

## 24 “M” Menu Instructions

Table 24.1 Overview of M-menu functions

M-menu selection	Feature description
M1	Export an XML file with ALL parameters (as tags) to USB stick.
M2	Export an XML file with ALL parameters (as attributes) to USB stick.
M3	Export an XML file with CHANGED parameters (as tags) to USB stick.
M4	Export an XML file with CHANGED parameters (as attributes) to USB stick.
M5	Import an XML parameter file from USB stick into drive memory.
M6	Import an XML parameter file from USB stick, ignoring all U parameters.
M10	Rename an XML file to a BAK backup file.
M11	Rename a BAK file to an XML file (needs USB stick present).
M12	Copy an XML file to a BAK backup file.
M13	Copy a BAK file to an XML file.
M15	Erase an XML parameter file (needs USB stick present).
M16	Erase a BAK backup file (needs USB stick present).

### 24.1 Important File Rules

- **The Micro-Speed Ultra® requires the file format of a connected flash drive to be FAT32.** If your connected device uses NTFS or exFAT (or any other file format type) you must reformat your drive to FAT32 before using. If a non-FAT32 drive is connected to the Micro-Speed Ultra® and the export sequences described below are attempted, you may see an F9 event code and the Ultra unit will need to be reset.
- M-menu functions work only with files at the root level of a USB stick.
- USB parameter filenames must have the form, “PEMVnn.xml”, where “nn” is a two-digit integer from 00 to 99.
- USB backup filenames must have the form, “PEMVnn.bak”, where “nn” is a two-digit integer from 00 to 99.
- USB memory device (“USB stick”) must support USB 2.0 or later.

### 24.2 To Enter the M-menu

The drive enters the M-menu when these conditions are met:

- Drive is not in a different menu.
- Drive is idle.
- A USB stick is inserted into the USB port.

When the drive enters the M-menu, it briefly displays “M1”, followed by “\*\*”.

### 24.3 To Exit the M-menu

To exit the M1 Menu, hold down [SCROLL] until drive displays “REMOVE STICK”, then remove the USB stick. Or, simply remove the USB stick.

## 24.4 M-menu Features

To access the following features, first enter the M-menu (see Sec. 24.2). The M-menu defaults to feature “M1”. Other M-menu features may be browsed using [INC] and [DEC], and selected with [SCROLL].

### **M1: Export an XML file with ALL parameters (as tags) to USB stick**

**Feature: Export to a USB stick an XML parameter file containing all current drive settings as tags. Includes drive parameters and motor settings.**

NOTE: File will be saved to the root level of the USB stick.

#### **Steps:**

1. Exit any current menu.
2. Insert USB stick into USB port.
  - a. Drive enters M-menu, then displays “M1”, followed by “\*\*”.
3. Press [INC] or [DEC] to browse available filenames.
  - a. Drive will not suggest filenames already present at root level of USB stick. This helps prevent accidental overwriting of any existing files.
4. Press [SCROLL] to select the currently displayed filename.
  - a. Drive will display, “STORE XML TO STICK? Y/N”.
5. To confirm file creation, press [INC].
  - a. If file is created successfully, drive will display “SUCCES”, and then return to M1 in the M-menu.
  - b. If file is not created successfully, drive will display an error message.
6. To cancel file creation, press [DEC] or [SCROLL].
  - a. Drive will display “CANCEL”, and then return to the M-menu.

### **M2: Export an XML file with ALL parameters (as attributes) to USB stick**

**Feature: Export to a USB stick an XML parameter file containing all current drive settings as attributes. Includes drive parameters and motor settings.**

NOTES: This feature is similar to M1, but changes the format of data included in the XMF file. File will be saved to the root level of the USB stick.

#### **Steps:**

1. Exit any current menu.
2. Insert USB stick into USB port.
  - a. Drive enters M-menu.
3. Tap [SCROLL] to go to the “M2” parameter.
  - a. Drive displays “M2”, followed by “\*\*”.
4. Press [INC] or [DEC] to browse available filenames.
  - a. Drive will not suggest filenames already present at root level of USB stick. This helps prevent accidental overwriting of any existing files.
5. Press [SCROLL] to select the currently displayed filename.
  - a. Drive will display, “STORE XML TO STICK? Y/N”.
6. To confirm file creation, press [INC].
  - a. If file is created successfully, drive will display “SUCCES”, and then return to M1 in the M-menu.
  - b. If file is not created successfully, drive will display an error message.
7. To cancel file creation, press [DEC] or [SCROLL].
  - a. Drive will display “CANCEL”, and then return to the M-menu.

## M3: Export an XML file with CHANGED parameters (as tags) to USB stick

**Feature:** Export to a USB stick an XML parameter file containing only changed drive settings as tags.

NOTES: This feature is similar to M1, but only includes changed parameters in the XMF file. File will be saved to the root level of the USB stick.

### Steps:

1. Exit any current menu.
2. Insert USB stick into USB port.
  - a. Drive enters M-menu.
3. Tap [SCROLL] to go to the “M3” parameter.
  - a. Drive displays “M3”, followed by “\*\*”.
4. Press [INC] or [DEC] to browse available filenames.
  - a. Drive will not suggest filenames already present at root level of USB stick. This helps prevent accidental overwriting of any existing files.
5. Press [SCROLL] to select the currently displayed filename.
  - a. Drive will display, “STORE XML TO STICK? Y/N”.
6. To confirm file creation, press [INC].
  - a. If file is created successfully, drive will display “SUCCES”, and then return to M1 in the M-menu.
  - b. If file is not created successfully, drive will display an error message.
7. To cancel file creation, press [DEC] or [SCROLL].
  - a. Drive will display “CANCEL”, and then return to the M-menu.

## M4: Export an XML file with CHANGED parameters (as attributes) to USB stick

**Feature:** Export to a USB stick an XML parameter file containing only changed drive settings as attributes.

NOTES: This feature is similar to M2, but only includes changed parameters in the XMF file. File will be saved to the root level of the USB stick.

### Steps:

1. Exit any current menu.
2. Insert USB stick into USB port.
  - a. Drive enters M-menu.
3. Tap [SCROLL] to go to the “M4” parameter.
  - a. Drive displays “M4”, followed by “\*\*”.
4. Press [INC] or [DEC] to browse available filenames.
  - a. Drive will not suggest filenames already present at root level of USB stick. This helps prevent accidental overwriting of any existing files.
5. Press [SCROLL] to select the currently displayed filename.
  - a. Drive will display, “STORE XML TO STICK? Y/N”.
6. To confirm file creation, press [INC].
  - a. If file is created successfully, drive will display “SUCCES”, and then return to M1 in the M-menu.
  - b. If file is not created successfully, drive will display an error message.
7. To cancel file creation, press [DEC] or [SCROLL].
  - a. Drive will display “CANCEL”, and then return to the M-menu.

## M5: Import an XML parameter file from USB stick into drive memory

**Feature: Import into drive memory an XML parameter file of the type created by feature M1.**

### Steps:

1. Exit any current menu.
2. Insert USB stick into USB port.
  - a. Drive enters M-menu, then displays "M1", followed by "\*\*".
3. Press and hold [SCROLL], until drive enters M-menu selection: about 1-2 seconds.
  - a. Drive will display "/ M1", with a rotating leftmost character "/".
4. Release [SCROLL].
  - a. Drive will display "u M1", with a flashing "u".
5. Press [INC] or [DEC] to browse to the "M5" feature.
6. Press [SCROLL] to select "M5".
  - a. Drive will briefly display "M5", followed by "\*\*".
7. Press [INC] or [DEC] to browse parameter files on USB stick.
8. Press [SCROLL] to select the currently displayed filename.
  - a. Drive will display, "WILL RESET DRIVE OK? Y/N".
9. Press [INC] to confirm reset (or [DEC] to cancel).
  - a. Drive will display "TO UPLOAD XML FILE ENTER CODE NOW".
10. Use [INC] and [DEC] to enter the unlock code, "369".
  - a. To confirm import press [SCROLL].
  - b. If file is imported successfully, drive will display "SUCCE" and then return to M5 in the M-menu.
11. To cancel file import, press [DEC] or [SCROLL].
  - a. Drive will display "CANCEL", and then return to M5 in the M-menu.

### Notes:

If any J parameters are present in file:

- Hp and voltage must be specified in Type tag, and must match drive settings.
- If Hp and voltage are not specified or do not match the drive, the file is not loaded and an error is reported.

## M6: Import an XML parameter file from USB stick, Omitting U parameters

**Feature: This feature is identical to M5, except that motor and tuning data is omitted.**

### Notes:

If any J parameters are present in file:

- Hp and voltage must be specified in Type tag, and must match drive settings.
- If Hp and voltage are not specified or do not match the drive, the file is not loaded and an error is reported.

M6 does not import U parameters, which contain motor and tuning data. This allows one to import data without affecting motor and tuning parameters.

## **M10: Rename an XML file to a BAK backup file**

**Feature: Renames an XML parameter file from PEMVnn.xml to PEMVnn.bak.**

### **Steps:**

1. Press [INC] or [DEC] to browse “PEMVnn.xml” files present at the root level of the USB stick.
2. Press [SCROLL] to select the file you wish to rename.
  - a. Drive will display, “RENAME .XML TO .BAK ? Y/N”.
3. To confirm file renaming, press [INC].
  - a. If file is renamed successfully, drive will display “SUCCES”, and then return to M10 in the M-menu.
4. To cancel file renaming, press [DEC] or [SCROLL].
  - a. Drive will display “CANCEL”, and then return to M10 in the M-menu.

## **M11: Rename a BAK file to an XML parameter file**

**Feature: Renames an BAK backup file from PEMVnn.bak to PEMVnn.xml.**

### **Steps:**

1. Press [INC] or [DEC] to browse “PEMVnn.bak” files present at the root level of the USB stick.
2. Press [SCROLL] to select the file you wish to rename.
  - a. Drive will display, “RENAME .BAK TO .XML? Y/N”.
  - b. If the .XML file exists, drive will display “FULLnn” and the operation will not be allowed for that file number.
3. To confirm file renaming, press [INC].
  - a. If file is renamed successfully, drive will display “SUCCES”, and then return to M11 in the M-menu.
4. To cancel file renaming, press [DEC] or [SCROLL].
  - a. Drive will display “CANCEL”, and then return to M11 in the M-menu.

## **M12: Copy an XML file to a BAK file**

**Feature: Creates a copy of an XML file, but with a BAK filename extension.**

### **Steps:**

1. Press [INC] or [DEC] to browse “PEMVnn.xml” files present at the root level of the USB stick.
2. Press [SCROLL] to select the file you wish to rename.
  - a. Drive will display, “RENAME .XML TO .BAK ? Y/N”.
3. To confirm file renaming, press [INC].

## **M13: Copy a BAK file to an XML file.**

**Feature: Creates a copy of a BAK file, but with an XML filename extension.**

### **Steps:**

1. Press [INC] or [DEC] to browse “PEMVnn.xml” files present at the root level of the USB stick.
2. Press [SCROLL] to select the file you wish to rename.
  - a. Drive will display, “RENAME .XML TO .BAK ? Y/N.”
  - b. If the .XML file exist, drive will display “FULLnn” and the operation will not be allowed for that file number.
3. To confirm file renaming, press [INC].

## **M15: Erase an XML parameter file**

**Feature:** Deletes an existing XML parameter file.

### **Steps:**

1. Press [INC] or [DEC] to browse “PEMVnn.xml” files present at the root level of the USB stick.
2. Press [SCROLL] to select the file you wish to rename.
  - a. Drive will display, “TO ERASE .XML ENTER CODE”.
3. To enable deletion, use [INC] and [DEC] to enter the unlock code, “369”.
4. To confirm deletion press [SCROLL].
  - a. If file is deleted successfully, drive will display “SUCCES” and then return to M15 in the M-menu.
5. To cancel file deletion, press [DEC] or [SCROLL].
  - a. Drive will display “CANCEL”, and then return to M15 in the M-menu.

## **M16: Erase a BAK backup file**

**Feature:** Deletes an existing BAK backup file.

### **Steps:**

1. Press [INC] or [DEC] to browse “PEMVnn.bak” files present at the root level of the USB stick.
2. Press [SCROLL] to select the file you wish to rename.
  - a. Drive will display, “TO ERASE .BAK ENTER CODE”.
3. To enable deletion, use [INC] and [DEC] to enter the unlock code, “369”.
4. To confirm deletion press [SCROLL].
  - a. If file is deleted successfully, drive will display “SUCCES” and then return to M16 in the M-menu.
5. To cancel file deletion, press [DEC] or [SCROLL].
  - a. Drive will display “CANCEL”, and then return to M16 in the M-menu.