

ARGOSY - uniquely



ARGOSY — THE RIGHT DESIGN FOR ALL THE RIGHT REASONS. Like its namesake, the merchant ship, ARGOSY is designed to be a world traveler. With features uniquely appropriate to its time, but with an enduring quality that makes it right for all Amateur Radio operations. Best of all, its low price is something that's been missing from Amateur Radio for too long. And a full complement of optional accessories allows you to customize your station for your operating preference. No need to purchase an unwanted function and, too, they can be added later if desired.

HIGH POWER OR LOW POWER — AND ANY LEVEL IN-BETWEEN. ARGOSY has it. Just flip a switch to choose a 10 watt QRP level or 100 watt high power level. And for in-between, just set the drive control. Now you can enjoy the sport and challenge of QRP, yet be able to stand up to the crowd in QRM and poor band conditions. And you can enjoy the efficiency of the proper power level you choose for easy operation under any condition—mobile, portable or fixed.

ALL SOLID-STATE. From the pioneers in high power solid-state designs for Amateur Radio. For low heat, long life and stable, proven performance in a compact, convenient package.

SIX HF BANDS in nine segments. ARGOSY tunes 80 through 10 meters, including the 30 meter band, in nine 500 kHz segments (four segments for 10 meters), with approximately 40 kHz overrun on each band edge. Coverage you can use now and tomorrow.

BROADBAND DESIGN. From the pioneer in broadband rf design—TEN-TEC. That

means top performance without bothersome receiver front-end or final amplifier adjustments. Instant band change, instant operation, without tuning.

NEW ANALOG READOUT DESIGN. For fast, easy, reliable frequency readings. The band switch indicates the first two figures (MHz), the linear scale with a lighted red bar pointer indicates the third figure (hundreds of kHz), and the tuning knob skirt the fourth and fifth figures (tens and units). It's easy, accurate and efficient, so battery drain is minimal.

FINE RECEIVER SENSITIVITY with a typical figure of 0.3 μ V for a 10 dB S+N/N ratio.

4-POLE CRYSTAL FILTER with 2.5 kHz bandwidth and 2.7:1 shape factor at 6/50 dB is standard equipment in the 9 MHz i-f circuit.

OPTIONAL 2.4 AND 1.8 kHz 8-POLE CRYSTAL LADDER SSB FILTERS are plug-in accessories.

OPTIONAL 250 Hz or 500 Hz CW FILTERS are crystal ladder types which cascade with the standard 4-pole or optional 8-pole filter resulting in a razor sharp CW passband characteristic that virtually eliminates strong adjacent signal QRM.

AUTOMATIC SIDEBAND SELECTION. ARGOSY automatically selects the conventional sideband for the band in use. And a reverse mode switch position allows operation on the alternate sideband.

OPTIONAL AUDIO CW FILTER. Internal module with plug-in connectors. Has a center frequency of 750 Hz with two switchable bandwidths. Position one has a 450 Hz bandwidth; position two a 150 Hz bandwidth.

NEW FRONT PANEL PUSHBUTTON SELECTION OF OPTIONAL ACCESSORIES.

The lower right front panel has three pushbuttons for selection of an optional crystal ladder filter and the optional audio filter. The third pushbutton selects the position one or position two of the audio filter. The left center of the front panel has three more pushbuttons. One button is for switching the SWR meter to read forward or reverse power. The center button switches the optional noise blanker on. The right button switches the optional calibrator on.

OFFSET TUNING of the receiver section has a ± 3 kHz range with a detent zero position in the center.

BUILT-IN NOTCH FILTER, tunable from 200 Hz to 3.5 kHz, with a better than 50 dB rejection notch to eliminate unwanted signals or carriers in the passband. Standard equipment on the ARGOSY.

OPTIONAL NOISE BLANKER of the i-f type has a 50 dB blanking range for most sources of noise, fixed or mobile.

3-FUNCTION METER shows forward peak power or SWR on transmit and received signal strength ("S"-meter).

WWV RECEPTION AT 10 MHZ.

FRONT PANEL JACKS for microphone and headphones.

SWITCHABLE POWER LEVEL — 100 WATTS OR 10 WATTS. QRP operation or high power at the flip of a switch to fit the situation. And it's true QRP power with correct bias and operating voltages for high efficiency, not just a drive reduction.

right



100% DUTY CYCLE on all bands with up to 20 minutes of key-down time. Ideal for RTTY and SSTV operations.

QSK AND PTT. Full break-in on cw; push-to-talk operation on ssb.

BUILT-IN CW SIDETONE with variable pitch and volume.

ALC CONTROL on "high" power only, where it is needed, for maximum power without distortion. Front panel LED indicator.

"STAY PUT" STABILITY. Traditional TEN-TEC frequency stability. Individually computer-compensated VFO.

VERNIER TUNING. Typically 18 kHz per knob revolution.

ACCURATE DIAL CALIBRATION. Use WWV at 10 MHz or the optional internal calibrator. Accuracy of dial is ± 2 kHz when zeroed to the nearest 25 kHz marker.

12-14V DC CIRCUITRY for easy mobile operation plus ac operation with optional power supply.

THE RIGHT SIZE AND STYLING. Easy-to-use controls and push buttons, new lighted meter. Rigid steel chassis with aluminum enclosure. Stainless steel tilt-up bail. And it's only 4" high, 9½" wide, and 12" deep (with bail retracted) to go anywhere, fit anywhere at home, in the field, car, plane or boat.

FULL COMPLEMENT OF ACCESSORIES, all front panel switchable, all but the ac power supply and dc circuit breaker are internally mounted for greatest convenience.

ARGOSY—UNIQUELY RIGHT AND LOW IN COST.

SPECIFICATIONS — MODEL 525

GENERAL

FREQUENCY COVERAGE: 3.5-4.0, 7.0-7.5, 10.0-10.5, 14.0-14.5, 21.0-21.5, 28.0-28.5, 28.5-29.0, 29.0-29.5, 29.5-30.0, (VFO provides approximately 40 kHz overrun on each band edge.)

OPERATING MODES: Normal sideband; Reverse sideband; cw.

VFO STABILITY: Less than 20 Hz change per °F averaged over a 40° change from 70° to 110° after a 30 minute warmup. Less than 15 Hz change from 105 to 125 VAC line voltage when using a TEN-TEC power supply.

TUNING RATE: Vernier, 18 kHz per revolution, typical.

DIAL CALIBRATION: ± 2 kHz when zeroed to the nearest 25 kHz marker.

ANTENNA IMPEDANCE: Low impedance unbalanced (coaxial), 50-75 ohms.

POWER REQUIREMENTS: 12-14 VDC regulated to 5% or better. 500 mA receive; 9 A maximum transmit. Power switch remotely controls power supply.

SEMICONDUCTORS: 39 transistors, 4 FETs, 10 IC's, 49 Diodes, 3 PIN Diodes, 2 LEDs.

CONSTRUCTION: Rigid steel chassis. Molded front panel. Aluminum back, top and bottom. Stainless steel tilt-up bail.

DIMENSIONS: HWD 4" x 9½" x 12" (bail not extended)

NET WEIGHT: 8 pounds

RECEIVER

SENSITIVITY: 0.3 μ V for 10 dB S+N/N, typical.

SELECTIVITY: 4 pole crystal filter. 2.5 kHz bandwidth, 2.7:1 shape factor @ 6/50 dB.

AUDIO OUTPUT: 1 watt at 8 ohms with less than 2% distortion. Built-in compression loaded speaker in bottom.

I-F FREQUENCY: 9 MHz

NOTCH FILTER: Greater than 50 dB rejection notch, tunable from 200 Hz to 3.5 kHz.

S-METER: Automatically switched on when receiving.

SPURIOUS RESPONSES: More than 50 dB down except 28.980 MHz (which can be eliminated by using low end of 29.0-29.5 MHz band segment.)

I-F REJECTION: 60 dB

OFFSET TUNING: Receiver, ± 3.0 kHz, typical, detent zero position.

CRYSTAL CW FILTERS: Optional plug-in accessories. Model 217 has 500 Hz bandwidth. Model 219 has 250 Hz bandwidth.

CRYSTAL SSB FILTER: Optional plug-in accessory. Model 218 has 1.8 kHz bandwidth.

8 POLE CRYSTAL I-F FILTER: Optional plug-in accessory Model 220. 2.4 kHz bandwidth. Used in place of standard plug-in 4 pole ssb filter.

NOISE BLANKER: Optional plug-in accessory Model 223. I-f type. 50 dB blanking range.

AUDIO CW FILTER: Optional plug-in accessory. Model 224. Center frequency 750 Hz. Position ONE has 450 Hz bandwidth down 10 dB at 400 Hz and 1500 Hz. Position TWO has 150 Hz bandwidth, down 40 dB at 400 Hz and 1500 Hz.

CALIBRATOR: Optional plug-in accessory, Model 226. 25 kHz crystal type, pulsed tone.

TRANSMITTER

DC POWER INPUT: 100 or 10 watts, switchable. 100% duty cycle for up to 20 minutes, all bands.

RF POWER OUTPUT: 40-50 watts in HIGH POWER position, 4-5 watts LOW position.

T/R SWITCHING: PIN Diode antenna switch, Push-to-Talk on ssb, full break-in (QSK) on cw.

CW SIDETONE: Internally generated. Adjustable tone and volume independent of af control. Operates only in cw mode.

SSB GENERATION: 9 MHz 4 pole crystal ladder filter. Balanced modulator. Converts to 8 pole with optional Model 220 filter.

MICROPHONE INPUT: High impedance crystal, ceramic or dynamic.

CARRIER SUPPRESSION: 40 dB minimum.

SIDE BAND SUPPRESSION: 30 dB minimum at 1 kHz tone.

SPURIOUS OUTPUT: Less than -45 dB.

METER: Indicates forward or reverse peak power on transmit, front panel switch.

ALC CONTROL: High power only. LED indicator.

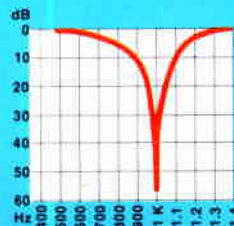
FRONT PANEL CONTROLS

AF gain/POWER (Pull-off); DRIVE; NOTCH; OFFSET (detent center); BAND Switch; Main tuning knob; MODE switch; NB ON/off; Meter FWD/REV; CAL ON/off; XTAL filter IN/OUT; AF filter IN/OUT; AF filter 1/2; Microphone jack; PHONES jack.

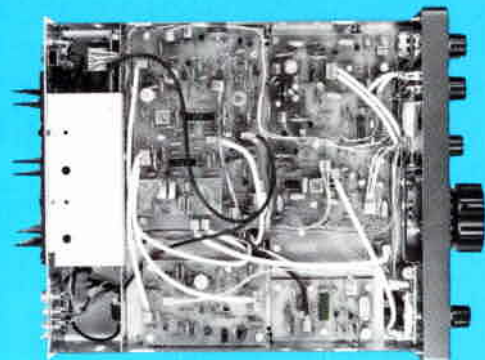
REAR PANEL CONTROLS AND CONNECTORS

CONTROLS: HI/LO POWER switch.

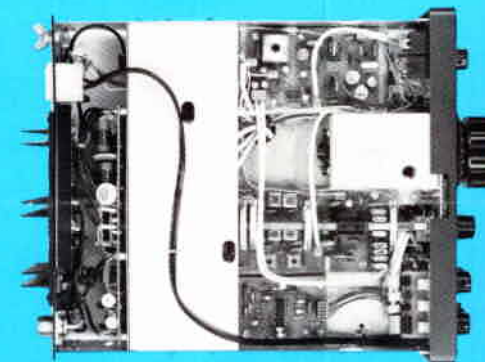
CONNECTORS: ANTENNA; KEY; POWER input; GND post; SPARE (3); 12 VDC jacks (2 auxiliary).



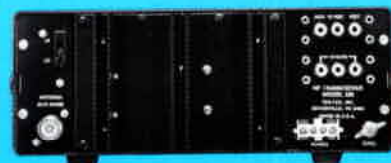
NOTCH FILTER PERFORMANCE
ADJUSTED TO 1 kHz POINT.



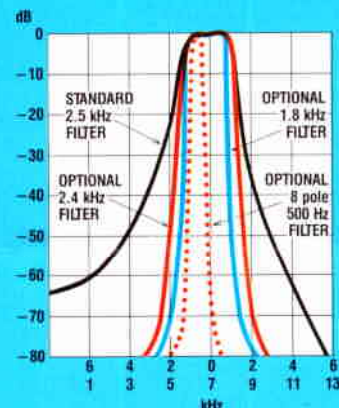
TOP VIEW



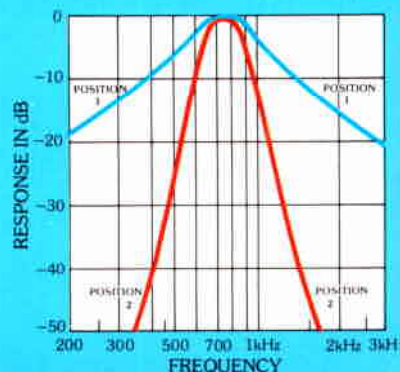
BOTTOM VIEW



REAR PANEL



ARGOSY I-F RESPONSES WITH
STANDARD AND OPTIONAL FILTERS.



CW AUDIO FILTER RESPONSE

Accessories

MODEL 225 Dual Primary Power Supply. Ideal for powering ARGOSY on either 115 or 230 VAC, 50-60 Hz. Easy to change for either primary voltage. Regulated output, over-voltage and over-current protected, and can be switched from transceiver or power supply. Styled to match ARGOSY color.

Specifications: INPUT: 105-125 VAC, 50-60 Hz or 210-250 VAC, 50-60 Hz. OUTPUT: 13.5 VDC ± 0.5 VDC. REGULATION: Better than 1% no load to full load at 117 VAC. OUTPUT CURRENT: 9 amperes, full load, 10 amperes, maximum. RIPLE: Less than 50 mV peak-to-peak at 9A at 117 VAC. CIRCUIT BREAKER: Electronic latching. Factory set at 10A. OVER-VOLTAGE PROTECTION: Trips above 16V output. CONNECTORS: One 4-pin AMP MATE-N-LOC, one phono jack for low current. SIZE: HWD, 4" x 4 $\frac{3}{8}$ " x 10 $\frac{1}{2}$ ". WT. 9 lbs.

MODEL 226 Calibrator. Provides accurate determination of operating frequency by inserting highly accurate signals every 25 kHz into the receiving antenna circuit. Signals are derived from a 3.2 MHz crystal oscillator that is factory set to zero beat with WWV. Pulsed for identification.

MODELS 215P and 215PC Microphones. Ceramic types for hand held or desk top operation. Include cable, 3-circuit plug, PTT switch, and separate desk stand. Offer optimum articulation, free of power peaks, impervious to temperature and humidity changes. High impedance; 200-4000 Hz response; -50 dB level; die cast zinc and Cyclocac[®]; 8 $\frac{1}{2}$ "h; 4' cable, single conductor shielded, two conductors unshielded. 3-circuit phone plug included. 215P has 4' regular cable; 215PC has 4' coiled cable. Built in the TEN-TEC plant.

MODELS 214/234 Microphone & Speech Processor. Extends operating range of ssb transmitters under adverse and low propagation conditions. Converts audio signal into ssb signal, clips and processes it through 4-pole monolithic filter for greater average envelope power and converts signal back into audio. Adjustable levels of processing and output plus disable switch and passband adjustment. Powered through the ARGOSY or by calculator type plug-in AC adapter which supplies 12 VDC @ 75 mA. Model 214 Electret Microphone is designed specifically to be used with Model 234 Processor.

MODEL 645 Dual Paddle Electronic Keyer. The 645 keyer uses transistor switching and is powered by the transceiver. Adjustable magnetic paddle return. Paddle force 5-50 gms. Speed 6-50 wpm. Weighting ratio 50-150% of classical dit length. Self completing characters. Dit and dah memories with defeat switches. Torque drive paddles with 4 ball bearing pivots.

MODEL 670 Single Paddle Electronic Keyer. Uses transistor switching and is powered through the ARGOSY Speed 6-50 wpm. Self-completing characters. Pre-set weighting for optimum articulation in the most used speed range (dit length increased apprx. 10% at 20 wpm).

MODEL 227 Antenna Tuner. Matches 50 ohm unbalanced output of transceiver to variety of balanced or unbalanced antenna impedances. 46-tap inductor allows vernier adjustment. Rated at 200 watts intermittent, 100 watts continuous.

MODEL 217 500 Hz 8-pole Crystal Ladder CW Filter

MODEL 218 1.8 kHz 8-pole Crystal Ladder SSB Filter

MODEL 219 250 Hz 6-pole Crystal Ladder CW Filter

MODEL 220 2.4 kHz 8-pole Crystal Ladder SSB Filter

MODEL 222 Mobile Mount for ARGOSY

MODEL 223 Noise Blanker; internally mounted

MODEL 224 Audio CW Filter; internally mounted

MODEL 1125 DC Circuit Breaker with mobile power cable

MODEL 1126 Linear Amplifier Switching Kit



**MODEL 225
Dual Primary
Power Supply**



**MODELS
215PC and 215P
Microphones**



**MODELS 214/234
Microphone &
Speech Processor**



**MODEL 645
Dual Paddle
Electronic
Keyer**



**MODEL 670
Single Paddle
Electronic
Keyer**



MODEL 227 Antenna Tuner

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