# alda 103

totally solid state SSB Transceiver • 80 through 20 meters • 250 watts



# alda 103

## — compactness, power and performance!

# The best deal in the ham radio market today for under \$500!

ALDA 103 — the trim little powerhouse with incredible performance for the price!

The ALDA 103 is only 3-1/4" high by 9" wide by 12-1/2" deep and weighs less than 8-1/4 pounds. It's extremely rugged mechanically and built to provide reliable operation wherever you and your car, jeep, or boat can go. Power-wise, the ALDA 103 provides a full 250 watts PEP input for SSB operation, and 250 watts DC input for CW. And when it comes to performance, the ALDA 103 is the hottest little transceiver going. All solid state and totally broadbanded with all the fuss and bother of tuning up eliminated. RIT that's really handy for both SSB and CW. Super stable VFO with less than 100 Hz drift. Semi break-in CW plus built-in sidetone monitor and CW on either sideband for evading QRM.

#### Ideal first transceiver for brand new novices!

You'll want a full-capability CW/USB/LSB unit with all the power and performance you can use — and go on using as you graduate to higher licenses. The ALDA 103 gives you 250 watts DC input (nominal at 13.8 VDC) for CW, which is the maximum allowable power for your novice license. When you upgrade to your technician license, you've got 3 bands for CW operation. Then, with your general license — or higher — just plug in your mic and use the ALDA 103's full 250 watts PEP on SSB!

#### Perfect second or mobile unit for seasoned hams!

If you're looking for a super-sharp, compact unit to use in your car or boat, and you're used to the performance of your sophisticated station, the ALDA 103 will live up to your expectations. Absolute worst case sensitivity 0.5  $\mu$ V for 10 dB S+N/N — a must for mobile operation. And receiver audio output of 3 watts minimum — another must. Powerful transmit output, too. Also, very low receiver power drain of only 5.5 watts — that's 0.4 ma at nominal 13.8 VDC including power for dial and meter lamps! Plus your choice of lightweight portable or heavy-duty accessory power supplies.

#### ALDA 103

BROADBANDED P all-solid state Pushrequires no transmi whatsoever.

EXTRA LARGE POWER AMPL HEATSINK — 7-3/16" x 3-1/4" (182 mm x 82.5 mm) for efficient dissipation.

TRANSMITTER MODULE HINGES
DOWN for easy accessibility.



#### **REAR PANEL CONNECTORS -**

- DC Power Input RF Output/
  Antenna External Speaker Jack
   CW Key Jack Accessory Sock
- CW Key Jack
   Accessory Socket
  which is used for PTT control of external
  amplifier; transmit and receive audio for
  phone patch, and connections for
  external accessories such as remote
  VFO and digital display.

**SEMI BREAK-IN CW**—T/R relay circuit stays energized between leand automatically reverts to receipause between words.

Iightweight and severe environm

### s ruality engineering gives you all these convenient features:

**OPTIONAL NOISE BLANKER** — easily installed at any time by simply plugging in modular circuit card.

WER AMPLIFIER —

ull Final Stage;
er tuning

BOTTOM-MOUNTED BUILT-IN

SPEAKER — 3" x 3" with rear panel jack
for external speaker.

BUILT-IN CW MONITOR provides
adjustable level on front-panel with full
monitoring of CW tone.

6-POLE CRYSTAL FILTER with 2.5 kHz bandwidth at -6 dB to provide excellent audio characteristics for transmit as well as receive.

HIGH STABILITY VFO— less than 100 Hz drift from a "cold" start at room temperature. Heavy-gauge drawn aluminum cover for maximum protection in mobile applications.

MODULAR PLUG-IN CIRCUIT BOARD ASSEMBLY increases ruggedness required for mobile operation and assures easy serviceability.

FRONT-PANEL METER indicates level of received signal and transmitter relative output power.

SEPARATE FRONT PANEL RIT ON/OFF SWITCH AND TUNING CONTROL for independent receiver frequency adjustment ± 500 Hz nominal.

OPTIONAL CRYSTAL CALIBRATOR can be easily added; three-position slide switch — OFF/10 kHz/100 kHz — located under center of front panel.

**DUAL SPEED VFO DIAL VERNIER** — extra smooth zero backlash ball action tuning with 6 to 1/30 to 1 dial drive.

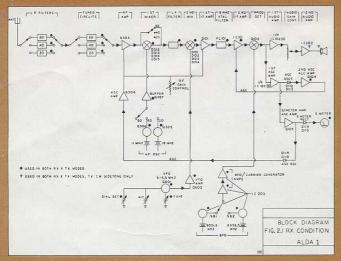
AUTOMATIC INTERNAL ANTENNA SWITCHING — antenna control wafer is located on bandswitch for automatic changeover of external bandswitched amplifier or remote-controlled antenna tuner. UPPER/LOWER SB SWITCH ONLY—unit automatically switches to CW operation whenever key is pressed, so no CW mode switch is required.

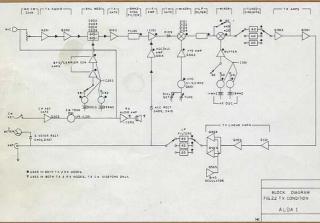
CHASSIS — prrosion-resistant in ntal conditions.

old

ers

after







#### Options & Accessories

Noise Blanker - Model No. PC 701

100 kHz and 10 kHz Dual Crystal Calibrator—Model No. PC 801
Portable Power Supply — Model No. ALDA PS 115: average duty 15 amp unregulated; input — 115/230 VAC, 50/60 Hz; output —13.8 V nominal at 15 amps

Heavy Duty Power Supply — Model No. ALDA PS 130: output — regulated 30 amp at 13.8 VDC; input — 115/230 VAC, 50/60 Hz

## **alda 103**

### Specifications

**GENERAL SPECIFICATIONS** 

Semiconductors: 39 diodes; 23 transistors; 11 integrated circuits

Power Nominal 13.8 VDC input at 15 amps, negative ground only Power Receive — 5.5 watts (includes dial and meter lamps); Transmit —

260 watts

Dimensions: 3-1/4" high x 9" wide x 12-1/2"

deep (82.55 mm x 228.6 mm x 317.5 mm)

Weight: 8-1/4 lbs. (3.66 kg)

PERFORMANCE SPECIFICATIONS

Frequency 80 meter band — 3.5 to 4.0 MHz
Range: 40 meter band — 7.0 to 7.5 MHz
20 meter band — 14.0 to 14.5 MHz

Modes: CW; USB; LSB

 $\begin{array}{lll} \textbf{RF Input} & \textbf{SSB} - 250 \text{ watts PEP nominal} \\ \textbf{Power:} & \textbf{CW} - 250 \text{ watts DC maximum} \\ \end{array}$ 

(adjustable)

Transmitter: Antenna

Impedance: 50 ohm, unbalanced

Carrier
Suppression: Better than -45 dB

Side-Band Suppression:

Better than -55 dB at 1000 Hz

Distortion

Radiation:

Products: Better than -26 dB

AF Response: 500 to 2500 Hz
Spurious Harmonics better than -45 dB

below 30 MHz; better than -60 dB

above 30 MHz

Frequency Less than 100 Hz drift per hour Stability: (from a cold start at room

temperature)

Microphone: High impedance 3000 ohm

Receiver:

Sensitivity: Better than 0.5 watts audio output

for 0.5 µV input

Signal-to-Noise Better than 10 dB S+N/N for

Ratio:  $0.5 \mu V$  input Image Ratio: Better than -60 dB

(typical with respect to  $0.5 \mu V$  input: 80 meters -130 dB; 40 meters -100 dB; 20 meters -75 dB).

IF Rejection: Better than 70 dB

(typical with respect to  $0.5 \mu V$  input: 80 meters — 110 dB; 40 meters — 80 dB; 20 meters — 75 dB).

Intermodulation

Intercept Point: Better than 10 dBM

Selectivity: 2.5 kHz - 6 dB; 5.0 kHz - 60 dB

Audio Output

Power: More than 3 watts

Audio Distortion:

Less than 5% at 3 watts

ALDA 103 is completely manufactured in the U.S.A.