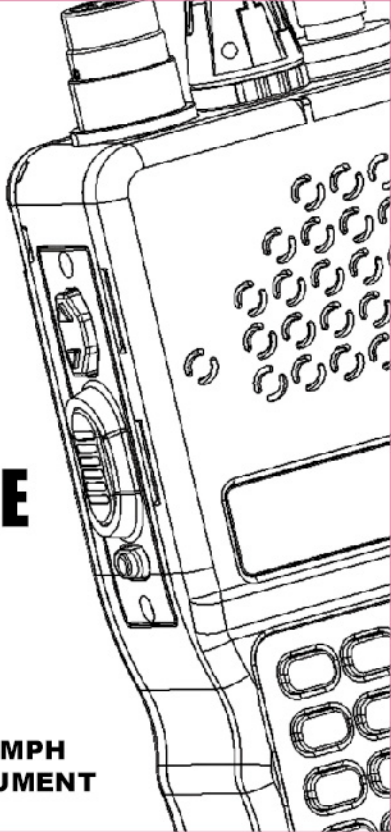
MULTIBAND HANDHELD RADIO

AN/PRC-152H(HF/VHF/UHF)

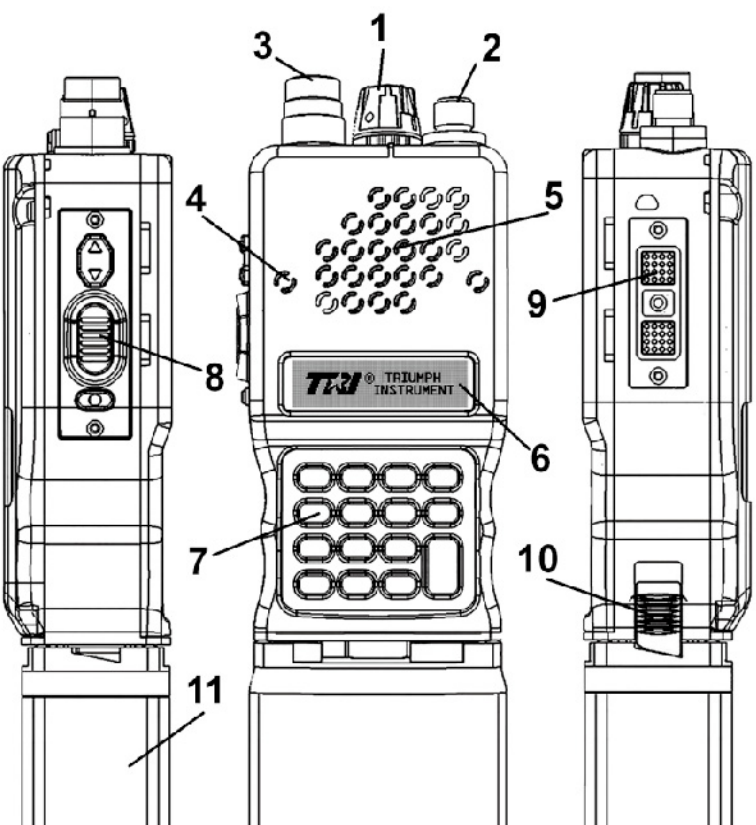
AN/PRC-152A(VHF/UHF)

HF/VHF/UHF

QUICK OPERATOR GUIDE



TRIUMPH INSTRUMENT



AN/PRC-152H(HF/VHF/UHF)

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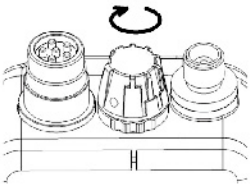
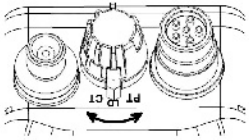
1. **Power and Volume Knob**

Military standard double control knob switch：



A. Clockwise or counterclockwise rotation knob can be turned on or power off the machine and at the same time adjusting the volume size (when selecting a mechanical volume adjustment menu valid)



B. Quick switch: LD – Nomal mode ,CT - Open Voice encryption(Boption), PT – Open Voice companding;

2. **TNC Antenna Connector**

Install standard TNC type HF/VHF/UHF band antennas；

3. **Audio Connector and waterproof cover**

Catch standard definition audio interface, compliant H250 handle hand microphone and PTT (Push To Talk) external devices;

4. **Microphone**

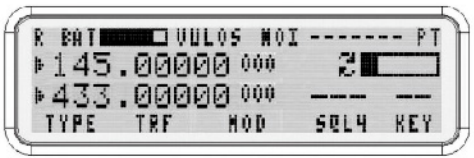
Transmission inside microphone;

5. **Speaker**

Transmission inside Speaker;

6. **Display LCD**

All dot-matrix Graphic LCD screen, Military type yellow screen backlight, dual-band Frequency independent operating and display and many function prompt;



Icon	State
R	When the received signal display;
T	When transmitting signal display;
BAT	Show battery level; ;
VOL	When choosing electronic volume control volume prompt box shows the volume size, 5 seconds is not prompt box back to battery display operation;
VULOS	Potential tip type to adjust the volume;
ELECT	Electronic volume control;
MOI	When opening the capacitive microphone;
DYN	Dynamic microphone device support ON;
--- SRM	When you start the encrypted voice shows SRM;
-- ES	Horn close the fuselage, use external headphones or horn handles;
-- AM	Displayed in AM mode;
PT	Receiving or transmitting without open tone;
CT	Appears when receiving or transmitting CTCSS simulation;
	Displays the current operational frequency band;
	Cycle through Reverse Frequency open;
145.00000	A Display of operating frequency, memory channels name and function tables; ;
433.00000	B Display of operating frequency, memory channels name and function tables; ;
000	Displays the memory channels and function table number;
	A,B band displays the signal strength of the received signal, and launch and display the selected power level;
TYPE TPYE+ TYPE-	Launch frequency offset function is set to a Normal, positive, negative value When;
TRF	Normal Receiving or transmitting;
RPT	Cross-band repeater;
HIGH MOD LOW	transmission power HIGH/10W，MOD/5W, LOW/1W;
SQL3	Squelch level;
KEY	Keyboard Unlocked;
LOCK	Keyboard locked;

---MENU---	Single press ENT key to confirm to enter the show when the menu options

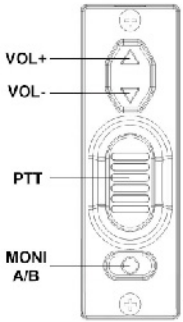
7. Operating Keyboard

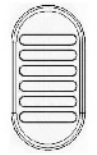
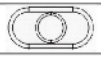
Operating Keyboard Function

Keys	Function	Operating
CLR	Cancel key	Press the key to cancel the function;
ENT	MENU key	ENT into single buttons function menu options;
+ PRE −	Numerical select key	In frequency, channels, radio, and scan frequency value choice;
	Forward option key	In the menu select the project forward;
	Back option key	In the menu select the project back;
0 ~ 9 YZ?	0~9 numeric key	Press numeric keys 0 ~ 9 numerical;
ENT + 1 ABC CALL	VFO/ Channels/ Channels name FastKey	Single press ENT in the menu to choose state press 1 numeric keys again, loop change VFO/ Channels/ Channels name;

ENT + 2 DEF LT	Backlight FastKey	Single press ENT in the menu to choose state press 2 numeric keys again, , loop change backlight OFF/ON;
ENT + 3 GHI MODE	FM/AM FastKey	Single press ENT in the menu to choose state press 3 numeric keys again,loop change FM/AM mode;
ENT + 4 JKL	Radio FastKey	Single press ENT in the menu to choose state press 4 numeric keys again, Open the radio function
ENT + 5 MNO ZERO	SCAN backlight	Single press ENT in the menu to choose state press 5 numeric keys again, Open the scanning function;
ENT + 6 PQR	Nomler FastKey	Single press ENT in the menu to choose state press 6 numeric keys again,
ENT + 7 STU OPT	TX Power FastKey	Single press ENT in the menu to choose state press 7 numeric keys again, loop change TX power HIGH/MOD/LOW(10W/5W/1W);
ENT + 8 VWX PGM	Step FastKey	Single press ENT in the menu to choose state press 8 numeric keys again, Select frequency step ;
ENT + 9 YZ?	Cycle through Reverse Frequency FastKey	Single press ENT in the menu to choose state press 9 numeric keys again, Cycle through Reverse Frequency open;
ENT + 0	SQL FastKey	Single press ENT in the menu to choose state press 0 numeric keys again, Adjust the SQL level;

8. Flank Buttons



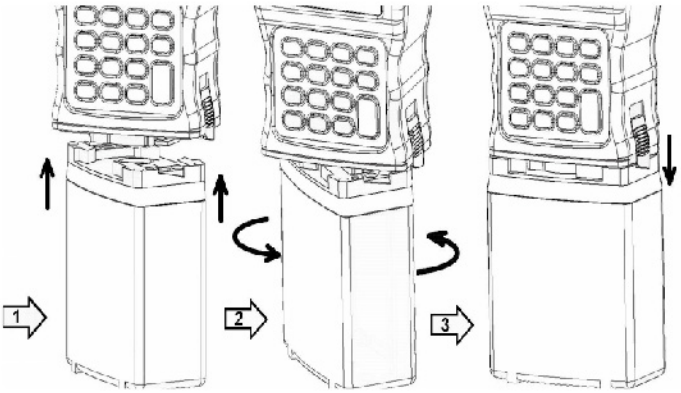
Keys	Functions
	Volume increase (in the menu when you select the electronic control effective)
	Volume decrease (in the menu when you select the electronic control effective)
	Push to Talk
	Single button A/B frequencies band change, long press for 3 seconds into the Monition state；

9. Datas onnector

Data interface functions handle operations and data set using the computer interface;

10. Battery Auto-Lock；

11. Batttery Installation;



Context Menu Setting Table

menu	Display	Description	Set value	Preset
01	R-CTC	Setting of CTCSS for receiving	OFF: closed 67.0~254.1Hz	OFF
02	R-DCSN	Setting of the positive code of DCS for receiving	OFF: closed D023N~D754N	OFF
03	R-DCSI	Setting of the inverse code of DCS for receiving	OFF: closed D023I~D754I	OFF
04	R-MOD	Speaker open mode	QT: Tone matching open speaker QT+ANI：Tone and identity code match opening speaker	OFF
05	T-CTC	Setting of continuous tone coded squelch system for transmission	OFF: closed 67.0~254.1Hz	OFF
06	T-DCSN	Setting of the positive code of digital coded system DCS for transmission	OFF: closed D023N~D754N	OFF
07	T-DCSI	Setting of the inverse code of digital coded system DCS for transmission	OFF: closed D023I~D754I	OFF
08	T-DTM1	Press the PTT launches dual tone multi-frequency	OFF：Close the PTT is not code DTMF1-8 ： Press the PTT DTMF code D1~8+ANI：Press the PTT add ANI DTMF code ANI：ANI made by pressing the PTT code	OFF
09	T-DTM2	Release the PTT launches dual tone multi-frequency	OFF：Close the PTT is not code DTMF1-8：Release the PTT DTMF code D1~8+ANI：Release the PTT add ANI DTMF code ANI：Release the PTT ANI code	OFF
10	POWER	Setting of transmission power	HIGH: high power MIDDLE:Middle power LOW: lower power	MIDDLE
11	W/NA	Selection wide of broad or narrow band	WIDE: wide band NARR: narrow band	WIDE
12	COMP	Voice companding	OFF: closed ON: open	OFF
13	SRMR	Voice encryption(Boption)	OFF: closed ON: open	OFF

14	SFT	Frequency offset setting direction	OFF: closed (+): positive difference (-): negative difference	OFF
15	OFFSET	Frequency offset range	00.0000-90.0000MHz	00.0000
16	STEP	Frequency step	2.50K, 5.00K, 6.25K, 10.00K, 12.50K, 25K, 50.00K	5.00K
17	CH-MEM	Channel storage	128 signal channels on the A and B bands each	CH-001
18	CH-DEL	Channel deletion	128 signal channels on the A and B bands each	CH-001
19	LED-SW	Auto-Backlight	OFF: closed AUTO: automation ligh	OFF
20	BEEP	Prompt tone	OFF: closed ON: open	ON
21	RING	Ring time	OFF：closed call ring 1-9S ： Receive matching signaling, the call audio for the time, the time to open the loudspeaker	OFF
22	BCL	Busy channel lock	OFF: closed ON: open	OFF
23	TOT	Transmission time out setting	OFF: closed 30S~600S (20 shifts)	OFF
24	TONE	Pilot carrier frequency	1000Hz 1450Hz 1750Hz 2100Hz	1000HZ
25	DTM-TM	DTMF transmission time	50MS 100MS 150MS 200MS	100MS
26	SQL	Squelch level	SQL 0-9	SQL 4
27	RPT	Cross-band repeater	OFF: closed ON: open	OFF
28	DTMF	DTMF group	8 groups	-------
29	ANI_ID	Transmission ANI ID code	OFF: closed ON: open	OFF
30	VOL-SW	Volumel switch change	Potention：Use volume knob to adjust Electron：Use flank volume button.	AUTO
31	SPEAKER	Speaker output select	Inside: Internal speaker External: External speaker	Inside
32	MIC_TYPE	Microphone Type	CAP: capacitance microphone DYN: Dynamic microphone	CAP
33	RESET	Reset to factory setting	RST-NO: do not reset RST-YES: reset	RES-NO

Technical Parameters

Annex 1: CTCSS Frequency Table

CTCSS Standard Frequency Table									
1	67.0	11	94.8	21	131.8	31	171.3	41	203.5
2	69.3	12	97.4	22	136.5	32	173.8	42	206.5
3	71.9	13	100.0	23	141.3	33	177.3	43	210.7
4	74.4	14	103.5	24	146.2	34	179.9	44	218.1
5	77.0	15	107.2	25	151.4	35	183.5	45	225.7
6	79.7	16	110.9	26	156.7	36	186.2	46	229.1
7	82.5	17	114.8	27	159.8	37	189.9	47	233.6
8	85.4	18	118.8	28	162.2	38	192.8	48	241.8
9	88.5	19	123.0	29	165.5	39	196.6	49	250.3
10	91.5	20	127.3	30	167.9	40	199.5	50	254.1

Annex 2: DCS

DCS Standard Frequency Blocks Number														
1	D023N	16	D074N	31	D165N	46	D261N	61	D356N	76	D462N	91	D627N	
2	D025N	17	D114N	32	D172N	47	D263N	62	D364N	77	D464N	92	D631N	
3	D026N	18	D115N	33	D174N	48	D265N	63	D365N	78	D465N	93	D632N	
4	D031N	19	D116N	34	D205N	49	D266N	64	D371N	79	D466N	94	D645N	
5	D032N	20	D122N	35	D212N	50	D271N	65	D411N	80	D503N	95	D654N	
6	D036N	21	D125N	36	D223N	51	D274N	66	D412N	81	D506N	96	D662N	
7	D043N	22	D131N	37	D225N	52	D306N	67	D413N	82	D516N	97	D664N	
8	D047N	23	D132N	38	D226N	53	D311N	68	D423N	83	D523N	98	D703N	
9	D051N	24	D134N	39	D243N	54	D315N	69	D431N	84	D526N	99	D712N	
10	D053N	25	D143N	40	D244N	55	D325N	70	D432N	85	D532N	100	D723N	
11	D054N	26	D145N	41	D245N	56	D331N	71	D445N	86	D546N	101	D731N	
12	D065N	27	D152N	42	D246N	57	D332N	72	D446N	87	D565N	102	D732N	
13	D071N	28	D155N	43	D251N	58	D343N	73	D452N	88	D606N	103	D734N	
14	D072N	29	D156N	44	D252N	59	D346N	74	D454N	89	D612N	104	D743N	
15	D073N	30	D162N	45	D255N	60	D351N	75	D455N	90	D624N	105	D754N	

Specifications

Basic Specifications		
Frequency range	HF:25-30MHz （Mode H） VHF:136.000 – 174.000MHz UHF:400.000 – 470.000MHz Aircraft frequency band(Receiving) AM:109.000 - 135.995MHz	
System	F3E(FM)	
Antenna impedance	50Ω	
Frequency stability	±2.5ppm @ -10℃ ～+60℃	
Working environment temperature	-20℃ ～+60℃	
Input voltage	DC 12.6V or 8.4V (±15%), with the negative pole grounded	
Working current	Receiving	0.3A (in squelch)
	Transmitting	5A(high power)
Size	160 * 70 * 45mm	(Height * Width * Depth)
Weight	About 0.47 kg	

Transmitting part		Receiving part	
Output power	High ：10W	Intermediate frequency	38.55MHz/450KHz (main band) 49.95MHz/450KHz (secondary band)
	Meddel：5W		
	Low ：1W	Circuit type	Dual regenerative super-heterodyne type
Modulation type	Variable inductance	Sensitivity	≤0.2uV (12dB SINAD)
Maximum offset	±5KHz	Squelch sensitivity	≤0.16uV
Clutter radiation	≤-60dB	Selectivity	8kHz/30kHz (-6dB/-60dB)
MIC impedance	2KΩ	Maximum audio frequency output	2W @ 8Ω 5% distortion

The specifications are subject to changes with the technical development without notice.

Special Reminder :

As purchasing and using this device is related to the setup and usage of a radio station, you are required to go through the procedures for the approval of radio station setup and obtain a radio station license pursuant to the laws.