



The Kaito KA105

A Poor Man's Pocket Digital

By Eric Bryan

From the people who brought us the KA1101, KA1102, and the WRX911, here is a digital world receiver almost as small as the Grundig Mini World 100PE. At 4.25" x 2.75" x .75", the Kaito KA105 is a true shirt pocket radio and one of the smallest sets available, digital or analog. Sleek and smooth, it features an attractive and sturdy bare aluminum face.

Layout

Like the Kaito WRX911 (reviewed in *MT* Oct 2004, available online), the KA105 is arranged horizontally. Most things are standard here. A tiny speaker is on the left, the LCD read-out is in the upper right, and there are buttons on the face beside and below the display. But there's one deviation from the usual: The keypad, instead of being in the traditional telephone key layout, is in two horizontal rows, 1-5 and 6-0. For operating by feel in bedside darkness, this new configuration has to be learned.

On the left side of the KA105 there is a telescopic antenna which can extend to 16" or collapse into the cabinet, an external antenna jack, an FM mono-stereo switch and a carrying strap (which I can only fit four fingers into). The right side of the unit has a standard volume dial (but like the WRX911's, up is up, down is down, opposite to the usual), a headphone mini jack, a lock switch (which disables all controls except light, volume, and mono-stereo), and a 3-5V DC power jack.

The KA105 has two small feet for sitting vertically, though the bottom edge of the unit is beveled on the front and narrows slightly, so it's not very stable in this position. Like the Sony SW1, a plastic tag tied to the end of the carrying strap doubles as a stand when pressed into a slot in the back of the set. This way the radio rests at a comfortable 30-40 degree angle. The unit is pretty secure in this attitude, but the tag/stand doesn't always stay in place. There are also four tiny feet so the Kaito can rest on its back, though they're not quite level so the radio wobbles slightly.

Because of its placement, whip rotation is somewhat limited. When sitting vertically, deep antenna angles will topple the KA105.

The rear battery cover is hinged to prevent loss.

Coverage

This radio has MW, FM, and SW divided into 3 "bands." Coverage is 520-1710 kHz in 10 kHz steps, or 522-1620 kHz in 9 kHz steps,

87.5-108 MHz in .05 MHz steps, and 5.950-15.600 MHz in 5 kHz steps.

Tuning

After turning the KA105 on, unless already in your chosen band, you must press BAND to cycle between MW, FM, and SW. Once in one of these bands, you can then enter a frequency or memory directly or tune via + or - buttons within only that band. You cannot direct enter a MW or FM memory or frequency while in SW, for example. You have to first enter MW or FM by the BAND button to gain access to either of those bands.

Direct entry is conventional. When in MW or SW, press the AM button, then enter your frequency and press AM again. When in FM, the FM button works the same way.

Manual tuning with the + and - buttons also functions in the usual manner. One press of one of the buttons moves you one frequency step up or down. Holding one of the buttons down carries you fairly rapidly up or down through the frequency steps. Tuning is muted. If you attempt to pass through the top or bottom of a band, you are automatically relayed to the opposite end of that band.

Auto Scan

Starting auto scan mode is simple. Press and hold the + or - button for about one second

and let go. When a medium to strong signal is encountered, scanning stops and stays on that frequency. You must reinstitute auto scan mode to continue.

Like that of the Degen DE1103/Kaito KA1103, auto scan is slow on the KA105. Also, when initiating auto scan, the function has the tendency to leap through the next 1-3 channels before actually starting scanning, causing you to miss signals on those neighboring frequencies. No amount of finesse seems able to overcome this characteristic.

Memories

The Kaito has 30 memory presets, 10 each assigned to MW, FM, and SW. Setting memories is easy and intuitive: Select a frequency, press the M button, hit a direct entry button 1-0, punch M again, and that channel is preset. For memory recall, the set has the coveted one-touch system – pressing any of the direct entry buttons 1-0 calls up its ascribed preset – perfect when reaching out half asleep from the bedside in darkness. But you'll have to memorize where the BAND button is, so you can access by feel memories in all three bands.

Clock, Alarm, Sleep

The KA105 has two clocks, both in 24 hour format, convenient for setting one to UTC, the other to local time. Time setting is easy and, as



you would expect, done with the radio off. The clocks can't be accessed while the unit is on. The alarm is simple to set, with the radio on or off, and works like a charm (wake to radio only).

The owner's manual states that the Kaito can be turned on by pressing the SLEEP button, but the set has to already be on to activate the sleep timer. Again, this couldn't be more convenient: One punch of the button gives you 90 minutes of listening, and each additional pressing reduces the time by 10 minute increments down to a minimum listening time of 10 minutes. One more punch zeroes the sleep timer. When setting the sleep timer, the time, 10-90 minutes, replaces the frequency display for a few seconds. Once the readout reverts to frequency, the timer can be cancelled by simply pressing SLEEP once.

The LCD

With the set off, the LCD shows the time and denotes which clock, 1 or 2, is displayed. When the unit is on, the LCD identifies the selected band, AM, FM, or SW. The frequency is read out in kHz on MW, and in MHz on FM and SW. On SW and FM, the last digit is deleted on all channels ending in 0, so 15.600 reads as 15.60. On all frequencies ending in 5, a small 5 about one-fourth the size of the other numbers appears in the last digit place. This takes a little getting used to on SW.

When a memory is selected, its assigned number, 1-0, appears in a box in the lower right of the LCD.

If receiving in FM stereo, a tiny twin-

speaker icon shows. When the alarm is set, an image of an old fashioned twin-bell alarm clock appears. The usual key symbol shows when the lock switch is activated.

A low battery icon flashes when the cells get low, and when the sleep timer is set, a cozy looking bed, complete with bedposts, covers and pillow, is represented.

Illumination

The LCD is illuminated with a bright greenish light activated by a button on the front of the Kaito. The button must be held down to keep the light on. Much of the light washes in front of the LCD rather than fully backlighting it. This has a somewhat blinding effect, partially obscuring frequencies. Most of the light is on the left of the display, with information on the right dim and hard to read. When the LIGHT button is depressed in MW or SW, a chirping click is heard over the speaker or earphones.

Power

The KA105 runs on two AA cells or a 3-5V AC adaptor. You have a 3 minute window in which to change batteries. If you exceed this, you'll dump all your memories and clock settings. I made the mistake of running a set of NiCads down until the radio shut itself off. Despite changing batteries immediately, I lost all of my settings.

This radio seems to be more forgiving on two AA batteries than the Sony SW1.

Accessories

This Kaito package includes a 120V

NOTICE: It is unlawful to buy cellular-capable scanners in the United States made after 1993, or modified for cellular coverage, unless you are an authorized government agency, cellular service provider, or engineering/service company engaged in cellular technology.

Full 800 MHz Scanners

AOR AR-8600MKII

\$1199^{US}



Wideband mobile rx

- 0.1 to 3000 MHz
- continuous. (unblocked)
- All modes: NFM, WFM, NAM, VAM, USB, LUSB
- Alphanumeric memory
- Improved front end - Computer control - Improved TCXO
- 1000 memories - 20 banks x 50 mem - 40 search banks
- 2 VFO's - Up to 37 offsecond search - Optional cards

ALINCO DJ-X2000

\$715^{US}



Intelligent Wideband Receiver

- 0.1 to 2200 MHz continuous. (unblocked)
- NFM, WFM, AM, USB, LSB & CW
- Flash Tune nearby signals - Transweeper
- Channel scope
- 2000 memory channels
- Superb sensitivity
- Various scanning modes - Menu system

ICOM IC-R5 (unblocked)

\$289^{US}



"Compact wideband portable receiver!"

- Freq coverage, 1.1 to 1300 MHz
- Modes of operation AM, FM, WFM
- 1250 Alpha memory channels
- CTCSS and DTCSS tone squelch
- DC power jack - Large LCD Display

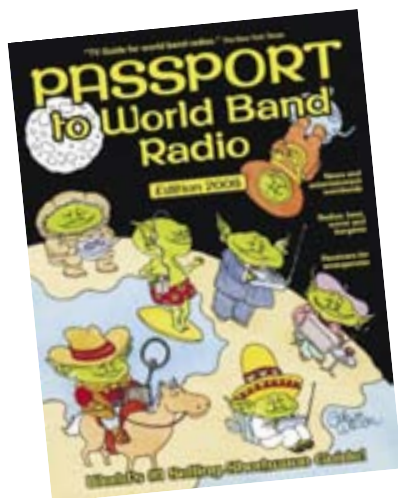
OPTOELECTRONICS YUPITERU

Guaranteed Delivery to USA.

www.Radioworld.ca

Phone: **416-667-1000**

FAX: (416) 667-9995 sales@radioworld.ca
4335 Steeles Ave. W., Toronto, ON Canada M3N 1V7



2006 EDITION PASSPORT TO WORLD BAND RADIO

The world's best selling shortwave guide is now bigger and better! Edited by Lawrence Magne, Passport is the ultimate shortwave hobbyist's listening reference. At a glance, Passport's exhaustive chart shows world broadcasters by frequency and time, indicating station power and language as well.

Passport includes extensive chapters on program profiles, English language listening, catching clandestine and pirate broadcasters, receiver reviews and ratings, planning your listening post, and Internet Web radio. A powerful listening tool at a low, low price!

Order NOW to be one of the FIRST to get this year's edition! (Expected Delivery, October, 2005)

Order BOK18-06
\$22⁹⁵
plus \$3
First Class Mail

www.grove-ent.com



800-438-8155

828-837-9200; FAX 828-837-2216 7540 Highway 64 West, Brasstown, NC 28902 email: order@grove-ent.com



60Hz/5V 150mA AC adaptor, a velvet-like drawstring carrying pouch, the standard set of earphones which come with the 100PE and WRX911, and a 13-foot (non-reel) wire antenna. This antenna has a sturdy connection to its plug and looks unlikely to break or cut out. The end of the wire is capped with just a rounded tip, so when stringing it up a clothespin or alligator clip might be helpful. Plugging in the wire disables the whip on FM and SW, but I've noticed no effect on MW.

Audio

Sound from the little speaker and earphones is crisp and clear, like that of the 100PE and WRX911. I was able to listen to 12160 kHz over the speaker with just the whip without any problem while soaking in an afternoon bath (once the water was shut off).

Build Quality

The aluminum face of the KA105 is strong and well-fitted. On the way back from a short hike my radio was riding on the passenger seat and in a sharp left turn it slid off, knocked into the door panel, and clattered onto the floor. The only damage was a slight scratch on the aluminum face.

The buttons, switches, and volume dial are all pretty smooth and solid and easy to use. The back of the cabinet is plastic, painted a silvery grey, and feels sturdy enough. The unit has a solid, heavy feel for its size.

The plastic cabinets on some of the Kaito and Grundig (Tecsun made) radios, rather than being molded in the finished color, are usually cast in a weak approximation. The final color is then painted on. The finishes on both my 100PE and WRX911 are wearing away on the corners, revealing the opaque, anemic colors of the plastics underneath. The rear of the cabinet of the KA105 is the same way. These radios would have lasting finishes if the plastics were mixed and molded in the finish colors.

Performance

This is a single conversion radio, so is subject to images and spurious signals. When tuning around I thought I'd check for The Overcomer on 6870. I found a strange signal, but no Brother Stair. Tuning down, I discovered the odd 6870 signal was actually bleed over from a strong station on 6855. (Selectivity is where an analog such as the 100PE or WRX911 can have the advantage over the KA105. You can tune slightly off-center with an analog and reduce the interfering signal. With digital 5 kHz steps, you're pretty well stuck with being on or off frequency. But unlike the 100PE and WRX911, the digital KA105 is of course drift-free.)

When the 31 meter band had several strong stations, I noticed images of them in the 8 MHz range.

Radio Thailand's colossal relay signal on 5890 could be heard in the background various places on 49 meters. This decreased or disappeared when receiving with just the whip.

To rate sensitivity, here are the stations I've been able to receive so far in Washington State with an indoor 35-foot wire plugged into the KA105 (not counting the usual major stations):

Botswana (VOA Africa)	9885
Bulgaria	7400 9700

Croatia (via Germany)	7285
India	9425
Iran	9860
Italy	11800
Kuwait	11675
Mexico	6185
S Africa (RFI)	15160
Sweden	9490
Turkey	15350
Ukraine	7545

I was surprised when, unplugging the wire and bringing the radio to another room, I was able to listen to AIR India with just the 16" whip.

On MW, my local station on 1330 has splatter from about 1230 to 1460 on the Kaito. But the odd thing is, with precise directionality, I'm just able to pull out a weak signal on 1300 out from under the fat 1330 footprint. (I wrote in the Oct. 2004 issue that the WRX911 was unable to peel 1300 away from 1330. Now that conditions have changed, I now find that it can do that, and with less 1330 interference than the KA105.) At night, some stations in Idaho, Oregon, B.C., Alberta, and California often come in well.

The KA105 is strong on FM, receiving the weaker college stations easily. A fairly distant CBC station in B.C. is also listenable and, with the external wire, crystal clear.

As with the 100PE and WRX911 and other pocket radios, sometimes reception is greatly improved when holding or touching the radio – very frustrating. This tendency is eliminated when an external antenna is plugged in.

Overall

The limited SW coverage, the muted tuning, and the somewhat hard to control and slow auto scan can make getting around on the KA105 a claustrophobic experience. The WRX911 and 100PE are much more tuning-accessible and easier to use for budget bandscanning (though neither have clocks or alarms).

The ease of setting clocks, alarms, sleep timer, memories, the simple direct entry of frequencies, and most of all, the one-touch recall of presets, are all pluses, especially for a travel and bedside radio.

This Kaito would be easier and more pleasurable to use with these alterations:

- * Expand coverage to at least 18 MHz (and reaching lower than 5.95 would be nice, to about 5.70)
- * Make auto scan faster, and more precise so that nearby channels aren't skipped when commencing scanning
- * Adjust the dial light to a true backlight (unless my particular unit has faulty lighting)
- * If possible, eliminate muting on tuning
- * The lock switch should probably also disable the light button, which is bound to be pressed on when the radio is wedged into a backpack or suitcase, draining the batteries.

Otherwise, here's a tough little pocket radio with digital precision, reliable sleep timer and alarm functions, and easy direct entry and memory recall operations. And like the WRX911 and 100PE, my reception results show that this set can do more than receive just CRI, the BBC, and RN. The poor man or woman can find the Kaito KA105 currently for \$39.95 plus shipping at Radios4You.com. The Kaito line can be seen at <http://www.kaitousa.com>.