FOR.A®
INNOVATIONS IN VIDEO
and AUDIO TECHNOLOGY

OPERATION MANUAL

TALLY OPEN COLLECTOR UNIT **HVS-TALOC**

TALLY RELAY UNIT **HVS-TALR**

(1ST EDITION - Rev. 1)

FOR-A COMPANY LIMITED

Precautions

Important Safety Warnings

[Power]

⚠ Caution	Operate unit **only** on the specified supply voltage.
🔌	Disconnect power cord by connector only. **Do not** pull on cable portion.
🚫 Stop	**Do not** place or drop heavy or sharp-edged objects on power cord. A damaged cord can cause fire or electrical shock hazards. Regularly check power cord for excessive wear or damage to avoid possible fire / electrical hazards.

[Grounding]

❗ Caution	**Ensure** unit is properly grounded at all times to prevent electrical shock hazard.
⚠ Hazard	**Do not** ground the unit to gas lines, units, or fixtures of an explosive or dangerous nature.

[Operation]

⚠ Hazard	**Do not** operate unit in hazardous or potentially explosive atmospheres. Doing so could result in fire, explosion, or other dangerous results.
⚠ Hazard	**Do not** allow liquids, metal pieces, or other foreign materials to enter the unit. Doing so could result in fire, other hazards, or unit malfunction.
🔌	If foreign material does enter the unit, turn power off and disconnect power cord **immediately**. Remove material and contact authorized service representative if damage has occurred.

[Circuitry Access]

	Do not remove covers, panels, casing, or access circuitry with power applied to the unit! Turn power off and disconnect power cord prior to removal. Internal servicing / adjustment of unit should only be performed by qualified personnel.
Stop	**Do not** touch any parts / circuitry with a high heat factor. Capacitors can retain enough electric charge to cause mild to serious shock, even after power is disconnected. Capacitors associated with the power supply are especially hazardous. Avoid contact with any capacitors.
Hazard	Unit **should not** be operated or stored with cover, panels, and / or casing removed. Operating unit with circuitry exposed could result in electric shock / fire hazards or unit malfunction.

[Potential Hazards]

Caution	If abnormal smells or noises are noticed coming from the unit, turn power off immediately and disconnect power cord to avoid potentially hazardous conditions. If problems similar to above occur, contact authorized service representative **before** attempting to again operate unit.

[Fuse]

Caution	If this product is equipped with a fuse, fuse replacement should only be performed by qualified personnel. **Power off** equipment and disconnect power cord prior to replacement. Replace **only** with fuse of same type, voltage rating, and current rating as specified for the unit.

[Backup Battery]

Caution	If this product contains a memory backup battery (either dry cell or rechargeable) and when it is necessary to replace the battery, have work done by the shop where you purchased the product.

General Considerations

Power Supply

Verify your unit has the correct voltage specifications for your power source prior to applying power by reading the voltage range on the rear panel near the AC connector. Your Hanabi series tally option unit normally operates on 100VAC-240VAC; ±10%; 50/60Hz. Do not attempt to operate Hanabi series tally option units using a source having different specifications.

Location

Avoid using the Hanabi series tally option unit in areas having high humidity, high temperature, or excessive dust. Adequate ventilation is also required for optimum performance. As a result of this consideration, ensure no other equipment is located, or installed, closer than 5cm to any unit.

Rack Mounting

Hanabi series tally option units can be mounted to EIA standard rack units. When rack mounting a unit, use the accessory rack mount brackets (rack ears).

Upon Receipt

Unpacking

Your Hanabi series tally option unit is fully inspected and adjusted prior to shipment and can be operated immediately upon completing all required connections and operational settings.

Check your received items against the packing lists below for the unit you purchased.

If HVS-TALOC Purchased:

ITEM	QTY	REMARKS
HVS-TALOC	1	Depending on customer's order
Control cable	1	To MU RS-422 cable
Connector& Backshell	2 sets	50-pin D-sub. For user cable connection fabrication
Rack mount brackets	1 pr.	EIA standard type
AC Cord	1	
Fuse (spare)	2	For replacement if needed, 5 x 20 mm, 250V, 3.15 A, slow blow type
Operation manual	1	

If HVS-TALR Purchased:

ITEM	QTY	REMARKS
HVS-TALR	1	Depending on customer's order
Control cable	1	To MU RS-422 cable
Connector& Backshell	4 sets	50-pin D-sub. For user cable connection fabrication
Rack mount brackets	1 pr.	EIA standard type
AC Cord	1	
Fuse (spare)	2	For replacement if needed, 5 x 20 mm, 250V, 6.3 A, slow blow type
Operation manual	1	

Check

Check to ensure no damage has occurred during shipment. If damage has occurred, or items are missing, inform your supplier immediately.

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1. Prior to Starting

1-1. Welcome

Congratulations! By purchasing the Hanabi series tally option unit you have entered the world of FOR.A and its many innovative products. Thank you for your patronage and we hope you will turn to FOR.A products again and again to satisfy your video and audio production needs.

FOR.A provides a wide range of products, from basic support units to complex system controllers, which have been increasingly joined by products for computer video based systems. Whatever your needs, talk to your FOR.A representative. We will do our best to be of continuing service to you.

1-2. About Hanabi Series Tally Units

When configured within a Hanabi system, the Hanabi series tally option unit adds signal tally display indication support to your switcher system.

Features

➢ Supports TALLY indication of up to 64 signal channels.

➢ Converts serial tally outputs from Hanabi series switchers into parallel outputs (HVS-TALOC) tally relay outputs (HVS-TALR).

➢ Selectable TALLY signal output, open or closed contact or voltage level (HVS-TALR only).

➢ Expand TALLY signal indication support by configuring up to any 5 Hanabi series tally units.

1-3. About This Manual

This manual is intended to help the user easily operate the Hanabi series tally option unit and to make full use of all functions during operations. Before connecting or operating the Hanabi series tally option unit, read this operation manual thoroughly to ensure you completely understand the product. After reading, it is important to keep this manual in a safe place and available for later reference.

2. Panel Descriptions

2-1. Front Panels

2-1-1. HVS-TALOC

Indicators located on the HVS-TALOC front panel are as described below.

Where:

① Voltage Indicators

All 3 voltage indicators (+3.3V, +5V, +24V) should be lit green when rear panel power switch is set to ON and all related voltages are present.

If one or more of the voltage indicators are unlit, related power supply voltage has failed and is not present.

② Fan Alarm Indicator

Indicator will remain unlit if fan is operating normally.

Indicator will go to red indication if failure has occurred.

2-1-2. HVS-TALR

Indicators located on the HVS-TALR front panel are as described below.

Where:

① Voltage Indicators

All 3 voltage indicators (+3.3V, +5V, +24V) should be lit green when rear panel power switch is set to ON and all related voltages are present.

If one or more of the voltage indicators are unlit, related power supply voltage has failed and is not present.

② Fan Alarm Indicator

Indicator will remain unlit if fan is operating normally.

Indicator will go to red indication if failure has occurred.

2

2-2. Rear Panels

2-2-1. HVS-TALOC

Connections located on the rear panel of the HVS-TALOC are as given below.
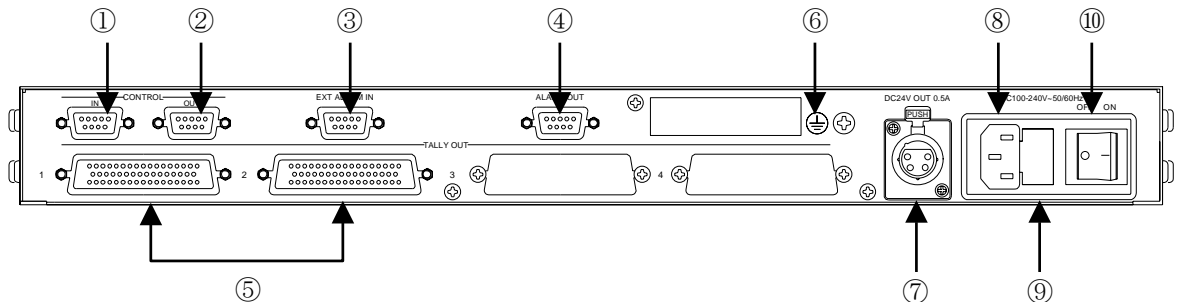
Where:

③ CONTROL IN
Used for control connection from configured Hanabi series switchers. RS-422 protocol. 9-pin D-sub connector (female).

④ CONTROL OUT
Used for cascade connection to other configured tally units. RS-422 protocol. 9-pin D-sub connector (female).

⑤ EXT ALARM IN
Used for external signal alarm input from other system devices. 9-pin D-sub connector (female).

⑥ ALARM OUT
Used for external and internal alarm signal output to alarm / indication device. Also used for input of an external signal to reset tally operation. 9-pin D-sub connector (female).

⑦ TALLY OUT
Used for tally signal output to Hanabi series switcher MU or other tally units. 50-pin D-sub connector (female).

⑧ Ground Terminal
Used to ground unit to protect operators against static electricity and / or electrical shock.

⑨ DC OUT
Used for 24VDC power output.

⑩ AC IN
Used for connection to AC power source via supplied accessory cord.

⑪ Fuseholder
Should contain 2 slow blow type 250V, 3.15A fuses to protect unit circuitry. See instructions located on the fuseholder for fuse replacement procedure.

⑫ Power Switch
Switch used to turn unit power ON / OFF. The three front panel voltage connectors should all be lit green when power is applied to the unit and related voltages are correct.

3

2-2-2. HVS-TALR

Connections located on the rear panel of the HVS-TALOC are as given below.
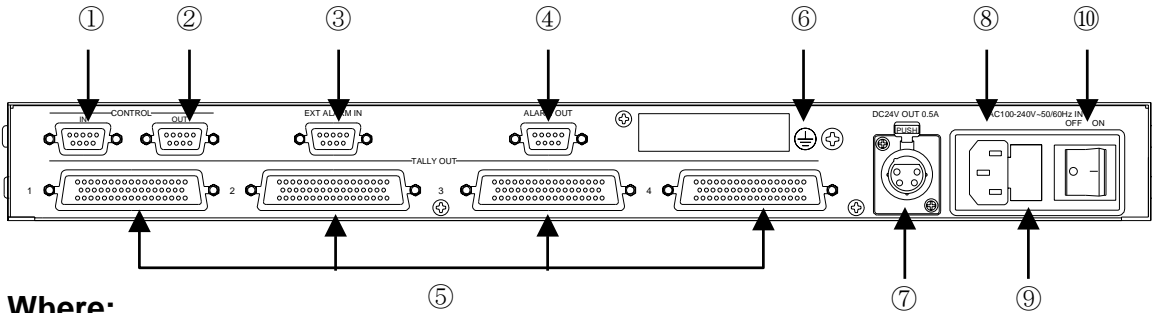
Where:

⑬ CONTROL IN
Used for control connection from configured Hanabi series switchers. RS-422 protocol. 9-pin D-sub connector (female).

⑭ CONTROL OUT
Used for cascade connection to other configured tally units. RS-422 protocol. 9-pin D-sub connector (female).

⑮ EXT ALARM IN
Used for external signal alarm input from other system devices. 9-pin D-sub connector (female).

⑯ ALARM OUT
Used for external and internal alarm signal output to alarm / indication device. Also used for input of an external signal to reset tally operation. 9-pin D-sub connector (female).

⑰ TALLY OUT
Used for tally signal output to Hanabi series switcher MU or other tally units. 50-pin D-sub connector (female).

⑱ Ground Terminal
Used to ground unit to protect operators against static electricity and / or electrical shock.

⑲ DC OUT
Used for 24VDC power output.

⑳ AC IN
Used for connection to AC power source via supplied accessory cord.

21 Fuseholder
Should contain 2 slow blow type 250V, 6.3A fuses to protect unit circuitry. See instructions located on the fuseholder for fuse replacement procedure.

22 Power Switch
Switch used to turn unit power ON / OFF. The three front panel voltage indicators should all be lit green when power is applied to the unit and related voltages are correct.

3. Internal Settings

Depending on your system configuration, settings may have to be made at the dipswitches and jumpers on Hanabi series tally option internal boards. If changes are not required, board jumper and dipswitch settings should be left at the factory made defaults given within this section.

3-1. Accessing Internal Boards

In order to make changes to settings on internal board(s), you will have to access the unit interior as explained following.

Important

Always switch unit power OFF and disconnect power cord before accessing unit interior to avoid possible electrical hazards.

■ **To Access Interior:**

① Remove the 7 screws securing the unit top panel. Screws are located at the points indicated by the arrows in the figure below. (7 total, 3 x 6 screws.) Place screws in a safe place to reuse later.

Top View

Unit Rear Panel
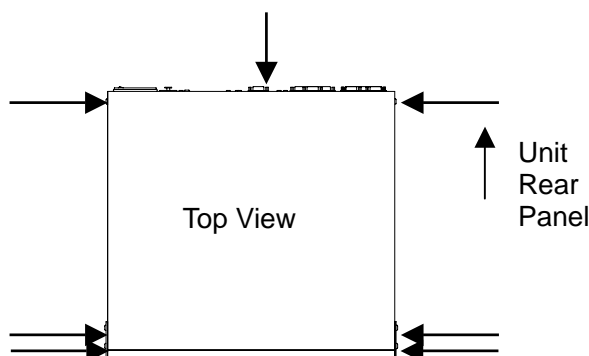
② Completely remove top panel. After panel is removed, the internal board(s) should be located inside the unit at the position(s) indicated below.

Unit Front

B

A

Internal Boards

B = RELAY board (HVS-TALR only)

A = TALLY board (HVS-TALOC and HVS-TALR)
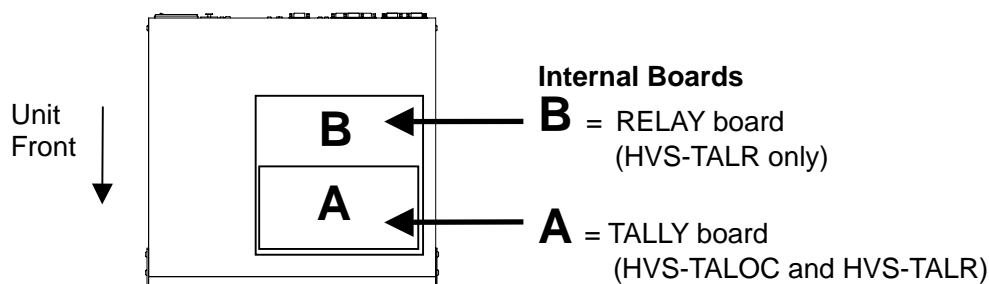
③ Refer to sec. '3-2. TALLY Board' following to make settings on the internal TALLY board (A) on both HVS-TALOC and HVS-TALR. Refer to sec. '3-3. RELAY Board' following to make settings on internal RELAY board (B) of the HVS-TALR.

④ After all required settings are made, replace unit top panel and re-secure it in place with the screws removed in step ①

3-2. TALLY Board

The TALLY board is common to both the HVS-TALOC and HVS-TALR and is primarily used to set unit ID. S7 on this board is used for CPU reset. **Other switches and jumpers should not be changed from factory made settings.**

3-2-1. Unit ID

The operational ID for your tally unit is set at dipswitch S5 on the internal TALLY board.

When tally units are cascade connected, a different ID number must be set at each unit configured. Tally unit ID numbers can be set from 1 and 5, with 1 being the factory default ID.

If you are configuring only one unit, leave it set to factory default ID 1.

If you are configuring more than one unit, ID set at the internal TALLY board of each unit must be set to a different ID number for tally operation to occur correctly. (No repeat numbers.)
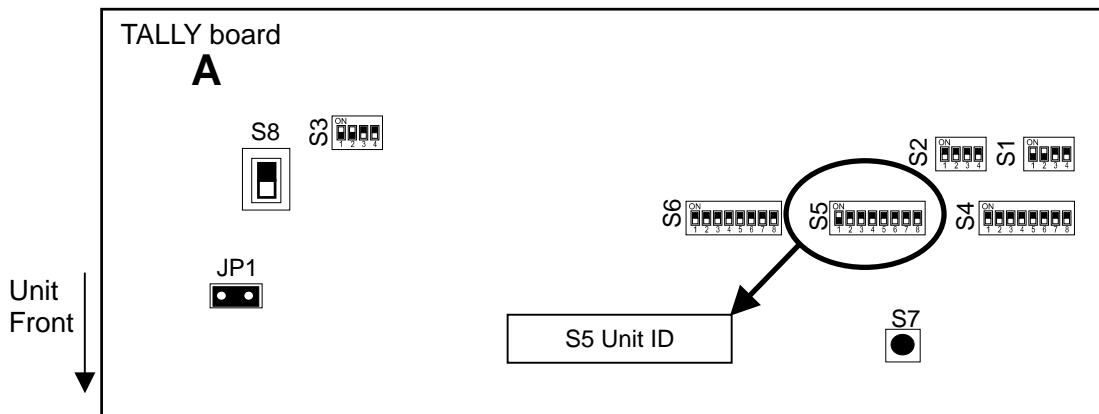
■ **S5 Appearance**
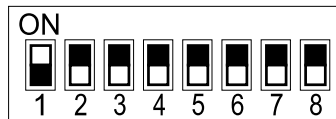
(※ Factory default settings shown above.)

■ **Unit ID Settings Table**

S5 ID#	S5-1	S5-2	S5-3	S5-4	S5-5	S5-6	S5-7	S5-8
ID 1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ID 2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
ID 3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
ID 4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
ID 5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF

(Settings given for S5-1 through S5-8 = ID number given at left of switch settings row)

3-2-2. Other TALLY Board Switches

Settings for all other dipswitches and jumpers on TALLY board should be left to the factory settings shown below. **Do not change. Factory settings are given for reference only. Simply verify settings on TALLY board are as shown**

The **exception is S7.** This switch is pushed to reset the unit CPU if necessary.
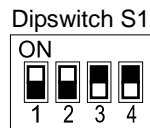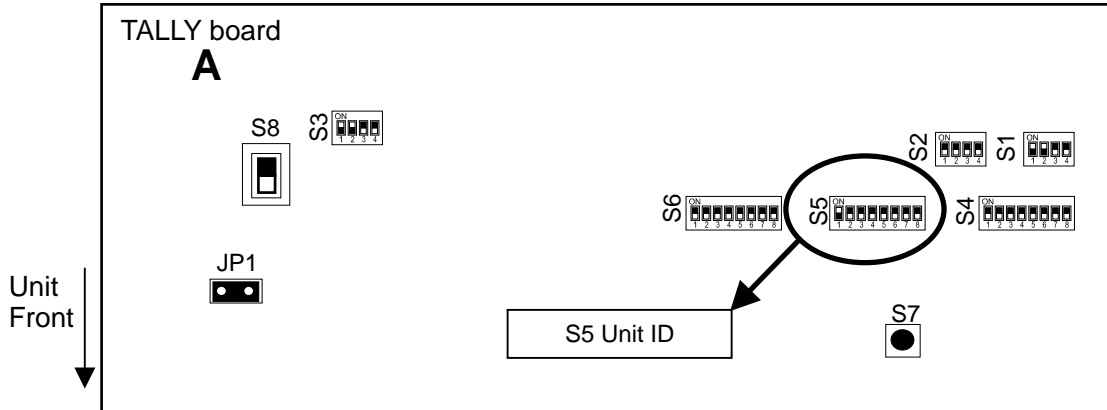
TALLY board

A

S8 S3

S2 S1

S6 S5 S4

JP1

Unit
Front

S5 Unit ID

S7

Dipswitch S1

ON

| 1 | 2 | 3 | 4 |

1:ON
2:ON
3:OFF
4:OFF

Dipswitch S4

ON

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

1:OFF   5:OFF
2:OFF   6:OFF
3:OFF   7:OFF
4:OFF   8:OFF

Dipswitch S2

ON

| 1 | 2 | 3 | 4 |

1:OFF
2:OFF
3:OFF
4:OFF

Dipswitch S6

ON

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

1:OFF   5:OFF
2:OFF   6:OFF
3:OFF   7:OFF
4:OFF   8:OFF

Dipswitch S3

ON

| 1 | 2 | 3 | 4 |

1:ON
2:ON
3:OFF
4:OFF

Dipswitch S8

V.O.

C.O.
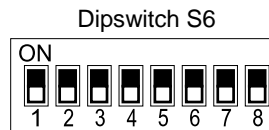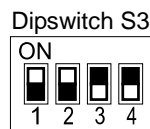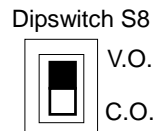
C.O.

Switch S7
Used to reset CPU.

Top
view

Side
view

Jumper 1
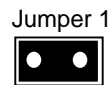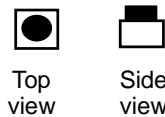
HVS-TALOC: Shorted

HVS-TALR: Open

3-3. RELAY Board

The RELAY board will only be present if you have purchased the HVS-TALR option unit. It will not be present on HVS-TALOC option units. After accessing unit interior (see sec. '3-1. Accessing Internal Boards' for details) remove all ribbon cables connected to the relay board to access the switches. Pay careful attention to the original position of each cable when removing. Ribbon cables must be connected back to their original positions after dipswitch settings are made.

3-3-1. RELAY Board Pin Settings

In the case of the HVS-TALR, pin output can be set as either contact initiated or 24VDC. This is set independently for each connector pin on the Relay board at S1 – S64. These dipswitches are located approx. as shown below.

■ **S1 – S64 Location and Appearance**
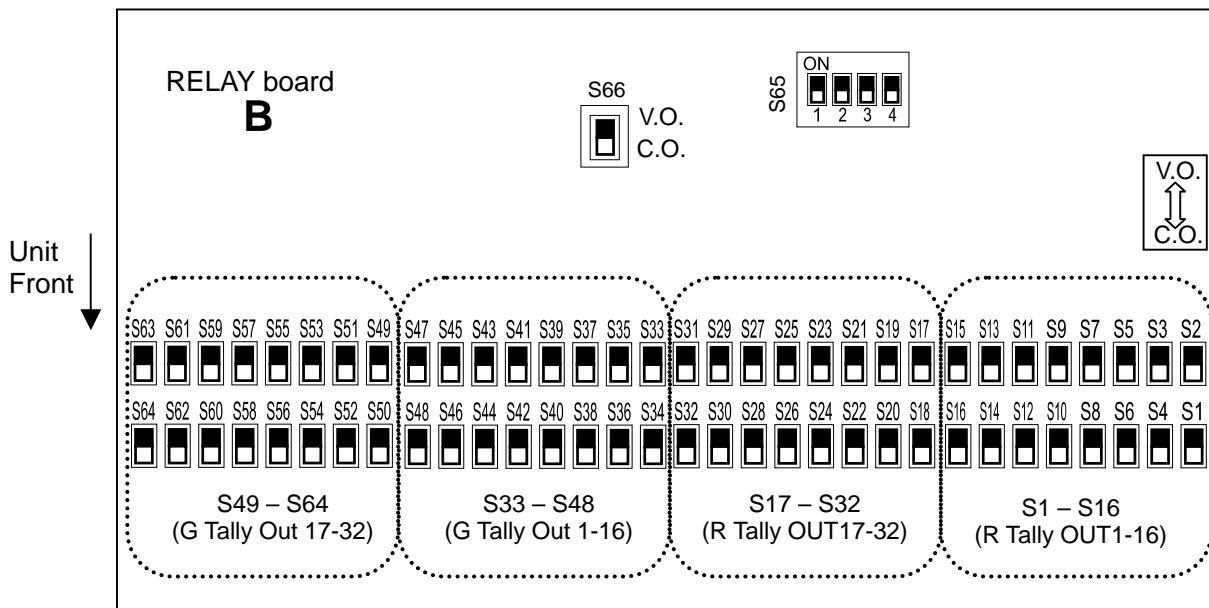
(※ Factory default settings shown above. Factory default = Contact initiated)

■ **Switch Signal Reference Table**

Dipswitch	Related TALLY Output Pin	TALLY Output Connector
S1 – S16	R Tally Out 1-16	TALLY OUT1
S17 – S32	R Tally Out 17-32	TALLY OUT2
S33 – S48	G Tally Out 1-16	TALLY OUT3
S49 – S64	G Tally Out 17-32	TALLY OUT4

Use above switches S1 – S64 to change correspondingly numbered output connector pins between contact initiated or 24VDC. See sec.'5-6. TALLY OUT (HVS-TALR)' for related output response information.

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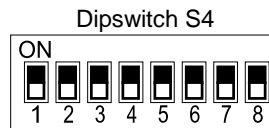# 3-3-2. Other RELAY Board Switches

Settings for all other dipswitches should be left to the factory settings shown below. **Do not change. Factory settings are given for reference only. Simply verify settings on RELAY board are as shown**
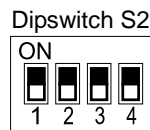
Dipswitch S65

Dipswitch S66

ON
| | | | |
1 2 3 4

V.O.
C.O.
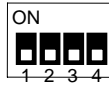
4. Connection

4-1. Basic Connection

Hanabi series tally option unit connections should generally be made as shown below. Up to a max. of any 5 Hanabi series tally option units (assigned different ID numbers) can be cascade connected.

Hanabi MU
HVS-3000S / 3000H

TALLY control
RS-422 Only

From user system
alarm equipment

TALLY Unit ID1

TALLY
signal
output

To user fabricated
system alarm equipment

To other system
equipment

TALLY Unit ID 2

To other TALLY units
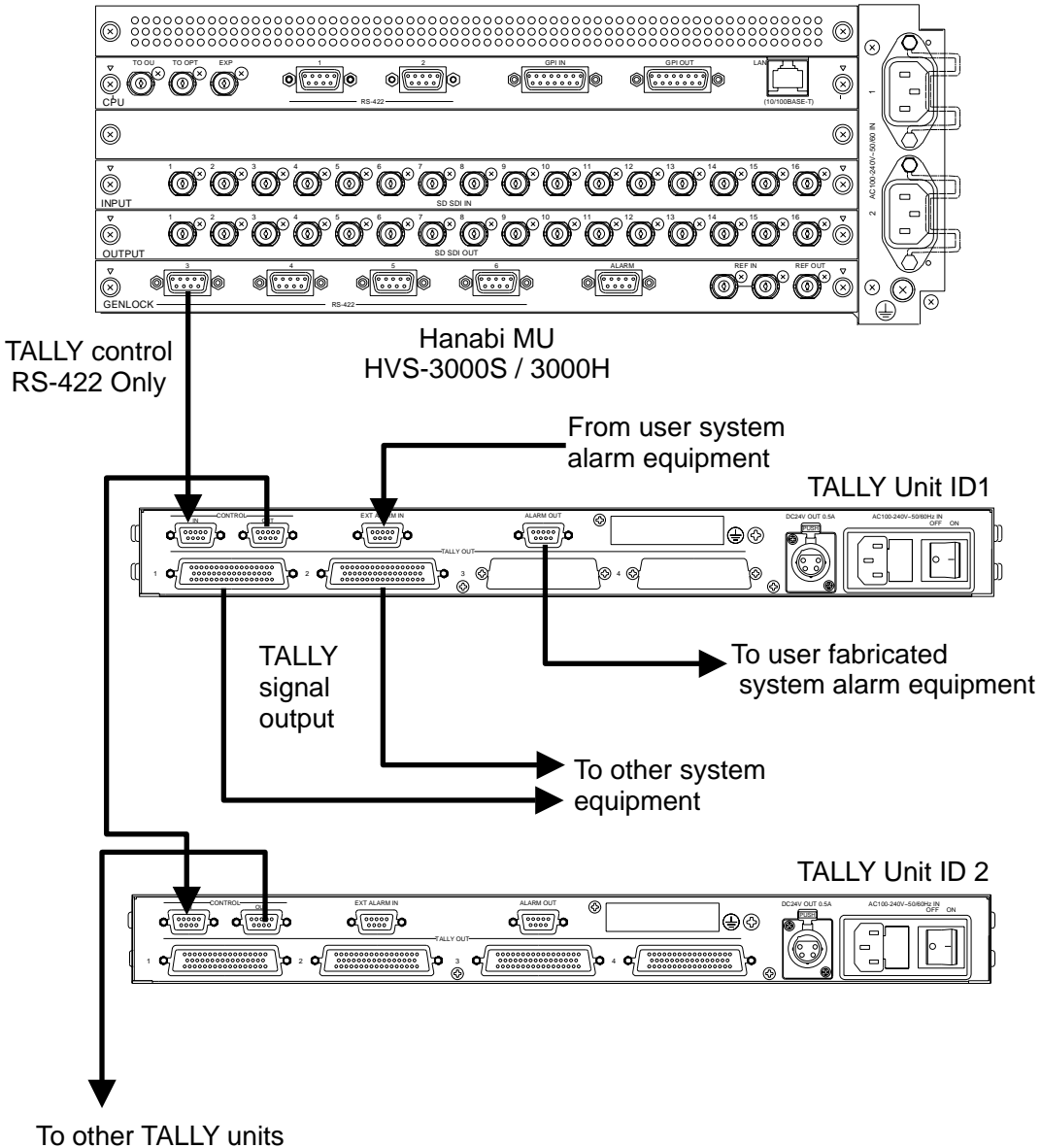
Note

TALLY indication operation, when multiple units are configured as shown here, can only be performed when main tally unit (ID1) is connected to number 3 RS-422 connector on GENLOCK board of the Hanabi switcher MU. **Do not connect main tally unit to connectors 4-6.**

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5. Connector Information

Appearance and pin assignments for rear panel connectors on both the HVS-TALOC and HVS-TALR are as shown following.

5-1. CONTROL IN

■ **Appearance**
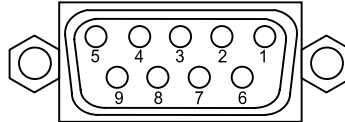
9-pin D-sub (female)

■ **Pin Assignment Table**

PIN No	SIGNAL	Description
1	FG	Frame ground
2	T (-)	Transmit data (-)
3	R (+)	Receive data (+)
4	SG	Signal ground
5	–	Not used
6	SG	Signal ground
7	T (+)	Transmit data (+)
8	R (-)	Receive data (-)
9	FG	Frame ground

■ **Cabling**

Use accessory control cable supplied with your Hanabi TALLY unit.

5-2. CONTROL OUT

■ **Appearance**
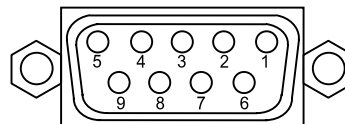
9-pin D-sub (female)

■ **Pin Assignment Table**

PIN No	SIGNAL	Description
1	FG	Frame ground
2	R (-)	Receive data (-)
3	T (+)	Transmit data (+)
4	SG	Signal ground
5	–	Not used
6	SG	Signal ground
7	R (+)	Receive data (+)
8	T (-)	Transmit data (-)
9	FG	Frame ground

■ **Cabling**

Use accessory control cable supplied with other Hanabi TALLY unit.

5-3. EXT ALARM IN

■ **Appearance**
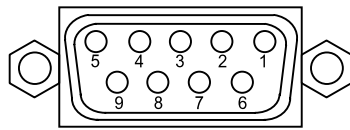
9-pin D-sub (female)

■ **Pin Assignment Table**

PIN No	SIGNAL	Description
1	+24VDC IN	+24VDC power input
2	EXT alarm IN 1	EXT alarm input 1 (power)
3	–	Not used
4	–	Not used
5	–	Not used
6	EXT alarm IN 2	EXT alarm input 2
7	Ground	Ground
8	–	Not used
9	–	Not used

■ **Cabling**

9-pin D-sub connector (male) with inch security lock screws. (User supplied)

■ **ALARM IN Circuit**
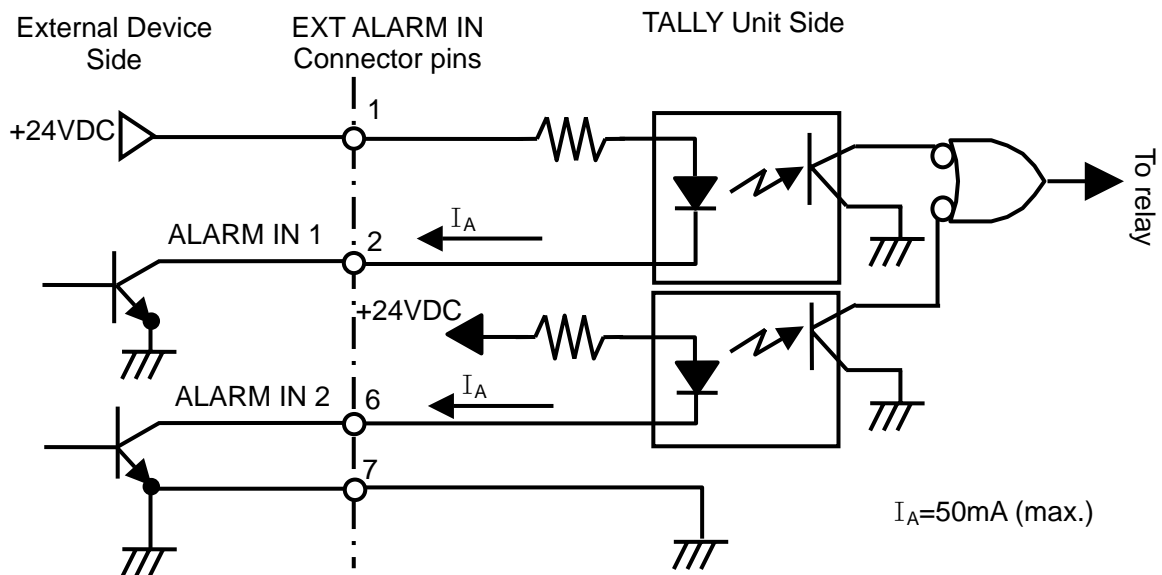
5-4. ALARM OUT

■ **Appearance**
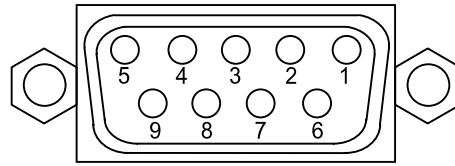
9-pin D-sub (female)

■ **Pin Assignment Table**

PIN No	SIGNAL	Description
1	Fan alarm out	Fan failure alarm. Normally open relay.
2	Power alarm out	Power failure alarm. Normally open relay.
3	EXT alarm common	External alarm signal common.
4	EXT alarm out	External alarm. Normally open relay.
5	Reset in	External reset input. Active low initiate.
6	Fan alarm common	Fan alarm signal common.
7	Power alarm common	Power alarm signal common.
8	Ground	Common ground
9	Ground	Common ground

■ **Cabling**

9-pin D-sub connector (male) with inch security lock screws. (User supplied)

■ **ALARM OUT Circuit**

13
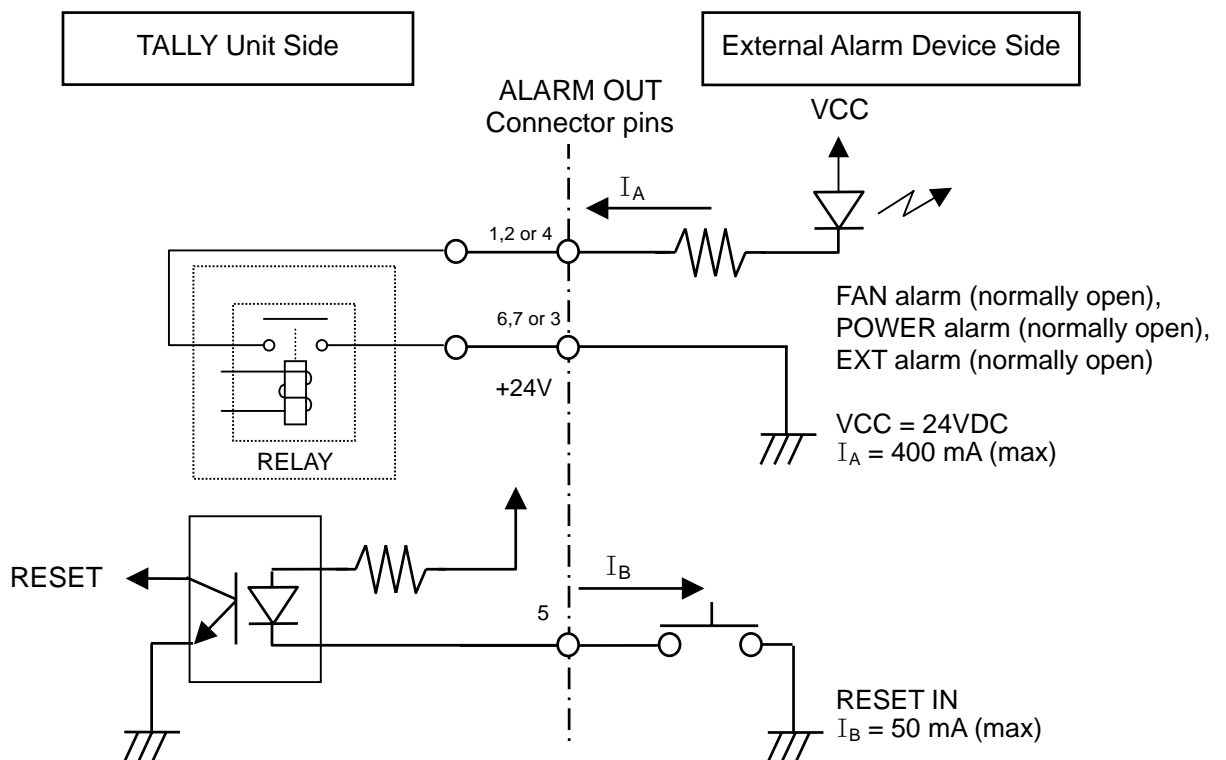
5-5. TALLY OUT (HVS-TALOC)

5-5-1. TALOC Tally Out 1

■ **Appearance**
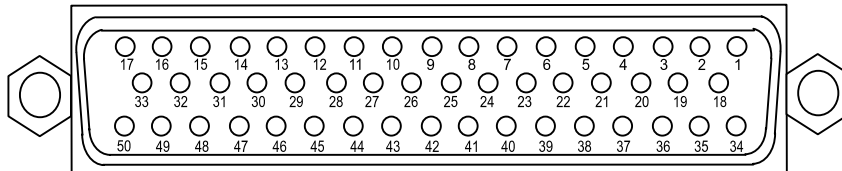
50-pin D-sub (female)

■ **Pin Assignment Table**

PIN No	SIGNAL	PIN No	SIGNAL
1	R tally out 1	26	R tally out 26
2	R tally out 2	27	R tally out 27
3	R tally out 3	28	R tally out 28
4	R tally out 4	29	R tally out STILL 1
5	R tally out 5	30	R tally out STILL 2
6	R tally out 6	31	R tally out STILL 3
7	R tally out 7	32	R tally out STILL 4
8	R tally out 8	33	OPEN
9	R tally out 9	34	GND
10	R tally out 10	35	GND
11	R tally out 11	36	GND
12	R tally out 12	37	GND
13	R tally out 13	38	GND
14	R tally out 14	39	GND
15	R tally out 15	40	GND
16	R tally out 16	41	GND
17	R tally out 17	42	GND
18	R tally out 18	43	GND
19	R tally out 19	44	GND
20	R tally out 20	45	GND
21	R tally out 21	46	GND
22	R tally out 22	47	GND
23	R tally out 23	48	GND
24	R tally out 24	49	GND
25	R tally out 25	50	GND

■ **To fabricate connection cable:**
Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALOC.
Assembly parts supplied are as given below.
Backshell: DD-C8-J13 (JAE)
Connector Core: D50P-N (JAE)

Note
Note that TALOC Tally Out 1 and Tally Out 2 circuit diagrams are identical and that the circuit diagram for both Tally Outputs can be found in sec. '5-5-3. TALOC Circuit Diagram'.

5-5-2. TALOC Tally Out 2

■ **Appearance**
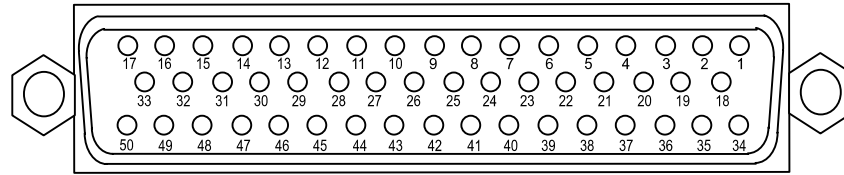
50-pin D-sub (female)

■ **Pin Assignment Table**

PIN No	SIGNAL	PIN No	SIGNAL
1	G tally out 1	26	G tally out 26
2	G tally out 2	27	G tally out 27
3	G tally out 3	28	G tally out 28
4	G tally out 4	29	G tally out STILL 1
5	G tally out 5	30	G tally out STILL 2
6	G tally out 6	31	G tally out STILL 3
7	G tally out 7	32	G tally out STILL 4
8	G tally out 8	33	OPEN
9	G tally out 9	34	GND
10	G tally out 10	35	GND
11	G tally out 11	36	GND
12	G tally out 12	37	GND
13	G tally out 13	38	GND
14	G tally out 14	39	GND
15	G tally out 15	40	GND
16	G tally out 16	41	GND
17	G tally out 17	42	GND
18	G tally out 18	43	GND
19	G tally out 19	44	GND
20	G tally out 20	45	GND
21	G tally out 21	46	GND
22	G tally out 22	47	GND
23	G tally out 23	48	GND
24	G tally out 24	49	GND
25	G tally out 25	50	GND

◆ **To fabricate connection cable:**
Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALOC. Assembly parts supplied are as given below.
Backshell: DD-C8-J13 (JAE)
Connector Core: D50P-N (JAE)

> **Note**
>
> Note that TALOC Tally Out 1 and Tally Out 2 circuit diagrams are identical and that the circuit diagram for both Tally Outputs can be found in sec. '5-5-3. TALOC Circuit Diagram'.

5-5-3. TALOC Circuit Diagram

■ **TALOC Tally Out 1 and 2 Circuit**

Tally Out
Connector   at
HVS-TALOC

External
Device Side

HVS-TALOC
Side

VCC

I_A

VCC = 24VDC
I_A = 100 mA (Max)

5-6. TALLY OUT (HVS-TALR)

5-6-1. TALR Tally Out 1

■ **Appearance**

50-pin D-sub (female)

■ **Pin Assignment Table**

PIN No	SIGNAL	#	PIN No	SIGNAL	#
1	R Tally OUT1 (C.) *1		28	R Tally OUT 10 (C.)	
2	R Tally OUT1 (COM.) *2	1	29	R Tally OUT 10 (COM.)	10
3	R Tally OUT1 (O.) *3		30	R Tally OUT 10 (O.)	
4	R Tally OUT2 (C.)		31	R Tally OUT 11 (C.)	
5	R Tally OUT2 (COM.)	2	32	R Tally OUT 11 (COM.)	11
6	R Tally OUT2 (O.)		33	R Tally OUT 11 (O.)	
7	R Tally OUT3 (C.)		34	R Tally OUT 12 (C.)	
8	R Tally OUT3 (COM.)	3	35	R Tally OUT 12 (COM.)	12
9	R Tally OUT3 (O.)		36	R Tally OUT 12 (O.)	
10	R Tally OUT4 (C.)		37	R Tally OUT 13 (C.)	
11	R Tally OUT4 (COM.)	4	38	R Tally OUT 13 (COM.)	13
12	R Tally OUT4 (O.)		39	R Tally OUT 13 (O.)	
13	R Tally OUT5 (C.)		40	R Tally OUT 14 (C.)	
14	R Tally OUT5 (COM.)	5	41	R Tally OUT 14 (COM.)	14
15	R Tally OUT5 (O.)		42	R Tally OUT 14 (O.)	
16	R Tally OUT6 (C.)		43	R Tally OUT 15 (C.)	
17	R Tally OUT6 (COM.)	6	44	R Tally OUT 15 (COM.)	15
18	R Tally OUT6 (O.)		45	R Tally OUT 15 (O.)	
19	R Tally OUT7 (C.)		46	R Tally OUT 16 (C.)	
20	R Tally OUT7 (COM.)	7	47	R Tally OUT 16 (COM.)	16
21	R Tally OUT7 (O.)		48	R Tally OUT 16 (O.)	
22	R Tally OUT8 (C.)		49	OPEN	
23	R Tally OUT8 (COM.)	8	50	GND	
24	R Tally OUT8 (O.)				
25	R Tally OUT9 (C.)				
26	R Tally OUT9 (COM.)	9			
27	R Tally OUT9 (O.)				

\# Output switch
∗1）C. = Closed circuit, ∗2）COM. = Common, ∗3）O. = Open circuit

◆ **To fabricate connection cable:**
Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALR.
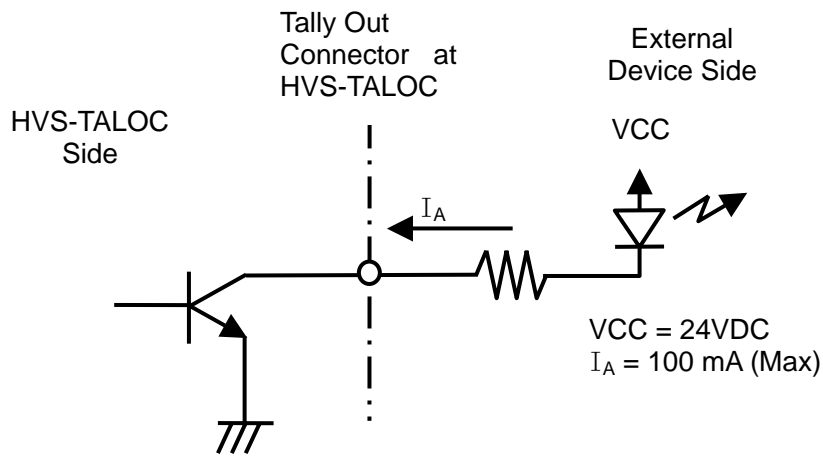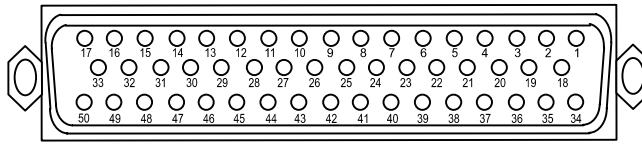Assembly parts supplied are as given below.
    Backshell: DD-C8-J13 (JAE))
    Connector Core: D50P-N (JAE)

> **Note**
>
> Note that TALR Tally Out 1 through Tally Out 4 circuit diagrams are identical
> and that the circuit diagrams for TALR tally output connectors can be found in
> sec. '5-6-5. TALR Circuit Diagrams.

5-6-2. TALR Tally Out 2

■ **Appearance**
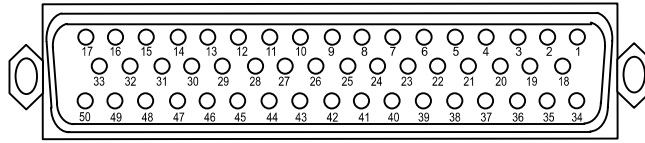
50-pin D-sub (female)

■ **Pin Assignment Table**

PIN No	SIGNAL	#	PIN No	SIGNAL	#
1	R Tally OUT17 (C.) *1		28	R Tally OUT26 (C.)	
2	R Tally OUT17 (COM.) *2	17	29	R Tally OUT26 (COM.)	26
3	R Tally OUT17 (O.) *3		30	R Tally OUT26 (O.)	
4	R Tally OUT18 (C.)		31	R Tally OUT27 (C.)	
5	R Tally OUT18 (COM.)	18	32	R Tally OUT27 (COM.)	27
6	R Tally OUT18 (O.)		33	R Tally OUT27 (O.)	
7	R Tally OUT19 (C.)		34	R Tally OUT28 (C.)	
8	R Tally OUT19 (COM.)	19	35	R Tally OUT28 (COM.)	28
9	R Tally OUT19 (O.)		36	R Tally OUT28 (O.)	
10	R Tally OUT20 (C.)		37	R Tally OUT STILL1 (C.)	
11	R Tally OUT20 (COM.)	20	38	R Tally OUT STILL1 (COM.)	29
12	R Tally OUT20 (O.)		39	R Tally OUT STILL1 (O.)	
13	R Tally OUT21 (C.)		40	R Tally OUT STILL2 (C.)	
14	R Tally OUT21 (COM.)	21	41	R Tally OUT STILL2 (COM.)	30
15	R Tally OUT21 (O.)		42	R Tally OUT STILL2 (O.)	
16	R Tally OUT22 (C.)		43	R Tally OUT STILL3 (C.)	
17	R Tally OUT22 (COM.)	22	44	R Tally OUT STILL3 (COM.)	31
18	R Tally OUT22 (O.)		45	R Tally OUT STILL3 (O.)	
19	R Tally OUT23 (C.)		46	R Tally OUT STILL4 (C.)	
20	R Tally OUT23 (COM.)	23	47	R Tally OUT STILL4 (COM.)	32
21	R Tally OUT23 (O.)		48	R Tally OUT STILL4 (O.)	
22	R Tally OUT24 (C.)		49	GND	
23	R Tally OUT24 (COM.)	24	50	GND	
24	R Tally OUT24 (O.)				
25	R Tally OUT25 (C.)				
26	R Tally OUT25 (COM.)	25			
27	R Tally OUT25 (O.)				

\#   Output switch
∗1）C. = Closed circuit, ∗2）COM. = Common, ∗3）O. = Open circuit

◆ **To fabricate connection cable:**
Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALR.
Assembly parts supplied are as given below.
>   Backshell: DD-C8-J13 (JAE))
>   Connector Core: D50P-N (JAE)

> **Note**
>
> Note that TALR Tally Out 1 through Tally Out 4 circuit diagrams are identical
> and that the circuit diagrams for TALR tally output connectors can be found in
> sec. '5-6-5. TALR Circuit Diagrams.

5-6-3. TALR Tally Out 3

■ **Appearance**
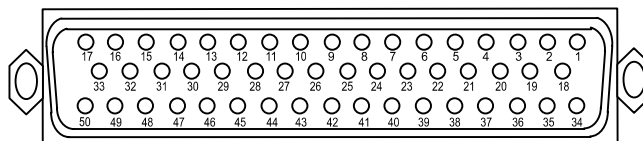
50-pin D-sub (female)

■ **Pin Assignment Table**

PIN No	SIGNAL	#	PIN No	SIGNAL	#
1	G Tally OUT1 (C.) *1		28	G Tally OUT 10 (C.)	
2	G Tally OUT1 (COM.) *2	33	29	G Tally OUT 10 (COM.)	42
3	G Tally OUT1 (O.) *3		30	G Tally OUT 10 (O.)	
4	G Tally OUT2 (C.)		31	G Tally OUT 11 (C.)	
5	G Tally OUT2 (COM.)	34	32	G Tally OUT 11 (COM.)	43
6	G Tally OUT2 (O.)		33	G Tally OUT 11 (O.)	
7	G Tally OUT3 (C.)		34	G Tally OUT 12 (C.)	
8	G Tally OUT3 (COM.)	35	35	G Tally OUT 12 (COM.)	44
9	G Tally OUT3 (O.)		36	G Tally OUT 12 (O.)	
10	G Tally OUT4 (C.)		37	G Tally OUT 13 (C.)	
11	G Tally OUT4 (COM.)	36	38	G Tally OUT 13 (COM.)	45
12	G Tally OUT4 (O.)		39	G Tally OUT 13 (O.)	
13	G Tally OUT5 (C.)		40	G Tally OUT 14 (C.)	
14	G Tally OUT5 (COM.)	37	41	G Tally OUT 14 (COM.)	46
15	G Tally OUT5 (O.)		42	G Tally OUT 14 (O.)	
16	G Tally OUT6 (C.)		43	G Tally OUT 15 (C.)	
17	G Tally OUT6 (COM.)	38	44	G Tally OUT 15 (COM.)	47
18	G Tally OUT6 (O.)		45	G Tally OUT 15 (O.)	
19	G Tally OUT7 (C.)		46	G Tally OUT 16 (C.)	
20	G Tally OUT7 (COM.)	39	47	G Tally OUT 16 (COM.)	48
21	G Tally OUT7 (O.)		48	G Tally OUT 16 (O.)	
22	G Tally OUT8 (C.)		49	OPEN	
23	G Tally OUT8 (COM.)	40	50	GND	
24	G Tally OUT8 (O.)				
25	G Tally OUT9 (C.)				
26	G Tally OUT9 (COM.)	41			
27	G Tally OUT9 (O.)				

\# Output switch
∗1）C. = Closed circuit, ∗2）COM. = Common, ∗3）O. = Open circuit

◆ **To fabricate connection cable:**
Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALR.
Assembly parts supplied are as given below.
   Backshell: DD-C8-J13 (JAE))
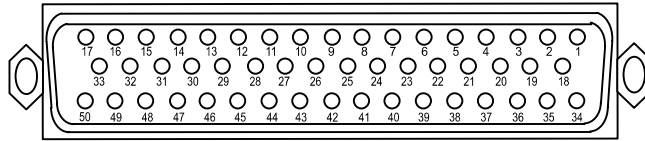   Connector Core: D50P-N (JAE)

> **Note**
>
> Note that TALR Tally Out 1 through Tally Out 4 circuit diagrams are identical
> and that the circuit diagrams for TALR tally output connectors can be found in
> sec. '5-6-5. TALR Circuit Diagrams.

5-6-4. TALR Tally Out 4

■ **Appearance**

50-pin D-sub (female)

■ **Pin Assignment Table**

PIN No	SIGNAL	#	PIN No	SIGNAL	#
1	G Tally OUT17 (C.) *1		28	G Tally OUT26 (C.)	
2	G Tally OUT17 (COM.) *2	49	29	G Tally OUT26 (COM.)	58
3	G Tally OUT17 (O.) *3		30	G Tally OUT26 (O.)	
4	G Tally OUT18 (C.)		31	G Tally OUT27 (C.)	
5	G Tally OUT18 (COM.)	50	32	G Tally OUT27 (COM.)	59
6	G Tally OUT18 (O.)		33	G Tally OUT27 (O.)	
7	G Tally OUT19 (C.)		34	G Tally OUT28 (C.)	
8	G Tally OUT19 (COM.)	51	35	G Tally OUT28 (COM.)	60
9	G Tally OUT19 (O.)		36	G Tally OUT28 (O.)	
10	G Tally OUT20 (C.)		37	Still 1 (C.)	
11	G Tally OUT20 (COM.)	52	38	Still 1 (COM.)	61
12	G Tally OUT20 (O.)		39	Still 1 (O.)	
13	G Tally OUT21 (C.)		40	Still 2 (C.)	
14	G Tally OUT21 (COM.)	53	41	Still 2 (COM.)	62
15	G Tally OUT21 (O.)		42	Still 2 (O.)	
16	G Tally OUT22 (C.)		43	Still 3 (C.)	
17	G Tally OUT22 (COM.)	54	44	Still 3 (COM.)	63
18	G Tally OUT22 (O.)		45	Still 3 (O.)	
19	G Tally OUT23 (C.)		46	Still 4 (C.)	
20	G Tally OUT23 (COM.)	55	47	Still 4 (COM.)	64
21	G Tally OUT23 (O.)		48	Still 4 (O.)	
22	G Tally OUT24 (C.)		49	OPEN	
23	G Tally OUT24 (COM.)	56	50	GND	
24	G Tally OUT24 (O.)				
25	G Tally OUT25 (C.)				
26	G Tally OUT25 (COM.)	57			
27	G Tally OUT25 (O.)				

\# Output switch
∗1）C. = Closed circuit, ∗2）COM. = Common, ∗3）O. = Open circuit

◆ **To fabricate connection cable:**
Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALR.
Assembly parts supplied are as given below.
　　　　Backshell: DD-C8-J13 (JAE))
　　　　Connector Core: D50P-N (JAE)

Note

Note that TALR Tally Out 1 through Tally Out 4 circuit diagrams are identical
and that the circuit diagrams for TALR tally output connectors can be found in
sec. '5-6-5. TALR Circuit Diagrams.

5-6-5. TALR Circuit Diagrams

Note that which circuit applies will depend on the output mode set for each connector pin. See sec, '3-3-1. RELAY Board Pin Settings' previous for details on making settings.
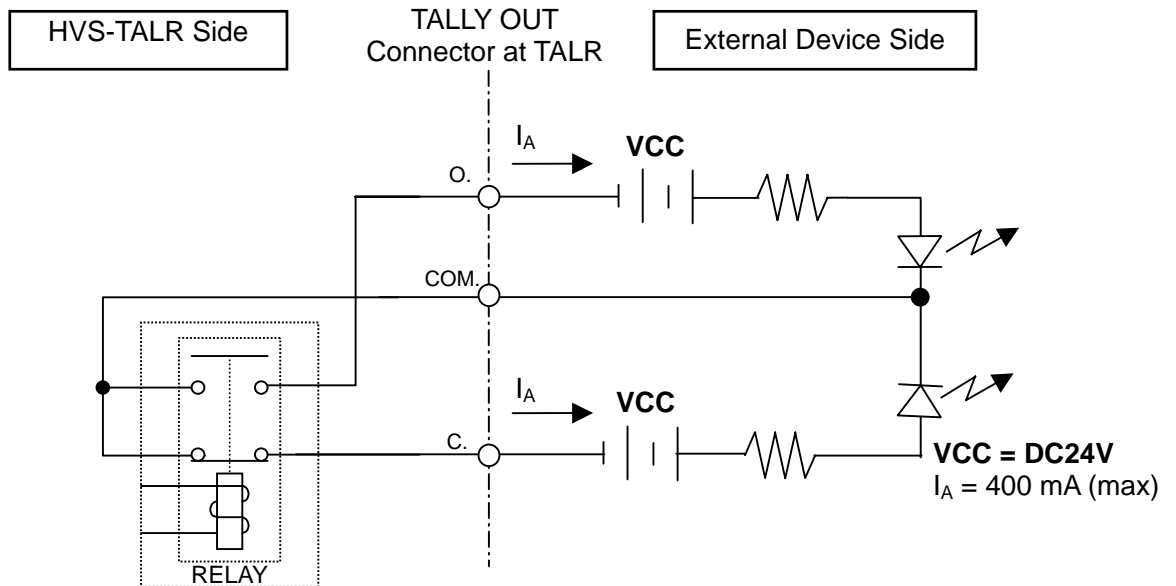
■ **TALR TALLY OUT 1 – 4 Voltage Output Circuit**

(If pin set to voltage output mode)
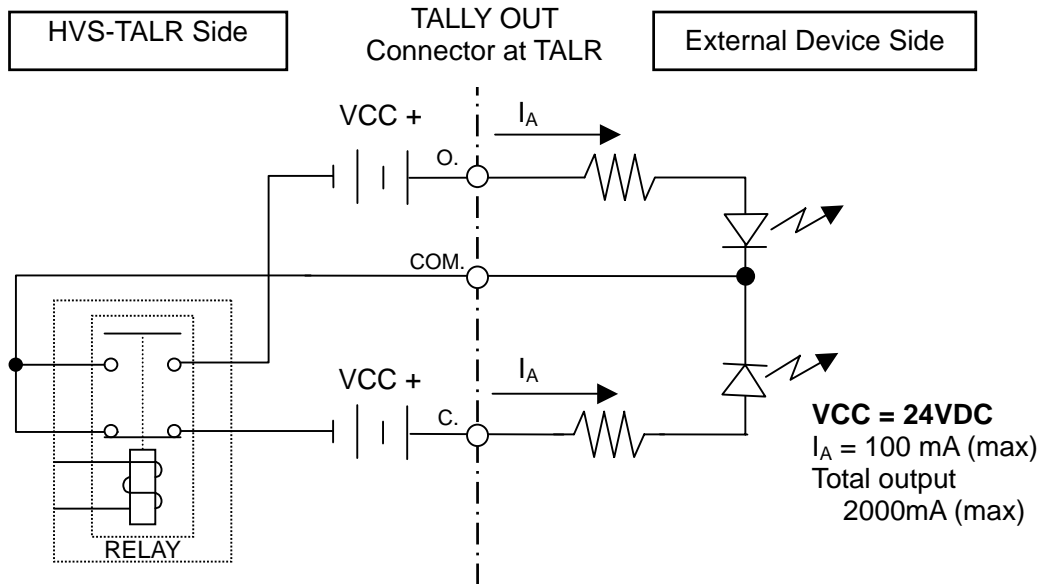
■ **TALR TALLY OUT 1 – 4 Contact Initiated Circuit**

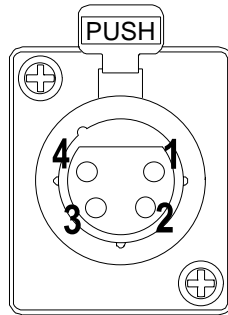(If pin set to contact initiated mode)

Important

When voltage output is set, the max. load at that pin is 100mA. If more than 100mA is required, set pin to contact initiate mode. See sec, '3-3-1. RELAY Board Pin Settings' for setting details.

5-7. DC 24V OUT

DC24V OUT 0.5A

4-pin power connector,
Canon XLR 44-313 F77 (female)

■ **Pin Assignment Table**

PIN NO	SIGNAL	DESCRIPTION
1	+24V DC OUT	24VDC, 0.5A, Capacitor resettable fuse
2	+24V DC OUT	
3	GND	Ground
4	GND	Ground

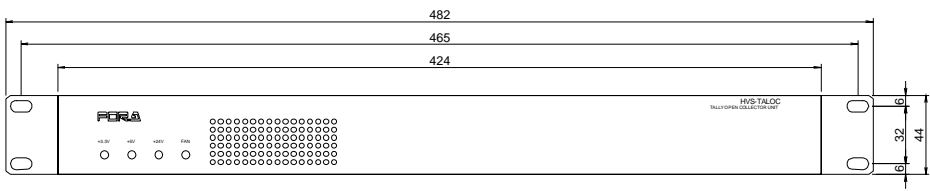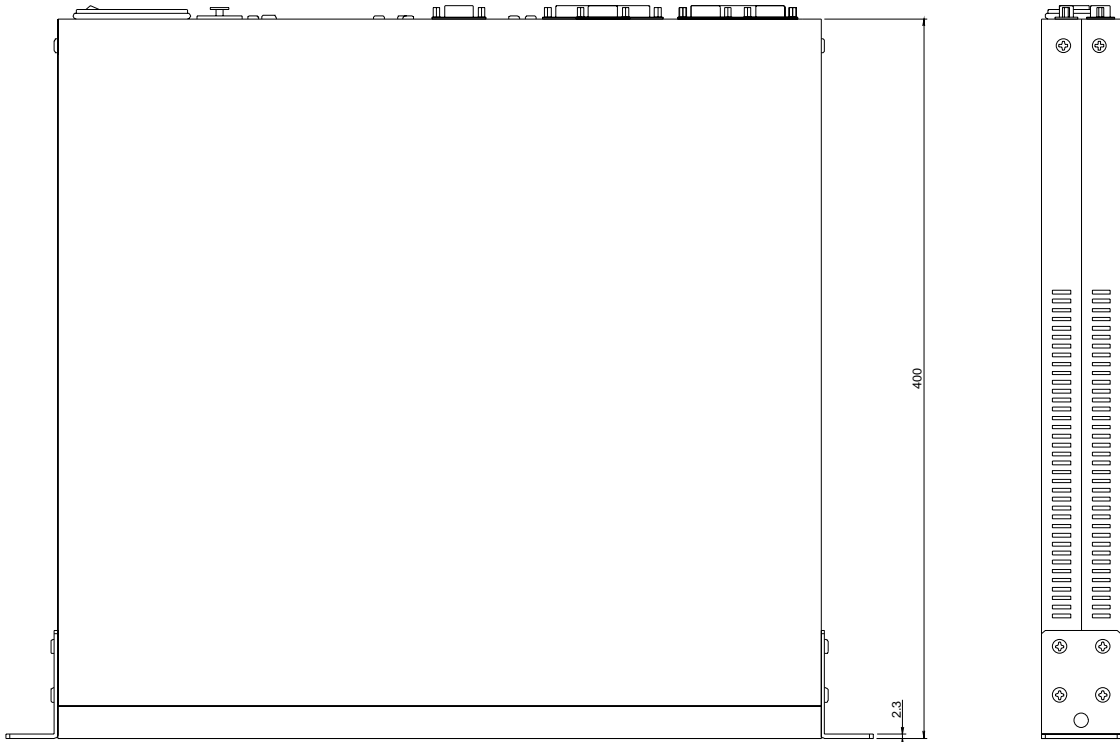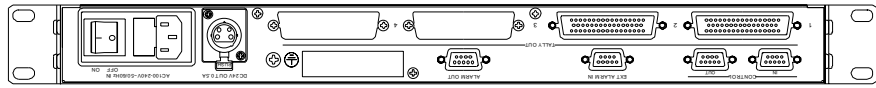| ⚠ **Caution**	The maximum current supplied to the DC OUT connector is 0.5A. Do not feed a current exceeding 0.5A.
	If the fuse protection starts accidentally, disconnect the DC power cable from the unit, power off the unit and set it aside more than 5 minutes until it cools.

22

6. Specifications & Dimensions

6-1. TALOC Specifications

CONTROL IN	RS-422 connector, 1 ea., 9-pin D-sub (female)
CONTROL OUT	RS-422 connector, 1 ea., 9-pin D-sub (female)
EXT ALARM IN	1 ea., 9-pin D-sub (female)
ALARM OUT	1 ea., 9-pin D-sub (female)
TALLY OUT	2 ea., 50-pin D-sub (female)
DC OUT	24VDC, 0.5A, 1ea., XLR 44-313 F77 (female) (Capacitor fused)
Power	100 VAC - 240 VAC $\pm$10%, 50/ 60Hz
Consumption	Approx. 37VA, (40W) at 100VAC;
	Approx. 48VA, (40W) at 220VAC
Temperature	5°C – 40°C
Humidity	30% – 90%（no condensation）
Dimensions	424 (W) x 44 (H) x 400 (D) mm
Weight	Approx. 4.8 kg

6-2. TALR Specifications

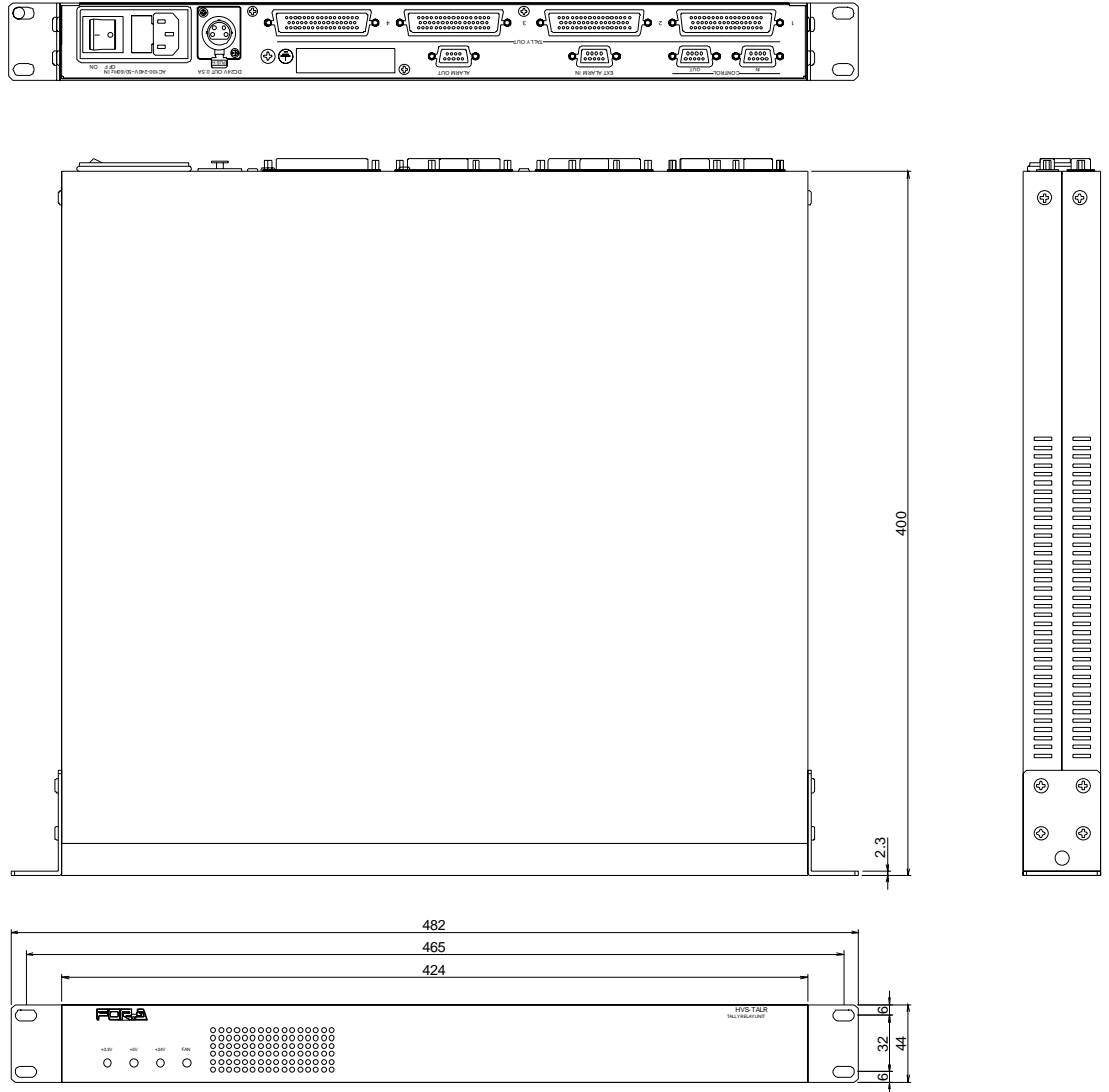|	
CONTROL IN	1 ea., RS-422 connector, 9-pin D-sub (female)
CONTROL OUT	1 ea., RS-422 connector, 9-pin D-sub (female)
EXT ALARM IN	1 ea., 9-pin D-sub (female)
ALARM OUT	1 ea., 9-pin D-sub (female)
TALLY OUT	4 ea., 50-pin D-sub (female)
DC OUT	24VDC, 0.5A, 1ea., XLR 44-313 F77 (female) (Capacitor fused)
Power	100 VAC - 240 VAC $\pm$10%, 50/ 60Hz
Consumption	Approx. 37VA, (40W) at 100VAC;
	Approx. 50VA, (40W) at 220VAC
Temperature	5°C – 40°C
Humidity	30% – 90%（no condensation）
Dimensions	424 (W) x 44 (H) x 400 (D) mm
Weight	Approx. 5.4 kg

6-3. TALOC External Dimensions

482

465

424

400

2.3

6

32

44

6

HVS-TALOC
TALLY/OPEN COLLECTOR UNIT

FOR.A

6-4. TALR External Dimensions

482

465

424

FORA   HVS-TALR
                                                        TALLY RELAY UNIT

+3.3V +5V +24V FAN

400

2.3

6

32

44

6

Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

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*The contents of this manual are subject to change without notice.