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RQX Q-Series Modification for Auto-Restart/Turn ON When Power Is Restored

Ritron Q-Series callboxes can be programmed for always-on operation by disabling the Automatic Turn-Off option. This can be accomplished using the RQX PC Programmer or through Field Programming. Once Automatic Turn-Off is disabled, the user simply turns on the RQX by pressing the front panel PTT button and it will remain on as long as power is applied. If power to the callbox is lost, the user must press the front panel PTT to restart the radio. For externally powered callboxes, battery backup is one method of keeping the radio on if the primary external power is lost.

For users that do not want to rely on battery backup, and do not want to "restart" the callbox after a power loss, the following modifications can be made to automatically restart/Turn ON the radio after a power loss.

Important considerations before applying this modification:

- The Automatic Turn-Off option must be disabled.

- When Automatic Turn-Off is disabled the unit will consume the largest amount of current, but is always ready to instantly receive messages. This mode should only be considered if an external source of +12 VDC is available.

- The callbox receiver will always be on. All radio communication on the programmed frequency and tone will be heard over the RQX callbox.

The callbox can be modified per the following instructions to automatically restart the radio any time power is applied and/or restored.

1. Carefully remove the PCB assembly from the case front.
2. Remove Q608 and install a BVA20WS (Ritron PN# 48AH00T2) diode with the anode connected to the emitter pad and the cathode connected to the collector pad as shown below.
3. Add R611 1kΩ (Ritron PN# 47180102) on the pads provided as shown below.
4. Reassembly the callbox.

Add R611 here

Remove Q608 and add BVA20WS diode here as shown