Masterclock Firmware Update Procedure for GMR Series, NTP100 Series, NTDS Series, TCDS Series, MDN Series, MC-ECC, MC-EID, MC-EOD20, MC-ECC+, RC600/RC1000

Precautions for the Firmware Update

Please read the update instructions carefully before beginning. The firmware update may take up to 5 -10 minutes per unit. Once the update begins, do not turn off the power supply to the unit until it is time to restart it.

Please follow the procedures as instructed when you update. Note that the update may fail if you do any of the following:
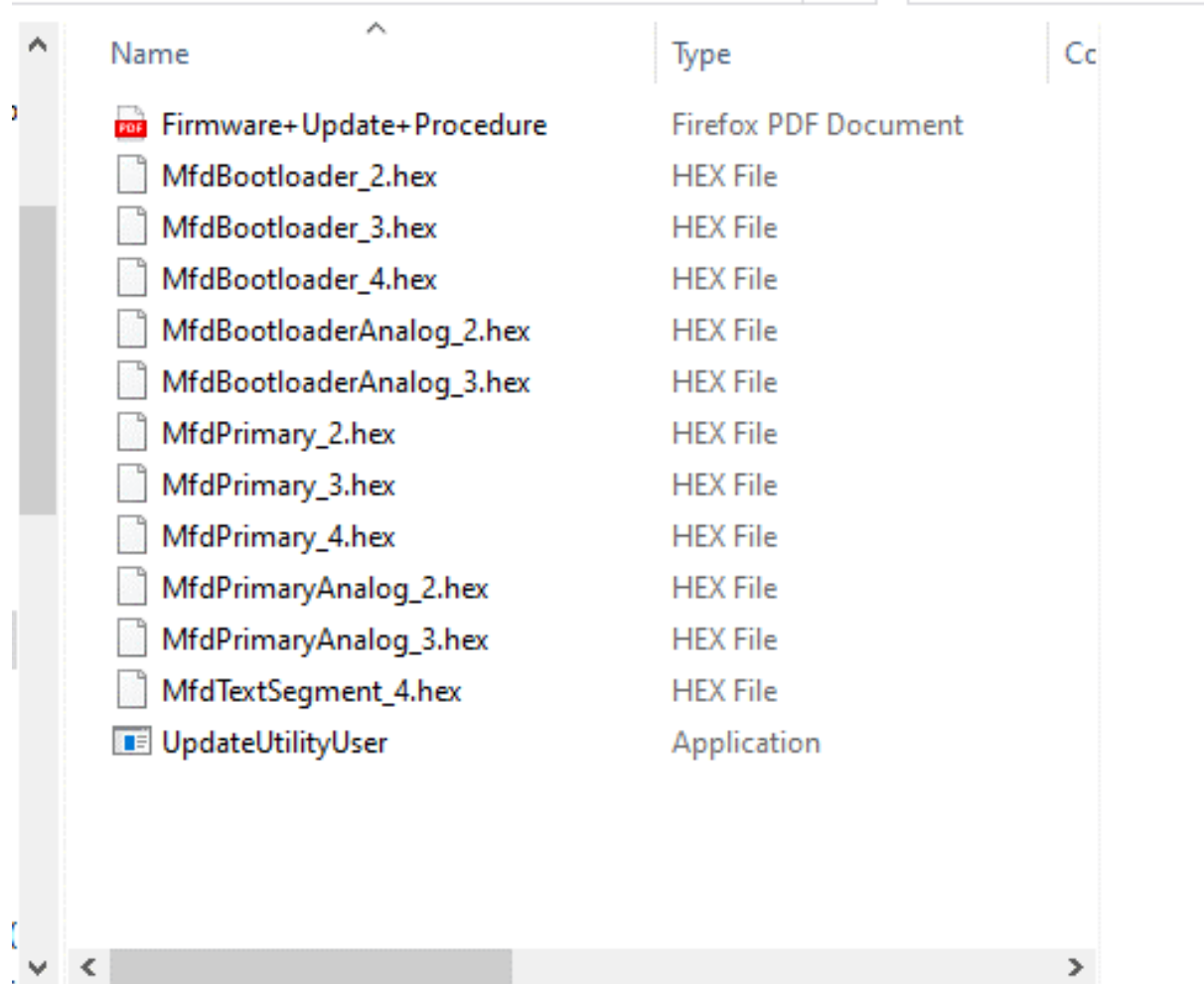*• Interrupt the power supply to the unit*
• Insert or remove the LAN cable from a device in your network when updating over a network.
• Insert or remove a USB cable when updating via USB.

https://www.masterclock.com/masterclock-firmware-updates.html
https://www.masterclock.com/masterclock-software-products.html

1. Download and extract the files from the .zip file containing the latest firmware update utility and firmware.

2. Run the update application named "UpdateUtilityUser.exe" located inside the "Masterclock_Firmware bin files" folder.

Name	Type	Cc
Firmware+Update+Procedure	Firefox PDF Document	
MfdBootloader_2.hex	HEX File	
MfdBootloader_3.hex	HEX File	
MfdBootloader_4.hex	HEX File	
MfdBootloaderAnalog_2.hex	HEX File	
MfdBootloaderAnalog_3.hex	HEX File	
MfdPrimary_2.hex	HEX File	
MfdPrimary_3.hex	HEX File	
MfdPrimary_4.hex	HEX File	
MfdPrimaryAnalog_2.hex	HEX File	
MfdPrimaryAnalog_3.hex	HEX File	
MfdTextSegment_4.hex	HEX File	
UpdateUtilityUser	Application	

3. Click the "Setup" option from the menu bar.
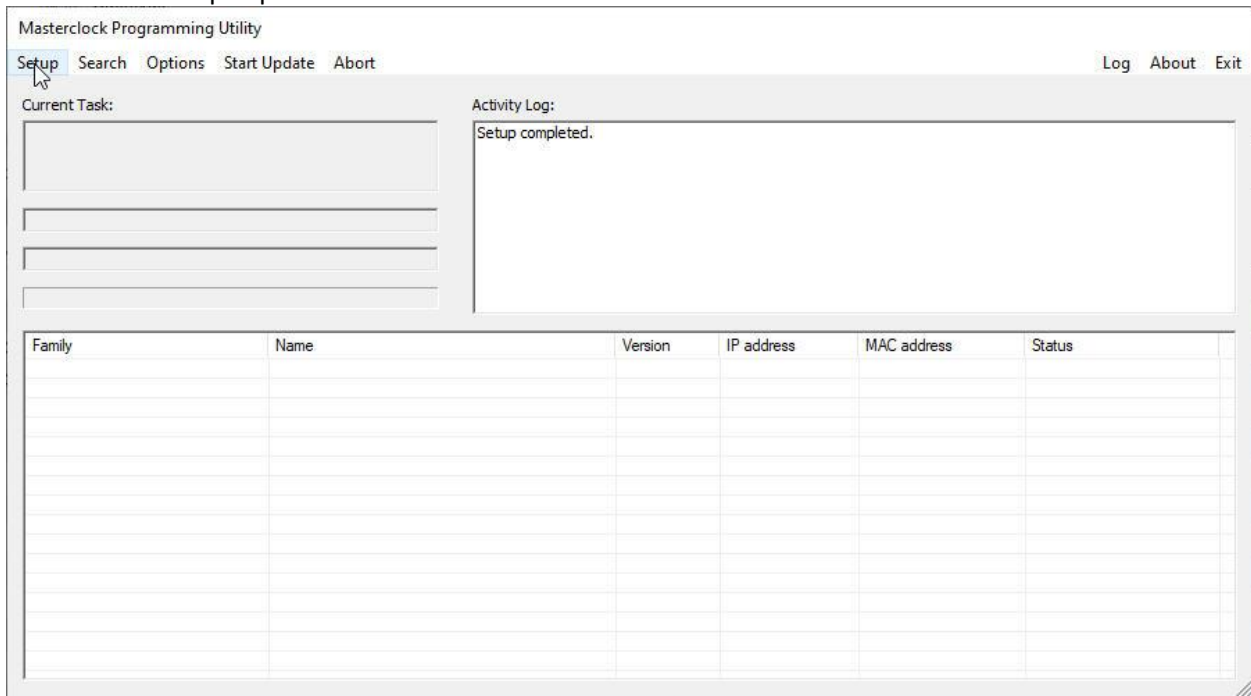
4. Click on the button "Browse…." select the "Masterclock_Firmware bin files" folder and click "okay".
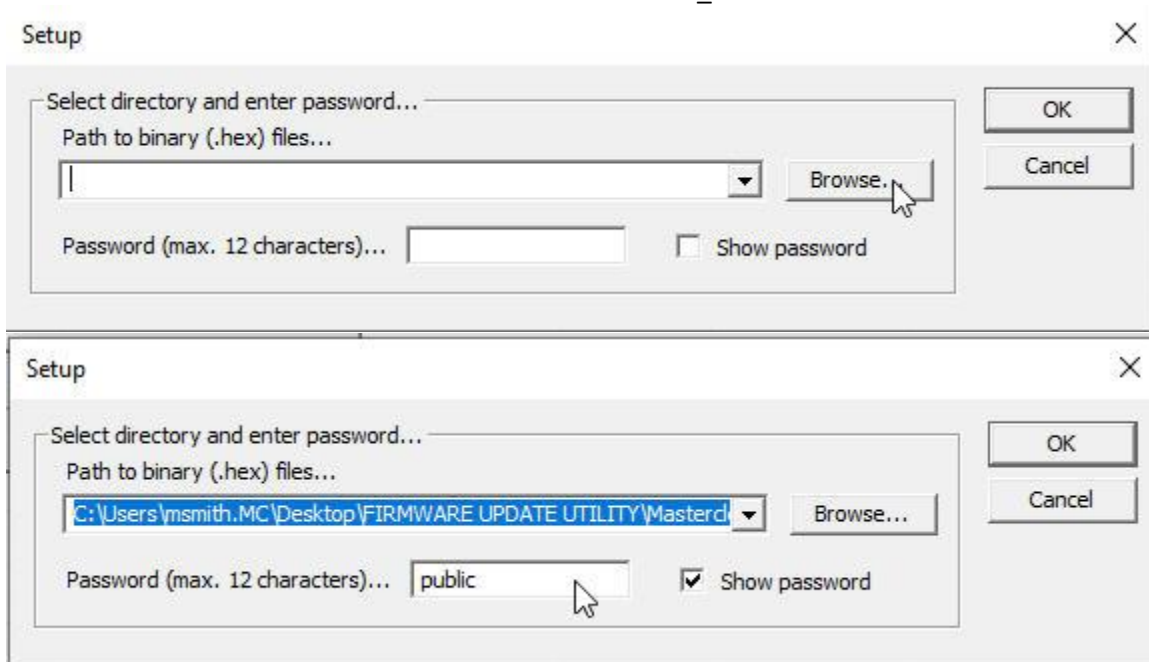
5. Enter the password {Note: the factory default password is "public"}

6. Select "Search" option from the menu bar.

Masterclock Programming Utility

Setup Search Options Start Update Abort   Log About Exit

Current Task: Activity Log:

Family	Name	Version	IP address	MAC address	Status

7. When search is complete select your device(s) from the returned search list.

[Note: it is highly recommended to test update on one device first. After verifying functionality, you may select multiple devices.]

Masterclock Programming Utility

Setup Search Options Start Update Abort   Log About Exit

Current Task: Device search.   Activity Log:
Initiating local subnet search.
Completed device search, found 92 devices in 8.324 seconds

Device search   ✕

Device search Version completed.

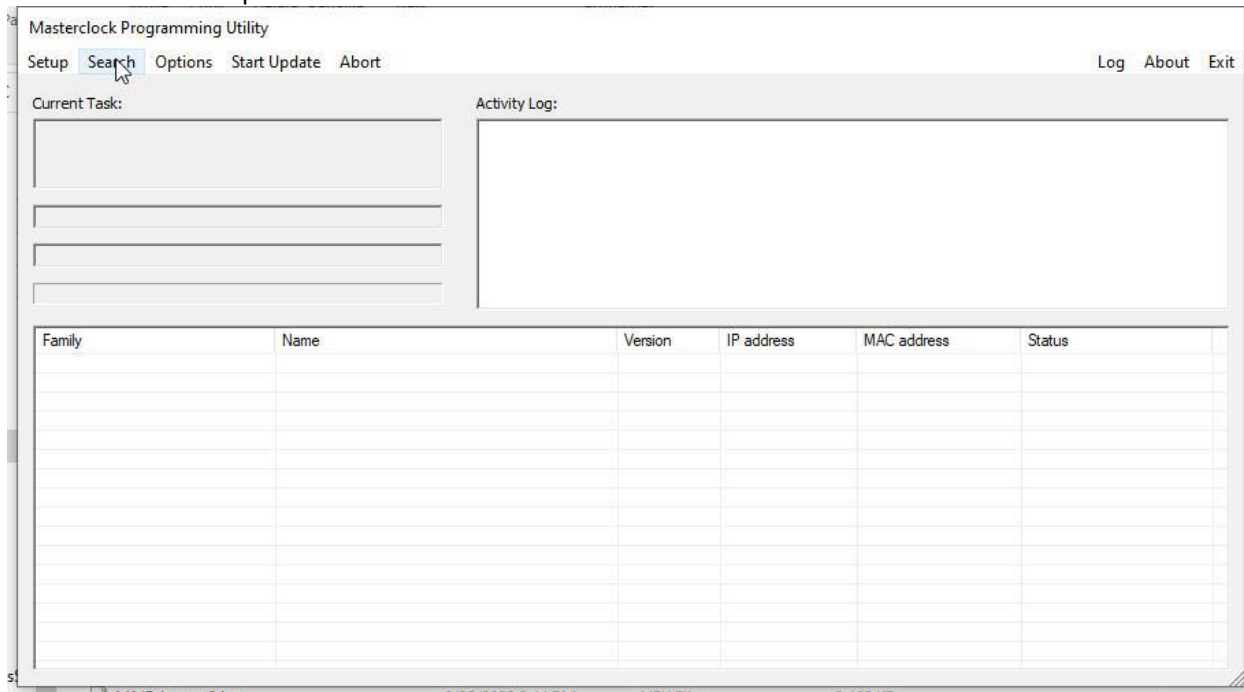| Family	Name	Version	IP address	MAC address	Status
NTDS Clocks	NTDS24-BD:CA	4.4.3	10.0.101.155	00:21:32:01:BD:CA	
MFD Multifunction Display	MDN29-A3:08 DAE Blue Count	5.12.0	10.0.100.220	00:21:32:01:A3:08	
GMR5000 Master Reference	GMR5000-NTP-CB:A2	5.11.0	10.0.100.250	00:21:32:01:CB:A2	
NTP Server	NTP100-OSC-CB:CB	5.9.3	10.0.101.33	00:21:32:01:CB:CB	
MFD Multifunction Display	MDN29-72:33-cds	5.11.58	10.0.100.180	00:21:32:01:72:33	
NTP Server	NTP100-OSC-CB:C7	5.9.3	10.0.101.41	00:21:32:01:CB:C7	
NTDS Clocks	Mike (Essemtec)	5.9.3	10.0.101.43	00:21:32:01:75:59	
NTP Server	NTP100-OSC-CB:C4	5.9.3	10.0.101.35	00:21:32:01:CB:C4	
NTP Server	NTP100-OSC-CB:D3	5.9.3	10.0.101.26	00:21:32:01:CB:D3	
NTP Server	NTP100-OSC-CB:C6	5.9.3	10.0.101.39	00:21:32:01:CB:C6	
NTDS Clocks	Essemtec	5.9.3	10.0.101.1	00:21:32:01:75:55	
CLKNTD Clocks	CLKTCD12-49:99 - DAE	5.12.0	10.0.101.78	00:21:32:01:49:99	
NTDS Clocks	NTDS26LUX-74:47 Mike's Cube	5.12.0	10.0.101.79	00:21:32:01:74:47	
NTDS Clocks	NTDS24/8AL-B0:81	5.12.22	10.0.100.119	00:21:32:01:B0:81	
NTP Server	NTP100-OSC-CB:C9	5.9.3	10.0.101.31	00:21:32:01:CB:C9	

8. Select "Start Update" option from the menu bar. A message "Waiting for device to request download" will be displayed. The selected device should automatically begin downloading within 60 seconds (2-3 minutes if not on a DHCP enabled server). Monitor the message in the application.

Masterclock Programming Utility

Setup   Search   Options   Start Update   Abort   Log   About   Exit

Current Task:

Activity Log:
Initiating local subnet search.
Completed device search, found 92 devices in 8.324 seconds

Family	Name	Version	IP address	MAC address	Status
NTDS Clocks	Essemtec	5.9.3	10.0.101.1	00:21:32:01:75:55	
GMR1000 Master Reference	GMR1000-PTP-9B:47 DAE RACK	5.12.0	10.0.101.101	00:21:32:01:9B:47	
GMR1000 Master Reference	GMR1000-PTP-C7:41 engr kev	5.12.35	10.0.100.69	00:21:32:01:C7:41	
GMR5000 Master Reference	GMR5000-NTP-CB:A2	5.11.0	10.0.100.250	00:21:32:01:CB:A2	
GMR5000 Master Reference	GMR5000-NTP-CB:A3	5.11.0	10.0.100.164	00:21:32:01:CB:A3	
GMR5000 Master Reference	GMR5000-PTP-67:3E engr .26	5.12.22	10.0.100.26	00:21:32:01:67:3E	
GMR5000 Master Reference	GMR5000-PTP-77:DD Kyle	5.10.0	10.0.101.72	00:21:32:01:77:DD	
GMR5000 Master Reference	GMR5000-PTP-95:3C DAE BRef	5.10.0	10.0.101.185	00:21:32:01:95:3C	
GMR5000 Master Reference	GMR5000-PTP-9A:C7 engr kev	5.12.35	10.0.100.68	00:21:32:01:9A:C7	
GMR5000 Master Reference	GMR5000-PTP-A4:A1 DAE	5.10.0	10.0.101.197	00:21:32:01:A4:A1	
MC-ECC CS-3 & CS-5 Generator	MC-ECC-1000-AE:83 DAE Original	5.3.0	10.0.101.85	00:21:32:01:AE:83	
MC-ECC CS-3 & CS-5 Generator	MC-ECC-1000-B9:56 DAE A-Count	5.12.0	10.0.100.179	00:21:32:01:B9:56	
MC-ECC CS-3 & CS-5 Generator	MC-EID-1000-B9:53 DAE 1	5.12.0	10.0.100.241	00:21:32:01:B9:53	
MC-ECC CS-3 & CS-5 Generator	MC-EID-1000-B9:54 DAE 2	5.12.0	10.0.100.102	00:21:32:01:B9:54	
MC-ECC CS-3 & CS-5 Generator	MC-EID-1000-B9:55 DAE Remote	5.12.0	10.0.100.202	00:21:32:01:B9:55	

Masterclock Programming Utility

Setup   Search   Options   Start Update   Abort   Log   About   Exit

Current Task:
Downloading for GMR5000-NTP-CB:A3:
K64 primary application

Sending block 6 of 3115 (retries: 0)

Updating device 1 of 1

Activity Log:
Initiating local subnet search.
Completed device search, found 92 devices in 8.324 seconds
Setup completed.
1 device(s) will be updated.
Waiting for GMR5000-NTP-CB:A3 to request download.
Downloading K64 primary application for GMR5000-NTP-CB:A3...

Family	Name	Version	IP address	MAC address	Status
CLKNTD Clocks	CLKNTD12-BE:5F	5.11.0	10.0.101.21	00:21:32:01:BE:5F	
CLKNTD Clocks	CLKNTD12-CB:CD	5.11.0	10.0.101.27	00:21:32:01:CB:CD	
CLKNTD Clocks	CLKTCD12-49:99 - DAE	5.12.0	10.0.101.78	00:21:32:01:49:99	
NTDS Clocks	Essemtec	5.9.3	10.0.101.1	00:21:32:01:75:55	
GMR1000 Master Reference	GMR1000-PTP-9B:47 DAE RACK	5.12.0	10.0.101.101	00:21:32:01:9B:47	
GMR1000 Master Reference	GMR1000-PTP-C7:41 engr kev	5.12.35	10.0.100.69	00:21:32:01:C7:41	
GMR5000 Master Reference	GMR5000-NTP-CB:A2	5.11.0	10.0.100.250	00:21:32:01:CB:A2	
GMR5000 Master Reference	GMR5000-NTP-CB:A3	5.11.0	10.0.100.164	00:21:32:01:CB:A3	Programming: 0%
GMR5000 Master Reference	GMR5000-PTP-67:3E engr .26	5.12.22	10.0.100.26	00:21:32:01:67:3E	
GMR5000 Master Reference	GMR5000-PTP-77:DD Kyle	5.10.0	10.0.101.72	00:21:32:01:77:DD	
GMR5000 Master Reference	GMR5000-PTP-95:3C DAE BRef	5.10.0	10.0.101.185	00:21:32:01:95:3C	
GMR5000 Master Reference	GMR5000-PTP-9A:C7 engr kev	5.12.35	10.0.100.68	00:21:32:01:9A:C7	
GMR5000 Master Reference	GMR5000-PTP-A4:A1 DAE	5.10.0	10.0.101.197	00:21:32:01:A4:A1	
MC-ECC CS-3 & CS-5 Generator	MC-ECC-1000-AE:83 DAE Original	5.3.0	10.0.101.85	00:21:32:01:AE:83	
MC-ECC CS-3 & CS-5 Generator	MC-ECC-1000-B9:56 DAE A-Count	5.12.0	10.0.100.179	00:21:32:01:B9:56	

IMPORTANT NOTES: Do not interrupt the update process or power cycle the device being updated after the download process has begun, as this may cause the device to become non-responsive, and it unable to recover. Under this circumstance, the device will have to be returned to Masterclock under our RMA procedure.

Allow the device to update fully – This may take 5 to 10 minutes, per device. Be patient – the device may be receiving a full update of all internal hardware, and this may take several download cycles.

If the application does not begin downloading to the device within 60 seconds (2-3 minutes if not on DHCP enabled servers). Cycle the power on the device while the firmware update application is still open to initiate the download request. Do not cycle power during the update process.