

# Ameritron ARB-702I2

## Instruction Manual

### **INTRODUCTION**

The ARB-702I2 serves the same function as the isolation relay recommended by many transceiver manufacturers, but has no moving parts to wear out or reduce T/R switching speed. The ARB-702I2 places less stress on the radio than the smallest isolation relay.

The ARB-702I2, when properly installed, fully protects radios from damage caused by keying line transients or excessive current and voltage. Any transceiver that provides an external power amplifier control line may be used to control any amplifier having a positive relay control voltage under 200 volts and 200 mA when the ARB-702I2 is used. The ARB-702I2 fully protects transceivers like the Icom 706 from excessive control line voltage or current, and even allows a simple and safe interface to rigs that source a positive amplifier control voltage.

The ARB-702I2 has a 13 pin plug to match the Icom 706 and Mark II. If the transceiver is not the Icom 706 or Mark II, then check with manufacture for the installation.

### **TECHNICAL DESCRIPTION**

The ARB-702I2 draws only 1 mA per volt from a radio keying line that goes high. If the keying line goes to 12 volts, the ARB-702 will draw 12 mA from the radio. Any radio pulling the control line low will have less than 2 mA of current. The open circuit voltage applied to the radio can be set by the user to any voltage between 3 and 30 volts.

The output will pull a 100 mA relay line to within 0.2 volts of ground, and is capable of handling 200 volts of positive open circuit voltage.

The ARB-702I2's 13 pin plug has the supply voltage, relay, and ALC connections to properly operate the ARB-720I2 and amplifier when connected to the Icom 706 and Mark II.

### **INSTALLATION**

- 1.) Plug the ARB-702I2's 13 pin cable into the Icom's ACC socket.
- 2.) Connect a RCA phono cable from the Amp Relay jack on the ARB-702I2 to the amplifier's relay line.

**Warning: Amplifier's relay must not exceed 200 volts or 200 mA ! Do not apply negative or AC voltage to the ARB-702i2 !**

3.) If using an ALC, connect a RCA phono cable from ALC connector on the ARB-702i2 to ALC of the amplifier.

## **SCHEMATIC**