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Model 3040P-L/ 3040P-L-LT

Playlist Playout System

for

Louth Protocol

User Manual

Rev 3.82

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I. REVISION HISTORY

100803	Rev. 3.1	Company header information revised.
112103	Rev. 3.2	Added DNF Controls Limited Warranty.
120803	Rev. 3.3	Added Time Mode (RT/LT) selection and Insert Fast function.
011904	Rev. 3.4	Revised operational practices to reflect software changes in VIDEO SERVER SETUP and PLAYLIST EDIT SCREEN sections.
101304	Rev. 3.5	Added Disk Preroll Update Setup Menu Option.
122004	Rev. 3.6	Added 3040P Playlist Transfer Tool
031805	Rev. 3.7	Added –LT Functions.
112105	Rev. 3.8	Update Screen Shots
030606	Rev. 3.81	Minor corrections.
002707	Rev. 3.82	Added SP2 pins 7&8 warning.

Getting Started

II. DESCRIPTION

The 3040P-L Playlist Playout System consists of the ST400 with a large LCD display and Playlist software. The Playlist is stored in non-volatile memory in the ST400.

The 3040P-L is ideal as an On-Air Automation System backup as it doesn't need a separate video output; simply connect the 3040P-L to the video server. The 3040P-L supports 2000 elements, which means there can be up to 50 playlists of 40 clips each or one list with 2000 elements. The 3040PL-LT List Transfer supports 5 lists x 400 elements.

Scroll the list of available clips in the video server. Build a stack of clips for individual playout or list playout. While a playlist is playing, insert new clips into the list or delete unwanted clips. Set the start time for each clip to play from.

Definitions

Words surrounded by brackets in bold type, **[ENTER]**, are keys on the ST400.

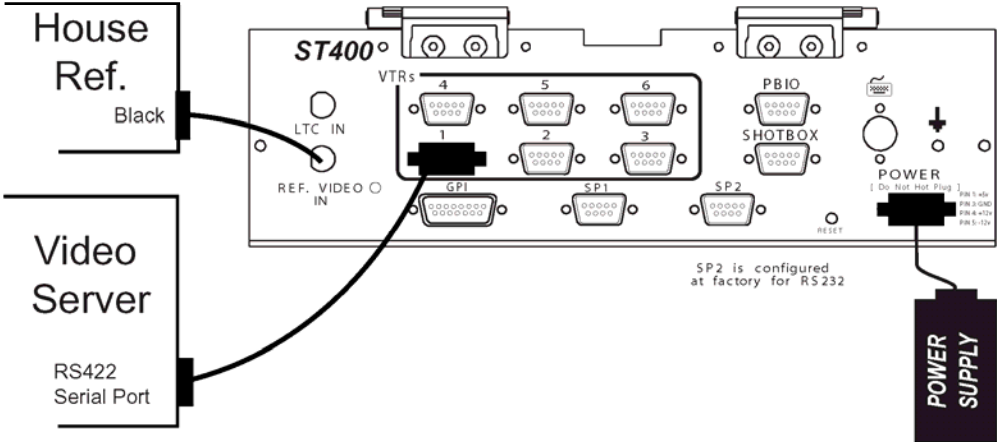
Words surrounded by brackets in bold italic type, ***{LOAD}***, are softkeys on the ST400.

[XXX] + [XXX] means hold the two keys down simultaneously.

III. INSTALLATION

- A. Plug one end of a 9-conductor, RS422 serial cable into the VTR 1 (2,3,4,5) connector on the rear of the ST400. (NOTE: VTR6 is for CAPTURE only.)
- B. Plug the other end of the cable into the REMOTE connector on the Video Server.
- C. Connect Video Reference (Black Video) to the REF VIDEO connector on the rear of the ST400.
- D. Plug the power supply into an outlet, 90 VAC to 240 VAC.

E. Connection Diagram



IV. VIDEO SERVER SETUP

Select "Louth" Protocol on the video server.

Check the other options in the SETUP MENU prior to using the ST400 to set the Louth Port Address. Confirm proper Video Standard mode and other User settable modes.

NOTE: If the video server supports 32-character CLIP IDs and you would like to add their ID's to the list, Extended IDs have to be turned ON in the menu (see SETUP MENU section). Otherwise, you will be limited to 8-character CLIP IDs.

Set the Play Preroll value for every channel. The default value is 5 frames. For Sony MAV-70 use 72 frames. For Profile Video Disk Family, use 40 frames.

Set Disk Preroll Update to ON or OFF, depending on the server controlled. (See Setup Menu.)

The default setting is OFF. For most servers, set it to ON.

For "Seachange" and "360 Systems" servers, set Disk Preroll Update to OFF.

V. PLAYLIST MAIN SCREEN

NOTE: The list screen will be displayed after a list has been loaded on selected channel.

RT: Magnified Countdown time

PL: Playlist number, location in list and name of Clip currently playing

TM START: Current clip's start time

TM DURATION: Current clip's duration

CLIP NAME, START and DURATION: Current Playlist information
(Diamond indicates first clip in Playlist; squares are spaced every 5 clips.)

RT 00:00:02;29		LIST
PL:05 0007/0009		
LASTWORD		
TM START:	07:00:08:00	
TM DURATION:	00:00:04:00	
CLIP NAME	START	DURATION
GOLFSHOT	◆00:00:00:00◆	00:00:04:00
GOLFOPEN	00:00:04:19	00:00:09:00
10COUNT	00:00:15:00	00:01:00:00
90240	00:01:10:00	00:03:30:00
LadyBB	■00:01:34:17■	00:00:15:00
JEFF	04:00:15:00	00:00:06:19
LAST WORD	07:00:08:00	00:00:04:00
Martin	09:00:00:22	00:00:02:20
PULP	21:00:00:05	00:00:05:00
SKIP	TOP	CUE LOAD UNLOAD EDIT

{SKIP} jumps to the next clip in the list and keeps playing (enabled in PLAY mode only).

{TOP} cues to the top of the list.

{CUE} cues the current clip to its IN time.

{LOAD} selects a Playlist and cues up the first clip.

{UNLOAD} unloads the current Playlist.

NOTE: Playlists are automatically saved.

Playlist is not lost when it is unloaded.

{EDIT} opens the PLAYLIST EDIT screen.

VI. PLAYLIST EDIT SCREEN

NOTE: A list must be loaded for the selected channel (see load instructions for main screen, Section VII). Press edit on list screen.

PLAYLIST: Shows the current playlist; ready to be edited with the currently selected clip highlighted.

CLIP LIST: Shows the list of clips that exist on the video server

RT 00:00:02;29		EDIT	
PL:05 0001/009 GOLFSHOT TM START: 00:00:00:00 TM DURATION: 00:00:04:00		0007/0009 LASTWORD STR 07:00:08:00 DUR 00:00:04:00	
CLIPLIST		PLAYLIST	
TURN WHEEL TO VIEW CLIPS		▶GOLFSHOT	
GOLFSHOT		GOLFOPEN	
MOVIES		10CONT	
Hockey		90240	
BASKETBALL		■LadyBB	
JEFF		JEFF	
PULP		LASTWORD	
Martin		Martin	
LASTWORD		PULP	
LONGCELEB			
MOVIES-II			
GOLFOPEN			
LadyBB			
CLIPLIST ADD INSERT DEL AddFAST EDIT			

There are two ways to select a clip to add/insert into a list:

*Turn the wheel to position the highlight bar at the desired clip.

*Type in a clip name using numeric keypad or PC keyboard.

{CLIPLST} selects the clip list for cliplist selection. **{PLAYLST}** selects the playlist for playlist editing.

{ADD} adds the current cliplist clip to the playlist.

[ALT] + {ADD} adds a break to the playlist.

{INSERT} inserts the current cliplist clip at the position of the highlight bar in the playlist.

[ALT] + {INSERT} inserts a break above the position of the highlight bar in the playlist.

{DEL} deletes the currently highlighted clip in the playlist.

[ALT] + {DEL} deletes the entire playlist.

{EDIT} (with the PLAYLIST selected) allows editing of the highlighted playlist clip's start time and duration.

{AddFAST} adds the whole clip to the end of the list without prompting for start time and duration.

[ALT] + {AddFAST} inserts the whole clip above the position of the highlight bar in the playlist.

NOTE: THE CURRENT PLAYOUT CLIP CANNOT BE EDITED WHILE BEING PLAYED.

VII. PLAYLIST FUNCTIONS

A. Create A Playlist

1. Press **{LOAD}** to load a list.
Select an empty list. Press **[ENTER]** to get to the playlist screen.
2. Press **{EDIT}** to enter EDIT mode.
3. Turn the Wheel clockwise to scroll forward, or counterclockwise to scroll backward, through the list of available CLIP IDs.
OR
Enter the described clip name using numeric or PC keyboard.
4. When the desired CLIP ID is highlighted, press **{ADD}** to add the clip to the PLAYLIST.
OR
Press **{AddFAST}** to add the whole clip to the playlist.
5. If **{ADD}** was pressed in Step 4, the screen now displays "Enter Start Time."
Press **[ENTER]** to accept the default start time (00:00:00:00).
OR
Enter the start time with the numeric keypad and press **[ENTER]**.
6. If **{ADD}** was pressed in step 4, the screen now displays "Enter Duration."
Enter the duration with the numeric keypad and press **[ENTER]**.
NOTE: A duration of less than 3 seconds will NOT be accepted.
7. To add additional clips, in order, to the PLAYLIST, repeat steps 3 through 6.

B. Insert Clips Into An Existing Playlist

1. Press **{LOAD}** and select a list to edit. Then press **[ENTER]**.
2. Press **{EDIT}** to get to the PLAYLIST EDIT SCREEN.
3. Press **{PLAYLIST}** to move the highlight bar back to the PLAYLIST.
4. Turn the Wheel to move the highlight bar on the PLAYLIST to the clip above which the new clip will be inserted.
5. Press **{CLIPLIST}**, turn the Wheel clockwise to scroll forward, or counterclockwise to scroll backward, through the list of available CLIP IDs. When the desired CLIP ID is displayed, press **{INSERT}**.

OR

Enter desired CLIP ID using numeric keypad or PC keyboard. Then, press **[ENTER]**.

6. The screen now displays "Enter Start Time."
Press **[ENTER]** to accept the default start time (00:00:00:00).
OR
Enter the start time with the numeric keypad and press **[ENTER]**.
7. The screen now displays "Enter Duration."
Enter the duration with the numeric keypad and press **[ENTER]**.
8. To insert additional clips to the PLAYLIST, repeat steps 4 through 7.

C. Play the Playlist

(Press **[ESC]** to move from the Edit Screen to the Playlist Main Screen.)

1. Press **{TOP}** to cue the PLAYLIST to the beginning.
2. Press **[PLAY]** to play the PLAYLIST.
3. The next clip will load into the preview position.
4. The list will play continuously until a break or the end of the list is reached.
5. **[JOG]**, **[SHUTTLE]**, **[SLO-MO]**, **[RWD]** and **[FFWD]** functions are not available while viewing the PLAYLIST. The playlist must be stopped first.
6. To move to the clips farther down in the PLAYLIST, press **{SKIP}**. (**{SKIP}** is only enabled during PLAY mode.)

D. Abort Playing A Playlist

Press **[STOP]** to abort a PLAYLIST sequence.

E. Recue A Clip

1. Press **{CUE}** to position the clip to the head.
OR
2. Press **{TOP}** to position the PLAYLIST to the beginning.
OR
3. Press **[LAST]** to recue to the previous clip.
OR
4. Press **[NEXT]** to move down one clip on the PLAYLIST.

F. To Load A List From Memory

1. Press **{LOAD}**.
2. Enter the list number to be loaded, from 1-50.
3. Press **[ENTER]** to load and cue the selected list.
OR
4. Press **[ESC]** to abort.

G. Unload the List

Press **{UNLOAD}**.

The display shows "CLIP" in the upper righthand corner to indicate that 3040P-L is in the individual clip playout mode.

VIII. COUNTDOWN DISPLAY MODES

Press **[TME MODE]** to toggle between a single element countdown (RT) or a total list countdown (LT) mode.

The modes can only be switched if a list is loaded on a channel. In the single clip playout mode, only elapsed time (ET) is displayed.

IX. INDIVIDUAL CLIP PLAYOUT

- A. Unload the list by pressing **{UNLOAD}** softkey.
- B. Press **{EDIT}**.
- C. Turn the wheel to position the highlight bar at the desired clip.
OR
Type in a clip name using numeric keypad or PC keyboard.
- D. Press **{LOAD}** or **[ENTER]**.
The selected clip is loaded.

The display shows Elapsed Time (ET) of the clip when a single clip is loaded.

X. SEARCH TO TIMECODE

When the list is stopped or the individual clip is loaded, it is possible to position the clip to the specific timecode.

- A. Press **[RECUE]** key.
- B. Enter time using numeric keypad.
- C. Press **[ENTER]** or **[RECUE]**.
The clip is reloaded with the entered timecode or its start timecode.

XI. RECORD A CLIP

- A. Unload a list from a channel by pressing **{UNLOAD}** softkey.
- B. Select a vtr that has been configured as an Input Louth Port (see Menu).
- C. Press **[SHIFT] + [REC]**.
The display prompts to enter the clip name or accept the default name.
- D. Enter the name using numeric keypad or PC keyboard if desired.
- E. Press **[ENTER]**.
- F. The display shows default record duration.
- G. Modify the record duration if desired.
- H. Press **[ENTER]**. The clip gets created.
- I. Press **[REC]** to record the clip.

XII.CAPTURE

This function allows clips to be recorded on the Video Server using an external device for video input (SOURCE) and VTR6 on the 3040P-L to control that device.

NOTE: Basic Transport functions are supported on VTR6 to control a Tape Recorder.

Press VTR [6] to initiate the Capture function.

TM 00:00:02;29	TAPE
DESTINATION: VTR 1 IN: 00:00:00:00 OUT: 00:00:10:00 DUR: 00:00:10:00	
* CLIP0003 *	
* NUM CAPS *	
* Enter/edit Destination Clip *	
* Use numeric or PC keyboard *	
* or NEXT/LAST keys and wheel *	
* ENTER - SAVE, ESC - CANCEL *	
IN	OUT DEST CAPTURE

{IN} Sets the current location on the SOURCE as the IN point.
[SHIFT] + {IN} Manually enter the IN point using a numeric keypad.

{OUT} Sets the current location on the SOURCE as the OUT point.
[SHIFT] + {OUT} Manually enter the OUT point using a numeric keypad.

{DEST} Select VTR **[1]**, **[2]**, **[3]**, **[4]** or **[5]** for the record location.
(VTR must be configured as an input port).

{CAPTURE} After entering the IN, OUT and DESTINATION information, press this softkey. The screen shown above will be displayed; enter the CLIP ID (maximum of 8 characters or 32 characters, if Extended IDs are on).

When **[ENTER]** is pressed, the SOURCE VTR will go to the PREROLL VALUE that has been assigned and the DESTINATION VTR (on the Video Server) will go into record.

NOTE: If a Playlist is loaded when trying to CAPTURE, a warning message to unload lists will be displayed.

XIII. PLAYLIST TRANSFER TOOL (-LT ONLY)

The 3040P Playlist Transfer Tool is an option for the 3040P-L-LT Playlist Playout Controller that provides the ability to transfer a playlist from a computer into the 3040P over a serial connection. The playlist may be transferred from a computer into List 1, List 2, List 3, List 4, or List 5 on the 3040P.

Playlist transfer from a computer to the 3040P requires special software on the 3040P and a special software application for the computer called "3040P Playlist Transfer Tool". To verify that the 3040P supports playlist transfers, press the MENU key to view the product model number in the upper right-hand corner of the display. It should show "3040P-L-LT" as the model number.

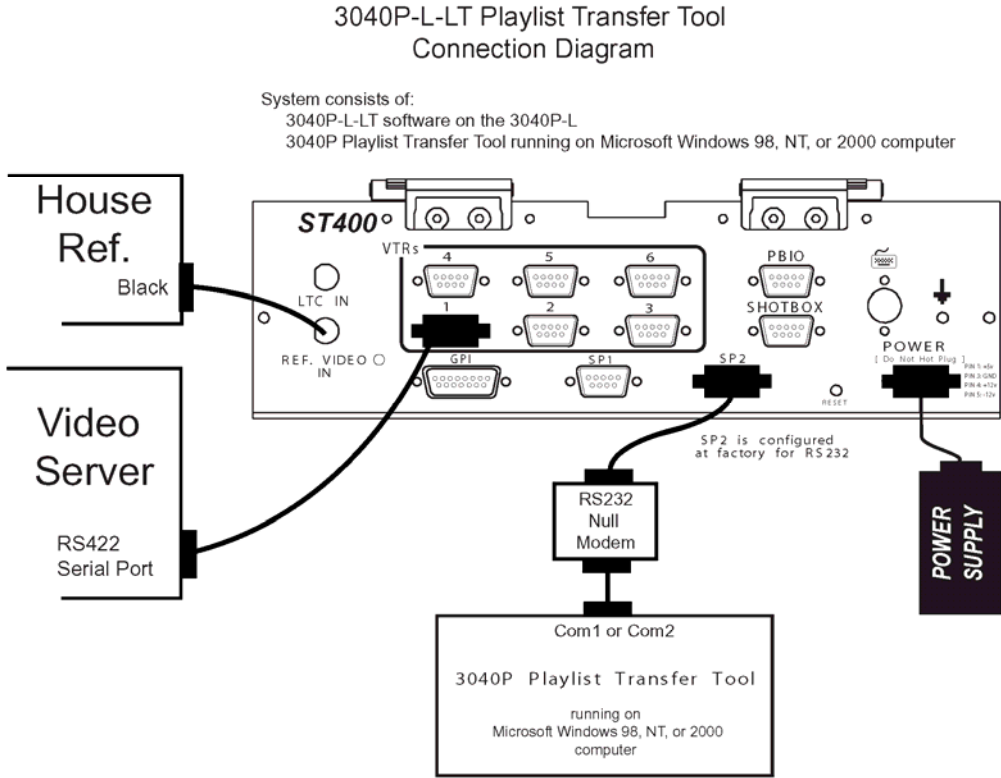
The Windows based "3040P Playlist Transfer Tool" is available from DNF Controls. Follow the installation instructions provided with this software.

All playlist transfers are initiated from the computer using the "3040P Playlist Transfer Tool" connected to the 3040P over a serial connection. The 3040P will accept a playlist from the computer only when all channels are stopped. If any channel is playing out a list, the 3040P will NOT allow a playlist transfer.

Refer to the "3040P Playlist Transfer Tool_TextFiles.pdf" document for instructions to create a playlist using a text editor.

A. Computer To 3040P Connection

Connect the computer running the "3040P Playlist Transfer Tool" to the 3040P-L as follows:



B. Operation

1. Launch the 3040P Playlist Transfer Tool on the computer.
2. Using the mouse, click on the "LTP PORT" to drop down a com port selection menu.
3. Click on the com port that is connected to the 3040P.
NOTE: The LTP Waiting to Communicate indicator will turn GREEN during playlist transfer to show communication between the computer and 3040P.
4. Click on the TRANSMIT button. A file selection dialog box will be displayed.
5. Select a file from any directory on the computer, then click on OPEN. A VIEW LIST button, and LIST 1 – 5 buttons will be displayed.
6. Click on VIEW LIST to view the playlist prior to transferring.
OR
Click on LIST #1 to transfer the list into playlist #1 on the 3040P.
OR
Click on LIST #2 through #5 to transfer the list into playlist #2 through #5, respectively, on the 3040P.
OR
Click on ABORT to abort the transfer process and return to the main screen.

7. If LIST #1, #2, #3, #4, or #5 is selected, the playlist transfer process will begin automatically and immediately. No action is required on the 3040P. If any 3040P channel is in PLAY, the transfer process will abort and an error message will be displayed on the computer.

The "LTP Waiting to Communicate indicator" will turn GREEN when the transfer process begins to show communication between the computer and 3040P.

The Transfer Progress bar will show the transfer status.

Shown on the 3040P display:

"List Transfer	"
" Downloading List xx	" where xx = playlist number on 3040 P, 1 → 5
" From file: nnnnnnnn.nnn	" where nnnnnnnn.nnn is the file name on the computer
"Receiving yyy of zzz elements "	where zzz = total number of playlist elements to transfer yyy = current playlist element being transferred

When the transfer has successfully completed, "LIST TRANSFER SUCCESSFUL" will be displayed on the 3040P's screen. Otherwise, an error message will be displayed on the 3040P's screen.

Reference

XIV. SETUP MENU

- A. Press **[MENU]**.
- B. Use wheel to highlight desired option.
- C. Press **{CHANGE}** to modify option.
- D. Make selection.
- E. Press **{BACK}** to return to Menu.
- F. Press **[ESC]** to abort change.

RT 00:00:02;29	MENU
PL:05 0007/0009 LASTWORD TM START: 07:00:08:00 TM DURATION: 00:00:04:00	Model: 3040P-L-LT Software Ver: V5.10 111505
LOUTH PORT: 01 LIST MAPPING: 05 Lists x 0400 Elements STANDARD: NTSC WIND SPEED & MODE: +3.9 HOLD PREROLL VALUE: 00:00:05:00 RECORD DELAY: 03 Frames DEFAULT RECORD: 01:00:00:00 EXTENDED IDS: ON PLAY PREROLL: 05 Frames DISK PREROLL UPDATE: OFF	
Turn the wheel to select a menu option, then press CHANGE softkey to modify it	
SERVICE	CHANGE EXIT

LOUTH PORT	<p>Enter the controlled channel's Louth port number (1 - 9) on the numeric keypad. Then press the {INPUT} or {OUTPUT} softkey. An INPUT is indicated by '-' before the port number.</p> <p>To CAPTURE (RECORD) clips, an INPUT channel must be selected. To playout lists, an OUTPUT channel must be selected.</p> <p>Enter '0', to turn off the port.</p>
LIST MAPPING	<p>For 3040P-L, enter the number of lists desired using a numeric keypad; the number of elements will be automatically computed. (There will be a warning message to unload all lists, if there are lists loaded.) For 3040P-L-LT, List Mapping is fixed to 5x400.</p>
STANDARD	{NTSC} or {DF} or {PAL} .
WIND SPEED	<p>{HOLD} (Fast wind is maintained only while key is depressed.) OR</p> <p>{LATCH} (Fast wind is initiated and maintained with momentary key press.)</p> <p>{SPEED} Press the softkey to change the speed setting (3.9, 6.0, 8.1, 10.0, 23.7).</p>
PREROLL VALUE	Enter any number using a numeric keypad, then press {OK} or [ENTER] .
RECORD DELAY	Enter a number, up to 99, using a numeric keypad, then press {OK} or [ENTER] .
DEFAULT RECORD	Enter any number using a numeric keypad, then press {OK} or [ENTER] .
EXTENDED IDs	<p>{ON} – Allow up to 32-character CLIP IDs. {OFF} – Allow up to 8-character CLIP IDs.</p>
PLAY PREROLL	Enter the number of frames (up to 75) that a Play command has to be sent to the device prior to the clip starting to play. For most servers, set it to 5 frames. For Sony MAV-70, set it to 72 frames. For GVG servers set it to 40 frames. Then press [ENTER] to confirm selection.

**DISK PREROLL
UPDATE**

{ON} – Send the Play Preroll information to the server.
{OFF} – Do not send Play Preroll information to the server; keep it locally on the 3040P-L
For most servers, set it to ON.
For Seachange and 360 Systems servers, set it to OFF.

{SERVICE}

To set factory defaults (**{DEFAULTS}**), then press **[ENTER]** to confirm selection.
OR

Clear all playlists (**{CLEANUP}**), then press **[ENTER]** to confirm selection.

XV. SPECIFICATIONS

Power:	90 VAC to 265 VAC adapter supplied with IEC connector		
Size:	[L" x W" x H"] 12 3/4" x 8" x 1 3/4" (front) 3 5/8" (rear) [8 5/8" high to top of display]		
Weight:	10 lbs.		
Rear Panel Connectors:	VTR1, 2, 3, 4, 5, 6	(All DB9F)	
	GPI	(DBF26F)	
	Power	(DB9M)	
	SHOTBOX	(DB9F)	
	PBIO	(DB9F)	
	Keyboard	(6-pin mini DIN)	
	Ref. Video In	(BNC)	
	Ground		Threaded stud.
Display:	Easy to read, back-lit LCD display		
Jog/Shuttle Wheel:	With mechanical detents		

RS422 SERIAL CONNECTOR 9-Pin D-Type, Female (DB9F)

Pin #	1	Frame Ground	6	Receive Common
	2	Receive A ←	7	Receive B ←
	3	Transmit B →	8	Transmit A →
	4	Transmit Common	9	Frame Ground
	5	Spare		

POWER CONNECTOR 9-Pin D-Type, Female (DB9M)

Pin #	1	+5v DC	6	+5 VDC
	2	+5v DC	7	Ground
	3	Ground	8	Ground
	4	+12 VDC	9	Ground
	5	-12 VDC		

SHOTBOX RS422 SERIAL CONNECTOR 9-Pin D-Type, Female (DB9F)

Pin #	1	Frame Ground	6	Receive Common
	2	Receive A ←	7	Receive B ←
	3	Transmit B →	8	Transmit A →
	4	Transmit Common	9	Frame Ground
	5	None		

**PBIO RS422 SERIAL CONNECTOR
9-Pin D-Type, Female (DB9F)**

Pin #	1	Frame Ground	6	Receive Common
	2	Transmit A →	7	Transmit B →
	3	Receive B ←	8	Receive A ←
	4	Transmit Common	9	Frame Ground
	5	Spare		

**SP2 RS232 SERIAL CONNECTOR
9-Pin D-Type, Female (DB9F)**

NOTE: Do not use pins 7 or 8. They are used for internal functions

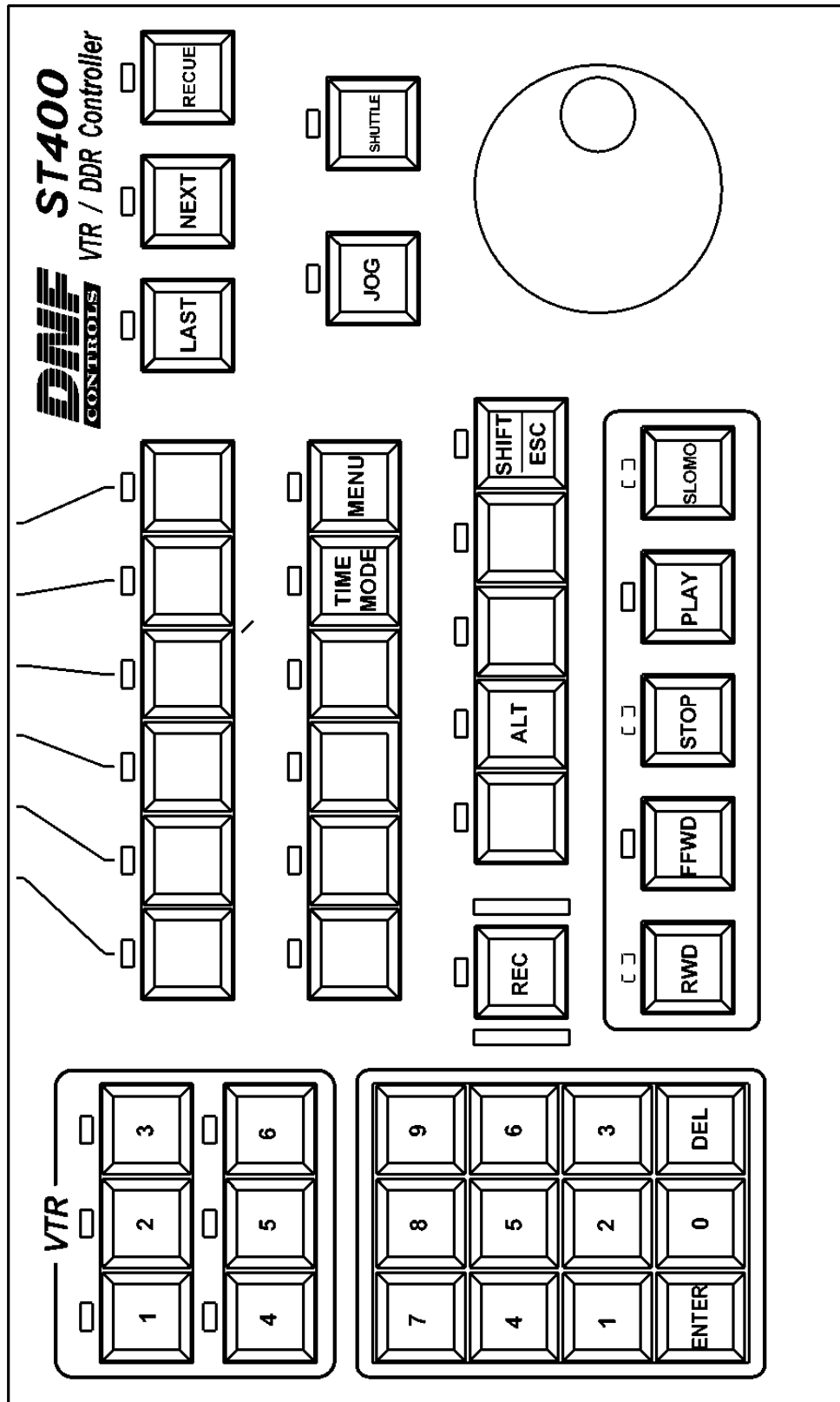
Pin #	1	Do not use	6	Do not use
	2	Rxd ←	7	Do not use
	3	Txd →	8	Do not use
	4	Do not use	9	Do not use
	5	Ground		

**GPI IN/OUT CONNECTOR
26-Pin D-Type, Female (DB26F)**

Pin #	Function	Pin #	Function
1	No Connection	14	GPI #5 Cue Element
2	No Connection	15	GPI #6 Next Element
3	No Connection	16	GPI #7 Last Element
4	No Connection	17	No Connection
5	No Connection	18	Ground
6	No Connection	19	+5V
7	No Connection	20	+5V
8	No Connection	21	No Connection
9	Ground	22	No Connection
10	GPI #1 Play	23	No Connection
11	GPI #2 Stop	24	No Connection
12	GPI #3 Skip	25	No Connection
13	GPI #4 List Top	26	Ground

XVI. KEY LAYOUT

ST400 KEY CONFIGURATION **3040P-L**



XVII. 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
12843 Foothill Blvd., Suite C
Sylmar, CA 91342
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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