

# **AMERITRON ARB-70212**

## **INTERFACE RELAY BUFFER**

### **INSTRUCTION MANUAL**

**PLEASE READ THIS MANUAL BEFORE OPERATING THIS EQUIPMENT !**

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# **AMERITRON**

**116 Willow Road  
Starkville, MS 39759 USA  
662-323-8211**

# **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**

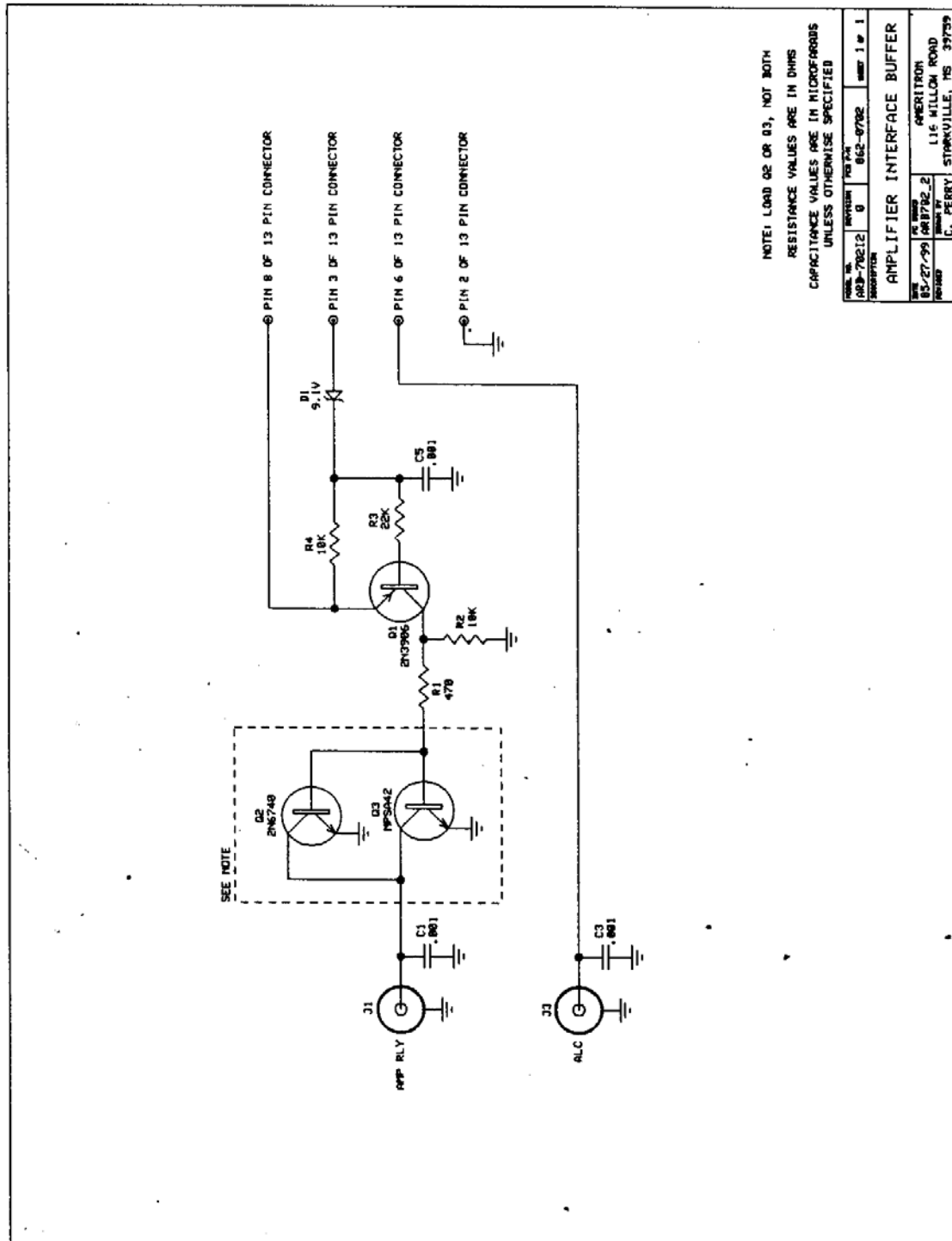
- 1.) Plug the ARB-702I2's 13 pin cable into the Icom's ACC socket.
- 2.) Connect a RCA phono cable from the Amp Relay jack on the ARB-702I2 to the amplifier's relay line.

**WARNING: AMPLIFIER'S RELAY MUST NOT EXCEED 200 VOLTS OR 200 MA ! DO NOT APPLY NEGATIVE OR AC VOLTAGE TO THE ARB-70212 !**

3.) If using an ALC, connect a RCA phono cable from ALC connector on the ARB-70212 to ALC of the amplifier.

**Note:** The Handshake RCA phono is not used in this installation.

## **SCHEMATIC**





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### **LIMITED WARRANTY**

Ameritron warrants to the original purchaser that this product shall be free from defects in material (except tubes and RF output transistors) or workmanship for one year from the date of original purchase.

During the warranty period, Ameritron or an authorized Ameritron service facility will provide free of charge both parts (except tubes and RF output transistors) and labor necessary to correct defects in material or workmanship.

**To obtain such warranty service, the original purchaser must:**

- (1) Complete and send in the Warranty Registration Card.
- (2) Notify Ameritron or its nearest authorized service facility, as soon as possible after discovery of a possible defect, of:
  - (a) The model number and serial number, if any;
  - (b) The identity of the seller and the approximate date of purchase;
  - (c) A detailed description of the problem, including details on the equipment.
- (3) Deliver the product to the Ameritron or the nearest authorized service facility, or ship the same in its original container or equivalent, fully insured and shipping charges prepaid.

Correct maintenance, repair and use are important to obtain proper performance from this product. Therefore, carefully read the Instruction Manual. This warranty does not apply to any defect that Ameritron determines is due to:

- (1) Improper maintenance or repair, including the installation of parts or accessories that do not conform to the quality and specifications of the original parts.
- (2) Misuse, abuse, neglect or improper installation.
- (3) Accidental or intentional damage.

**All implied warranties, if any, terminate one (1) year from the date of the original purchase.**

The foregoing constitutes Ameritron's entire obligation with respect to this product, and the original purchaser and any user or owner shall have no remedy and no claim for incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damage, so the above limitation and exclusion may not apply to you.

This warranty gives specific legal rights and you may also have other rights which vary from state to state.