

# ART. 4478A/TAS

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SYSTEM  
KEYBOARD  
FOR ART. 4478A/16 & ART. 4478A/32

## INSTALLATION INSTRUCTIONS



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## PRECAUTIONS

- Use only the specified power source.
- Avoid using this unit under the following conditions:
  - in extremely hot, cold or humid places,
  - in dusty places,
  - near appliances generating strong magnetic fields,
  - in places subject to direct sunlight, and
- Unplug this unit from power supply and refer servicing to qualified service personnel under the following conditions:
  - if the unit does not operate normally following the operating instructions
  - if the unit has been dropped or the cabinet has been damaged
  - when the unit exhibits a distinct change in performance.

**This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.**

This unit is produced to comply with Directive 89/336/EEC.



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# SECTION 1

## THE ART. 4478A/TAS SYSTEM KEYBOARD

### 1.1 PREFACE

The art. 4478A/TAS is a simple System Keyboard that allows matrix, telemetry and VTR control. Twenty-five keys and their combinations enable to control all the desired functions. Six built-in LEDs show the momentary state.

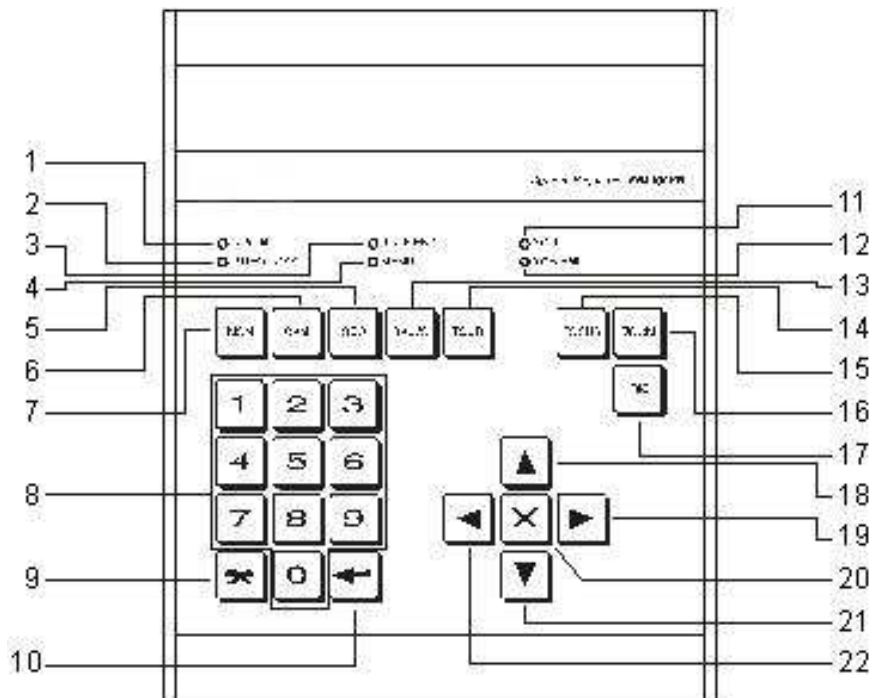
### 1.2 FEATURES

- 25 Keys
- 6 LEDs
- Serial Interface RS-485

## SECTION 2

### CONTROLS

### 2.1 FRONT PANEL



1. **ALARM**  
LED, blinks when Alarms occur.
2. **VIDEO LOSS**  
LED, blinks when one or more video signals of the defined Cameras are lost.
3. **TAPE END**  
LED, blinks when the VCR Tape End occurs. The last ten seconds the LED lights continuously. (Appendix 1)
4. **MENU**  
LED, lights when the Menu Programming is selected.
5. **SEQ**  
Key to start a Sequence on a selected Monitor.
6. **CAM**  
Key to select a Camera.
7. **MON**  
Key to select a Monitor.
8. **Numeric Keypad**  
Used to enter numeric data.
9. **\***  
Shift key.
10. **↵**  
Enter key.
11. **VCR**  
LED, lights when the VCR control is selected.
12. **VCR FAILURE**  
LED, blinks when the VCR Clock pulse runs out for more than twenty seconds.
13. **SALVO**  
Key to bring up a selected Salvo.

14. **TOUR**  
Key to start a selected Tour.
15. **FOCUS**  
Focus control - NEAR.
16. **ZOOM**  
Zoom control - IN.
17. **IRIS**  
Iris control - OPEN.
18. ↑  
P&T control - PAN UP.
19. →  
P&T control - TILT RIGHT
20. **X**  
Exit.
21. ↓  
P&T control - PAN DOWN.
22. ←  
P&T control - TILT LEFT.

## 2.2 KEY COMBINATIONS

- Refer to the installation instruction of the art. 4478A/XX Video Matrix Switcher

Function	Action	Description
<b>ALARM RESET</b>	Press * and <b>1</b> keys.	Reset Alarms.
<b>MON RESET</b>	Press * and <b>2</b> keys.	Reset Alarms in a selected Monitor.
<b>VCR</b>	Press * and <b>3</b> keys.	Select and exit VCR control.
<b>TOUR STOP</b>	Press * and <b>4</b> keys.	Momentary stop a Tour.
<b>TOUR CONT</b>	Press * and <b>5</b> keys.	Continue a Tour.
<b>SET PRESET</b>	Press * and <b>6</b> keys.	Set a Camera preset scenes.
<b>PRESET</b>	Press * and <b>7</b> keys.	Move a selected Camera to a Preset Scene.
<b>SCAN</b>	Press * and <b>8</b> keys.	Moving a selected Camera through predefined vectors
<b>LOG-OUT</b>	Press * and <b>9</b> keys.	Log-Out from a System.
<b>AUX</b>	Press * and <b>CAM</b> keys.	Auxiliary control
<b>MON EDIT</b>	Press * and <b>MON</b> keys.	Edit a Monitor Parameters.
<b>MULTI-SEQ</b>	Press * and <b>SEQ</b> keys.	Start Multi-Sequence.
<b>MULTI SALVO</b>	Press * and <b>SALVO</b> keys.	Bring-up Multi-Salvo
<b>GROUP</b>	Press * and <b>TOUR</b> keys.	Start a Group.
<b>FOCUS-FAR</b>	Press * and <b>FOCUS</b> keys.	Focus control.
<b>ZOOM-OUT</b>	Press * and <b>ZOOM</b> keys.	Zoom control.
<b>IRIS-CLOSE</b>	Press * and <b>IRIS</b> keys.	Iris control.
<b>MENU</b>	Press * and <b>MON</b> and <b>TOUR</b> keys.	Menu programming with ←, ↑, → and ↓ as Cursor Keys.

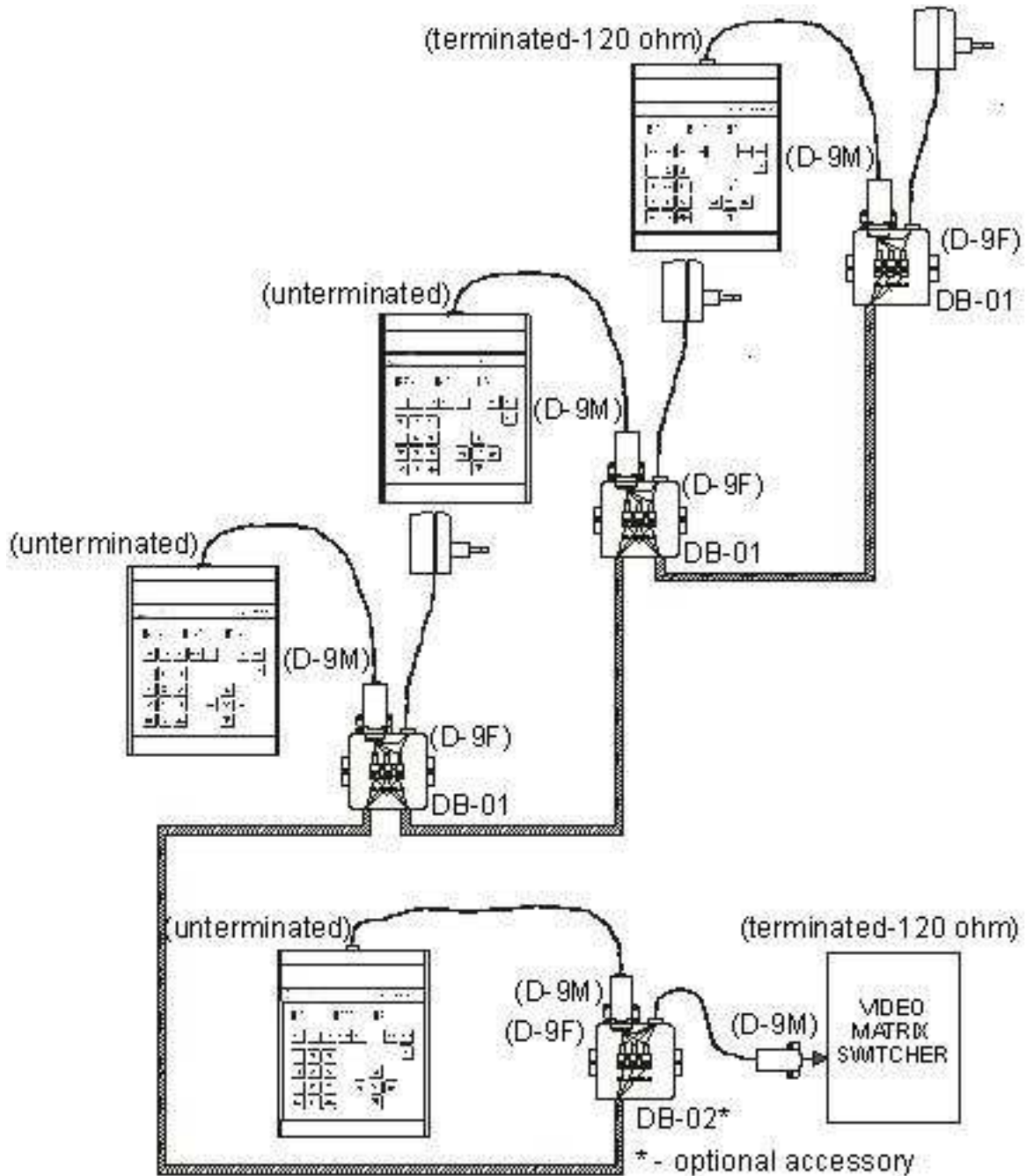


## 2.2.1 VCR control

Step	Action		
1	Press * and 3 keys to access that selection. VCR LED lights.		
2	Enter the Number of the desired Video Cassette Recorder to be controlled.		
3	Press the ↵ key to accept the VCR Number.		
4	<b>Press the following keys to control the selected Video Cassette Recorder:</b>		
	<b>Function</b>	<b>Action</b>	<b>Description</b>
	REW	Press 1 key.	Rewind.
	PLAY	Press 2 key.	Play.
	FF	Press 3 key.	Fast forward.
	STOP	Press 4 key.	Stop.
	PAUSE/STILL	Press 5 key.	Pause and still.
	REC	Press 6 key.	Record.
	Special operation	Press 7 key.	Stop ⇒ Reverse Play for 10 sec. ⇒ Stop ⇒ Play for 10 sec. ⇒ Stop ⇒ Record
5	Press * and 3 keys to Exit the VCR control.		

## 2.3 CONNECTIONS

- Be sure to disconnect the power supply before connecting to other equipment.
- Also refer to the instruction manual of the equipment to be connected.

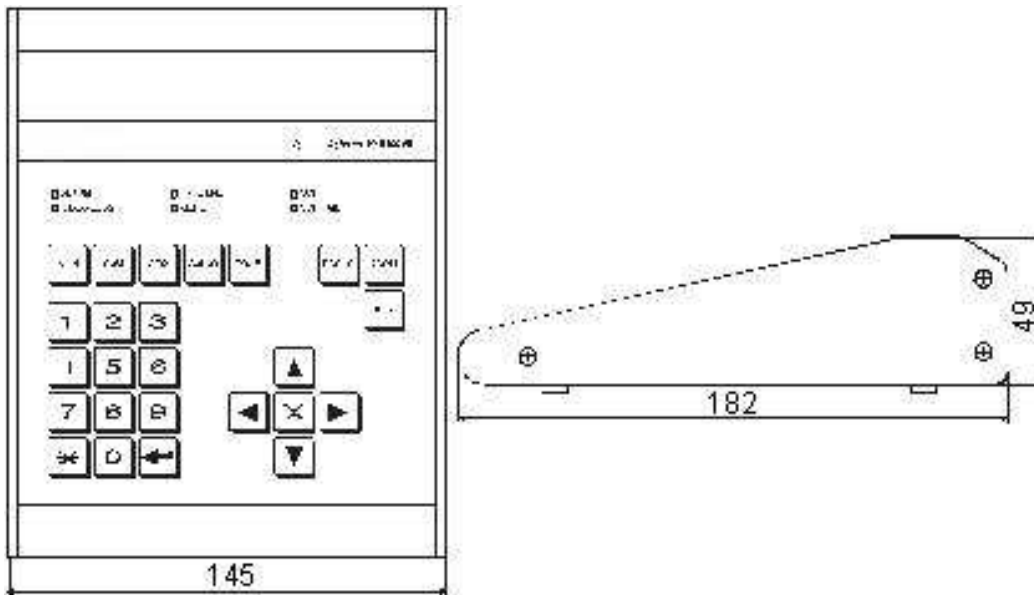


**Note:**

- These connections are typical of two or more System Keyboards. (max. 32)
- The RS-485 data cable length could be few kilometres at 9600 bps. (depends on the cable characteristics)

## SECTION 3 TECHNICAL SPECIFICATIONS

### 3.1 APPEARANCE

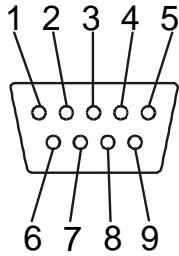


### 3.2 SPECIFICATIONS

Number of Keys	25 (foil)
Number of LEDs	6
Control Input/Output	RS-485 (D-9M)
Keyboard address	1-16, Internal DIP-Switch
Termination	120 ohm, Internal Jumper
Power requirement	12 V DC
Consumption	max. 300 mA DC
Dimensions (W x H x D)	125 x 150 x 34 mm
Weight	0.5 kg

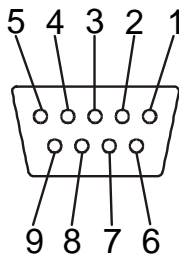
### 3.2.1 Pin assignment

**D-9M connector:**



PIN	KEYBOARD CABLE
1	RS+
2	RS-
3	NC
4	+12V
5	GND
6	NC
7	NC
8	NC
9	NC

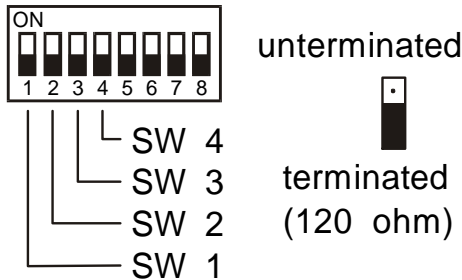
**D-9F connector:**



PIN	DB-01 DB-02
1	RS+
2	RS-
3	NC
4	+12V
5	GND
6	NC
7	NC
8	NC
9	NC

### 3.2.2 Internal DIP-switch and Jumper settings

- Disconnect the unit from the power supply.
- Remove the four screws on the casing's lower panel and open the lower lid.
- Set the selected keyboard address using the SW1 to SW4 switches of the DIP-switch.
- Move the Jumper to the selected position.
- Close the casing of the art. 4478A/TAS System Keyboard.



KEYBOARD ADDRESS	SW 1	SW 2	SW 3	SW 4
1	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
6	ON	OFF	ON	OFF
7	OFF	ON	ON	OFF
8	ON	ON	ON	OFF
9	OFF	OFF	OFF	ON
10	ON	OFF	OFF	ON
11	OFF	ON	OFF	ON
12	ON	ON	OFF	ON
13	OFF	OFF	ON	ON
14	ON	OFF	ON	ON
15	OFF	ON	ON	ON
16	ON	ON	ON	ON

### 3.3 OPTIONAL ACCESSORIES

- DB-02 Distribution Box with D-9M Cable Connector to connect two or more System Keyboards.



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