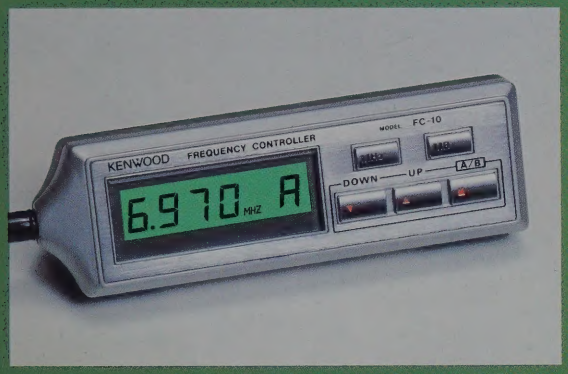
KENWOOD

FM
MOBILE TRANSCEIVER

2-m TM-201A, 70-cm TM-401A



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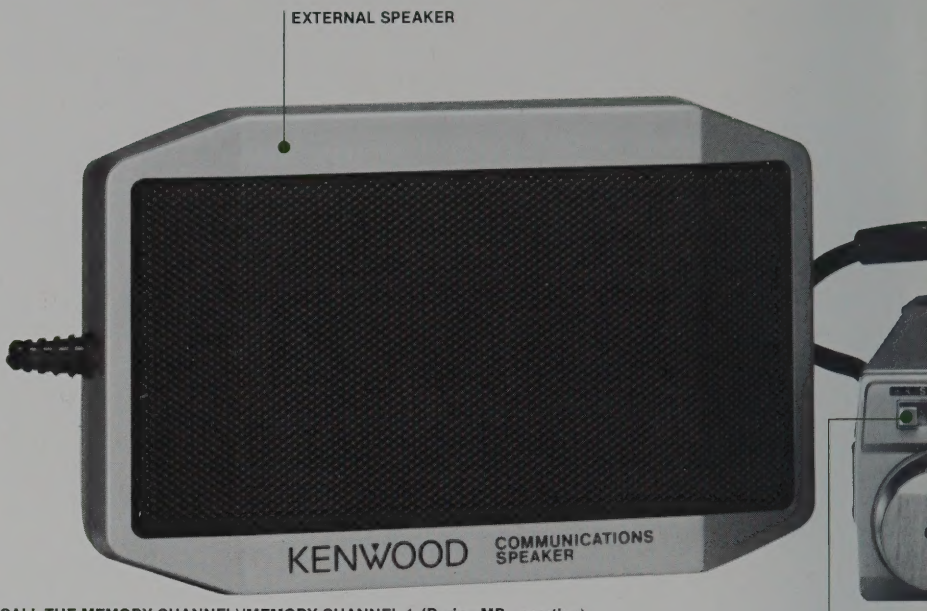
The KENWOOD TM-201A 2-m FM mobile transceiver and TM-401A 70-cm FM mobile transceiver are designed to be the ultimate in compact size and lightweight, allowing maximum flexibility in automotive installations. New microprocessor controlled operating features, improved receive and transmit circuitry, a powerful 25 watts (TM-201A) and 12 watts (TM-401A) of RF output, and an easy-to-operate front panel control layout are packed into these new, ultra compact radios, providing extended flexibility and ease of operation. The complete TM-201A or TM-401A system consists of the transceiver, a high quality external speaker, and a 16 key autopatch UP/DOWN microphone. An optional FC-10 very compact frequency controller is also available, further extending flexibility of operation. The KENWOOD TM-201A and TM-401A, totally new concepts in mobile radios for 2-m and 70-cm operations.



① **MR (RECALL THE MEMORY CHANNEL)/MEMORY CHANNEL 1 (During MR operation)**
Depressing the MR key recalls the memory channels

② **A/B**
Operates three kinds of functions depending on the operating conditions
VFO: VFO's A or B
MR: Return to VFO's A/B before recalling the memory channel
SCAN: Scan is inhibited

OFFSET SELECT SWITCH
Used to set the transmit frequency shifted from the displayed receive frequency when operating on a repeater

③ **MEMORY SCAN/MEMORY CHANNEL 2 (During MR operation)**
Used to initiate memory scan. During MEMORY SCAN operation, shifts to next memory channel when depressed.

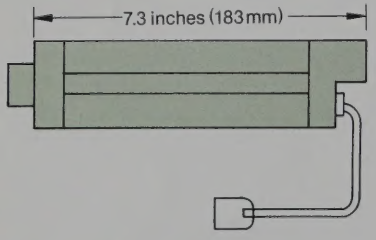
④ **ALERT KEY/MEMORY CHANNEL 5 (During MR operation)**
Used to operate the PRIORITY ALERT SCAN

⑤ **MHz/MEMORY CHANNEL 3 (During MR operation)**
Depressing the MHz key once shifts the displayed frequency 1 MHz up

⑥ **MEMORY/MEMORY CHANNEL 4 (During MR operation)**
Used to store the frequency

ULTRA COMPACT AND LIGHTWIGHT.

Designed to be the ultimate in compact size and lightweight, while retaining the maximum in operating features and convenience. Measures only 5.6 (141) W×1.6 (39.5) H×7.3 (183) D, inch (mm), and weighs only 2.8 lbs., (1.25 kg), ideally sized for installation in today's compact automobiles.



* The depth of 7.3 inches (183 mm) is the maximum effective length using flexible antenna cable/connector.

25 WATT OUTPUT, WITH HI/LO POWER SWITCH. (TM-201A)

The TM-201A produces a powerful 25 watts of RF output from a surprisingly compact design. The HI/LO power switch on the front panel allows for power reduction to 5 watts. The TM-401A produces 12 watts of RF output in the HI power position and 1 watt in the LO power position.

DUAL DIGITAL VFO'S BUILT-IN.

Features dual digital VFO's, with front panel VFO-A/B switch. The TM-201A VFO's tune independently from 142,000 to 148,995 MHz in 5-kHz steps, and include certain MARS and CAP frequencies. The TM-401A VFO's tune from 440,000 to 449,975 MHz (USA or *M1 version) or from 430,000 to 439,975 MHz (** M2 version) in 25-kHz steps. A MHz key on the front panel shifts the frequency in 1-MHz steps, for efficiency in changing frequency.

* M1: UHF High Band Territory
** M2: UHF Low Band Territory

5 MEMORIES PLUS "COM" CHANNEL, WITH LITHIUM BATTERY BACK-UP.

- Memory 1 is for the priority alert function. Memories 2 and 3 store a single frequency, and permit repeater operation using the OFFSET switch. Memories 4, 5, the COM (common) channels store transmit and receive frequencies independently, allowing operation on repeaters having both standard and odd offsets.
- A front panel COM (common) channel switch allows instant recall of frequency and tone (with optional TU-3 programmable tone encoder unit installed) for ease of operation on the most popular frequency.
- Internal lithium battery backs up memory data (estimated 5 year life) for convenience in moving the transceiver from the car to the home or vice versa.

PRIORITY ALERT SCAN.

With ALERT switch "ON", once every 6 seconds, the unit scans back to memory channel 1 for approximately 0.3 seconds to monitor the activity on the priority channel (channel 1). A dual "beep" will sound if a signal is present on memory 1 frequency.

MEMORY SCAN AND PROGRAMMABLE BAND SCAN.

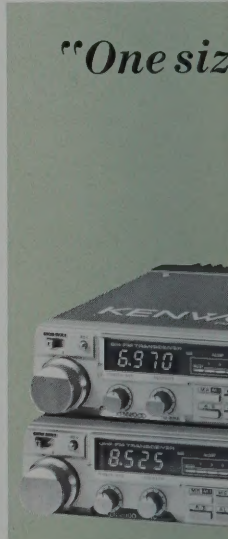
- MS switch initiates memory scan. Skips memories in which no data is stored.
- Depressing the UP or Down switch on the microphone initiates band scan in the appropriate direction. Two frequencies, stored independently in momory 5, set band scan frequency limits.
- In both memory and band scans, scanning stops on busy channel and automatically resumes after 6 seconds.

HIGHLY VISIBLE YELLOW LED FREQUENCY DISPLAY.

Four digit yellow LED display featuring improved visibility indicates receive and transmit frequencies. The MHz decimal blinks while scanning, and the kHz decimal lights when VFO-B is being used. An S/RF LED bar meter with "BUSY" indicator, plus "MR" (Memory recall), "ALERT", and "ON AIR" LED indicators are provided.

OPTIONAL FC-10 FREQUENCY CONTROLLER.

An extremely compact optional frequency



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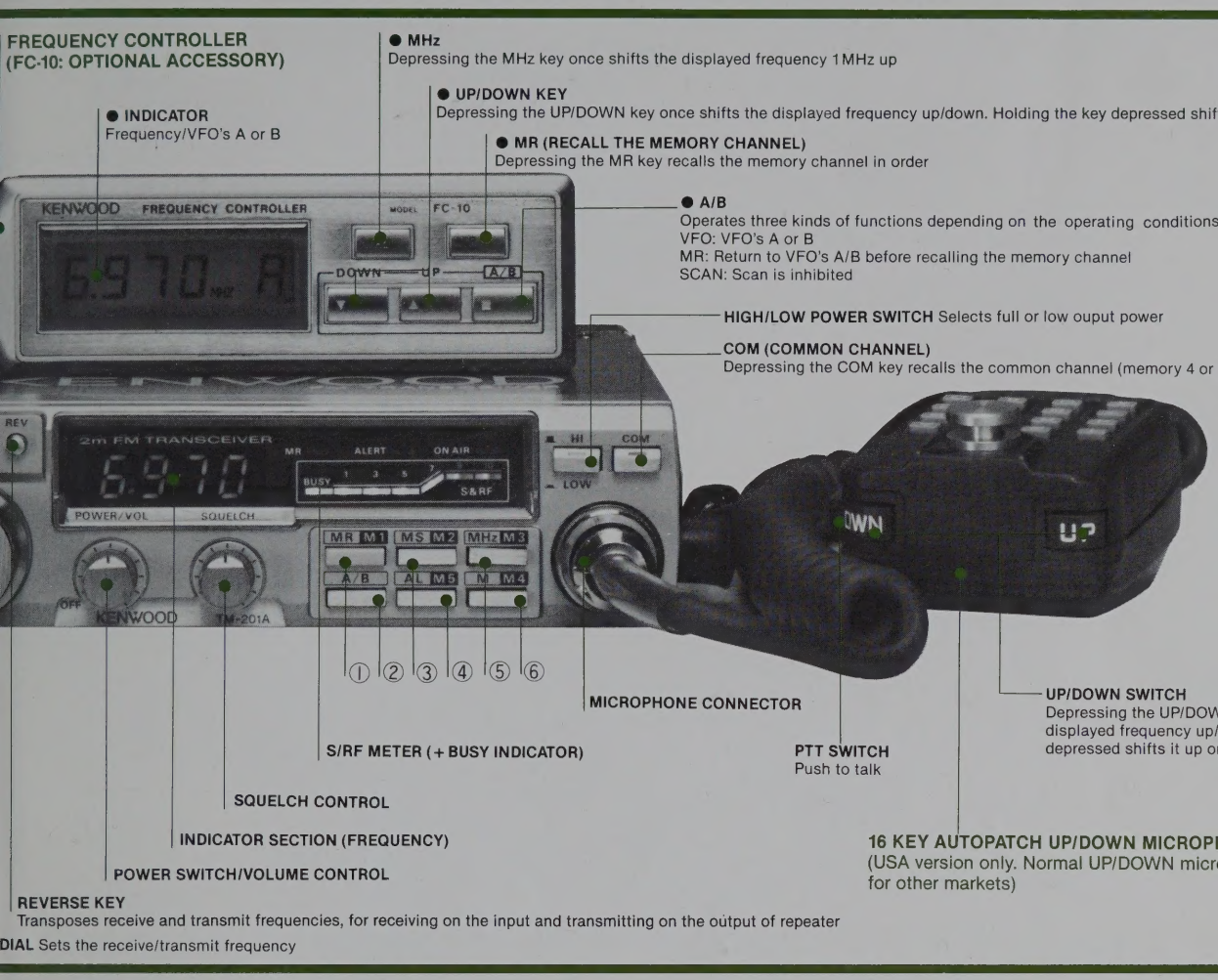
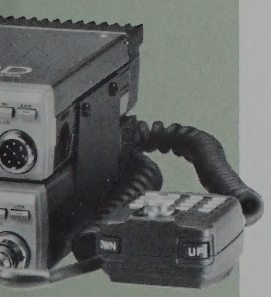


its all…"



controller, model FC-10, may be easily connected to the TM-201A/TM-401A, and can be mounted in any convenient locations. Convenient control keys are provided for frequency UP/Down, MHz shift, VFO A/B, and MR (Memory recall or change memory channel). A green, easy-to-read, backlighted LCD display indicates transmit/receive frequencies, memory channel number, ALERT, and SCAN (with blinking MHz decimal). Size: 4.4 (112) W × 1.4 (35) H × 0.9 (22) D, inch (mm). Weight: 3.5 oz. (100 g).

EXTERNAL HIGH QUALITY SPEAKER SUPPLIED.

The TM-201A/TM-401A is supplied with a compact, high quality, external speaker, (no internal speaker) providing flexibility in installation for maximum convenience.

16-KEY AUTOPATCH UP/DOWN MICROPHONE SUPPLIED.

(U.S.A. version only. Normal UP/DOWN microphone is supplied for other markets) Encodes 16 autopatch tones. UP/DOWN switches provide step frequency change, or initiate band scan in the appropriate direction, if held depressed momentarily.

AUDIBLE "BEEPER" CONFIRMS OPERATION.

Various functions are confirmed by separate, distinct, "beeps", each different from the other.

HIGH PERFORMANCE RECEIVE/TRANSMIT SPECIFICATIONS.

The use of a GaAs FET RF amplifier, plus an improved antenna switching circuit, provides high sensitivity with wide dynamic range. Improved squelch circuit increases stability of operation. Transmitter modulation characteristics selected for best sound quality and minimum distortion.

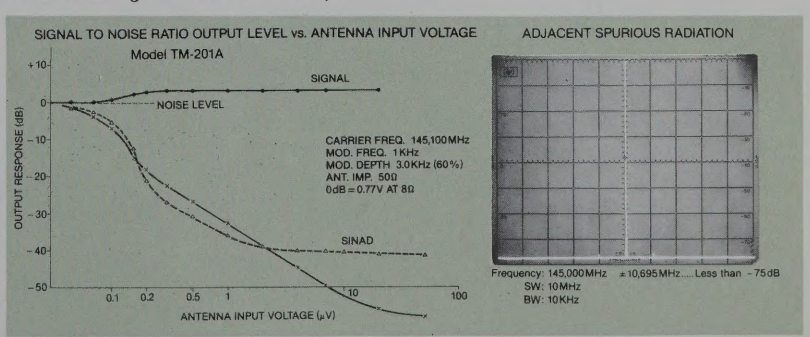
REPEATER OFFSET SWITCH AND REVERSE SWITCH.

±600-kHz (TM-201A)/±5-MHz (TM-401A) or simplex is selected by the front panel offset switch. The repeater reverse switch transposes the receive and transmit frequencies for checking signals on the input of a repeater, (for quality, or for determining if the other station is within simplex range), for communicating with a station if the repeater fails or times out, and for determining if a repeater is "upside-down".

OPTIONAL TU-3 TWO-FREQUENCY TONE ENCODER.

Optional TU-3 provides two different programmable tones, using a diode matrix and a DIP switch. The first tone is programmed by the diode matrix, and is automatically activated when the COM switch is depressed. The second tone is programmed by the DIP switch, and is automatically activated when the repeater offset switch is in the "+" or "−" position. The TU-3 may be easily installed inside the TM-201A and TM-401A.

EASY-TO-INSTALL MOBILE MOUNT.



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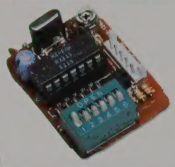
OPTIONAL ACCESSORIES

FC-10
FREQUENCY CONTROLLER

Green, easy-to-read, back-lighted, smart LCD display.
FC-10 may be easily connected to the TM-201A/TM-401A and can be mounted in any convenient locations.



TU-3
TWO FREQUENCY TONE ENCODER

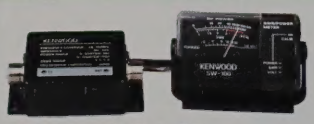
Provides two different programmable tones, using a diode matrix and a DIP switch.

KPS-7A
DC POWER SUPPLY (Available only in U.S.A.)

Maching DC power supply (7.5A intermittent) for TM-201A/TM-401A base station operation. Protection circuit is built-in.

PS-430
DC POWER SUPPLY

Supplies regulated 13.8VDC at 20A intermittent with built-in cooling fan and protection circuits for maximum reliability.



SW-100A/B
SWR/POWER METER

A: 1.8~150MHz
B: 140~450MHz
Compact and light weight SWR/POWER/VOLT meter for mobile use. (0~150W)

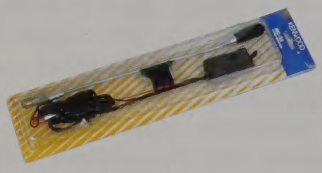
SW-200A/B
SWR/POWER METER

A: 1.8~150MHz
B: 140~450MHz
SWR/POWER meter for base station use. (0~20/200W)

MC-48
16-KEY AUTOPATCH UP/DOWN MICROPHONE (8 pin)

MA-4000
DUAL BAND MOBILE ANTENNA WITH DUPLEXER

Covers the two bands, 2-m and 70-cm.



MC-55
MOBILE MICROPHONE WITH TIME-OUT-TIMER

Electret condenser microphone.

MC-60A
DELUXE DESK-TOP MICROPHONE WITH BUILT-IN PRE-AMPLIFIER (8 pin)

MC-80
DESK-TOP UP/DOWN MICROPHONE (8 pin)

Omnidirectional electret condenser microphone

PG-3A
NOISE FILTER

for mobile use.

SPECIFICATIONS

(GENERAL)

Frequency Range:	TM-201A	U.S.A., M	144—148MHz
	TM-401A	U.S.A., *M1	440—450MHz
		**M2	430—440MHz

*M1: UHF High Band Territory
**M2: UHF Low Band Territory

Mode: F3
Power Requirement: 13.8VDC ±15% (Negative grounding)

Power Consumption:

	TM-201A	TM-401A
Transmit (HI)	Less than 5.5A	3.8A
(LO)	Approx. 2.5A	1.6A
Receive (no signal)	Less than 0.5A	

Operating Temperature: −20°C~+50°C (TM-201A)
−20°C~+60°C (TM-401A)
Antenna Impedance: 50Ω
Microphone Impedance: 500Ω
External Speaker Impedance: 8Ω
Dimensions: 5.6 (141) W×1.6 (39.5) H×7.3 (183) D inch (mm)
Weight: 2.8 lbs (1.25kg)

(TRANSMITTER)

Final Power Output:

	TM-201A	TM-401A
HI	25W	12W
LO approx.	5W	1W

Modulation: Reactance Modulation
Maximum Frequency Deviation: ±5KHz
Spurious Radiation:

	TM-201A	TM-401A
(HI)	Less than −70dB	−60dB
(LO)	Less than −60dB	−60dB

Modulation Distortion (Modulation degree 60%): Less than 3% (300Hz—3000Hz)

(RECEIVER)

Circuitry: Double Conversion Superheterodyne
Intermediate Frequency:

	TM-201A	TM-401A
1st IF	10.695MHz	21.60MHz
2nd IF	455KHz	455KHz

Sensitivity: SINAD Less than 0.22μV (TM-201A)
0.2μV (TM-401A)
Selectivity: More than 12KHz (−6dB)
Less than 24KHz (−60dB)
Spurious Response: Less than −70dB (except IF/2)
Squelch Sensitivity: Less than 0.16μV
Scan Stop Level: Less than 0.2μV
Audio Output Power: More than 2.0W (5% distortion)

NOTE: (1) Circuit and ratings are subject to change without notice due to developments in technology.
(2) Some optional accessories may not be available in your areas.

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