



### Description

The T-36M is a ruggedly designed, easy to operate, high precision instrument for rapid functional testing of VOR, LOC/GS, MB, and COMM (AM/FM) avionics equipment.

With an intuitive and simple operator interface and battery operation of up to 8 hours on one charge, the T-36M navigation and communication capabilities allows the user to quickly, test, troubleshoot, and isolate problem systems on the ramp and in the shop.

The T-36M has already proven its ruggedness and reliability serving on the battlefield with the US Military in all corners of the globe in the most extreme conditions. Why choose anything else!



P/N: 9000058  
NSN: 4920-01-504-5258

### Features

- Tests VOR, LOC, GS, MB, VHF, and UHF COMM
- Pre programmed test scenarios and settings
- Simultaneous LOC, G/S and MB output
- Allows testing at 25 kHz and 8.33 kHz spacing
- Compliant with European CE requirements
- Large easy to read backlit display
- Simple user interface and clearly identified switches
- Key board entry of nearly limitless parameters
- Internal Battery charger included
- Standard 2 year limited warranty included

#### VOR

- Accurate generation of 30 Hz variable, reference, and 9960 Hz sub-carrier.
- Preset bearing simulation in 45° or slew in 1° increments.
- 30 Hz and 9960 Hz modulation can be deleted to check flag operation.
- Covers the entire VOR band of 108.00 to 117.95 MHz.
- 1020 Hz IDENT tone

#### LOC and GS

- Precise Simulation of LOC/GS ground station signals.
- Allows selection of preset DDM deflections or manual slew in .001 increments.
- Simultaneous LOC/GS/MB Mode.
- Allows 90 and 150 Hz tones to be deleted

#### Communications (COMM)

- AM or FM with variable Modulation and deviation settings.
- VSWR measurement allows testing of antenna system.
- Direct Connect and Antenna methods add versatility and accuracy.
- 25 MHz and 8.33 kHz channel selection.
- Accurate measurement of VHF/UHF frequency, power, and modulation.

#### Marker Beacon and ILS

- Easy user selection of 400, 1300, and 3000 Hz signals.
- Simultaneous MB and ILS output signals.
- Separate adjustment of DDM values, either preset or slew, in ILS.

## Specifications\*

### TRANSMITTER Characteristics

RF FREQUENCIES		PRESET FREQUENCY VALUES***			KEYPAD ENTRY FREQUENCY CAPABILITY		
FUNCTION	KNOB	LO	MID	HI	FROM	TO	ACCURACY
Marker	MB	74.50 MHz	75.00 MHz	75.50 MHz	74.5000 MHz	75.5000 MHz	± 150 Hz
VOR OMNI	VOR	108.00 MHz	108.05 MHz	117.95 MHz	108.0500 MHz	117.9500 MHz	± 150 Hz
Localizer**	LOC	108.10 MHz	108.15 MHz	110.15 MHz	108.1000 MHz	119.9500 MHz	± 150 Hz
Glide Slope**	GS	334.70 MHz	334.55 MHz	334.25 MHz	329.1500 MHz	335.0000 MHz	± 300Hz
COMM	29-88	29.00 MHz	59.00 MHz	88.00 MHz	29.0000 MHz	88.0000 MHz	± 150 Hz
COMM	108-118	108.00 MHz	113.00 MHz	118.00 MHz	108.0000 MHz	118.0000 MHz	± 150 Hz
COMM	118-156	118.00 MHz	137.00 MHz	156.00 MHz	118.0000 MHz	156.0000 MHz	± 150 Hz
COMM	156-174	156.00 MHz	165.00 MHz	174.00 MHz	156.0000 MHz	174.0000 MHz	± 150 Hz
COMM	225-400	225.00 MHz	312.00 MHz	400.00 MHz	225.0000 MHz	400.0000 MHz	± 300 Hz
<b>FREQUENCY SPACING IS IN 25 KHZ AND 8.33 KHZ STEPS</b>							
** Localizer and Glideslope Frequencies are automatically Paired				***All preset values can be user modified and saved to memory			

### Power Output

FREQUENCY	RANGE	TOLERANCE
<b>DIRECT CONNECT (RT Port)</b>		
29 to 70 MHz	-25 to -110 dBm	± 2 dB
	-110 to -115 dBm	± 3 dB
70 to 88 MHz	-25 to -70 dBm	± 2 dB
	-71 to -80 dBm	± 2.5 dB
	-81 to -90 dBm	± 3 dB
108 to 117.95 MHz	-25 to -100 dBm	± 2 dB
118 to 156 MHz	-25 to -90 dBm	± 2 dB
156 to 174MHz	-25 to -90 dBm	± 2 dB
225 to 333.95 MHz	-25 to -70 dBm	± 2 dB
	-71 to -80 dBm	± 3 dB
334 to 374.95 MHz	-25 to -70 dBm	± 2 dB
	-71 to -80 dBm	± 3 dB
375 to 400 MHz	-25 to -70 dBm	± 2 dB
<b>Selectable in 1 dB steps</b>		

FREQUENCY	RANGE	TOLERANCE
<b>ANTENNA</b>		
29 to 88 MHz	0 to -70 dBm	± 2 dB
108 to 118 MHz	0 to -70 dBm	± 2.5 dB
118 to 156 MHz	0 to -60 dBm	± 2.5 dB
156 to 174 MHz	0 to -60 dBm	± 2.5 dB
225 to 334 MHz	0 to -60 dBm	± 2 dB
	0 to -40 dBm	± 2 dB
	-41 to -50 dBm	± 2.5 dB
334 to 400 MHz	-51 to -60 dB	± 3 dB
<b>Selectable in 1 dB steps</b>		

\* Standard Condition Values – As specified in Maintenance Manual and at selected Cal Positions

### NAVIGATIONAL Characteristics

FUNCTION	FREQUENCY	CONDITIONS	DEFAULT	ACCURACY	RANGE	RESOLUTION	SWITCH NAME		
Marker	0.4, 1.3, 3.0 kHz	-----	95 % mod	+/- 5 %	-----	-----	TONES		
Tone Frequency Accuracy ± 8 Hz @ 0.4, 1.3, 3.0 kHz									
VOR OMNI	9960 Hz & 30 Hz	0° Bearing	30 % mod	+/- 2 % Mod.	0° to 360°	1°	ILS/VOR VAR		
	Bearing Accuracy	± 1° at 0° degree bearing							
	FM Modulation	30 Hz reference at ± 480 Hz Peak deviation on 9960 Hz Sub carrier			Accuracy ± 30 Hz at peak deviation				
VOR Presets	0°	45 90	135 180	225 270	315 360	Key Pad Variable - 0° to 360° in 1° inc.			
Glide Slope	90 Hz & 150 Hz ± 1%	@ 0.0 DDM	40 % mod	+/- 2 % Mod.	0 to 0.400 DDM (U/D)	0.001 DDM	ILS/VOR VAR		
Localizer	90 Hz & 150 Hz ± 1%	@ 0.0 DDM	20 % mod	+/- 2 % Mod.	0 to 0.200 DDM (L/R)	0.001 DDM	ILS/VOR VAR		
<b>PRESETS</b>									
LOC	DDM	U1/R1	U2/R2	FS	0C	FS	D2/L2	D1/L1	Accuracy at "ON COURSE" (OC)
		0.093	0.155	0.200	0.000	0.200	0.155	0.093	LOC ± 0.002 DDM
GS	DDM	0.091	0.175	0.400	0.000	0.400	0.175	0.091	GS ± 0.002 DDM
Key Pad Variable DDM in .001 DDM increments to full scale									
IDENT	1020 Hz	VOR	10% Fixed	+/- 5 % Mod ± 50 Hz.	-----	-----	MB/NAV ID		

## Specifications (cont)\*

### COMMUNICATIONS Characteristics

FOR FREQUENCY RANGES – SEE TRANSMITTER CHARACTERISTICS SECTION			
Communication Modes	AM, FM, UHF and VHF in Amplitude Modulation (AM) and Frequency Modulated (FM)		
<b>Communication AM</b>			
Communication Tones AM	1020 Hz	Accuracy ± 50 Hz	Modulation ± 5% @ 120 MHz
Variable Range - 0 to 95% AM	150 Hz	Accuracy ± 50 Hz	Modulation ± 5% @ 120 MHz
Audio Output Level	100 – 900 mv in 100 mv steps	Accuracy ± 50 mv	
<b>Communication FM</b>			
FM Modulation Variable	Range from 1 kHz - 10 kHz Deviation in 1 kHz steps	± 2 kHz Deviation / 1020 Hz @ 120 MHz	
Tone	1020 Hz	Accuracy ± 50 Hz	
Output Level	100 – 900 mv in 100 mv steps	Accuracy ± 50 mv	

\* Standard Condition Values – As specified in Maintenance Manual and at selected Cal Positions.

### RECEIVER Characteristics

Frequency Range	Same as COMM Ranges	Frequency Counter Measurement Accuracy	+/-500 Hz of selected Frequency
Maximum Input Level (RT port)	25 W	Power Measurement Range	0 dBW to +14 dBW (1 to 25 W) Direct Connect (CW Only)
Power Measurement Accuracy	+/-20 % (CW Only)		
AM Measurement Range	0 to 100% Modulation	AM Measurement Tolerance	+/- 5% @ 120 MHz
FM Measurement Range	0 to 15 kHz	FM Measurement Tolerance	+/- 2 kHz @ 120 MHz
Sensitivity (Antenna port)	-10 dBm AM; -30 dBm FM		
VSWR Measurement	1.0 to 5.0; +/- 1		

### MISCELLANEOUS SPECIFICATIONS & Characteristics

Size	15.5 X 9.4 X 6.5 inches	Operating Temperature	-28° C to +55° C
Weight	20 pounds	Storage Temperature	-50° C to +70° C
Case Style	MIL-PRF-28800, Class 2	Case Color	Yellow
Input Power Requirements	115 VRMS +/- 10% or 230 VRMS +/- 10%	Input Power Consumption	20 Watts
Input Power Frequency	50/60 Hz	Input Current	0.17 Amps AC
AC Fuse Requirements	1.0 A SB (2 req.)	DC Fuse Requirements	5.0 A SB (2 req.; internal to Test Set)

Note: Input power specified for battery charging simultaneously with Test Set operation.

### Standard Accessories and Options

- Standard 2 Year Limited Warranty included
- Multi Band Omni Antenna
- Operational and Maintenance Manual
- AC Power Cord
- Direct Connect Cable
- All Accessories store in Test Set cover
- 5 & 10 Year Warranty Plans available

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For more information on our exciting product lines → [www.telinstrument.com](http://www.telinstrument.com)

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