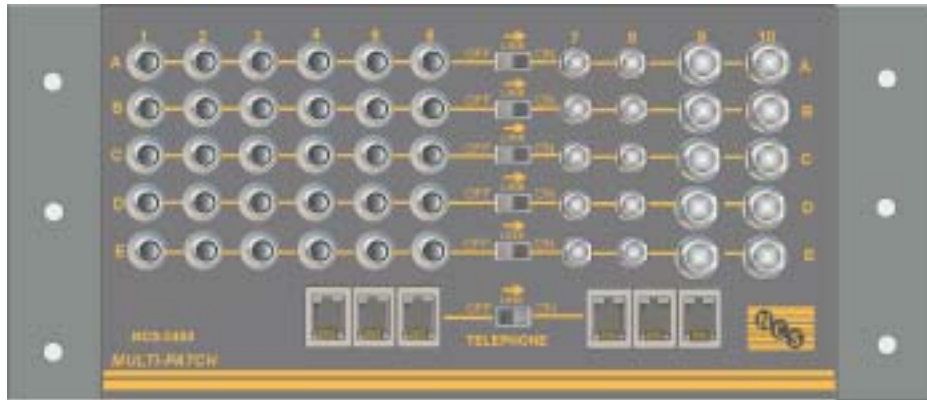


NCS-3400 Multi-Patch™ INSTRUCTION MANUAL



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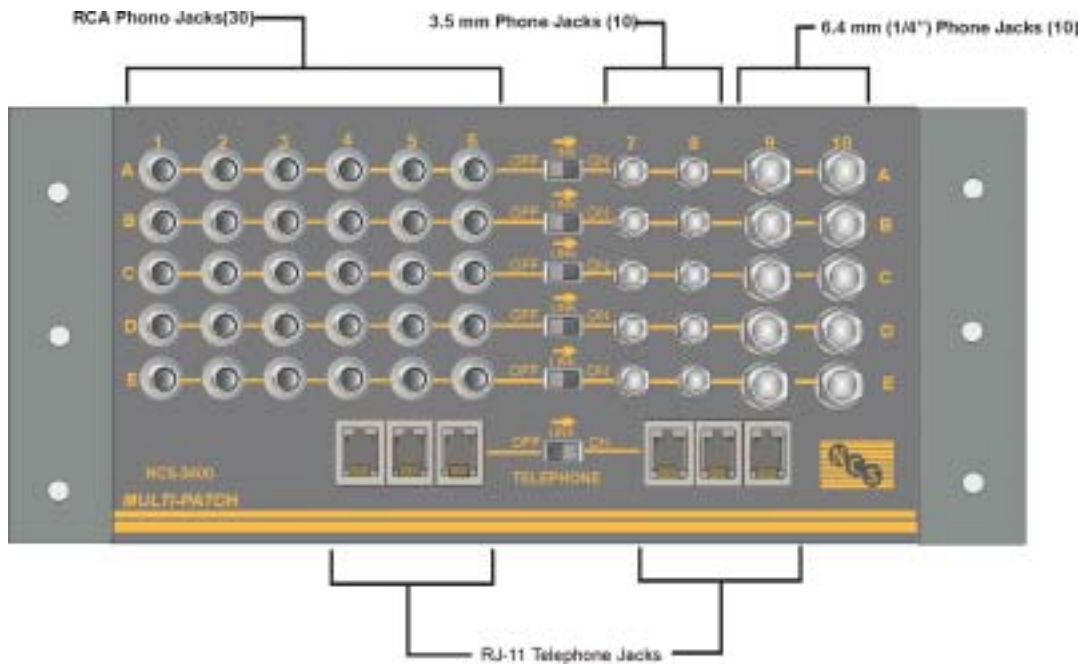
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Introduction

The Multi-Patch™ was designed to provide an organized method of signal distribution in the ham shack. The Multi-Patch™ makes it simple to add, remove or change equipment. It handles virtually any signals including audio, video, control (such as PTT and CW keyer) and telephone circuits. The Multi-Patch™ can be configured for 5 or 10 rows or busses with up to 10 connectors on each buss. Each of the 5 buss rows include 6 RCA phono jacks, 2 – 3.5 mm phone jacks and 2 – 6.4mm (1/4") phone jacks. Additionally, the Multi-Patch™ has 6 modular RJ-11 telephone jacks that are configurable for 1 or 2 line operation.

The Multi-Patch™ will benefit just about any ham shack. Its flexibility and versatility make it ideal for contest stations, emergency operations, satellite stations, repeater sites, mobile communications vans and a multitude of other ham shack environments.



Audio Buss

The Multi-Patch™ can be configured with up to 10 independent audio busses. Each of the 5 rows can be configured as a single buss or 2 independent busses depending on the position of the slide switch on each row. Each buss has independent ground circuits to reduce the possibility of ground loops. When a row buss is configured for 2 independent busses, the grounds are also isolated.



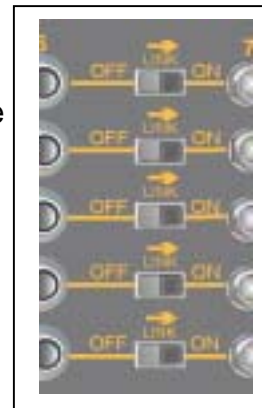
Telephone Buss

The telephone buss consists of 6 RJ-11 modular telephone connectors that can be configured for 1 or 2 independent circuits (i.e., 1 or 2 telephone line operation).



Buss Configuration Switches

Each buss row has a “Link” switch that is used to switch between a single buss or two independent busses. When in the “ON” position all jacks on that row are connected. When the switch is in the “OFF” position the row is divided at the switch location resulting in 2 independent buss circuits. The left buss consists of 6 RCA phono jacks and the right buss consist of 2-3.5mm phone jacks and 2-6.4mm phone jacks. Each row is independently configurable in this manner.



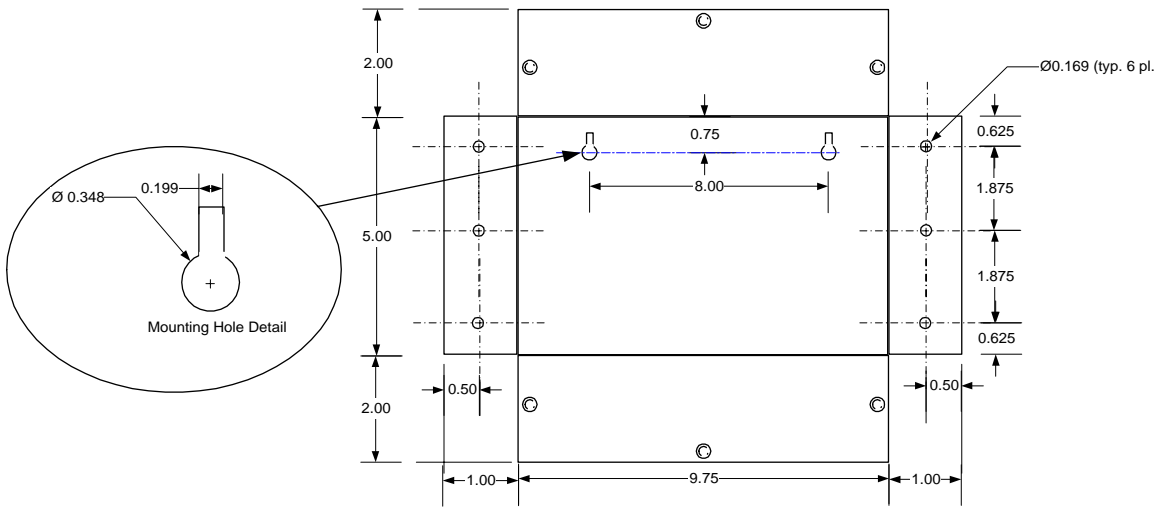
Likewise, the telephone buss can be configured into 1 or 2 line operation using the “Link” switch located adjacent to the modular telephone jacks. With the “Link” switch in the “ON” position the telephone row is configured for a single buss (One line operation). With the switch in the “OFF” position the row is divided into two independent telephone busses (two line operation).

Markings

Rows are marked A-E and columns are marked 1-10 for identification purposes. Telephone jacks are marked 1-6. A chart is provided for recording the location of your connecting cables. You can use several charts to record multiple configurations, making it quick and easy to reconfigure connections.

Mounting

Two methods of mounting the Multi-Patch™ are provided. The unit can be mounted via the flange mounting holes or alternatively, two keyholes are provided on the back of the cover for mounting.



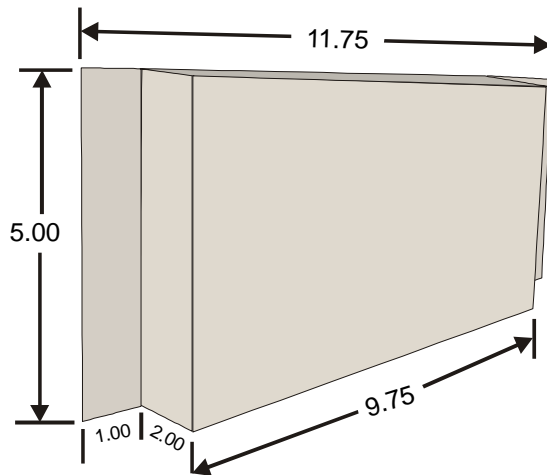
Mounting Detail

Mechanical

Enclosure material: 0.062 in thick Aluminum

Finish: Powder Coat (Gray)

Dimensions (LxDxH): 11.75 in x 2 in x 5 in.(298 mm x 51 mm x 127mm)



In Case of Difficulty

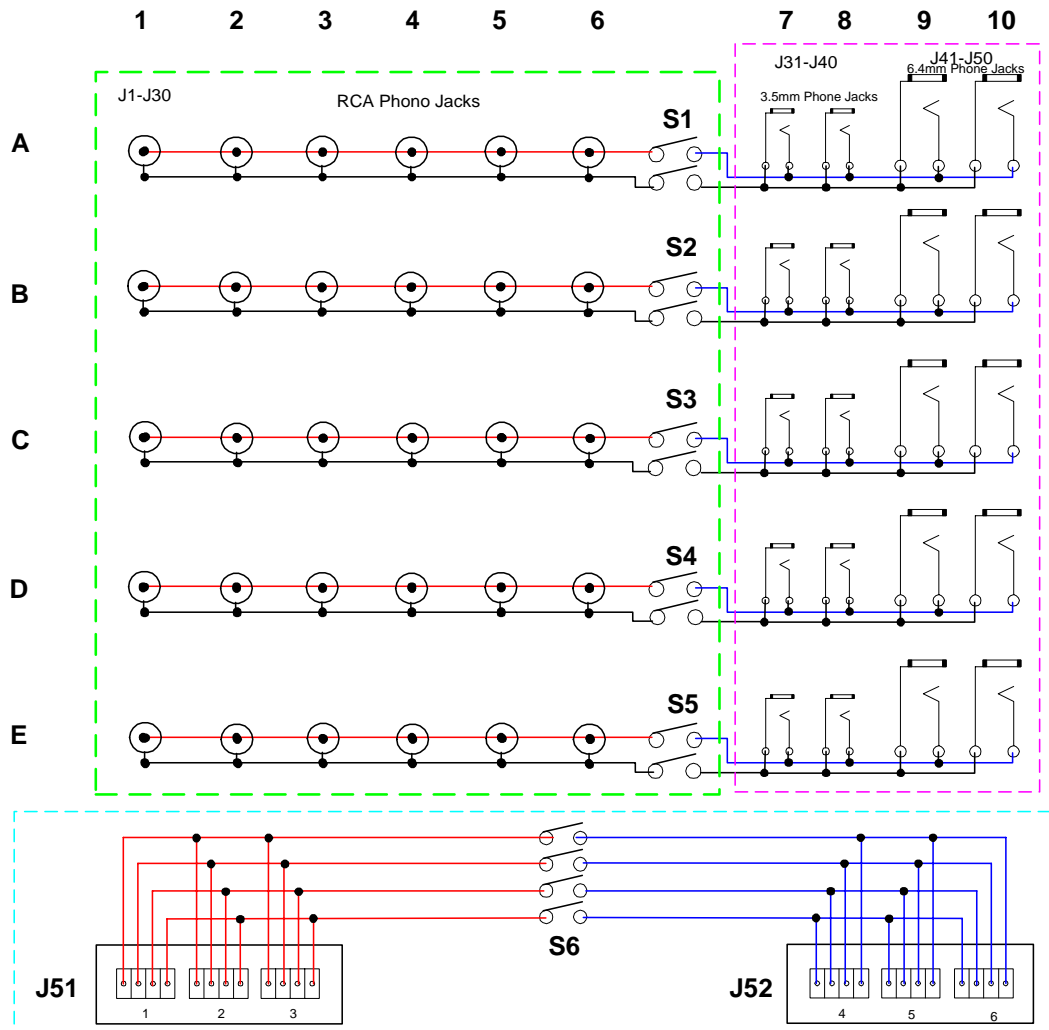
If you should experience any difficulty with the Multi-Patch™ please contact NCS Support for assistance. We will be happy to help you. All NCS products carry a one year warranty and NCS will repair or replace any defective unit within this period. Details of our warranty are supplied later in this manual.

Customer Support contact information:

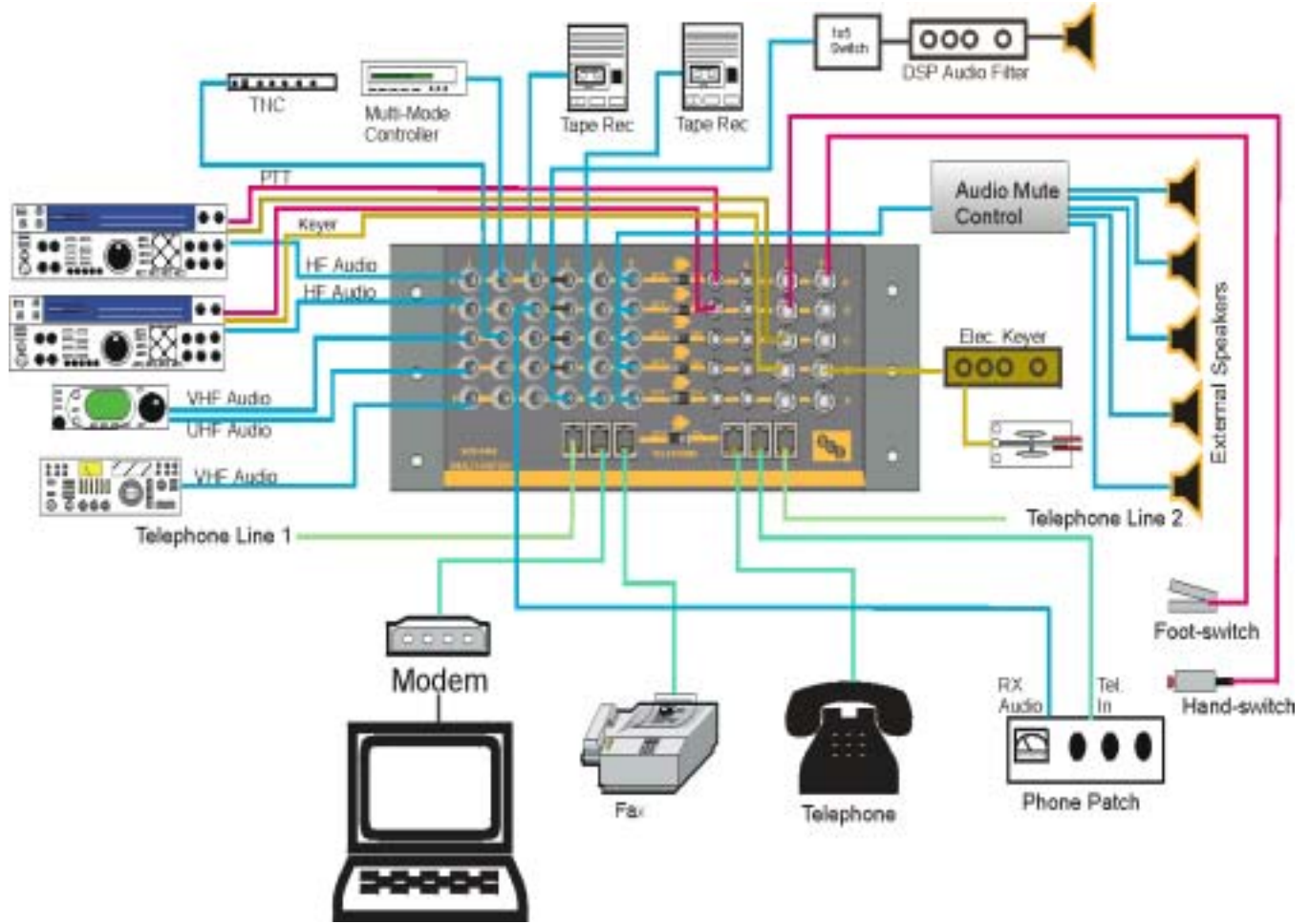
Email: support@ncsradio.com

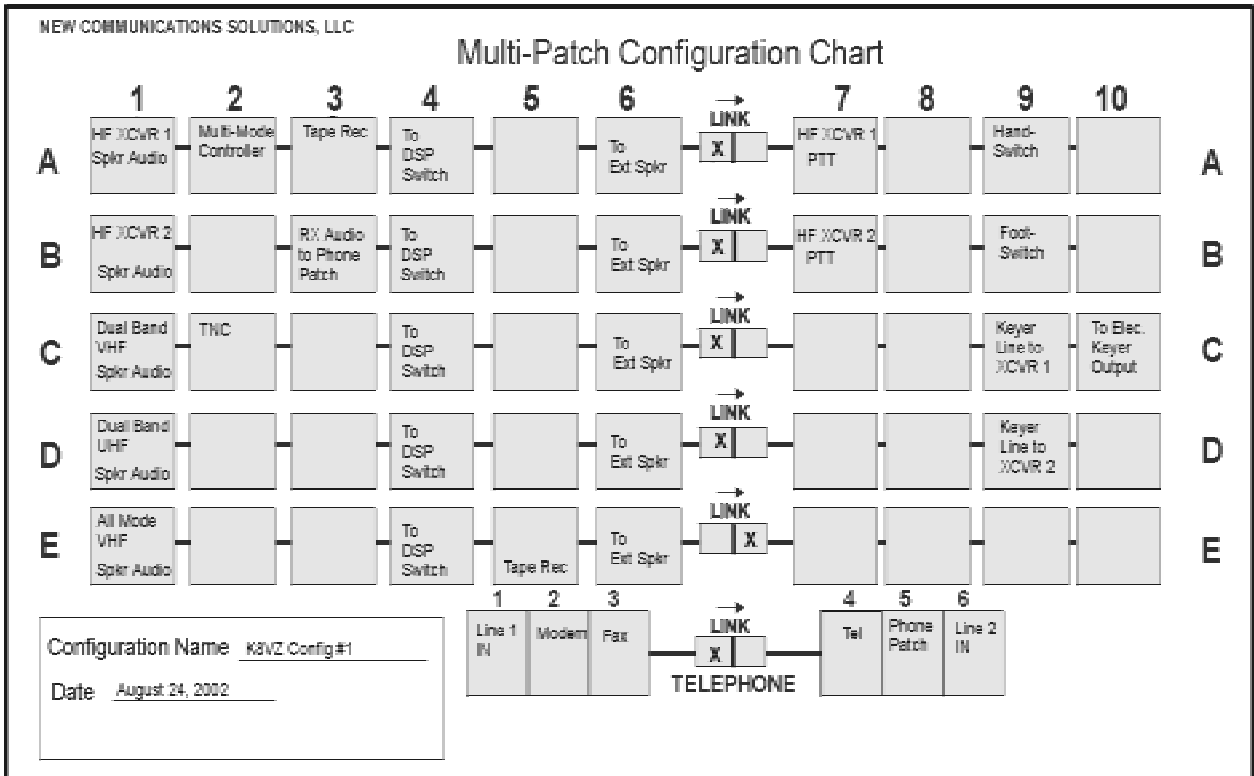
Toll Free Tel or Fax: 888-883-5788

Schematic Diagram



Typical Application





Configuration Chart Example

Warranty

New Communications Solutions, LLC Limited Product Warranty

All products manufactured by New Communications Solutions, LLC (hereafter referred to as NCS) and purchased from an authorized dealer or purchased directly from NCS will be warranted to be free from defects in material and workmanship for a period of one (1) year from the date of purchase.

NCS' liability under this warranty and the Customer's exclusive remedy is limited to repairing, servicing or adjusting, and/or replacing the defective product returned to NCS within the warranty period. Whether the defective product is repaired or replaced will be at the sole discretion of NCS. The warranty will be voided for products that have been abused, misused, or subjected to abnormal operating conditions as determined by NCS. Further, products damaged by lightning, power surges or force majeure events are not covered under this warranty.

If, in the Customer's estimation the product appears to be defective and is within the warranty period NCS should be notified as to the nature of the defect. If the product appears to be covered by the terms of the warranty, NCS will promptly communicate a return authorization number and shipping instructions to the Customer. When returning a product for repair/replacement under warranty the proof of purchase or a copy thereof must be returned with the defective product. NCS at its discretion may deny warranty in the absence of proof of purchase. Acceptable proof of purchase include bill of sale, cancelled check or credit card receipt. Evidence of alteration of the proof of purchase document shall be reason to immediately void the terms of the warranty.

For those products returned that prove to be defective and covered under the warranty, the Customer will bear the cost of shipment for the return of the product to NCS. Collect shipments will not be accepted. NCS will bear the cost of shipment for return of the product to the Customer after repair/replacement. Mode of shipment for return to the Customer will be determined by NCS. Should examination reveal that the product is not defective, NCS will notify the Customer and request return shipping instructions, and NCS will be due all shipping expenses. In the event that the examination reveals that the product is defective, but for any reason is excluded from this warranty, EMS will prepare a quotation of the cost to repair, and will communicate same to the Customer. In the latter event, NCS will be due all shipping charges incurred for return of the product to the Customer.

The Customer may attempt to repair a defective product under warranty provided authorization to do so is received from NCS Technical Support. NCS will supply replacement parts free of charge for authorized Customer repairs provided that the defective part along with the proof of purchase is submitted to NCS. NCS will pay postage and handling for replacement parts provided the above terms are met. The product warranty under these circumstances will remain in force for the life of the warranty.

EXCEPT FOR THE EXPRESS WARRANTIES STATED IN THIS WARRANTY, WHICH ARE EXCLUSIVE, NCS DISCLAIMS ALL WARRANTIES ON PRODUCTS SOLD HEREUNDER, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCE IS NCS LIABLE FOR CONSEQUENTIAL DAMAGES TO PERSON OR PROPERTY AS A RESULT OF THE USE OF ANY NCS PRODUCTS.

The Customer may have additional rights beyond those specifically outlined in this document based on individual state laws.