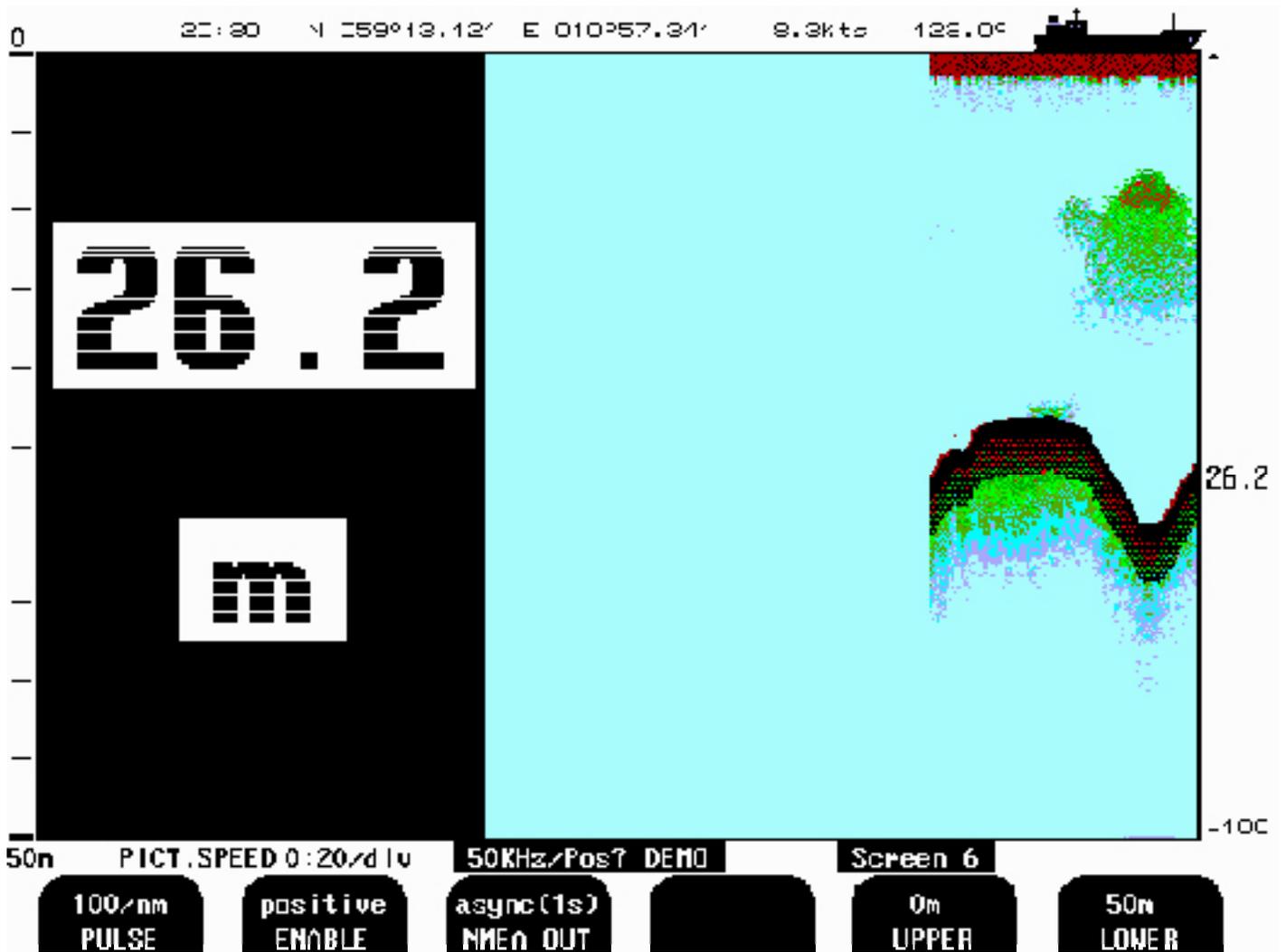


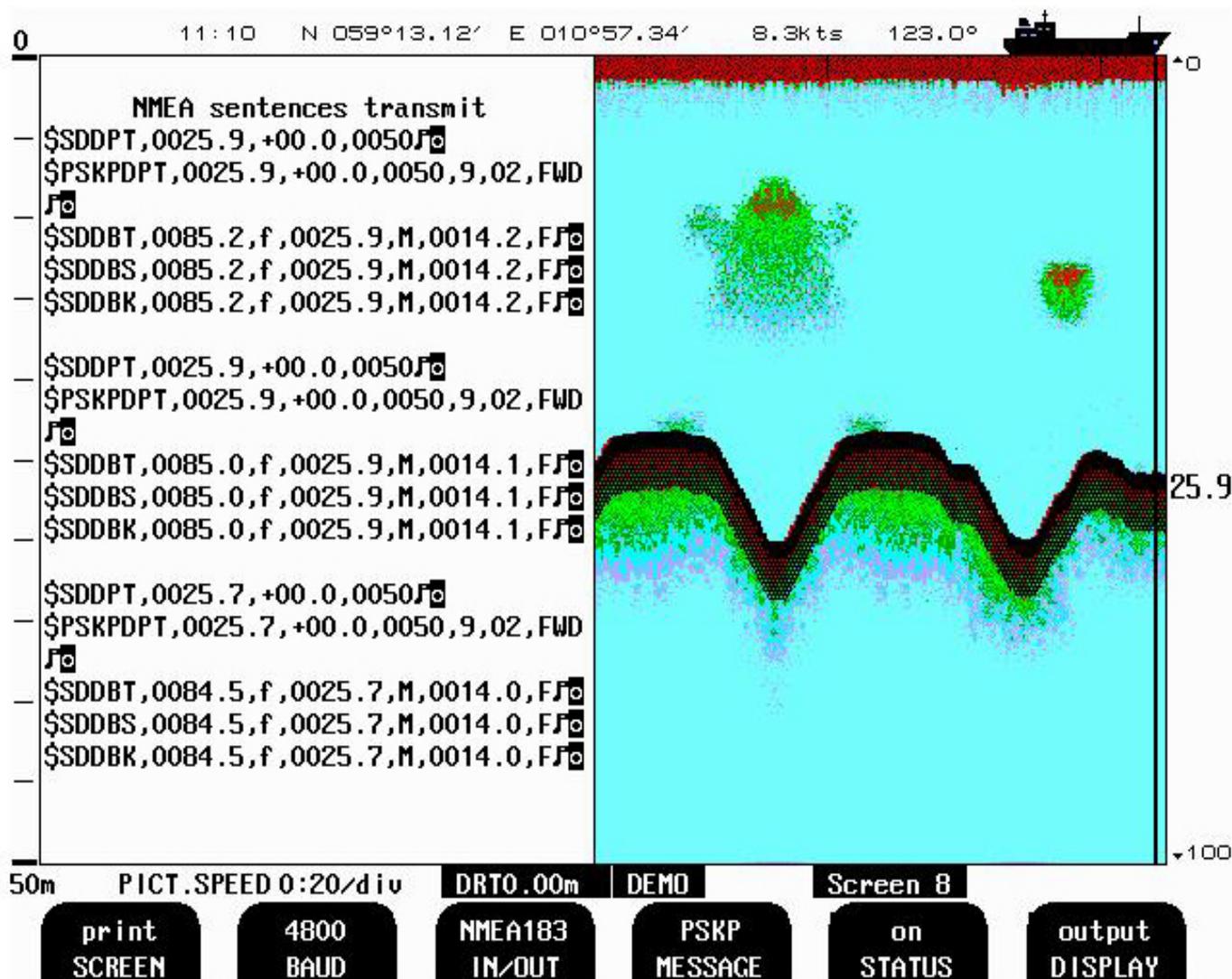
Fig. 2.7 **Screen 6, Interface Setup screen.**

This screen shows the main graphic echo-gram. Left hand digital indication may be enabled from screen 2.

Soft Key 1.	PULSE	100/200/400/20000	Log pulse input calibration.
Soft Key 2	ENABLE	pos/neg	select polarity of external sync signal (remote sounding control option)
Soft Key 3	NMEA OUT	async(1s) / synchronous	Select between synchronous (with sampling rate) and asynchronous (1s period) NMEA output update.
Soft Key 4	not used		
Soft Key 5	UPPER	0 - 98m	Analogue output shallow limit = 0V.
Soft Key 6	LOWER	0 - 99m	Analogue output deep limit = 10V.

Setting	What it does	Connection	Is it USED? / Setting	Default
PULSE	Selects the rate	J100 Pins 6,7		FWD
ENABLE	External synchronise (ONLY Special / Navy version)	J100 Pins 12,13		positive
NMEA OUT	How often to send NMEA (every second, or when a ping comes.)	9pin D Type		1S
UPPER	Shallow water alarm value			0
LOWER	Deep water alarm value			50

NMEA Communication Settings



Screen 8, NMEA Control Screen.

This screen shows list of received NMEA messages and half screen echo-gram.

Soft Key 1.	PRINT	screen	Print Screen.
Soft Key 2	BAUD	4800/9600	NMEA Baud Rate Selection
Soft Key 3	IN/OUT	NMEA0183/RS232	I/O Port Selection
Soft Key 4	MESSAGE	DPT/DBS/DBT/DBK/XDR EN250/PSKPDPT	Select if message should be on/off by soft key5.
		CHECK SUM	Select if PSKPDPT should contain check sum or not by soft key5.
Soft Key 5	STATUS	on/off	Select if enabled Message by soft key 4 should have on or off status.
Soft Key 6	DISPLAY	off/input/output	Message display Operation.

Check which NMEA sentences are in use by checking the STATUS on the Com screen, Screen 8.
 To get to this screen press and hold the screen button and rotate the encoder simultaneously.

Press the Soft button marked MESSAGE and note the STATUS for each message below:

NMEA Message	What it shows	Is it used (Place tick)	Default
DPT Message	Depth below keel and surface		ON
DBS Message	Depth below surface		OFF
DBT Message	Depth Below Transducer (not recommended)		OFF
DBK Message	Depth below keel		OFF
PSKP Message	Depth below keel and surface, Transducer position		ON
Checksum	Turn on or off checksum testing		ON
EN250	Proprietary Message		OFF
EN250 D#	Proprietary message		OFF
XDR	Sounder synchronisation information		OFF
BAUD Rate	Speed of Coms (4800 default)		4800

Other input/output Settings, Screen 9

0 11:06 N 059°13.12' E 010°57.34' 8.3kts 123.0°

SKIPPER GDS101

System Voltages	System Settings	Installation Settings
+5V : 5.0V	Frequency: 50kHz	Language: English
+12V :11.9V	Depth range: 50m	Depth units: meters
+24V :24.0V	Draught: 0.00m	Pict.spd.un.: min:sec
XCUR :24.0V	Shallow alarm: 0m	Sound spd.un.: m/sec
	Deep alarm: 100m	Vess. spd.un.: knots
System status	Picture spd: 0:20/div	
Depth: 27m	Gain: 20%	Log pulses: 100/nm
Xceiver oper.: Ok	TUG: 36%	Analogue min: 0m
	Power: 50%	Analogue max: 50m
	Sound spd.: 1500m/s	
Ambient temp.: Low	Ping status: continuous	Inhibit: positive
	Digital: off	Printer type: HPDeskJet
	Backlight: 70%	Demo: on
IC1: ok	Contrast: 62%	History: on
IC2: ok	Alarm: off	Printer oper.: ff
IC3: ok	Alarm print: manual	

Nmea talker connected:Unknown

50m PICT.SPEED 0:20/div DRTO.00m DEMO Screen 9

print SCREEN HPDeskJet PRINTER off FIX RANGE off ALARM merchant 1 VESSEL on SIMULATE

Screen 9, System Status Screen.

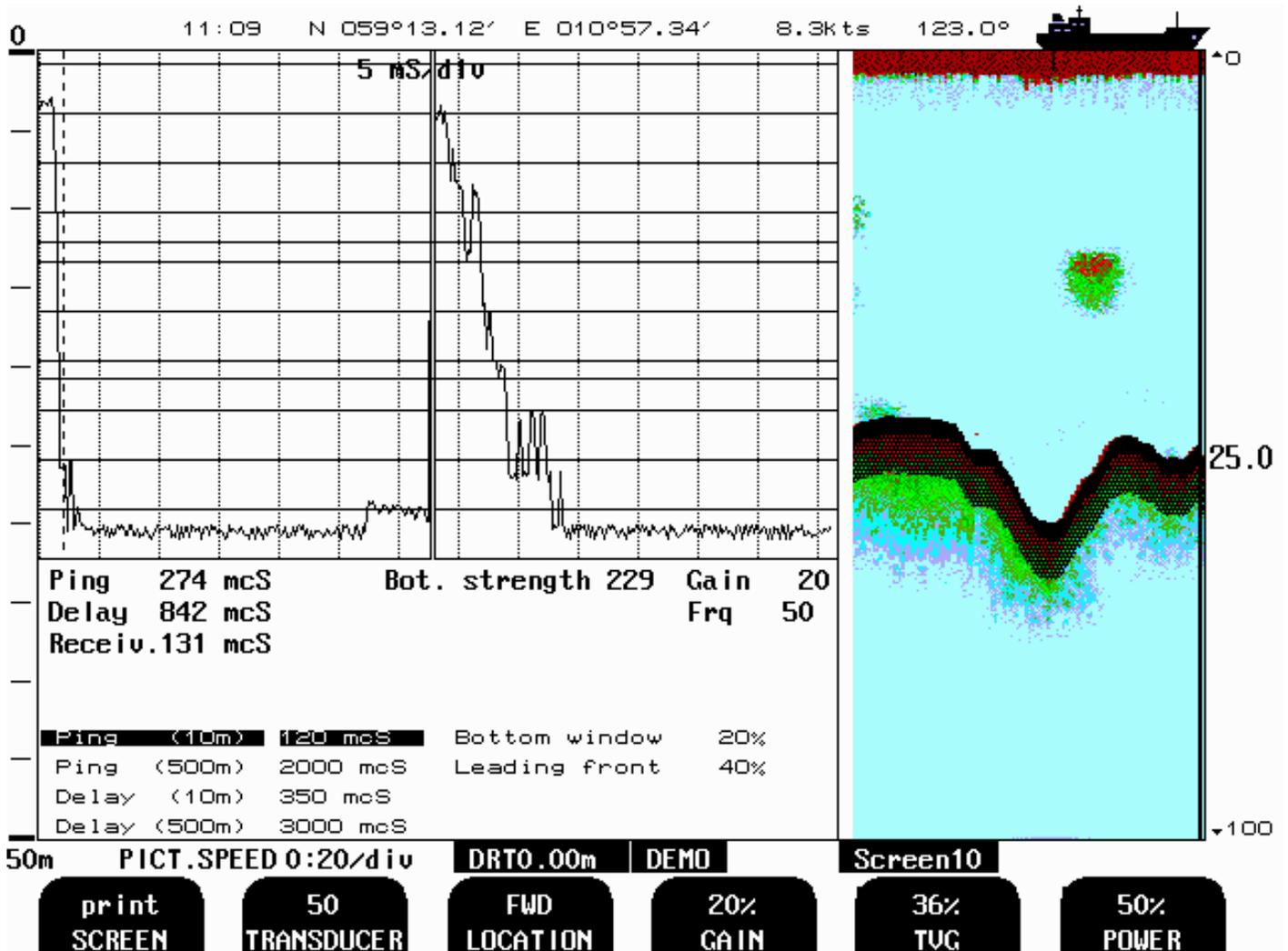
This screen shows a comprehensive list of system settings and parameters.

Soft Key 1.	PRINT	screen	Print screen.
Soft Key 2	PRINTER	HP DeskJet / Epson (Lq300+) / Epson D88 / Built-in thermal printer.	Select type off printer that are connected.
Soft Key 3	FIX RANGE	on/off	Limit Search Range to Window on FIX RANGE gives better detection in case of
Soft Key 4	ALARM	noisy signal. on/off	Internal Alarm Buzzer Control.
Soft Key 5	VESSEL	merchant1/2, Navy1/2	Upper right Screen Icon Selection.
Soft Key 6	SIMULATE	on/off	Built-in Simulator Control.

This screen contains the settings for all the other interfaces. analogue, pulse and alarm. Place a ring around the setting you have on your unit. (NOTE: if these are not connected you do not need to note down, the defaults will be enough)

Setting	What it does	Connection	Is it USED? / Setting	Default
Printer	Select printer type	LPT port		EPSON D88
Fix Range	Lock the depth range (recommended)			OFF
Alarm	Internal buzzer enable			OFF
Vessel	The displayed vessel on the screen			merchant 1

Other input/output Settings, Screen 10



Screen 10, Oscilloscope Screen.

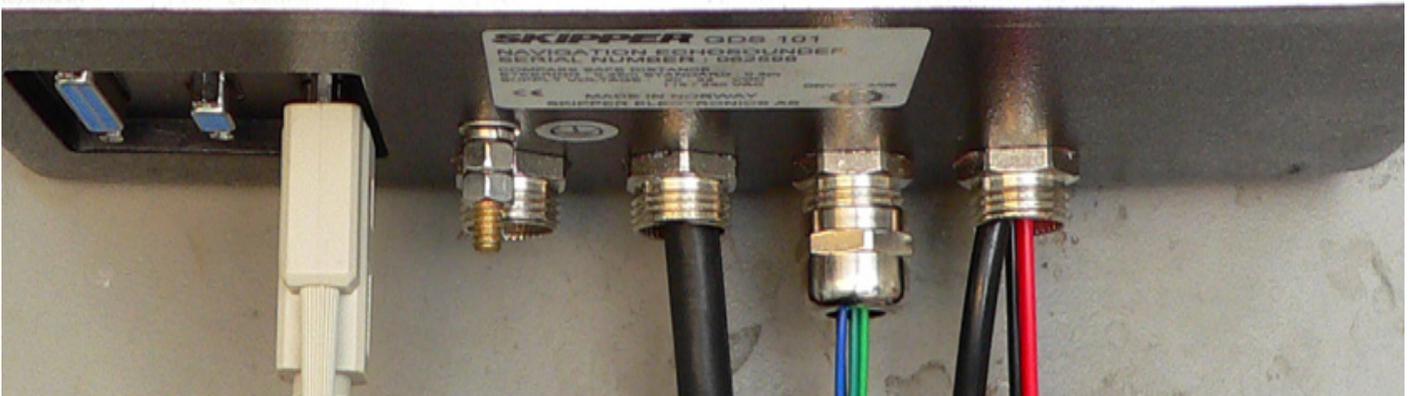
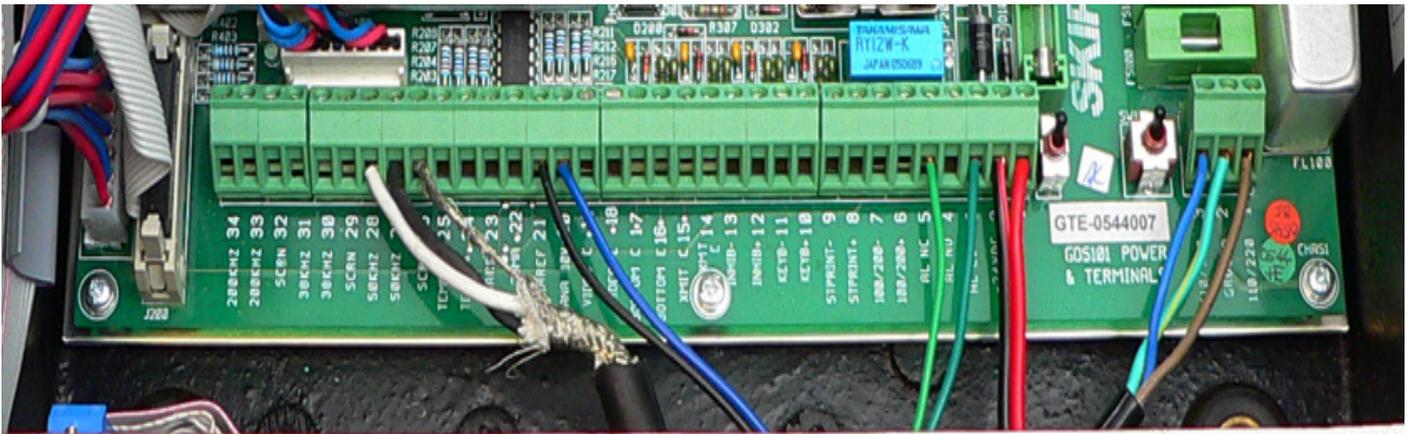
This screen shows oscillator program of receiver output versus time and half screen echo-gram.

Soft Key 1.	PRINT	screen	Print screen.
Soft Key 2	TRANSDUCER	200, 50, 38	Transducer selection for Soft key 3
Soft Key 3	LOCATION	Pos?,not installed,	(Pos? is default setting) If “NOT installed” is selected for one of the Frequences it will not be available in screen 2,soft key 2.
		Fwd, Aft, Port, Strb	To select position of transducer
		Fwd/Aft, Port/Strb	2 Transducers with Transducer selector (ENS518) See page 52 Remote Transducer selector See page 53 for Nmea sentence
Soft Key 4.	GAIN	0 - 100%	Gain Adjustment.
Soft Key 5	TVG	0 - 100%	Time Variable Gain Adjustment.
Soft Key 6	POWER	0 - 100%	Transmitter power adjustment.

If you have Transducers at different frequencies at different parts of the vessel, you can indicate where it is mounted. The setting for this are on this screen

Setting	What it does	Connection	Is it USED? / Setting	Default
Transducer 38	Selects settings for this channel. LOCATION, GAIN, TVG, POWER	J100 Pins 29-31	Location? FWD AFT PORT STRB	POS ??
Transducer 50	Selects settings for this channel	J100 Pin 26-28	Location? FWD AFT PORT STRB	POS ??
Transducer 200	provides a voltage or current out to external repeaters/systems	J100 Pin 32-34	Location? FWD AFT PORT STRB	POS ??
Power	Max output power (Low frequencies are sometimes limited)			50%
GAIN	Input gain			20%
TVG	Time variable gain			36%

Wiring



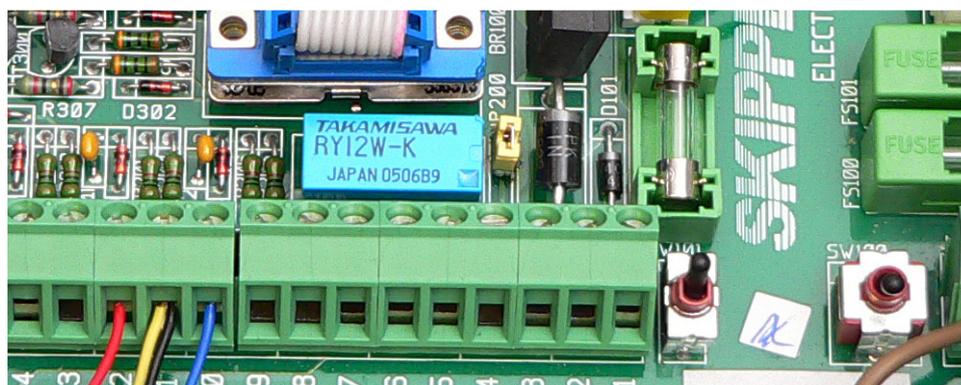
ADVICE: Take a picture of the wiring before you start. and the setup screens
Fill in relevant information in the yellow areas.
Note the colours in the table opposite, If you have cables with the same colour mark the cables.

Note all the cable connections on your display. You may have up to three transducers connected simultaneously. In addition you may have NMEA, Pulse and alarm connections.

J100 Connection table (Write the colour of the connected cables in this table)

Pin No	Function	Colout of connected wire	Pin No	Function	Colout of connected wire
1	+24V		17		
2	24V Ground		18		
3	Alarm common		19		
4	Alarm NO		20	Analog depth 10v	
5	Alarm NC		21	Analog Ref	
6	Pulses 100/200 p/NM (speed in)		22	Analog Depth 4-20mA	
7	Pulses 100/200 p/NM (speed in)		23	Analog Ref	
8			24		
9			25		
10	Remote Keyb+ Remote Alarm Reset	*Note	26	Xducer Scrn	
11	Remote Keyb -	*Note	27	Xdcr 50kHz	
12	+24/ inhibit +	*Note	28	Xdcr 50kHz	
13	Inhibit -		29	Xducer Scrn	
14			30	Xdcr 38kHz	
15			31	Xdcr 38kHz	
16			32	Xducer Scrn	
			33	Xdcr 200kHz	
			34	Xdcr 200kHz	

*Note: If the device has a remote keyboard. The Jumper JP200 must be in place (between Blue relay and black diode in picture)



SKIPPER RP200 Remote keyboard



Changing the unit

The unit is now ready for changing. Turn off the power supplies (Turn off the power at fuse box) Remove the connectors and remove the unit.

If you have a mounting adapter, use this on the new cabinet and re-mount.

Replace the wires as before.

Power on.

Press the left and right soft key until the unit beeps 4 times (master reset)

Go through the setup screens and reset the unit as it was.

Warning: Quickly turning off and on the display may result in a black screen. In this case wait for 30 seconds before turning on again.