Ritron Model(s):	JBS/PBS/NRB Series
Current Firmware Revision:	9s1N3105.s19
Revision Update:	December 5, 2012

Firmware revision 9S1N3105 corrects a problem on a small percentage of JBS or PBS base radios where it cannot be turned off using the Volume Down control. Ritron programmer RPT-PCPS-9.5.0 or higher can be used to install this firmware update.

IMPORTANT!
Updating to firmware revision 31.05 enforces the FCC 2013 Narrowband Mandate. Radios with firmware 31.05 installed cannot operate wideband. Furthermore the process cannot be reversed, radios updated for narrowband compliance cannot be reverted back to a firmware revision that allows wideband operation.

JBS/PBS/NRB firmware revision history:

1. **9S103101   released: 06/09/2009**

    a. Allow programming on 2.5 kHz channel steps at VHF and 6.25 kHz channel steps at UHF.

    b. Support slope adjustment for voice, tone and DTMF/2-Tone deviation.

    c. Support "Always On" operation. "Always On" model radios:
    - Are on any time power is applied to the radio.
    - Do not turn off or restart when the volume is decremented to 0.
    - Restart on the last channel used after a power outage.
    - Do not check for low battery.
    - In weather training mode, saves weather channel to EE whenever squelch opens instead of at turn-off.

    d. Remove Power Saver operation. This feature was removed to allow "Always On" operation.

    e. Added a Turn on to Channel 1 option.

    f. TX Timeout Timer recognized when using software PTT.

2. **9S103103   released: 10/20/2009**

    a. Reduce the minimum volume setting from pot value 3 to 1.

    b. Corrects frequency calculation problem with UHF table frequencies.

    c. Disallows field programming on any channel where the frequency has been custom programmed (non-table).

3. **9S1N3104   released: 08/08/2012**

    Firmware revision 9S1N3014 updates the JBS/PBS/NRB model radios for FCC 2013 Narrowband compliance. Radios cannot be programmed for wideband operation.

    a. Narrowband compliant firmware revisions are identified by the letter "N" in the 4th character of the .s19 firmware file, and by setting the MSB of the firmware revision.

    b. Requires Ritron D-Series PC Programmer 9.5.0 or later. Previous revision of the PC programmer will not be able to program narrowband compliant radios.

    c. Radios can be updated to narrowband compliant firmware, however, once updated the radio cannot be reverted back to a non-compliant firmware revision.

    d. Narrowband is not enforced on Canadian models, they can still be programmed for wideband. Canadian and BC models continue to have WB table frequencies.

4. **9S1N3105   released: 12/05/2012**

    a. Correct a problem on a small percentage of JBS or PBS base radios where it cannot be turned off using the Volume Down control.

    b. Make provision for unlimited TX time, unrestricted by the TX Timeout Timer. This option is only available via terminal mode programming.

    c. Ritron programmer RPT-PCPS-9.5.0 or higher is required to install this firmware update.

    d. 2013 FCC Narrowband compliant, once updated the radio cannot be reverted back to a non-compliant firmware revision.