



# AMATEUR RADIO

## THE FM LEADER



**2 METER**



**220 MHz**



**6 METER**



**440 MHz**



ELECTRONICS, INC., 7707 Records Street, Indianapolis, Indiana 46226

# HR-2B

## Full 12 Channel 2 Meter Narrow Band FM Transceiver

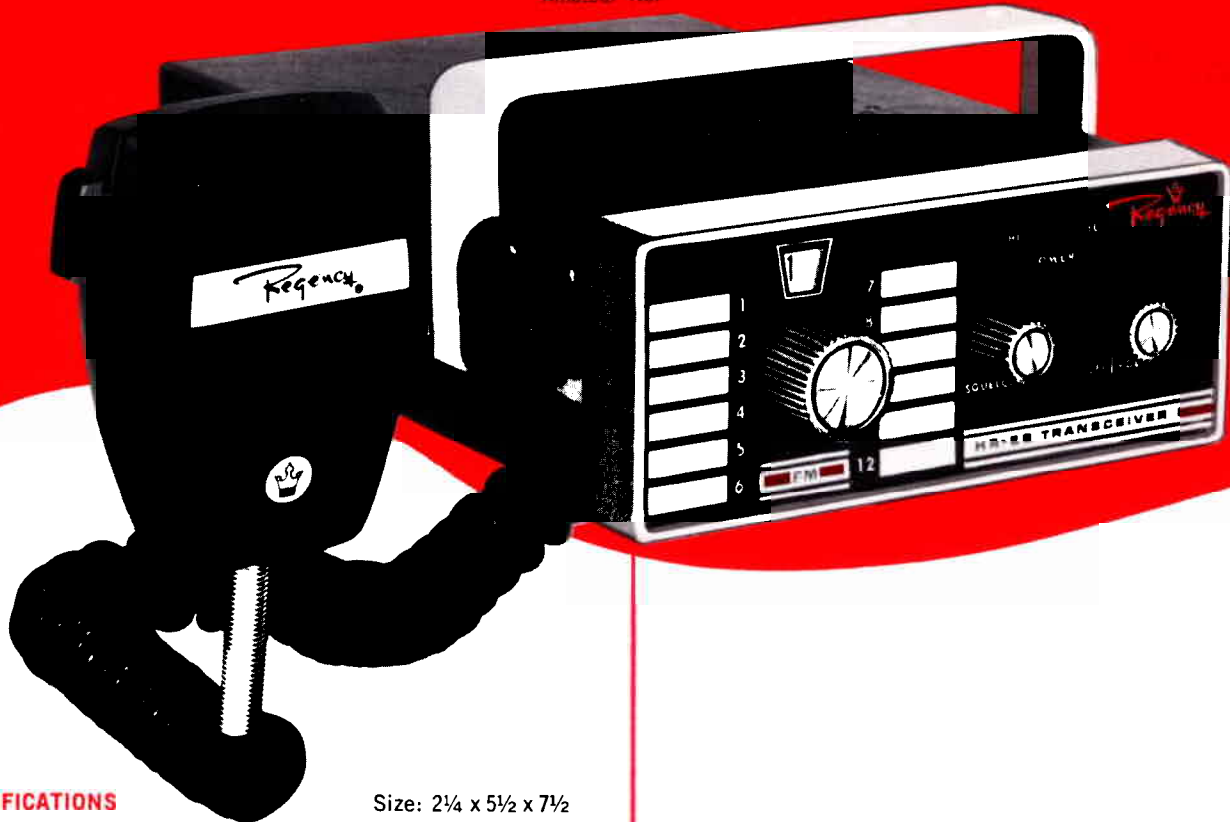
15 Watts Power Out 12 Channel Transmit and Receive Capability

You'll like the crystal clear transmit and receive performance of this compact, 2 meter unit and so will those listening. The 12 transmit channels are provided with individual trimmer capacitors for the optimum in point to point and repeater applications. The receiver has an audio output of 3 watts at an excellent sensitivity rating. Solid state, American Made quality at a low price!

# \$229.00

including plug in ceramic mike, mounting bracket and transmit and receive crystals for 146.94 MHz.

Amateur Net



### SPECIFICATIONS

Size: 2¼ x 5½ x 7½

#### RECEIVER

Antenna Impedance	50 Ohms
Frequency Range	144-148 MHz
Sensitivity	0.35µV (nom.) 20db quieting
Selectivity	6db Down +7 KHz 50db Down ±20 KHz
Image Rejection	50 db
Spurious Rejection	60 db
Modulation Acceptance	7.5 KHz
Audio Output (3-4 Ω Speaker)	3 Watts @ 10%, or less, distortion 5 watts maximum
Squelch System	"Noise" operated
Channels	12; Crystal Controlled
I.F. Frequencies	10.7 MHz and 455 KHz
Crystal Installed	146.94 MHz in Channel 1

#### TRANSMITTER

Antenna Impedance	50 ohms
Frequency Range	144-148 MHz
Power Output	15 watts (min.) @ 13.8V DC
Power Bandwidth	15 watts from 144-148 MHz
Harmonic and Spurious Rejection	58db, or more, below carrier
Modulation	Phase Modulation with automatic deviation limiting
Deviation	Factory adjusted to ±5 KHz; internal adjustment of 0-10 KHz deviation

Mike Preamp	FET Input with internal level control
Microphone	Plug-in, hand held; high-Z ceramic
Channels	12; Crystal Controlled with individual trimmer capacitors for Frequency netting
Power Amp Protection	VSWR Bridge Limiting Circuit
Crystal Installed	146.94 MHz in Channel 1
Transmit crystal frequency range	8.0-8.22 MHz

#### POWER

Voltage Requirements	13.8V DC (nom.): 11.5 (min.)—14.5 (max.)
Current Requirements	@ 13.8 Volts
Receive (Squelched)	180 MA.
Receive (Max. audio output)	800 MA.
Transmit	3.0 amps (max.)
Fuse Size	4 Amps. 3 AG
Shipping Weight	5½ Lbs.

#### SEMICONDUCTORS

Integrated Circuits	2
Silicon Transistors (total)	24
Silicon BET Power Transistors	2
Field Effect Transistors	2
Diodes (total)	9
Zener Diodes	2
Varactor Diodes	2
Signal Diodes	4
Rectifier Diode	1

# HR-6

## 25 Watt/12 Channel Transceiver

Compact—Solid State Performance  
at Extremely Low Power Drain

Here is the power to get you out on the 6 meter band without use of black box power hogs in the trunk of your car. You can work repeaters, or work skip on your choice of 12 channels, with independent switching for transmit and receive functions. That gives you 144 frequency combinations across the entire band . . . 52-54 MHz. Compact and complete for dash mount, the HR-6 provides American Made reliability to the smallest of mobiles.

**\$239.00**

Amateur Net

Includes crystals installed for 52.525 MHz, mounting bracket and plug-in ceramic mike.



### SPECIFICATIONS

Size: 2 5/8 x 6 1/2 x 9 1/2

#### RECEIVER

Antenna Impedance	50 ohms
Frequency Range	52-54 MHz
Sensitivity	0.35 $\mu$ v (Nom.) 20db Quieting
Selectivity	6db $\pm$ 16 KHz
Image Rejection	50db $\pm$ 32 KHz
Spurious Rejections	50db $\pm$ 32 KHz
Modulation Acceptance	5 watts maximum
Audio Output (3-4 ohm speaker)	3 watts @ 10% or less distortion; 5 watts maximum.
Squelch System	Full "noise" operated
Channels	12 crystal controlled with independent channel selector
I.F. Frequencies	10.7 MHz and 455 KHz
Crystal Installed	52.525 MHz Channel 1

#### TRANSMITTER

Antenna Impedance	50 ohms
Frequency Range	52-54 MHz
Power Output	25 watts min. @ 13.8V DC
Power Bandwidth	25 watts from 52-54 MHz
Harmonic & Spurious Emissions	60db or more below carrier
Modulation	Phase modulation with automatic deviation limiting
Deviation	Internal adjustable from 0-15KC. Factory set to 10KC.
Microphone Preamp	FET input with internal level adjustment.
Channels	12 crystal controlled with independent channel selector and individual channel netting capacitors
Power Amp Protection	VSWR Bridge limiting circuit
Crystal Installed	52.525 MHz Channel 1

#### POWER

Voltage Requirements	13.8V DC (nom.); 11.5V (min.)—14.5V (max.)
Current Requirements	@ 13.8V DC
Receive (Squelched)	280 MA.
Receive (Max. audio output)	900 MA.
Transmit	4.5 Amp.
Fuse Size	10 amp. 3AG

#### SEMICONDUCTORS

Integrated Circuits	3
Silicon Transistors (Total)	25
Silicon BET Power Transistors	2
Dual Gate MOS FET Transistor	1
Field Effect Transistors	2
Diodes (total)	9
Zener Diodes	2
Varactor Diodes	2
Signal Diodes	2
Rectifier Diodes	1
Shipping Weight	6 lbs.

# HR-220

## The 12 channel 220 MHz FM Transceiver

10 watts power out/12 channel transmit  
and receive capability

Compactly designed for dash mount, this little transceiver gives you big signal power on the go . . . at low current drain. 5 watts audio equipped with a noise operated squelch system, provides clear reception and excellent sensitivity. American Made and Regency Reliable, the HR-220's solid state design brings you tough, top quality circuitry at a low price.

**\$239.00**

Amateur Net

Includes plug-in ceramic mike, dash mounting bracket and factory installed transmit and receive crystals for 223.50 MHz.



### SPECIFICATIONS

Size: 2 1/4 x 5 1/2 x 7 1/2

#### RECEIVER

Antenna Impedance	50 Ohms
Frequency Range	200-225 MHz
Sensitivity	0.4 $\mu$ v (nom.) 20 DB Quieting
Selectivity	6 DB Down $\pm$ 7 KHz
	55 DB Down $\pm$ 20 KHz
Spurious Rejection	60 DB
Modulation Acceptance	$\pm$ 7.5 KHz
Audio Output (3-4 $\Omega$ Speaker)	3 watts @ 10%, or less, distortion; 5 watts maximum
Squelch System	"Noise" operated
Channels	12; Crystal Controlled
Receiver Crystal Frequency Range	57.67-58.92 MHz
I.F. Frequencies	10.7 MHz and 455 KHz
Crystal Installed	223.50 MHz in Channel 1

#### TRANSMITTER

Antenna Impedance	50 Ohms
Frequency Range	220-225 MHz
Power Output	10 watts (min.) @ 13.8V DC
Power Bandwidth	10 watts from 220-225 MHz
Harmonic and Spurious Emissions	55 DB, or more, below carrier
Modulation	Phase Modulation with automatic deviation limiting
Deviation	Factory adjusted to $\pm$ 5 KHz; internal adjustment of 0-10 KHz deviation
Mike Preamp	FET Input with internal level control
Microphone	Plug-in, hand held, high-Z ceramic
Channels	12; Crystal Controlled with individual trimmer capacitors for frequency netting
Power Amp Protection	VSWR Bridge Limiting Circuit
Crystal Installed	223.50 MHz in Channel 1

#### POWER

Voltage Requirements	13.8V DC (nom.); 11.5V (min.)—14.5 (max.)
Current Requirements	@ 13.8V DC
Receive (Squelched)	180 MA.
Receive (Max. audio output)	800 MA.
Transmit	2.5 amps (max.)
Fuse Size	3 Amp 3 AG
Shipping Weight	5 1/2 Lbs.

#### SEMICONDUCTORS

Integrated Circuits	2
Silicon Transistors (Total)	25
Silicon BET Power Transistors	2
Field Effect Transistors	2
Diodes (Total)	9
Zener Diodes	2
Varactor Diodes	2
Signal Diodes	4
Rectifier Diodes	1



# HR-440

## The 12 Channel 440 MHz FM Transceiver

Delivers 10 Watts of Power and 12 Channel Capability

Now you can use UHF without using up your budget. Our new compact solid state design brings you the best in American made circuitry at a price you'll like. Features include Automatic Frequency Control and UHF power module. Frequency range is 420-450 MHz, with 0.5  $\mu$ v tune-up sensitivity and 3 watts audio output. No need to worry about current drain, either. And all of this for the low, low price of only

**\$349.00**

Amateur Net

Includes plug-in ceramic mike, dash mounting bracket and factory installed transmit and receive crystals for 446.00 MHz.



### SPECIFICATIONS

Size: 2 1/4 x 5 1/2 x 7 1/2

#### RECEIVER

Antenna Impedance	50 Ohms
Frequency Range	420-450 MHz
Factory Tuned Segment	442-448 MHz
Sensitivity	0.5 $\mu$ v (nom.), 20 DB Quieting
Sensitivity Bandwidth	approx. 3.5 MHz @ 3 DB
	approx. 6.5 MHz @ 6 DB
Selectivity	6 DB Down $\pm$ 7 KHz
	50 DB Down $\pm$ 20 KHz
Spurious Rejections	60 DB
Modulation Acceptance	$\pm$ 7.5 KHz
I.F. Frequencies	10.7 MHz & 455 KHz
Audio Output (3-4" Speaker)	3 Watts @ 10%, or less, Distortion;
	5 Watts Maximum
Squelch System	"Noise" Operated
AFC Range	$\pm$ 6 KHz (approx.)
Channels	12; Crystal Controlled
Crystal Installed	446.00 MHz in Channel 1
FCC Certified	Part 15, Subpart C

#### TRANSMITTER

Antenna Impedance	50 Ohms
Frequency Range	420-450 MHz
Factory Tuned Segment	444-450 MHz
Power Output	10 Watts (min.) @ 13.6 VDC
Power Bandwidth (factory range)	10 watts from 444-450 MHz
Power Module Protection	SWR Bridge Limiting Circuit
Harmonic and Spurious Emissions	54 DB, or more, below carrier
Modulation	Phase Modulation with automatic deviation limiting
Deviation	Factory adjusted to 5 KHz; internal adjustment of 0-10 KHz deviation
Mike Pre-Amp	FET Inout with internal level control
Microphone	Plug-in, hand held, high-Z ceramic
Channels	12; Crystal Controlled with individual trimmer capacitors for Frequency netting
Crystal Multiplication	36
Crystal Installed	446.00 MHz in Channel 1

#### POWER

Voltage Requirements	11.5 VDC (min)—14.5 VDC (max)
Current Requirements	@ 13.6 Volts
Receive (Squelched)	180 MA.
Receive (Max. Audio Output)	800 MA.
Transmit	4.0 Amps (max.)
Fuse Size	5 Amp. 3AG

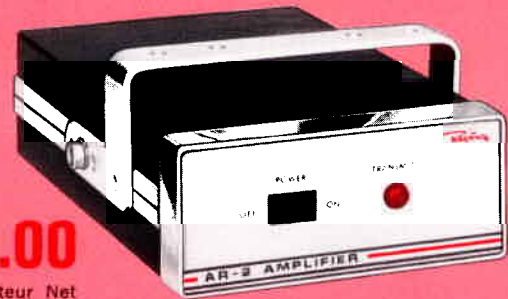
#### SEMICONDUCTORS

UHF Power Module	1
Integrated Circuits	2
Silicon Transistors (Total)	23
Field Effect Transistors	2
Diodes (Total)	10
Zener Diodes	2
Varactor Diodes	3
Signal Diodes	4
Rectifier Diodes	1

# AR-2

## 2 Meter FM Power Amplifier

Put your signal where you want it. Boost signal power 300% with this mini-sized amplifier.



**\$119.00**

Amateur Net

### SPECIFICATIONS

Size: 2 1/4 x 5 1/2 x 7 1/2

Frequency Range	144-148 MHz
Power Output (typical @ 13.6V DC)	• @ 10 watts in, 32 watts out
	• @ 15 watts in, 48 watts out • @ 20 watts in, 64 watts out
	• @ 25 watts in, 80 watts out
Power Bandwidth (@ 25 watts in)	75 watts from 145-148 MHz
Maximum Power Input	25 watts
Power Gain	Approx. 5db (3.2 times input)
Efficiency	65 to 75% (70% typical)
Power Supply Requirements:	
Voltage	13.6V DC (nominal)
Current	9 amps @ 80 watts output; 5.5 amps @ 50 watts output
Fuse Size	10 amp. 3 AG

### SEMICONDUCTORS

Silicon Transistors (total)	4
Silicon BET power transistors	2
Diodes	2

P-110

**\$49.95**

Amateur Net



### REGULATED POWER SUPPLY

#### P-110 SPECIFICATIONS:

Input Voltage:	120V AC (110V AC min; 130V AC max); 60 Hz
Input Power:	
@ 120V AC, 60 Hz:	.32 amp, 20 watts—Power Supply Only.
	.38 amp, 23 watts—receive (squelched).
	.48 amp, 37 watts—receive (max audio).
	1.42 amp, 150 watts—transmit (5 amp max).
@ 130V AC, 60 Hz:	1.50 amp, 170 watts—max. load current (5A).
Output:	13.6V DC, regulated @ 5 amperes (maximum).
Fuses:	Primary—2 amp; 3AG 125V
	DC Output—10 amp; 3AG 25V minimum.

# HR-312

*The New 2 Meter Transceiver with 144 Channel Capability  
35 Watts of Power with Super Receiver Performance.*

Lots of power going out and very little interference coming in will be your standard operating procedure with our new top performance 2 meter rig. You can select 12 simplex channels or 144 independent combinations by locking or unlocking the unique mode switch. This kind of channel flexibility coupled with our American made solid state circuitry makes the HR-312 your best bet for positive 2 meter performance at a practical price.

**\$269.00**

Amateur Net

Includes plug-in ceramic mike, mounting bracket, plus transmit and receive crystals for 146.94 MHz



## SPECIFICATIONS

Size: 2 $\frac{5}{8}$  x 6 $\frac{1}{2}$  x 9 $\frac{1}{2}$

### RECEIVER

Antenna Impedance	50 Ohms
Frequency Range	144-148 MHz
Sensitivity (at Tune-up)	0.15 $\mu$ V (nom.) 12 DB Sinad
	0.25 $\mu$ V (nom.) 20 DB Quieting
	+9KHZ @ 6 DB
Selectivity (typical)	75 DB Min ( $\pm$ 30 KHz)
Selectivity-Adjacent Channel	65 DB Min.
Intermodulation	70 DB Min.
Image Rejection	60 DB Min.
Spurious Rejections	$\pm$ 7.5 KHz
Modulation Acceptance	10.7 MHz & 455 KHz
I.F. Frequencies	Two, 2-pole Crystal Filters @ 10.7 MHz
I.F. Filters	4-element Ceramic Filter @ 455 KHz
Squelch System	"Noise" Operated
Squelch-Threshold	Approximately 0.1 $\mu$ V
Squelch Range (typical)	6 DB
Audio Output (typical)	@ 5 KHz Deviation
3.2!! Speaker (internal)	3.2 Watts @ 2%, or less, Distortion; 6.5 Watts Maximum
8!! Speaker	1.8 Watts @ 2%, or less Distortion; 4.8 Watts Maximum
Channels	12; crystal controlled
Crystal Installed	146.94 MHz in Channel 1
FCC Certified	Part 15, Subpart C

### TRANSMITTER

Antenna Impedance	50 Ohms
Frequency Range	144-148 MHz
Power Output (at Tune-up)	35 Watts (Nom.) @ 13.6 VDC
Power Bandwidth (@ 13.6 VDC)	30 Watts min, 144-148 MHz

Power Amp. Protection	SWR Bridge Limiting Circuit
Harmonic and Spurious Emissions	58 DB, or more, below Carrier
Modulation	Phase Modulation, with automatic deviation limiting
Deviation	0-15 KHz, internal adjustment; Factory Adjusted to $\pm$ 5 KHz
Microphone Pre-amp	FET with internal level control
Microphone	H-z Ceramic; Plug-in (5-pin)
Channels	12; crystal controlled with individual netting capacitors
Crystal Multiplication	18
Crystal Installed	146.94 MHz in Channel 1

### POWER

Voltage Requirements	11.0 VDC Min. to 15 VDC Max; negative ground system
Current Requirements	@ 13.6 VDC
Receive (squelched)	220 MA
Receive (max. audio output)	1 Amp.
Transmit	5.5 Amps. (typical)
Transmit @ 15 VDC	7 Amps Max.
Fuse Size	10 Amp., 3 AG

### SEMICONDUCTORS

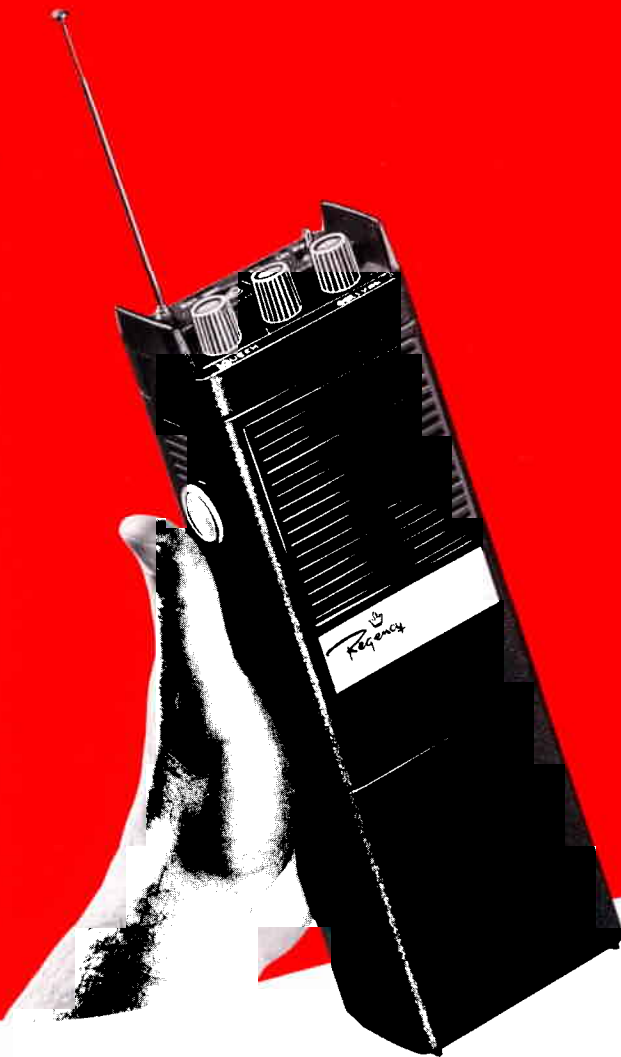
Integrated Circuits	4
Silicon Transistors (total)	17
RF Power Transistors	2
FET Transistors	3
Diodes (Total)	19
Signal Diodes	14
Varactor Diodes	2
Zener Diodes	2
Rectifier Diode	1



# HRT-2

## New 5 Channel 2 Meter Narrow Band FM Hand-Held Transceiver

With a power output of 2 watts (min.), this little hand-held transceiver is the portable and convenient answer to two-way radio needs. A double-conversion, super-hetrodyne receiver design employs two ceramic filters for optimum performance in areas where numerous channels are closely grouped together. The transmitter and receiver sections both employ band-pass circuitry so that effective transmitter power and receiver sensitivity are maintained across the entire band (144-148 MHz). Three integrated circuits provide for compactness and circuit reliability. Complete operation from 3 simple controls: on/off/volume, squelch, and channel selector. High-Low power switch. Removable telescoping, internal antenna can be easily replaced with a short, flexible type antenna. Extra provisions have been made for external mike, external power supply, external earphone, and external antenna. Case is made of high-impact ABS plastic. American Made quality with Regency reliability.



### SPECIFICATIONS

Size: 3 $\frac{3}{8}$ " x 1 $\frac{1}{8}$ " x 9 $\frac{3}{4}$ "

#### RECEIVER

Antenna (external) impedance	50 Ohms
Frequency Range	144-148 MHz
Channels	5; Crystal Controlled
Crystal Installed	146.94 MHz
Sensitivity	0.7 $\mu$ V, 20 DB Quieting
Selectivity	+7 KHz, 6 DB down $\pm$ 20 KHz, 50 DB down
Spurious Rejections (excluding primary image)	60 DB
IF Frequencies	10.7 MHz; 455 KHz
IF Filters	2; ceramic
Squelch System	"Noise" Operated
Modulation Acceptance	+7 KHz
Audio Output (32 $\Omega$ Speaker)	0.5 Watts, Maximum
FCC Certified	Part 15, Subpart C

#### TRANSMITTER

Antenna (external) Impedance	50 Ohms
Frequency Range	144-148 MHz
Channels	5; Crystal Controlled with Individual Netting Capacitors
Crystal Installed	146.94 MHz
Crystal Multiplication	12
Power Output—Hi Position	2 Watts (min) @ 14.4V DC
Lo Position	1 Watt (max) @ 14.4V DC
Modulation	Frequency Modulation with Automatic Deviation Limiting
Deviation	0-7 KHz; Factory Adjusted to 5 KHz (approx.)
Microphone (internal)	32 $\Omega$ Speaker
Microphone (external)	300 $\Omega$ , dynamic type

#### POWER

Voltage Requirements	11-16V DC
Current Requirements	@ 14.4V DC
Receive—Squelched	30 MA. (typ.)
Receive—Max. Audio Output	100 MA. (typ.)
Transmit—HI Power	600 MA. (max.)
Transmit—LO Power	350 MA. (max.)

#### SEMICONDUCTORS

Integrated Circuits	3
Silicon Transistors (Total)	22
Field Effect Transistor	1
Balanced Emitter Transistor (RF Power)	1
Diodes (Total)	6
Zener Diodes	2
Varactor Diode	1
Signal Diodes	3

### BASIC PACKAGE

**\$179.00**

Amateur Net

includes factory installed transmit and receive crystals for 146.94 MHz.

Shipping weight: 1 $\frac{3}{4}$  lbs.

### INTERMEDIATE PACKAGE

**\$229.00**

Amateur Net

includes MA-50 Nicad battery and factory installed transmit and receive crystals for 146.94 MHz.

Shipping weight: 2 $\frac{1}{2}$  lbs.

### DELUXE PACKAGE

**\$295.00**

Amateur Net

includes MA-50 Nicad battery, BC-101 Battery Charger, MA-30 Flexible Antenna with adapter, MA-58 External Mike, MA-54 Leather Carry-Case, MA-52 Earphone, MA-29 DC Power Cord with cigarette plug, and factory installed transmit and receive crystals for 146.94 MHz.

Shipping weight: 4 $\frac{1}{4}$  lbs.

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