

T2

INTELLIGENT DIGITAL DISK RECORDER

User Manual — Remote Control(SP1) —



20 February, 2010

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About this manual

- The screens used as examples in this manual are those of the development stage, so they may vary from those in the final product.
- If there are any variations between the explanation in this manual and the actual application method, priority is given to the actual application method.
- This manual is written for people who have a basic knowledge of how to use a computer. If there are no special instructions, perform the same operation as a normal computer operation.
- In this manual, the system of the T2 is called "Workstation".

Warning

- Health precautions

In rare cases, flashing lights or stimulation from the bright light of a computer display or TV monitor may trigger temporary epileptic seizures or loss of consciousness. It is believed that even individuals whom have never experienced such symptoms may be susceptible. If you or close relatives have experienced any of these symptoms, consult a doctor before using this product.

Remote Control

Overview

With the remote controls of the T2, the following controls and actions are available.

- As a device, T2 receives commands input via the REMOTE RS422 port on the T2 rear panel.
- T2 controls external devices with the commands output via the REMOTE RS422 port on the T2 rear panel.
- As a device, T2 receives commands input via Ethernet.
- T2 controls external devices with commands output via Ethernet.
- T2 supports BVW protocol partially (RS422 only).
- T2 supports AMP protocol partially (Ethernet only).
- According to the GPI input, the corresponding actions are performed.
- According to the Playlist > Event settings, the corresponding GPI triggers are output.
- Recording is available in R1-Remote mode. (AMP protocol only)

Functions

1 R1 - VTR mode

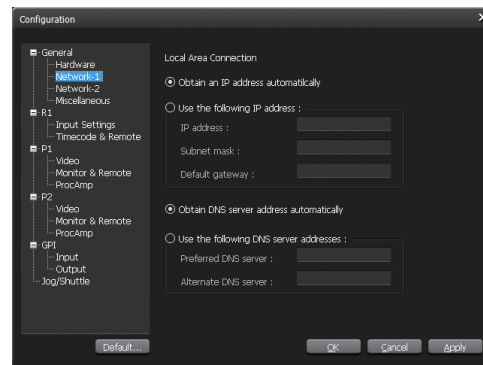
- As a controller (master), T2 controls the external device (VTR).
- When "In-Out Rec" is executed, T2 controls the VTR so as to capture the range between the specified timecodes.

Settings for using AMP commands

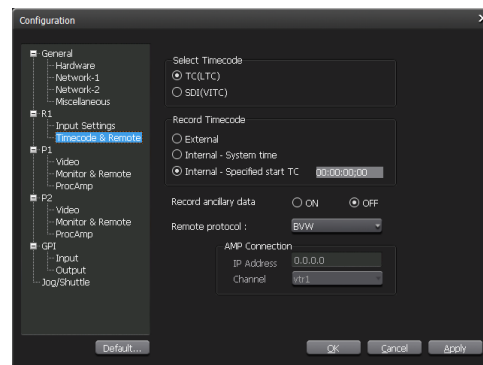
Before using the AMP commands, make sure that the network settings have been established as below.

* The procedures in the Workstation mode are explained here.

- 1 Click the **Config** button on the T2, choose **General > Network1/2** to open the setting dialog, and set the IP address of the T2.



- 2 Click the **Config** button on the T2, choose **R1 > Timecode & Remote** to open the setting dialog, and set the IP address of the connected device.



2 P1/P2 – Remote mode

- As a device (slave), T2 receives the commands sent by external controllers.
- Supports BVW protocol and AMP protocol.

* See page 11 for details on BVW commands, and page 13 for details on AMP commands.

3 R1-Remote mode

- On R1, T2 works as a device (slave) and receives commands sent from external controllers.(Supports AMP protocol only.)
 - * For details on AMP commands, see "AMP" on page 13.
- The Remote settings in Config only take effect on VTR controls. They don't take effect in the R1-Remote mode.

4 GPI input

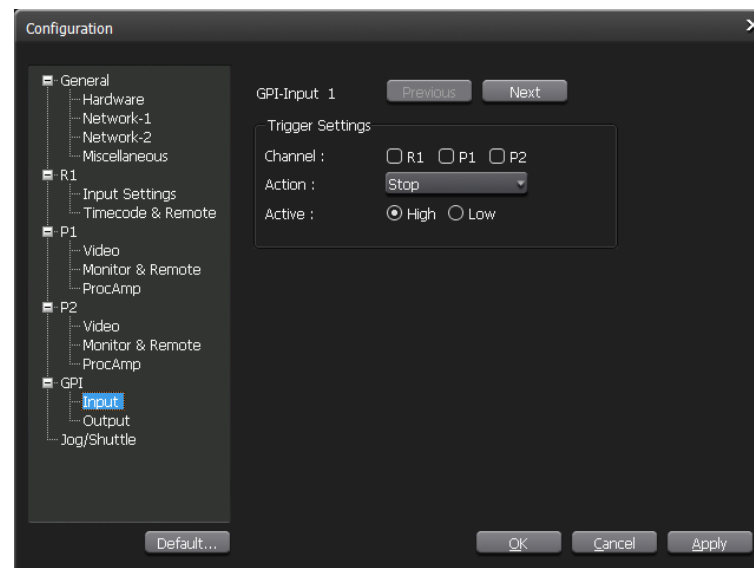
- Via the GPI input port (6 pins), T2 can be controlled.

Input settings can be specified on the setting dialog, displayed by pressing the **Config** button and choosing **GPI**.

* The procedures in the Workstation mode are explained here.

GPI Input settings

* See the "T2 User Manual – Workstation mode –" for details.



- Trigger channel (R1, P1, P2) : Multiple channels can be simultaneously chosen.
- Trigger Action
 - play
 - stop
 - record

- rewind
- fast fwd
- cue start/end
- eject
- preview
- cue next/prev event
- VAR playback
- Active
 - High
 - Low

* If the operation corresponding to the input trigger cannot be executed, nothing happens.

* Regardless of the operation mode or lock status of the GUI, GPI inputs can be received.

* When remote-controlling T2, do not use RS422 and GPI simultaneously. Doing so may disable RS422 controls.

5 GPI output

- Via the GPI output port (6 pins), triggers are output according to the T2 operation.

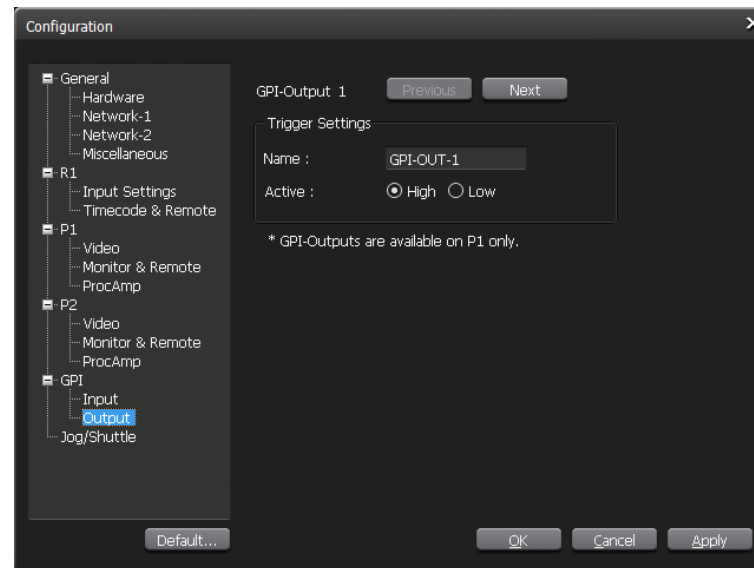
Output Pin settings can be specified on the setting dialog, displayed by pressing the **Config** button and choosing **GPI**, while output Trigger settings can be specified on the setting dialog, displayed by right-clicking on an event list, and choosing **Properties > GPI**.

* The procedures in the Workstation mode are explained here.

* GPI output can be output only when issued from content loaded on the P1 channel.

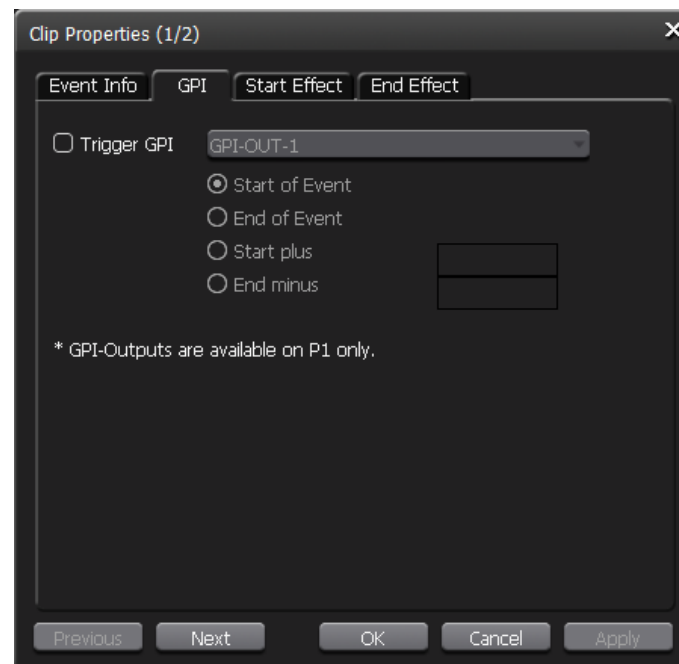
GPI Output settings

* See the "T2 User Manual – Workstation mode –" for details.



- Name
- Active
 - High
 - Low

GPI tab



Appendix

BVW

BVW commands

COMMAND			RETURN			
00	11	DEVICE TYPE REQUEST	12	11	DEVICE TYPE RETURN	○
20	00	STOP				○
20	01	PLAY				○
20	04	STANDBY OFF				○
20	05	STANDBY ON				○
20	10	FAST FWD				○
2X	11	JOG FWD				○
2X	12	VAR FWD				○
2X	13	SHUTTLE FWD				○
2X	20	REWIND				○
2X	21	JOG REV				○
2X	22	VAR REV				○
2X	23	SHUTTLE REV				○
24	31	CUE UP WITH DATA				○
20	54	ANTI-CLOG TIMER DISABLE				△
20	55	ANTI-CLOG TIMER ENABLE				△
44	00	TIMER-1 PRESET				○
40	08	TIMER-1 RESET				○
41	36	TIMER MODE SELECT				○

61	0C	CURRENT TIME SENSE	74	00	TIMER-1 DATA	○
			74	04	LTC TIME DATA	○
			78	04	LTC TIME & UB DATA	○
			74	05	LTC UB DATA	○
			74	06	VITC TIME DATA	○
			78	06	VITC TIME & UB DATA	○
			74	07	VITC UB DATA	○
			70	0D	REQUEST TIME MISSING	○
61	20	STATUS SENSE	7X	20	STATUS DATA	○
60	2E	COMMAND SPEED SENSE	71	2E	COMMAND SPEED DATA	○
60	36	TIMER MODE SENSE	71	36	TIMER MODE DATA	○

The symbols in the table indicate the following:

- 1) Commands marked with ○ are available for execution when the T2 is performing a relevant operation. If a value is listed in the RETURN column, "RETURN + DATA" is returned. If the column is empty, "10 01 ACK" is returned.
- 2) Commands marked with △ return "ACK" or "STATUS" as "RETURN", but do not execute the actual operation.
- 3) Start Delay value = 10 (in hexadecimal)

AMP

AMP commands

COMMAND	
01.06	Set Drop Frame Mode <Individual setting on each channel is not available.>
00.11	Device Type Request
2X.00	Stop <Does not support event schedules.>
2X.01	Play <Does not support event schedules.>
2X.02	Record <Only supports event schedules of LTC/VITC(SDI).>
20.04	Standby Off
20.05	Standby On
20.0F	Eject
20.10	Fast Forward
2X.11	Jog Forward
2X.12	Variable Forward
2X.13	Shuttle Forward
20.20	Rewind
2X.21	Jog Reverse
2X.22	Variable Reverse
2X.23	Shuttle Reverse
2X.31	Cue Up With Data
20.52	Tension Release
20.60	EE Off
20.61	EE On
4X.14	In Preset *2
4X.15	Out Preset *2
40.20	In Reset *2
4X.21	Out Reset *2
41.36	Timecode Mode Preset <Supports only choosing the TC (LTC/VITC) for starting recording.>
40.40	Auto Mode Off
40.41	Auto Mode On
41.42	Set Loop Playback Mode
41.43	Set Widescreen Mode
41.44	Set Stop Mode
40.45	Get Stop Mode
61.0C	Current Time Sense <1:LTC,4:Timer,8:WindowsTime,40:LTC(Src)(LTC input of R1) only>
61.20	Status Sense *1 See "Status flags".

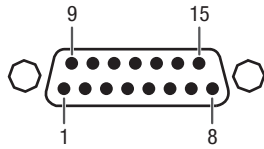
AX.02	Record Cue Up With Data <Only recording clip name is valid.>
AX.04	Preview In Preset
AX.05	Preview Out Preset
A0.06	Preview In Reset
AX.07	Preview Out Reset
A2.09	Get Thumbnail <Does not support specifying FrameNumber.>
A2.0E	Set Working Folder Request
A0.0F	Get Working Folder Request
AX.10	Erase ID
A0.12	IDs Changed List Request <Both In/Out will be changed simultaneously. Unable to discern which point is changed.>
AX.14	List First ID
AX.15	List Next ID
A0.16	ID Loaded Request
A2.17	ID Duration Request
AX.18	ID Status Request
AX.19	New Copy <Shallow, Move only.>
AX.1C	Total /Available Storage Request
A4.1D	Set Record Duration <Unable to change the setting when a recording is in progress.>
A8.20	Set Device ID
A0.21	Device ID Request
A2.25	ID Start Time Request
A0.26	ID Count Request
A0.27	Get All Folders Request
A2.28	Rename Folder
A2.29	Delete Folder
A0.2A	List First Folder
A0.2B	List Next Folder
A0.2C	Device Name Request
AX.2D	Stripe Timecode
AX.2E	Set Mark In
AX.2F	Set Mark Out
A2.31	Create Folder

***1 Status flags**

Data0	Busy, Remote+Local, Local
Data1	Play, Record, FFW, REW, Stop
Data2	Still, TapeDirection, Var, Shuttle
Data3	InPreset, OutPreset, AutoMode, FolderAlreadyExist, InvalidFolderName, FolderDeletionFail, SourceMissing
Data4	EEOn, LoopPlayBack
Data9	FolderNotFound, OutPresetFail, PreviewInPreset, PreviewOutPreset
DataA	IDNotFound, MovieDeleteComplete, MovieDeleteFail
DataD	TapeTop, TapeEnd, LTC, Timer, VITC, TimeOfDay, DropFrame

***2 In/OutPreset, PreviewIn/OutPreset are valid only on clips.**

GPI I/O connector pinouts

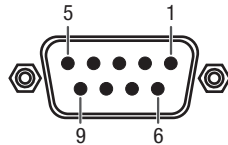


Pin	Signal
1	Output 1
2	Output 2
3	Output 3
4	Output 4
5	Output 5
6	Output 6
7	NC
8	Common Ground

Pin	Signal
9	Input 1
10	Input 2
11	Input 3
12	Input 4
13	Input 5
14	Input 6
15	NC
SHELL	Common Ground

Note T2 iDDR software supports outputs 1-6 and inputs 1-6 only. Pin 7 and Pin 15 are not used.

RS422 I/O connector pinouts



R1
D-Sub 9pin

Pin	Signal
1	GND
2	RECEIVE-
3	TRANSMIT+
4	GND
5	NC
6	GND
7	RECEIVE+
8	TRANSMIT-
9	GND

P1/P2
D-Sub 9pin

Pin	Signal
1	GND
2	TRANSMIT-
3	RECEIVE+
4	GND
5	NC
6	GND
7	TRANSMIT+
8	RECEIVE-
9	GND