

ST600-KIPRO User Manual

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REVISIONS

1.00 01/24/17 Original draft.

**NOTE: KiPro Rack does not support Search to Time or Shuttle or Slomo functionality.
KiPro Ultra does not support Shuttle or Slomo functionality.**

1. GETTING STARTED

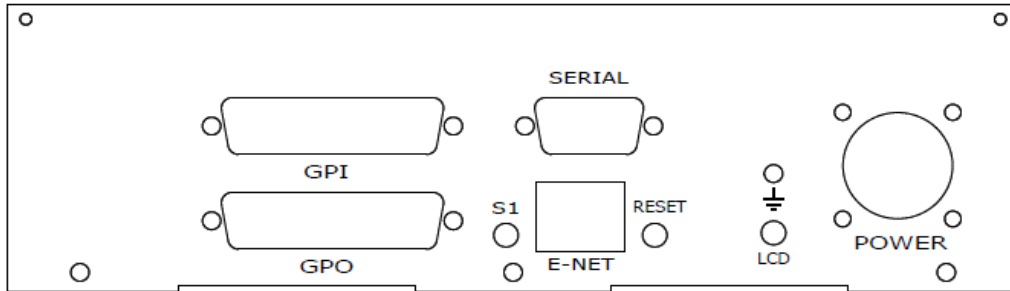
1. Go to Installation Section to set up ST600.
2. Go to System Configuration Section to set static IP address, Subnet Mask, and Gateway address.
3. Go to Remote Device Assignment Section to enter IP addresses for remote devices that ST600 will communicate with.
4. Go to System Configuration section to set default settings.

2. EQUIPMENT LIST

<u>Qty</u>	<u>Component</u>	<u>DNF Part Number</u>
1	ST600 Panel	ST600-KIPRO
1	ST600 POWER SUPPLY	included
1	POWER CORD	included

3. INSTALLATION

1. Connect supplied power supply to POWER connector
2. Connect Ethernet cable to ETHERNET connector.



Rear View

DEFAULT ETHERNET CONFIGURATION

IP Address: **192.168.10.217**
Subnet Mask: **255.255.255.0**
Gateway: **192.168.10.1**

The ST600 is configured using a standard web browser (Internet Explorer, Firefox, and Chrome). Enter the IP address in the Address/ URL bar, typically located at the top of the web browser page, to access the Home Page. Use the links on the left side of the Home Page to access the desired configuration web pages.

All configuration settings are saved in non-volatile memory in the ST600. Settings are retained when power is removed.

Settings may be uploaded to a computer as a configuration file (.dnf) for storage. Configuration files may be downloaded from a computer into the ST600 to restore a saved configuration. A configuration file contains all of the ST600's configurations except IP address, subnet mask, and gateway address. The ST600 does not support partial configuration upload or download. The configuration file is a not a text formatted file. It cannot be viewed or modified with a text editor.

To access the System Configuration web page, use the following log-on when prompted:

Username: dnfuser
Password: controls

4. SYSTEM CONFIGURATION WEB PAGE

P1 Software Upgrade:	Use this link to install the P1 upgrade file provided by DNF Controls
P2 Software Upgrade:	Use this link to install the P2 upgrade file provided by DNF Controls
Web Upgrade:	Use this link to install the Web pages upgrade file provided by DNF Controls
Save Configuration to PC:	Use this link to save the ST600 current configuration to a configuration file on a computer. The web browser will prompt for file name and directory. The file extension must be 'dnf'.
Restore Configuration from PC:	Use this link to download a configuration file from your computer to the ST600. The web browser will prompt for directory and configuration file name. The file extension must be 'dnf'.

Set Factory Defaults:	Use this link to reset all ST600 configuration settings to factory defaults. This will NOT change the IP address, subnet mask or gateway address. The ST600 will automatically reboot.
Enter Label:	Enter label to be displayed on top right of all web pages
Enter the new IP settings below:	Enter the new IP address, Gateway, and Subnet Mask. Click on "Save Config" to save the new entries. The ST600 will automatically reboot.

5. CONNECTION TO KI PRO

1. Using a Web browser, enter the IP address of the ST600-Kipro panel to access the configuration pages.
2. Select the Remote Device Assignment link located on the left hand side of the web page.
3. In the Remote Device Assignment page, create a device label for the AJA KIPRO you will be connecting to.
4. In the “Device type” column, select “KIPRO” from the dropdown menu.
5. In the “Connection type” column, select “TCP” from the dropdown menu
6. In the “Connection Mode” column, select “Client Transmit/Receive” from the dropdown menu.
7. In the “IP Address” column, enter the IP address of the Ki Pro. Next under “Port Number” set the Port number to “80”.
8. Press “Save” to save your changes.

DNF CONTROLS
ST600-KIPRO
Ki Pro#2

[Home](#)

[Remote Device Assignment](#)

[Clip List](#)

[Log Out](#)

[System Configuration](#)

Device Type= Other, this device listens on ports **50001- 50008** for TCP Server, UDP, and SNMP communication.

Remote Device 1: 50001
 Remote Device 2: 50002
 Remote Device 3: 50003
 Remote Device 4: 50004
 Remote Device 5: 50005
 Remote Device 6: 50006
 Remote Device 7: 50007
 Remote Device 8: 50008

For UDP and SNMP transmits, the source port number is the same as the listen port number.

Device Type= USP, GTP-32/DC20, or PKM
 This device listens on port 161 and transmits using source port number 161.

Communication Error= 3 missed Heartbeat or Comm Time Periods

[Refresh](#)

REMOTE DEVICE LIST										
Device #	Remote Device Label	Device Type	Primary / Backup Pair	Connection Type	Connection Mode	UDP Attempts	IP Addresss	Port Number	Heartbeat/ Comm Period (seconds)	Connection Status
1	AJA	KiPro ▼		TCP ▼	Client Transmit/Receive ▼		192.168.10.200	80		Connected
2	Remote Device 2	KiPro ▼		TCP ▼	Client Transmit/Receive ▼		0.0.0.0	0		-----
3	Remote Device 3	KiPro ▼		TCP ▼	Client Transmit/Receive ▼		0.0.0.0	0		-----
4	Remote Device 4	KiPro ▼		TCP ▼	Client Transmit/Receive ▼		0.0.0.0	0		-----
5	Remote Device 5						192.168.10.200	80		-----
6	Remote Device 6						0.0.0.0	0		-----
7	Remote Device 7						0.0.0.0	0		-----
8	Remote Device 8						0.0.0.0	0		-----

6. OPERATION

LCD DISPLAY

During normal operation, the top row of the display shows the selected time mode and current time location of the selected Ki Pro.

For example: 01:12:09:23

Second Row shows name of loaded clip.

For example: Clip: SC1TK47

TRANSPORT CONTROL

Select the desired transport function by pressing the appropriate key. The Real-Time Status Indicators will light to indicate the DDR's current transport mode.

See Function Table (Pg 12) for a full list of functions and a description of each function.

CREATE AND RECORD CLIP FROM WEB PAGE

1. Using a Web browser, enter the IP address of the ST600-Kipro panel to access the configuration pages.
2. Select the Clip List link located on the left hand side of the web page.
3. In the Clip list page, create a new clip in the following window:

CREATE NEW CLIP (KiPro will append "_1" to clip) Do not enter file extension ".mov". Do not use underscore, '_', in clip name.	
New Clip Name:	<input type="text"/>
CREATE & RECORD	

4. Press the "Create and Record" button to create the desired clip and to begin the recording.

LOAD CLIP FROM WEB PAGE

1. Using a Web browser, enter the IP address of the ST600-Kipro panel to access the configuration pages.
2. Select the Clip List link located on the left hand side of the web page.
3. In the Clip list page, select the desired clip to load and select the LOAD button under the Load Clip column.

Your clip will now be loaded and ready to play.

LOAD A CLIP FROM ST600-KIPRO

1. Press [**SHIFT/ESC**] + [**LOAD**] to set the ST600-KiPRO into a “LOAD” mode.
2. Once in “LOAD” mode, use numeric keys 0-9 of the panel (yellow silkscreen) to call up the desired clip number
3. After the numeric clip ID is entered, Press [**LOAD**] key to execute the load.

Your clip will now be loaded and ready to play.

CUE POINTS

1. Press the [**MARK**] key to mark the Ki Pro’s current time into the selected cue point #.
2. Use [**↑**] or [**↓**] to step through marked cue points.
3. Press the [**LOAD**] key to load the currently selected cue point.

7. CLIP LIST WEB PAGE



Home

Channel: 3

Remote Device Assignment

Currently Loaded Clip: 1.mov

(Also displayed in YELLOW in table below.)

Clip List

S:1, C: 1352

Log Out

System Configuration

CREATE NEW CLIP (KiPro will append "_1" to clip)
 Do not enter file extension ".mov".
 Do not use underscore, '_', in clip name.

New Clip Name:

CREATE & RECORD

[Refresh](#)

AJA KIPRO CLIP LIST			
Line	Clip Name	Duration	Load Clip
1	1.mov	00:00:40:25	<input type="button" value="LOAD"/>
2	111.mov	00:01:25:29	<input type="button" value="LOAD"/>
3	2.mov	00:01:02:17	<input type="button" value="LOAD"/>
4	222.mov	00:00:45:29	<input type="button" value="LOAD"/>
5	333.mov	00:00:36:24	<input type="button" value="LOAD"/>

[Refresh](#)

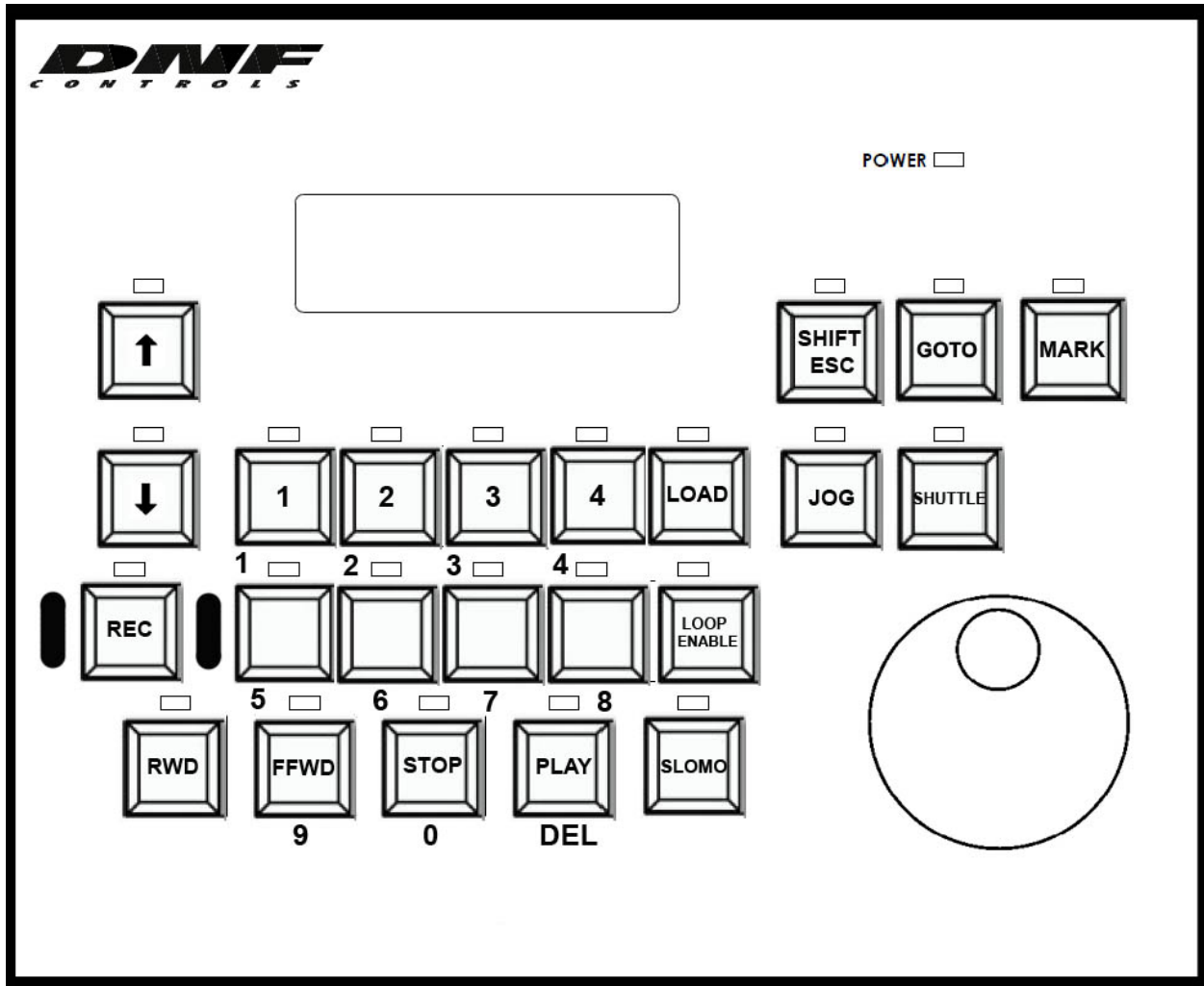
Load Clip For Play	Choose from the list of Clips and simply press "LOAD". Clip will load and show time and name of loaded clip on ST600 LCD display.
Create Clip for Record	Type in name you wish to create for your clip and click on "Create & Record" on ST600 Clip List web page to create the desired clip. <p style="text-align: center;"><i>*Record will start once "Create & Record" is pressed on web page or when Record key is pressed on the ST600</i></p>

8. Function table

Function	Key Press	Description
JOG	[JOG]	Select JOG mode and enable the Wheel.
MARK CUE POINT	[MARK]	Save the current time in the currently displayed Cue Point. Mark only affects currently selected DDR. Cue points are save in non-volatile memory. *Marking a cue point in gang mode only affects the Master (Blinking LED) Ki-Pro DDR channel. All other channels in gang will not be marked.
RECORD	[REC]	Creates new clip and places Ki Pro into record
REWIND	[RWD]	Press RWD to Rewind Clip * Note - pressing RWD more than once will put into the following Reverse speeds: 1 st press= 2X speed 2 nd press= 4X speed 3 rd press= 8X speed 4 th press= 16X speed
Fast Forward	[FFWD]	Press FFWD to Fast Forward Clip * Note - pressing FFWD more than once will put into the following Reverse speeds: 1 st press= 2X speed 2 nd press= 4X speed 3 rd press= 8X speed 4 th press= 16X speed
SLOMO	[SLOMO]	Not supported by Ki Pro
STOP	[STOP]	Press once to stop clip transport or exit record
Enter Search Time mode	[GOTO]	Search the Ki Pro to a specific time To enter a GOTO location without altering the contents of the Cue Point, Press [SHIFT/ESC] + [GO TO]. Enter the desired timecode using the designated keys with yellow silkscreen. Press [GOTO] to search to the entered time. Press [SHIFT/ESC] to exit without searching.
PLAY	[PLAY]	Press PLAY key to start transport
SHIFT/ESC	[SHIFT/ESC]	Pressing key will exit out of search time mode
Select Ki Pro For control	[1], [2], [3], [4]	Select which Ki Pro to control by pressing either [1], [2], [3] or [4]. Red LED will indicate which Ki Pro is currently being controlled

EE Mode	[STOP]	Pressing "STOP" key twice will put AJA Ki Pro into EE
Select a Cue Point	[UP ARROW] ↑ Or [DOWN ARROW] ↓	Press either [↑] or [↓] to step through the Cue Points. Once desired cue point is shown on ST600 LCD, press the [GOTO] key <i>*Maximum of 20 cue points per Ki Pro</i>

9. KEY LAYOUT



10. SPECIFICATIONS

Note: Serial and GPI/O connection are not supported at this time.

REAR PANEL CONNECTORS																																												
POWER 1:		+12V DC, 3.33Amps (Max)																																										
RESET Switch:		Press to reset ST600-KIPRO																																										
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:		<table border="1"> <thead> <tr> <th>Pin</th> <th>RS232 DTE</th> <th>RS422 Controller</th> <th>RS422 Device</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N/C</td> <td>Frame Ground</td> <td>Frame Ground</td> </tr> <tr> <td>2</td> <td>RxD</td> <td>Receive A (-)</td> <td>Transmit A (-)</td> </tr> <tr> <td>3</td> <td>TxD</td> <td>Transmit B (+)</td> <td>Receive B (+)</td> </tr> <tr> <td>4</td> <td>Tied to 6</td> <td>Receive Common</td> <td>Receive Common</td> </tr> <tr> <td>5</td> <td>Ground</td> <td>N/C</td> <td>N/C</td> </tr> <tr> <td>6</td> <td>Tied to 4</td> <td>Transmit Common</td> <td>Transmit Common</td> </tr> <tr> <td>7</td> <td>N/C</td> <td>Receive B (+)</td> <td>Transmit B (+)</td> </tr> <tr> <td>8</td> <td>N/C</td> <td>Transmit A (-)</td> <td>Receive A (-)</td> </tr> <tr> <td>9</td> <td>N/C</td> <td>Frame Ground</td> <td>Frame Ground</td> </tr> </tbody> </table>			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
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REAR PANEL DB25 CONNECTORS																																																									
<p>GPI CONNECTOR 1-8: Opto-isolator Inputs</p> <p>NOTE: GPI (+) is opto-isolator anode GPI (-) is opto-isolator cathode</p> <p>To WET GPIs: Connect GPI + to nearby +V pin. Connect GPI - to Ground to turn on GPI.</p>	<table border="1"> <thead> <tr> <th>Pin #</th> <th>Description</th> <th>Pin #</th> <th>Description</th> </tr> </thead> <tbody> <tr><td>1</td><td>Ground</td><td>14</td><td>GPI 8 +</td></tr> <tr><td>2</td><td>GPI 8 -</td><td>15</td><td>+V</td></tr> <tr><td>3</td><td>+V</td><td>16</td><td>GPI 7 -</td></tr> <tr><td>4</td><td>GPI 7 +</td><td>17</td><td>GPI 6 +</td></tr> <tr><td>5</td><td>GPI 6 -</td><td>18</td><td>+V</td></tr> <tr><td>6</td><td>+V</td><td>19</td><td>GPI 5 -</td></tr> <tr><td>7</td><td>GPI 5 +</td><td>20</td><td>GPI 4 +</td></tr> <tr><td>8</td><td>GPI 4 -</td><td>21</td><td>+V</td></tr> <tr><td>9</td><td>+V</td><td>22</td><td>GPI 3 -</td></tr> <tr><td>10</td><td>GPI 3 +</td><td>23</td><td>GPI 2 +</td></tr> <tr><td>11</td><td>GPI 2 -</td><td>24</td><td>+V</td></tr> <tr><td>12</td><td>+V</td><td>25</td><td>GPI 1 -</td></tr> <tr><td>13</td><td>GPI 1 +</td><td></td><td></td></tr> </tbody> </table>	Pin #	Description	Pin #	Description	1	Ground	14	GPI 8 +	2	GPI 8 -	15	+V	3	+V	16	GPI 7 -	4	GPI 7 +	17	GPI 6 +	5	GPI 6 -	18	+V	6	+V	19	GPI 5 -	7	GPI 5 +	20	GPI 4 +	8	GPI 4 -	21	+V	9	+V	22	GPI 3 -	10	GPI 3 +	23	GPI 2 +	11	GPI 2 -	24	+V	12	+V	25	GPI 1 -	13	GPI 1 +		
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11. 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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