

UNIVERSAL SWITCH PANEL

USP3-16-KS

USP3-8-KS

User Manual

TABLE OF CONTENTS

REVISION HISTORY	2
1. USP-KEYSERVER DESCRIPTION	3
2. GETTING STARTED.....	4
A. SET THE IP ADDRESS, SUBNET MASK, AND GATEWAY	4
B. RESET CONFIGURATION TO FACTORY DEFAULTS	6
C. FIRMWARE UPGRADES.....	6
3. SPECIFICATIONS.....	7
4. FRONT & REAR VIEWS	9
5. GPI WIRING DIAGRAM.....	10
6. GPO WIRING DIAGRAM	10
7. CONNECTOR PINOUT DIAGRAM	11
8. DNF CONTROLS LIMITED WARRANTY	12

REVISION HISTORY

112108	Original
081517	Updated for USP3.

1. USP3-KEYSERVER DESCRIPTION

The USP3-Keyserver is designed to be controlled by a 3rd party. Its Keyserver Control Protocol provides complete control over the Universal Switch Panel configuration and operation. The USP3 is configured as the server and the 3rd party is configured as the client.

The configuration and operation associated with the standard USP have removed. Also, most of the configuration web pages associated with the standard USP have been removed.

The USP3 will accept a maximum of two TCP/IP connections and 2 HTTP connections. The USP3 will supports only 100base-T speeds. The client is be responsible for initiating a connection to the USP3 and reconnecting, in the event of a loss of connection.

Each LCD keyswitch may be remotely configured with text and tally color. In the case of two clients connected to one USP3, all key presses will be directed to the client that configured the switch. In the event that two clients configure the same switch, the last received configuration command will determine the switch's configuration.

When multiple clients are connected to the USP3, both may attempt to control the same keys causing intermittent operation from the client's point of view. To prevent this from happening the following rules have been implemented:

The Client connected to Port 23 may control Keys 1 - 8 at all time. If no Client is connected to Port 24, the Port 23 Client may control Keys 1 - 16.

The Client connected to Port 24 may only control Keys 8 - 16 regardless of the Port 23 connection status.

Please refer to the Keyserver Control Protocol documentation for detailed control information.

2. GETTING STARTED.....

The Universal Switch Panel is configured using an off-the-shelf web browser such as Internet Explorer, Netscape, Fire Fox, or other commonly available browser. Using a web browser running on a computer, enter the USP's IP address to connect to the USP's web server to view and modify configuration web pages.

The default IP address is: 192.168.10.217

The default Gateway is: 0.0.0.0

The default Mask is: 255.255.255.0

Home Page

DNF
CONTROLS

USP3-16-KS **USP3-16-KS**

Home

GPI Events

GPO Actions

KeyServer Debug

Log Out

System Configuration

Label: USP3-16-KS
Serial Number: 23860
P1 Version: USP3-16-KS V2.12G
P2 Version: V1.29
Web Version: V1.14

Port 23: -
Port 24: -

IP Address: 192.168.10.232
Subnet Mask: 255.255.255.0
Gateway: 192.168.10.1
MAC: 000579805D34

TCP/IP Stack Version: v5.42

A. SET THE IP ADDRESS, SUBNET MASK, AND GATEWAY

Use the SYSTEM CONFIGURATION WEB PAGE to change the IP Address, Subnet Mask, and Gateway Address.

1) LOG ON

- a) From the Home page, click on the Log In link.
- b) Click in the User Name field and enter the user name, "dnfuser", using all lowercase letters. Do not enter the double quotes (" ").
- c) Click in the Password field and enter the password, "controls", using all lowercase letters. Do not enter the double quotes (" ").
- d) Click on the Log In button to complete the authentication (log on) process.

OR

Click on any other page button to exit without saving changes.

[Home](#)[GPI Events](#)[GPO Actions](#)[KeyServer Debug](#)[Log Out](#)[System Configuration](#)

System Configuration

[P1 Software Upgrade](#)[P2 Software Upgrade](#)[Web Upgrade](#)[Set Factory Defaults](#)Enter Label:

Enter the new IP settings below:

IP Address:	<input type="text" value="192.168.10.232"/>
Gateway:	<input type="text" value="192.168.10.1"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
	<input type="button" value="Save Config"/>

2) SET IP ADDRESS, SUBNET MASK, & GATEWAY ADDRESS

- Click in the IP Address field and enter the new IP address.
- Click in the Gateway field and enter the new Gateway.
- Click in the Subnet Mask field and enter the new Mask.
- Click on the Save button to save changes. Changes will take effect immediately after saving.

OR

Click on any other page button to exit without saving changes.

B. RESET CONFIGURATION TO FACTORY DEFAULTS

1. From the Home page, click on the System Configuration button. Log on if prompted. The System Configuration page will be displayed.
2. Click on the SET CONFIGURATION TO DEFAULTS button. The SET TO DEFAULTS page will be displayed.



Press button to set to factory defaults.

Set to Factory Defaults

3. Click on Set to Defaults, to restore the factory default settings.
OR,
Click any link to exit without changing settings.

C. FIRMWARE UPGRADES

The Universal Switch Panel is designed to allow field upgrades of its software quickly and easily through a web browser. Please follow the firmware upgrade directions provided with the software file.

3. SPECIFICATIONS

Housing Length: 1 RU, 19-inch Rack mount
 Housing Depth: 6.5 inches with Power Connector
 Housing Height: 1.75 inches
 Unit Weight: USP-8 = 5.27 lbs / USP-16 = 5.43 lbs
 Power Consumption: 16 Watts

REAR PANEL CONNECTORS				
POWER 1:	+12V DC, 3.0Amps			
POWER 2:	Optional power supply for redundant power			
RESET Switch:	Press to reset USP3			
ETHERNET:	RJ45 100baseT, Full Duplex			
S1 Switch:	Press and hold 10 seconds to reset IP address to 192.168.10.217 and configuration to factory default			
SERIAL CONNECTOR:	Pin	RS232 DTE	RS422 Controller	RS422 Device
	1	N/C	Frame Ground	Frame Ground
	2	RxD	Receive A (-)	Transmit A (-)
	3	TxD	Transmit B (+)	Receive B (+)
	4	Tied to 6	Receive Common	Receive Common
	5	Ground	N/C	N/C
	6	Tied to 4	Transmit Common	Transmit Common
	7	N/C	Receive B (+)	Transmit B (+)
	8	N/C	Transmit A (-)	Receive A (-)
	9	N/C	Frame Ground	Frame Ground

REAR PANEL CONNECTORS				
<p>GPO CONNECTOR 1-8:</p> <p style="text-align: center;">Isolated Relay Contact Closures</p> <p>To WET GPOs: Connect external power supply output to Common Bus, pin #1. Connect GPO commons to nearby Common Bus pins There is no need to connect power supply Ground to GPO connector</p>	Pin #	Description	Pin #	Description
	1	Common Bus	14	GPO 8 N.O.
	2	GPO 8 Common	15	Common Bus
	3	Common Bus	16	GPO 7 N.O.
	4	GPO 7 Common	17	GPO 6 N.O.
	5	GPO 6 Common	18	Common Bus
	6	Common Bus	19	GPO 5 N.O.
	7	GPO 5 Common	20	GPO 4 N.O.
	8	GPO 4 Common	21	Common Bus
	9	Common Bus	22	GPO 3 N.O.
	10	GPO 3 Common	23	GPO 2 N.O.
	11	GPO 2 Common	24	Common Bus
	12	Common Bus	25	GPO 1 N.O.
	13	GPO 1 Common		
<p>GPO CONNECTOR 9-16:</p> <p style="text-align: center;">Isolated Relay Contact Closures</p> <p>To WET GPOs: Connect external power supply output to Common Bus, pin #1. Connect GPO commons to nearby Common Bus pins There is no need to connect power supply Ground to GPO connector</p>	Pin #	Description	Pin #	Description
	1	Common Bus	14	GPO 16 N.O.
	2	GPO 16 Common	15	Common Bus
	3	Common Bus	16	GPO 15 N.O.
	4	GPO 15 Common	17	GPO 14 N.O.
	5	GPO 14 Common	18	Common Bus
	6	Common Bus	19	GPO 13 N.O.
	7	GPO 13 Common	20	GPO 12 N.O.
	8	GPO 12 Common	21	Common Bus
	9	Common Bus	22	GPO 11 N.O.
	10	GPO 11 Common	23	GPO 10 N.O.
	11	GPO 10 Common	24	Common Bus
	12	Common Bus	25	GPO 9 N.O.
	13	GPO 9 Common		

4. FRONT & REAR VIEWS

USP3-16



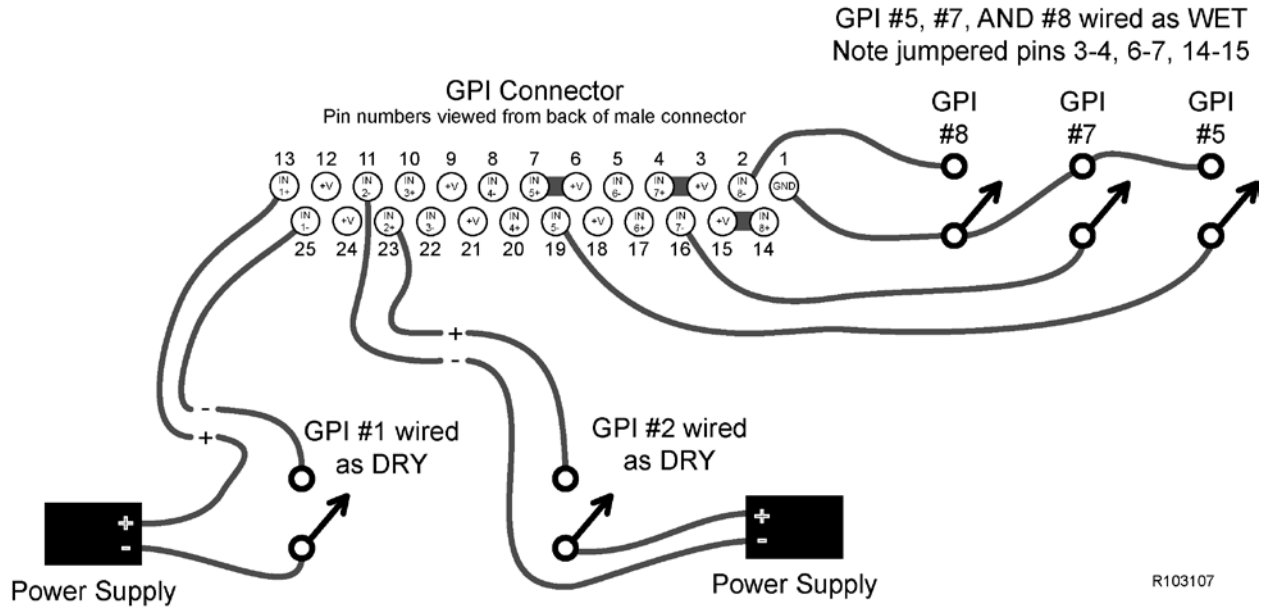
USP3-8



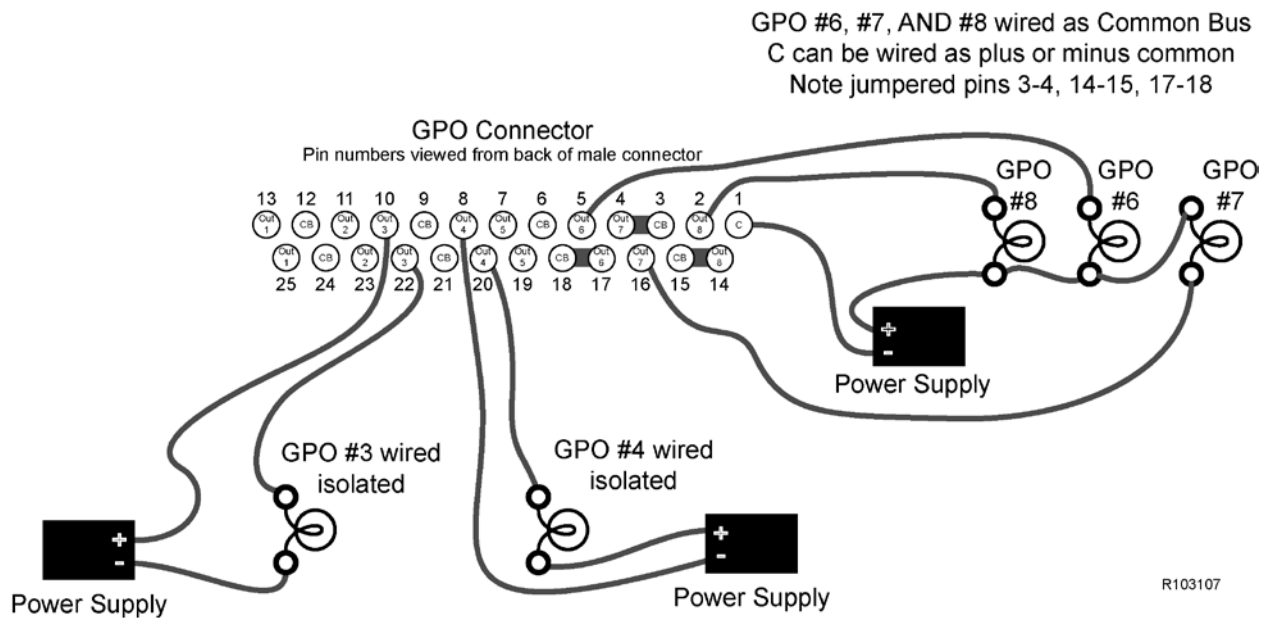
REAR VIEW



5. GPI WIRING DIAGRAM



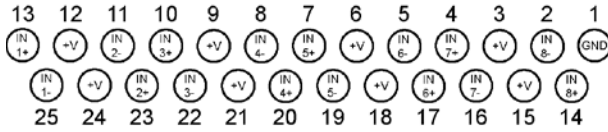
6. GPO WIRING DIAGRAM



7. CONNECTOR PINOUT DIAGRAM

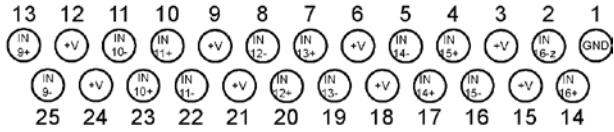
GPI Connector 1

Pin numbers viewed from back of male connector.



GPI Connector 2

Pin numbers viewed from back of male connector.



NOTE: GPI INPUTS are opto isolated.

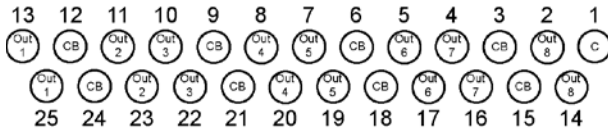
Use DRY connection when source provides power to turn on opto-isolator. Use WET connection when source provides only a path to ground.

Wet GPI: Tie the IN+ pin to the +V pin, connect to IN- and GND.

Dry GPI: Connect to IN+ and IN- pins only.

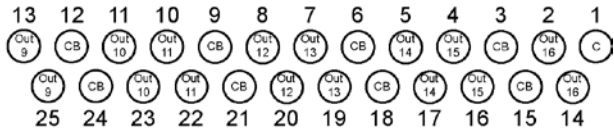
GPO Connector 1

Pin numbers viewed from back of male connector.



GPO Connector 2

Pin numbers viewed from back of male connector.



NOTE: GPO OUTPUTS are relay contact closures.

COMMON GROUND OR COMMON POWER GPO:

Tie one of the OUT pins to CB, connect C to external power or ground, use other OUT pin as GPO connection.

ISOLATED GPO: Connect only to the OUT pins.

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8. DNF CONTROLS LIMITED WARRANTY

DNF Controls warrants its product to be free from defects in material and workmanship for a period of one (1) year from the date of sale to the original purchaser from DNF Controls.

In order to enforce the rights under this warranty, the customer must first contact DNF's Customer Support Department to afford the opportunity of identifying and fixing the problem without sending the unit in for repair. If DNF's Customer Support Department cannot fix the problem, the customer will be issued a Returned Merchandise Authorization number (RMA). The customer will then ship the defective product prepaid to DNF Controls with the RMA number clearly indicated on the customer's shipping document. The merchandise is to be shipped to:

DNF Controls
19770 Bahama St.
Northridge, CA. 91324
USA

Failure to obtain a proper RMA number prior to returning the product may result in the return not being accepted, or in a charge for the required repair.

DNF Controls, at its option, will repair or replace the defective unit. DNF Controls will return the unit prepaid to the customer. The method of shipment is at the discretion of DNF Controls, principally UPS Ground for shipments within the United States of America. Shipments to international customers will be sent via air. Should a customer require the product to be returned in a more expeditious manner, the return shipment will be billed to their freight account.

This warranty will be considered null and void if accident, misuse, abuse, improper line voltage, fire, water, lightning or other acts of God damaged the product. All repair parts are to be supplied by DNF Controls, either directly or through its authorized dealer network. Similarly, any repair work not performed by either DNF Controls or its authorized dealer may void the warranty.

After the warranty period has expired, DNF Controls offers repair services at prices listed in the DNF Controls Price List. DNF Controls reserves the right to refuse repair of any unit outside the warranty period that is deemed non-repairable.

DNF Controls shall not be liable for direct, indirect, incidental, consequential or other types of damage resulting from the use of the product.

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