You are now the proud owner of the LARRY INTERNATIONAL 3.
Indeed, the imposing forefront of the LARRY INTERNATIONAL 3 hides a real sample of advanced technology. The 227 channels in AM, FM, SSB and CW are only the first example. 80 new negative channels have been added to the 120 conventional channels. The new negative channel system provides a logic and univoque readout of all channels.
Revolutionary also is the technology of the receiver, which goes on working normally, even under strong interferences of nearby stations. The sensitivity of this set and the absence of background noise are simply fantastic.
The LARRY INTERNATIONAL 3 is also offering better performances thanks to the adjustable power output: 0.5W for "quiet" modulation, 4W for optimal modulation quality, and a maximum output of 6W. The double meter has a triple function: indication of signal strength at reception, power output at transmission, and SWR measurement. Besides the switchable ANL/NB filter, the double antenna connection possibility, and some other new features have been incorporated. First of all the 10 kHz shift bringing 27 alpha-channels into your reach. Inter-channel operation is also possible by means of the TUNE knob.
Innovative is the speech compressor, producing better signal audibility and voice clarity, and thus improving signal propagation. A 20 dB attenuator has been added to the RF GAIN, allowing an even better adjustment of incoming signals. When using the 10 kHz shift and the attenuator, LEDs are blinking. Another important innovation is the AWI (automatic warning indicator) lamp, warning you at incorrect antenna connection, short circuit, or bend SWR measurement of your equipment.
With the impressioning LARRY INTERNATIONAL 3, the art of communication is taking a step forward. It offers the possibility to expand your horizon, and is the real passport to the wonderful world of communication.

Installation

Connection:
The transceiver is supplied with AC power cord. Proceed as follows to complete all necessary connections to the transceiver:
1. Your transceiver has two standard antenna connectors of type SO-239 located on the rear panel, for easy connection to standard PL-259 coax plugs. Use only enough cable to suit your needs. This will insure a proper impedance match and maximum power transfer from the transmitter to the antenna. Use coax cable with high efficiency and quality such as type RG-8/u or RG213/u.
2. AC Power Operation: Use 120 volts AC power for base station operation. Plug AC power cord into a working 120 volts household outlet.
3. DC Power Operation: Use 12 volts DC power for mobile station operation. Plug in DC power cord (optional) into the jack on the rear side of your transceiver.
Red cable on +
Black cable on −

Noise Interference:
There are several kinds of noise interference you may encounter in base station operation. Some of these noise sources are: fluorescent buzz, nearby commercial broadcast, electrical appliance, lawnmower, electrical storms, etc. Commercial products are available to reduce interference from these sources. Consult your dealer or CB/ham radio supply shops.

Remote Speaker:
The external speaker jack (EXT, SP) on the rear panel is used for remote receiver monitoring. The external speaker should have 8 ohm impedance and be able to handle at least 3 watt. When the external speaker is plugged in, the internal speaker is disconnected.
Control Function

1. POWER ON-OFF Switch
   Place in POWER ON (lever up) position to apply power to
   the unit.

2. NB OFF-ON Switch
   This switch activates the noise blanker circuit when placed
   in NB (lever down) position. The noise blanker is very
   effective for repetitive impulse noise such as ignition
   interference.

3. ANL OFF-ON Switch
   When this switch is placed in the ANL (lever down)
   position, the automatic noise limiter in the audio is
   activated. The ANL may be used when noises generated
   from such sources as atmospheric discharge, electronic
   machinery etc. are present.

4. ANT A-ANT B Selector
   For switching between two types of antennas or dummy
   load that may be connected to the unit. You may connect,
   on the rear panel, a ground plane antenna (non-directional)
   to the antenna A receptacle and a beam type antenna
   (highly-directional), for long range communications, to the
   antenna B receptacle.

5. SWR-CAL Switch
   This switch serves for SWR check of your antenna:
   CAL (lever down): Used to calibrate the SWR meter
   before measuring your antenna’s SWR ratio.
   SWR (lever up): Used to directly read the SWR of the
   antenna connected to the unit. See SWR Check, page 14.

6. TONE HI-LO Switch
   Changes the receiving quality in two ways.
   HI: emphasizes high tones in audio.
   LO: emphasizes low tones in audio.

7. VOLUME Control
   Permits you to adjust the listening level when receiving.

8. SQUELCH Control
   This control is used to cut off or to eliminate receiver
   background noise in the absence of an incoming signal.
   For maximum receiver sensitivity it is desired that the
   control is adjusted only to the point where the receiver
   background noise or ambient background noise is
   eliminated. Turn fully counterclockwise then slowly clock-
   wise until the receiver noise just disappears. Any signal
   to be received must now be slightly stronger than the
   average received noise. Further clockwise rotation will
   increase the threshold level which a signal must overcome in
   order to be heard. Only strong local signals will be heard
   at a maximum clockwise setting.

9. CALIBRATE Control
   This control is used for calibrating the SWR meter for
   accurate SWR measuring in conjunction with the
   SWR-CAL Switch 5.

10. RF GAIN Control/ATT 20 dB RX Switch
    This control is used primarily to optimize reception
    sensitivity in strong signal areas. Under normal operating
    conditions the control should be turned fully clockwise.
    When strong overload or distorted signals are received
    rotate this control counterclockwise to reduce again.
    Note: The squelch control 8 may require readjustment
    with reduced RF Gain Control.

ATT 20 dB RX:
    When pulling the button the incoming signal is decreased
    by 20 dB. This will be used to avoid bleed over from
    transmitters, which are near to your receiver.
 CHANNEL Selector
This control selects any one of the 227 Channels desired. The selected channel is digitally displayed in the window directly above the control.

—80/—40/40/80/120 Switch
Permits you to make the choice of the exact channel, on one of the five indicated bands.

MIC GAIN Control/COMPRESSOR OFF Switch
A preamplifier circuit is built into this unit to increase microphone gain. Experiment with this control for the setting that will best suit your own personal use. Push the control to activate the compressor for a deeper, more efficient voice modulation.

FM/AM/USB/LSB/CW Selector
This control selects the mode of operation in either FM, standard AM, upper sideband or lower sideband, and CW (morse). Transmission in a mode can only be communicated to stations operating in the same mode.

RF POWER (MAX/4W/0.5W) Switch
Permits you to adjust the RF output when AM/FM transmitting max. 4W or 0.5W. When transmitting in SSB the output will be Max. 10W 4W. Peak envelope power.

TUNE Control/±10 kHz Switch
For tuning + or — 5 kHz the operating frequency. This allows you to use the inter-channel spaces, very useful in SSB with more comfort than a VFO. Pulling the knob provides + or — 10 kHz shift (depending on + or — channels) and permits the use of some extra channels (Alpha Channels).

CLARIFIER Control/ON
Allows to clarify exactly the reception of an SSB station. The control is switched on by pulling the knob. The clarifier only works in pulled position. In the pushed position the clarifier does not operate and the frequency of the receiver is the same as the transmitter frequency.

SIGNAL Strength Meter
This meter provides a relative indication of the signal strength of a received signal in S units during reception. Note that in the SSB mode the indicator will be moving. This due to the fact that SSB transmissions do not contain a continuous RF carrier as is found in AM or FM.

RF/SWR Meter
Used for two purposes, — to indicate relative transmitter power or — to indicate the antenna SWR (standing wave ratio).

Channel Display
This is a LED (Light Emitting Diode) digital readout which indicates the channels selected by the Channel Selector ①.

HI Indicator
This indicator will light up when you are working on channels 81 to 120.

NEG Indicator
This indicator will light up when you are using the negative channels.

ATT Indicator
This indicator lights up when the 20 dB attenuator is used (control 10 pulled).

±10 kHz Indicator
This indicator lights up when the ±10 kHz control has been switched on by pulling out the tune knob 16.

AWI Indicator
Antenna warning Indicator: this indicator lights up when there is a malfunction in the antenna circuit (bad connection, bad cable etc.).

MOD Indicator
Lights up during your transmission with intensity varying according to the strength of your voice modulation.
Rear Panel

1. 120V AC Power cable.
2. Fuse 250V 2AT
3. DC 13.8V Jack

This jack is for the 12V DC power cable (optional). Note that the plug can only be inserted in one position.

Attention: Red cable to +
Black cable to –

Maximum 13.8V DC

4. SEL CALL Jack
Used to connect the optional selective call unit.

5. EXT SP Jack
For 8 Ohm external speaker connection. When the plug is inserted into this jack, the internal speaker is silenced.

6. CW Key Input
Only activated when mode switch is in CW position. A side tone is generated during transmission.

7. ANT A/ANT B Connectors
Used to connect antennas to the unit with 50 Ohm coaxial plug, type PL-259.

8. FREQ COUNTER Jack
For the connection of a frequency counter by means of an RCA phono jack.

9. TAPE OUTPUT
Enables you to record messages in cooperation with the selective call system even during your absence.

Antenna System

A typical type antenna must be used. It must be properly installed and tuned before attempting to use the transmitter, otherwise permanent damage to the unit may occur. The antenna you choose and its installation will have a significant effect on the performance of your unit. Whichever antenna you choose, be sure to follow the manufacturer’s recommendations for installation.

The antenna cable must be terminated in a standard PL-259 (preferably in teflon) plug to match with the SO239 connector on the rear panel.

Caution: Proper antenna tuning is necessary to obtain optimum performance from this unit which is designed to operate into a 50 ohm load. In no case should the unit be operated with an antenna VSWR exceeding 3:1 and best performance will be obtained when VSWR is less than 1.5:1.

Do not attempt to tune the system by adjusting or tuning the transmitter. Loss of performance and possible damage or poor operation may result.
Operation Instructions

Receiving

Make sure the transceiver is properly installed as indicated previously, and that the antenna and power source are properly connected. If you have not yet done so, plug in the microphone.

1. Rotate the SQUELCH control to the counterclockwise position initially.
2. Set the -80/-40/0/80/120 and FM/AM/USB/LSB/CW selector switches into the desired position.
3. Set the desired channel as indicated by the LED digital display.
4. Rotate the VOLUME control clockwise for a comfortable listening level.
5. When listening to an SSB station (LSB or USB) the exact adjustment of the CLARIFIER and TUNE controls are very important. Even a slight misadjustment can cause unintelligible reception.

Transmitting

Important: Never attempt to transmit without antenna or load.

Set the -80/-40/0/80/120 and FM/AM/USB/LSB/CW selector switches into the desired position and select a channel. Set the RF POWER switch into the desired position, depending on local circumstances. To transmit, simply depress the push-to-talk bar on the microphone. Hold the microphone about 5 or 10 cm from your lips. Release push-to-talk button to receive signals.

SWR Check

SWR (standing wave ratio) indicates how well your antenna is matched to your transmitter. SWR should be 1.5:1 or less. With your antenna properly connected, measure the SWR as follows:

1. Set the SWR-CAL switch 5 to the position CAL (down).
2. Depress the push-to-talk switch on the microphone and adjust the SWR with the calibrate control knob 9 so that the meter points the SET mark in the indicator 10.
3. Release the microphone switch.
4. Set the SWR-CAL switch 5 to the SWR position and depress the microphone switch again. The SWR value will now be shown on the SWR scale 19.
5. After checking the SWR put the SWR-CAL switch again to the upper position (SWR) for normal operation.
6. If the SWR would be higher than 1.5:1, adjust your antenna for best result. If necessary insert an antenna matcher, such as the ROS-2B, between the transceiver and the antenna cable, for better matching.

Specifications

GENERAL

Channels: 227
Operation mode: AM, FM, USB, LSB, CW
Power: 13.8V DC
Frequency: 26.055 – 28.315 MHz
Ant. impedance: 50 Ohms
Dimensions: 420 x 145 x 300 mm
Weight: 8.5 kg

TRANSMITTER

RF power output (nominal):
AM: 6W · 4W · 0.5W
FM: 6W · 4W · 0.5W
SSB: 13W · 10W · 4W (PEP)
Frequency tolerance: <0.005%
Modulation: 100% AM · 2.5 kHz FM

RECEIVER

Receiving system: AM/FM: dual conversion super-heterodyne
SSB: single conversion superheterodyne
Sensitivity:
AM: 1.0 µV for 10 dB S/N
FM: 0.5 µV for 20 dB S/N
SSB: 0.5 µV for 10 dB S/N
Selectivity:
AM/FM: 8 kHz at 6 dB down
SSB: 2 kHz at 6 dB down
Adjacent channel selectivity: >80 dB
Audio Output: >2.5W for 8 Ohms
Squelch range: 1.0 µV – 630 µV
IM frequency: AM: 10.965 MHz/455 kHz
SSB: 10.965 MHz
Spurious: >50 dB
Clariﬁer range: ±800 Hz
Tune range: ±5.0 kHz
Intercept point: 3 dBm
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Si ringrazia l'utente “dinamite” che ha fornito questo documento.

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