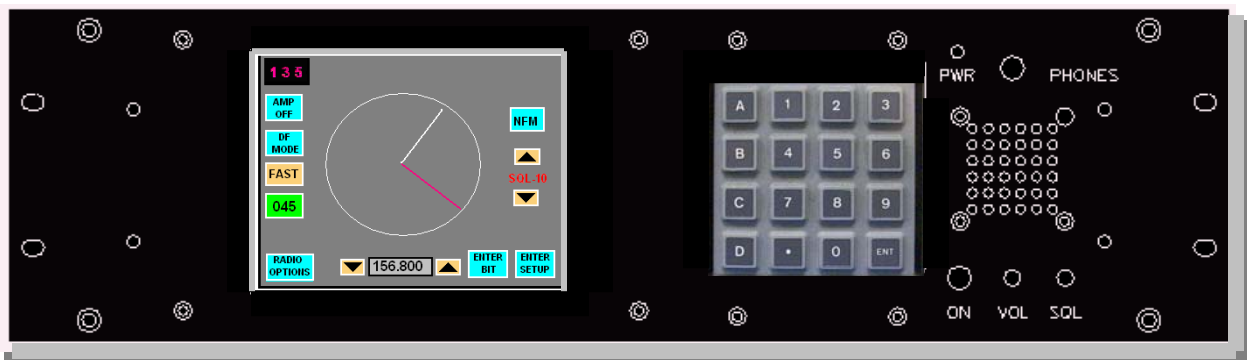


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TC-5025C/3 DIRECTION FINDER PROCESSOR

- 3 BAND COVERAGE, 200 KHZ TO 30 MHZ, VHF, UHF
- 406 MHZ EPIRB MESSAGE DECODE
- COLOR TOUCH-SCREEN DISPLAY
- VARIABLE BEARING INTEGRATION SPEED
- AUTOMATIC ANTENNA BAND SWITCHING
- NMEA-0183 OUTPUT, VER 2.1, ADF MESSAGE
- RS-232 AND ETHERNET CONTROL

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FEATURES

VHF Marine Frequency.....	Channel Number and frequency list menu
Antenna Band Selection	Automatic, based on frequency specified by the operator.
Calibration.....	Automatically sets bearing calculation values to compensate for receiver / system group delay.
Integration Speed.....	Operator selected bearing averaging rate of LOB's evaluated before DF display is updated.
Offset	Operator determined and Stored value used to compensate for DF Antenna orientation error
OMNI Mode	Disables the DF Antenna commutation (sequential activation of antenna quadrants) and activates all quadrants simultaneously for improved reception of weak signals
RS-232	9-Pin D Female Subminiature Connector – Auxiliary RS-232 Serial Interface (Configured as DCE Device)
NMEA 0183 output.....	9-Pin D Female Subminiature Connector NMEA 083 Version 2.1, ADF
Power.....	Switch applies power to the unit with a power-on condition indicated by an LED. A fused 4-pin CPC connector is available for +12-13.8 Vdc input from an external source.
Antenna Control.....	15-Pin Circular MIL Multipin Connector – Provides power and control signals to DF Antenna.
Display	Touch-screen display / control; Separate display menus for programming Receiver / DF parameters
Audio	Internal speaker and headphones jack

SPECIFICATIONS, DF PROCESSOR

DF Processing Technique	Phase/Amplitude (HF) and Pseudo Doppler (VHF, UHF), Digitally processed
DF Frequency Range	200 KHz-30 MHz (LF, MF & HF) 108 MHz to 176 MHz (VHF) 220 MHz to 470 MHz (UHF)
Signal formats (modulation)	AM, NFM, WFM, SSB, CW
Signal Bandwidths	Determined directly by receiver
Sensitivity	6 dB signal-to-noise ratio for a bearing indication
Instrument Processing Accuracy	1 degree
Instrument Processing Resolution	1 degree
Response Time	Better than 100 msec
Bearing Display Memory	Automatically stores last LOB on front panel display on signal loss
Front Panel Connectors	
Phones	Phone jack for headphones with spring loaded dust cover (Deactivates speaker when headphone jack is inserted)
Front Panel Controls	
Power	On: Push-button switch (unit is turned Off at touch screen display)
Volume	Adjusts receiver audio volume for headphones or front panel speaker
Squelch	Sets Receiver Squelch for monitor or frequency scan routines
Keypad	Frequency and data entry
Front Panel Touch Screen	
Control and Display	
Tuning	Receiver tuning at touch screen
Contrast	Adjusted at touch screen
DF Bearing Azimuthal (Digital) Relative (Compass Format)	3-Digit, 1 degree resolution 360 Segment, 1 degree resolution
Active or Memory	White trace, 3-digit azimuth: ACTIVE; Red trace, 3-digit azimuth: MEMORY
Amplifier (antenna)	On/Off at touch screen menu
Mode	DF/OMNI at touch screen menu
Bearing Offset	000 or operator set (000-359)
DF Speed	Fast/Slow/Track
Frequency	Tuned Frequency
Tuning Step Size	100 Hz to 999 kHz,
Detection Mode	AM, FM, CW, SSB, PSK (406 MHz)

SPECIFICATIONS, DF PROCESSOR (Continued)

Rear Panel Controls	None
Inputs/Outputs	
Power Input	+12VDC 2-Pin CPC
Antenna Control	MIL multipin
RF Input	TNC
RS-232	9-Pin D Female Subminiature
NMEA Ethernet	9-Pin D Female Subminiature RJ-45
Processor Size	5.25"H x 19.00" W x 19.80" D
Processor Weight	17 lbs. Approx.
Environmental	
Temperature:	
Operating	0 degrees to +50 degrees C
Non-Operating	-20 degrees to +70 degrees C
Humidity	0 to 95%
Special Test Equipment	None

SPECIFICATIONS, INTERNAL RECEIVER

Receiving Frequency	200 KHz to 30 MHz 108 MHz to 176 MHz 220 MHz to 470 MHz			
Memories	120 Pre-defined frequencies all USA VHF Marine channels 2182 KHz 121.5 MHz 156.8 MHz (channel. 16) 243 MHz 406.025 & 406.028 MHz 2 banks of 120 user-defined frequencies			
Scanning	Frequency A to B (search mode with programmable step size) Bank scan			
Receiving Sensitivity	10 dB S/N		12 dB SINAD	
2.0-30 MHz 30 MHz-176 MHz	SSB/CW/ 1.50 μ V 0.30 μ V	AM 2.5 μ V 0.7 μ V	NFM 0.35 μ V	WFM 1.0 μ V
Receiving Selectivity				
SSB, NAM AM, SFM WAM, NFM WFM	3 kHz @ -6dB, 9 kHz @ -60dB 9 kHz @ -6dB, 20 kHz @ -40dB 12 khz @ -6dB, 25 kHz @ -40dB 150 kHz @ -3dB, 380 kHz @ -20dB			
Receiver Circuitry	PLL Synthesizer			
Image and Spurious Rejection	-50 dB			
Intermodulation	-50 dB			
Audio Output	1.2W into 4 Ohm @ 10% distortion 0.7W into 8 Ohm @ 10% distortion			
Power Requirements	Supplied from DF Processor			