External USB-DVD Drive user guide

I. Preface

This document describes how to use the external USB DVD Drive for the Fujitsu M12/M10 System of Oracle and Fujitsu (hereafter referred to as “USB-DVD Drive”).

II. Audience

This document is written for system administrators responsible for connecting/removing USB-DVD Drives from the Fujitsu M12/M10 System.

III. Related documentation

Regarding the use of the USB-DVD Drive, please see the various documents for the Fujitsu M12/M10 System.

All the documents for the Fujitsu M12/M10 System are available online.

- Oracle software-related documents (Oracle Solaris, and so on)
  http://www.oracle.com/documentation/

- Fujitsu documents
  - Japanese site
  - Global site

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1. External USB–DVD Drive information

This document targets the following USB–DVD Drive.

<table>
<thead>
<tr>
<th>Name</th>
<th>Fujitsu P/N</th>
<th>Oracle P/N</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>External USB DVD Drive Unit</td>
<td>–</td>
<td>7111911</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>–</td>
<td>7111912</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPOX9DV2F</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Super Multi Drive Unit</td>
<td>FMV–NSM54</td>
<td>–</td>
<td>1.2</td>
</tr>
<tr>
<td>External USB DVD Drive Unit</td>
<td>–</td>
<td>7106761</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>–</td>
<td>7106762</td>
<td></td>
</tr>
</tbody>
</table>

1.1 External USB DVD Drive Unit
(Oracle P/N: 7111911/7111912, Fujitsu P/N: SPOX9DV2F)

This drive is readable and writable. Please use to install OS and driver.
This drive can make installation media.

1) Specification

<table>
<thead>
<tr>
<th>Item</th>
<th>Supported media and speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>Read</td>
</tr>
<tr>
<td></td>
<td>CD-ROM : Max. 24x</td>
</tr>
<tr>
<td></td>
<td>CD-R : Max. 24x</td>
</tr>
<tr>
<td></td>
<td>CD-RW : Max. 24x</td>
</tr>
<tr>
<td></td>
<td>DVD-ROM : Max. 8x</td>
</tr>
<tr>
<td></td>
<td>DVD-R : Max. 8x</td>
</tr>
<tr>
<td></td>
<td>DVD-R DL : Max. 8x</td>
</tr>
<tr>
<td></td>
<td>DVD-RW : Max. 8x</td>
</tr>
<tr>
<td></td>
<td>DVD+R : Max. 8x</td>
</tr>
<tr>
<td></td>
<td>DVD+RW : Max. 8x</td>
</tr>
<tr>
<td>Write</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CD-R : Max. 24x</td>
</tr>
<tr>
<td></td>
<td>CD-RW : Max. 24x</td>
</tr>
<tr>
<td></td>
<td>DVD-R : Max. 8x</td>
</tr>
<tr>
<td></td>
<td>DVD-R DL : Max. 6x</td>
</tr>
<tr>
<td></td>
<td>DVD-RW : Max. 6x</td>
</tr>
<tr>
<td></td>
<td>DVD+R : Max. 8x</td>
</tr>
<tr>
<td></td>
<td>DVD+RW : Max. 8x</td>
</tr>
</tbody>
</table>
2) Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB-DVD Drive</td>
<td>USB-DVD Drive Unit</td>
</tr>
<tr>
<td>USB cable (Y type)</td>
<td>220 cm</td>
</tr>
<tr>
<td>AC adapter (separate type)</td>
<td>120 cm (not including the AC cable length)</td>
</tr>
</tbody>
</table>

* AC cable is not included. Please order the AC cable separately.

3) Connection diagram

![Connection diagram](image)

4) Other specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (W × D × H)</td>
<td>144 mm × 137.5 mm × 14 mm (USB-DVD Drive Unit)</td>
</tr>
<tr>
<td>Weight</td>
<td>200 g (USB-DVD Drive Unit)</td>
</tr>
<tr>
<td>Rated input voltage (AC adapter)</td>
<td>100–240 VAC</td>
</tr>
<tr>
<td>Connection to power outlet</td>
<td>[by AC cable, to be separately arranged by the customer]</td>
</tr>
</tbody>
</table>
1.2 Super Multi Drive Unit (FMV-NSM54)

This drive is Read only. Please use to install OS and driver.

1) Specification

<table>
<thead>
<tr>
<th>Item</th>
<th>Supported media and speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>Read</td>
</tr>
<tr>
<td></td>
<td>CD-ROM : Max.24x</td>
</tr>
<tr>
<td></td>
<td>CD-R : Max.24x</td>
</tr>
<tr>
<td></td>
<td>CD-RW : Max.24x</td>
</tr>
<tr>
<td></td>
<td>DVD-ROM : Max.8x</td>
</tr>
<tr>
<td></td>
<td>DVD-R : Max.8x</td>
</tr>
<tr>
<td></td>
<td>DVD-RW : Max.8x</td>
</tr>
<tr>
<td></td>
<td>DVD+R : Max.8x</td>
</tr>
<tr>
<td></td>
<td>DVD+RW : Max.8x</td>
</tr>
</tbody>
</table>

2) Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB-DVD Drive</td>
<td>USB-DVD Drive Unit</td>
</tr>
<tr>
<td>USB cable</td>
<td>50 cm</td>
</tr>
<tr>
<td></td>
<td>Option: Extension cable (200 cm)</td>
</tr>
<tr>
<td>AC adapter</td>
<td>Cable length 180 cm</td>
</tr>
<tr>
<td></td>
<td>(not including the AC adapter)</td>
</tr>
</tbody>
</table>

3) Connection diagram
4) Other specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (W × D × H)</td>
<td>137 mm × 154 mm × 20 mm (USB-DVD Drive Unit)</td>
</tr>
<tr>
<td>Weight</td>
<td>320 g (USB-DVD Drive Unit)</td>
</tr>
<tr>
<td>Rated input voltage (AC adapter)</td>
<td>100–120 VAC</td>
</tr>
<tr>
<td>Connection to power outlet</td>
<td>JIS C 8303 class II</td>
</tr>
</tbody>
</table>
1.3 External USB DVD Drive Unit (Oracle P/N: 7106761/7106762)

This drive is readable and writable. Please use to install OS and driver. This drive can make installation media.

1) Specification

<table>
<thead>
<tr>
<th>Item</th>
<th>Supported media and speed</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Read</th>
<th>Write</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Read</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CD-ROM : Max. 24x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CD-R : Max. 24x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CD-RW : Max. 24x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DVD-ROM : Max. 8x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DVD-R : Max. 8x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DVD-RW : Max. 8x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DVD+R : Max. 8x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DVD+RW : Max. 8x</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Write</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD-R : Max. 24x</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD-RW : Max. 24x</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DVD-R : Max. 8x</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DVD-RW : Max. 6x</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DVD+R : Max. 8x</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DVD+RW : Max. 8x</td>
</tr>
</tbody>
</table>

2) Components

<table>
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<th>Component</th>
<th>Remarks</th>
</tr>
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<tbody>
<tr>
<td>USB-DVD Drive</td>
<td>USB-DVD Drive Unit</td>
</tr>
<tr>
<td>USB cable (Y type)</td>
<td>220 cm</td>
</tr>
<tr>
<td>AC adapter (separate type)</td>
<td>120 cm (not including the AC cable length)</td>
</tr>
</tbody>
</table>

* AC cable is not included. Please order the AC cable separately.
3) **Connection diagram**

![Connection diagram of Fujitsu M12/M10](image)

4) **Other specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions ($W \times D \times H$)</td>
<td>146 mm $\times$ 144 mm $\times$ 20.8 mm (USB–DVD Drive Unit)</td>
</tr>
<tr>
<td>Weight</td>
<td>300 g (USB–DVD Drive Unit)</td>
</tr>
<tr>
<td>Rated input voltage (AC adapter)</td>
<td>100–240 VAC</td>
</tr>
<tr>
<td>Connection to power outlet</td>
<td>[by AC cable, to be separately arranged by the customer]</td>
</tr>
</tbody>
</table>
2. Connecting/Removing the USB–DVD Drive

The USB–DVD Drive can be connected or removed while the Fujitsu M12/M10 System is running (when Oracle Solaris is running), and also while the Fujitsu M12/M10 System is stopped (when its power is switched off).

Note: Connection and removal of the USB–DVD Drive in the OpenBootPROM environment is not supported.

If connection/removal of the USB–DVD Drive is done in the OpenBootPROM environment, OpenBootPROM may become unresponsive. In this case, stop the Fujitsu M12/M10 System.

2.1 Connecting the USB–DVD Drive to the stopped Fujitsu M12/M10 System

1) Connect the AC adapter to the USB–DVD Drive

First connect the USB cable to the USB–DVD Drive and the plug of the USB cable to the jack of the AC adapter, and then connect the AC adapter to the power outlet.

2) Connect the USB–DVD Drive to the Fujitsu M12/M10 System

Connect the other end of the USB cable you connected to the USB–DVD Drive to a USB port either on the front panel or the rear panel of the Fujitsu M12/M10 System.

Note: The XSCF USB port on the rear panel cannot be used. Use the USB port for the USB–DVD Drive.

3) Start the Fujitsu M12/M10 System

After powering on the Fujitsu M12/M10 System, execute the boot command from the ok prompt on the domain console (OS console).

```
ok boot -r
```

4) Check the USB–DVD Drive

After starting the Fujitsu M12/M10 System, check the status of the USB–DVD Drive using the cfgadm command. Check that on the line where “usb–cdrom” is displayed in the “Type” field with the cfgadm command, “configured” is displayed in the “Occupant” field.
In the case of Oracle Solaris 11 and Oracle Solaris 10

```
# cfgadm -al
Ap_Id                          Type         Receptacle   Occupant     Condition
  .                              .            .            .              .
usb1/1                          usb-cdrom    connected   configured   ok
  .                              .            .            .              .
```

5) Check USB-DVD Drive access

Execute the cdrw command, and check that USB-DVD Drive access is recognized. Check that information on the connected USB-DVD Drive is displayed.

```
# cdrw -l
Looking for CD devices...

<table>
<thead>
<tr>
<th>Node</th>
<th>Connected Device</th>
<th>Device type</th>
</tr>
</thead>
<tbody>
<tr>
<td>cdrom0</td>
<td>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</td>
<td>CD Reader/Writer</td>
</tr>
</tbody>
</table>
```

If the boot command without -r is executed at OS startup, it may not be possible to recognize access.

If information on the connected USB-DVD Drive is not displayed, perform a rebuild with the devfsadm command and then check access again.

```
# devfsadm
```

2.2 Removing the USB-DVD Drive from the stopped Fujitsu M12/M10 System

Note: Before stopping the system, remove any media from the USB-DVD Drive.

1) Remove the USB-DVD Drive from the Fujitsu M12/M10 System

Remove the USB cable from its USB port either on the front panel or the rear panel of the Fujitsu M12/M10 System.

2) Remove the AC adapter from the USB-DVD Drive

Remove the AC adapter connected to the USB cable of the USB-DVD Drive from the power outlet.
2.3 Connecting the USB–DVD Drive to the running Fujitsu M12/M10 System

Note: Superuser status is required to connect or remove the USB–DVD Drive while the system is running.

1) Check the status of the removable media management service
   Check the status of the removable media management service with the svcs command.
   - In the case of Oracle Solaris 11
     
     | # svcs hal |
     | STATE      | STIME | FMRI                        |
     | online     | hh:nn:ss svc:/system/hal:default |

   - In the case of Oracle Solaris 10
     
     | # svcs volfs |
     | STATE      | STIME | FMRI                        |
     | online     | hh:nn:ss svc:/system/volfs:default |

   If STATE is displayed as “online”, the removable media management service is running. In this case, proceed to Step 4).

2) Start the removable media management service
   If STATE is displayed as “disabled”, the removable media management service is stopped. In this case, start the removable media management service with the svcadm command.
   - In the case of Oracle Solaris 11
     
     | # svcs hal |
     | STATE      | STIME | FMRI                        |
     | disabled   | hh:nn:ss svc:/system/hal:default |
     | # svcadm enable hal |
In the case of Oracle Solaris 10

```
# svcs volfs
STATE STIME FMRI
disabled hh:mm:ss svc:/system/volfs:default
# svcadm enable volfs
```

3) Check that the removable media management service is running

Display the status of the removable media management service with the `svcs` command, and check that `STATE` is "online".

In the case of Oracle Solaris 11

```
# svcs hal
STATE STIME FMRI
online hh:mm:ss svc:/system/hal:default
```

In the case of Oracle Solaris 10

```
# svcs volfs
STATE STIME FMRI
online hh:mm:ss svc:/system/volfs:default
```

4) Connect the AC adapter to the USB-DVD Drive

First connect the USB cable to the USB-DVD Drive, next connect the plug of the USB cable to the jack of the AC adapter, and then connect the AC adapter to the power outlet.

5) Connect the USB-DVD Drive

Connect the other end of the USB cable that is connected to the USB-DVD Drive to the USB port either on the front panel or the rear panel of the Fujitsu M12/M10 System.

Note: The XSCF USB port on the rear panel cannot be used. Use the USB port for the USB-DVD Drive.

6) Check the USB-DVD Drive

Check the status of the USB-DVD Drive with the `cfgadm` command. Check that on the line where “usb-cdrom” is displayed in the “Type” field with the `cfgadm` command, “configured” is displayed in the “Occupant” field.
In the case of Oracle Solaris 11 and Oracle Solaris 10

```
# cfgadm -a!
Ap_Id                          Type         Receptacle   Occupant     Condition
                                .           .            .            .
usb1/1                         usb-cdrom    connected    configured   ok
                                .           .            .            .
```

7) **Check USB-DVD Drive access**

Execute the `cdrw` command, and check that USB-DVD Drive access is recognized. Check that information on the connected USB-DVD Drive is displayed.

```
# cdrw -l
Looking for CD devices...
  Node   Connected Device                Device type
        --------------------------------
            cdrom0               xxxxxxxxxxxxxxxxxxxxx | CD Reader/Writer
```

### 2.4 Removing the USB-DVD Drive from the running Fujitsu M12/M10 System

Note: Superuser status is required to connect or remove the USB-DVD Drive while the system is running.

Note: Before removing the USB-DVD Drive, remove any media from the USB-DVD Drive.

1) **Stop the removable media management service**

Stop the removable media management service with the `svcadm` command.

- In the case of Oracle Solaris 11

```
# svcadm disable hal
```

- In the case of Oracle Solaris 10

```
# svcadm disable volfs
```

2) **Check that the removable media management service is stopped**

Display the state of the removable media management service with the `svcs` command, and check that STATE is “disabled”.

```
# svcadm disable hal
# svcadm disable volfs
```

```
# svcs
```

```
# svcadm disable hal
```

```
svcs
```

```
svcs hal
```

```
svcs hal
```

```
svcs hal
```

```
svcs hal
```

```
svcs hal
```

```
svcs hal
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svcs hal
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svcs hal
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svcs hal
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svcs hal
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svcs hal
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svcs hal
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svcs hal
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svcs hal
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svcs hal
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svcs hal
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svcs hal
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svcs hal
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```
svcs hal
```

```
svcs hal
```

```
svcs hal
```
- In the case of Oracle Solaris 11

```
# svcs hal
STATE   STIME   FMRI
disabled hh:nn:ss svc:/system/hal:default
```

- In the case of Oracle Solaris 10

```
# svcs volfs
STATE   STIME   FMRI
disabled hh:nn:ss svc:/system/volfs:default
```

3) Check the status of the USB-DVD Drive

Check the status of the USB-DVD Drive with the `cfgadm` command. If the USB-DVD Drive is connected and in a usable state, on the line where “usb-cdrom” is displayed in the “Type” field, “configured” is displayed in the “Occupant” field.

- In the case of Oracle Solaris 11 and Oracle Solaris 10

```
# cfgadm -al
Ap_Id            Type         Receptacle   Occupant     Condition
  *                *            *            *            *
usb1/1           usb-cdrom   connected   configured   ok
  *                *            *            *            *
```

If “unconfigured” is displayed in the “Occupant” field, or if “usb-cdrom” is not displayed in the “Type” field, proceed to Step 6).

- In the case of Oracle Solaris 11 and Oracle Solaris 10

```
# cfgadm -al
Ap_Id            Type         Receptacle   Occupant     Condition
  *                *            *            *            *
usb1/1           usb-cdrom   connected   unconfigured   ok
  *                *            *            *            *
```
4) Set the USB-DVD Drive in a state where it can be removed

Specify Ap_Id on the line where “usb-cdrom” is displayed in the “Type” field as confirmed in Step 3) in order to set the USB-DVD Drive in a state where it can be removed with the cfgadm command.

- In the case of Oracle Solaris 11 and Oracle Solaris 10

```
# cfgadm -c unconfigure usb1/1
Unconfigure the device: /devices/pci@8000/pci@4/pci@0/pci@1/pci@0/usb@4.1:1
This operation will suspend activity on the USB device
Continue (yes/no)? yes
```

5) Check the status of the USB-DVD Drive

Check the status of the USB-DVD Drive with the cfgadm command. Check that on the line where “usb-cdrom” is displayed in the “Type” field with the cfgadm command, “unconfigured” is displayed in the “Occupant” field.

- In the case of Oracle Solaris 11 and Oracle Solaris 10

```
# cfgadm -a1
Ap_Id     Type         Receptacle   Occupant     Condition
         •            •              •             •
usb1/1   usb-cdrom    connected    unconfigured ok
         •            •              •             •
```

6) Remove the USB-DVD Drive from the Fujitsu M12/M10 System

Remove the USB cable from its USB port either on the front panel or the rear panel of the Fujitsu M12/M10 System.

7) Remove the AC adapter from the USB-DVD Drive

Remove the AC adapter connected to the USB cable of the USB-DVD Drive from the power outlet.

8) Restart the removable media management service

Restart the removable media management service from which the USB-DVD has been removed. For how to start the removable media management service, see Step 1) in Section 1.3.
3. Notes on use

3.1 About media writing

- Please use it as temporary transportation when you write data to the media.

The following usages are not recommended.
- Backup of important data
- Backup of system volume

Writing from which the speed and the quality are requested recommends the tape device.

<Attention>
Please confirm it compares without fail with former data, and data was written correctly after work.

- Please use Single-session (DAO) when writing in the following media. Multi-session (TAO) cannot use.

- Please execute the following when writing to DVD-R DL fails.
  - Remove the AC adapter connected to the USB cable of the USB-DVD Drive from the power outlet.
  - Connecting the USB-DVD Drive. (Refer to 2.3)
  - Please write in a new media at a minimum speed. (3x)

- Message when failing

```
# cdrw -d c1t0d0 -p 6 -i ISO_file
Initializing device...done.
Writing track 1...failed.
```
3.2 Notes on using the USB–DVD Drive

- Use the USB–DVD Drive positioned horizontally. Using the USB–DVD Drive in an upright position will void the warranty.
- Prevent vibrations and shocks during media access.
- Only circular media can be used in the USB–DVD Drive. Do not use non-circular media, as this may cause the USB–DVD Drive to fail. Any failure caused by the use of non-circular media will not be covered by the warranty.
- Do not use media that do not meet the conditions set forth in “Notes on media Use,” warped media, broken media, and cracked media, as doing so may cause the USB–DVD Drive to fail. Any failure caused by the use of such media will not be covered by the warranty.
- The thickness of media specified under DVD standard is 1.14 to 1.5 mm. Use of media that do not conform to this thickness requirement even in part, such as media with a thin recording surface may cause the USB–DVD Drive to fail. Any failure caused by the use of non-standard DVD media will not be covered by the warranty.
- Cleaning the USB–DVD Drive with a commercially available CD-ROM cleaning media may cause dust and other particles to adhere to the lens. Do not use a CD-ROM cleaning media.
- Do not look directly into the laser light source of the USB–DVD Drive. If, for some reason, the device cover becomes damaged and the laser beam leaks out of the device, do not stare at the laser beam. Direct exposure of the eyes to the laser beam may cause visual impairment.
- Do not disassemble, repair, or modify the USB–DVD Drive as this may cause the laser beam to leak outside the device and cause visual impairment.

3.3 Notes on media use

- Do not touch or scratch the recording surface of the media.
- Do not bend the media or place anything heavy on it.
- If the media is soiled or has water drops on it, wipe it from the center hole to the outer edge with a piece of slightly moistened cloth, and then wipe it dry with a piece of dry cloth.
- Protect media from liquids.
- Do not store media in low-temperature or high-temperature locations.
- Do not store media in humid or dusty locations.