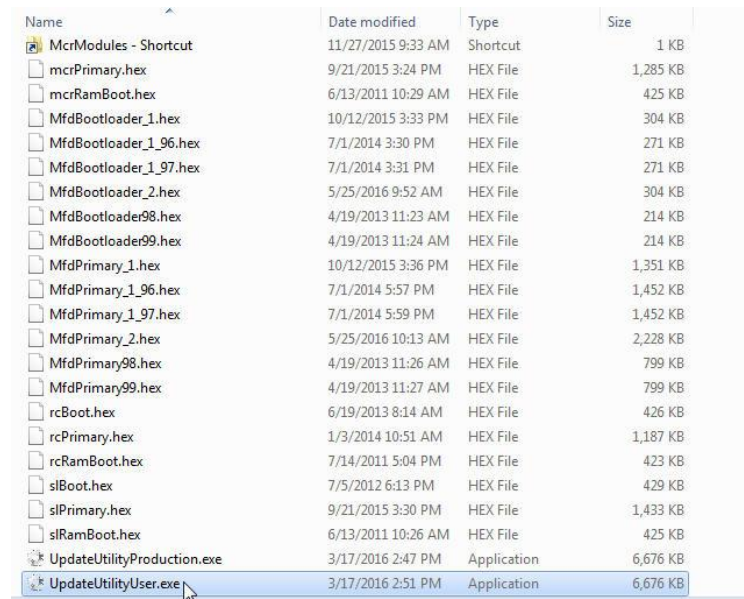


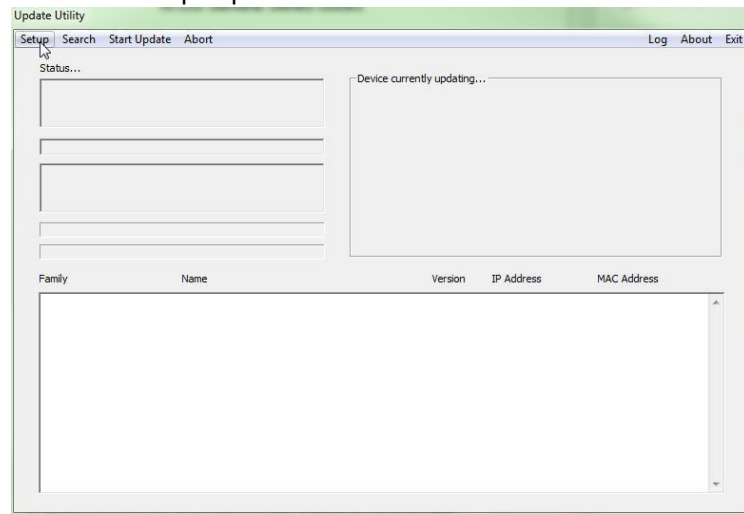
## Firmware Update Utility Procedure for MCR, GMR, RC, and NTDS Series Clocks.

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.

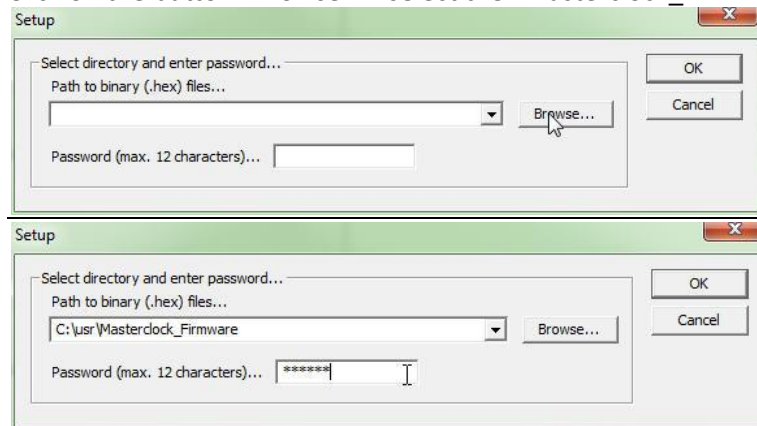


Name	Date modified	Type	Size
McrModules - Shortcut	11/27/2015 9:33 AM	Shortcut	1 KB
mcrPrimary.hex	9/21/2015 3:24 PM	HEX File	1,285 KB
mcrRamBoot.hex	6/13/2011 10:29 AM	HEX File	425 KB
MfdBootloader_1.hex	10/12/2015 3:33 PM	HEX File	304 KB
MfdBootloader_1_96.hex	7/1/2014 3:30 PM	HEX File	271 KB
MfdBootloader_1_97.hex	7/1/2014 3:31 PM	HEX File	271 KB
MfdBootloader_2.hex	5/25/2016 9:52 AM	HEX File	304 KB
MfdBootloader98.hex	4/19/2013 11:23 AM	HEX File	214 KB
MfdBootloader99.hex	4/19/2013 11:24 AM	HEX File	214 KB
MfdPrimary_1.hex	10/12/2015 3:36 PM	HEX File	1,351 KB
MfdPrimary_1_96.hex	7/1/2014 5:57 PM	HEX File	1,452 KB
MfdPrimary_1_97.hex	7/1/2014 5:59 PM	HEX File	1,452 KB
MfdPrimary_2.hex	5/25/2016 10:13 AM	HEX File	2,228 KB
MfdPrimary98.hex	4/19/2013 11:26 AM	HEX File	799 KB
MfdPrimary99.hex	4/19/2013 11:27 AM	HEX File	799 KB
rcBoot.hex	6/19/2013 8:14 AM	HEX File	426 KB
rcPrimary.hex	1/3/2014 10:51 AM	HEX File	1,187 KB
rcRamBoot.hex	7/14/2011 5:04 PM	HEX File	423 KB
slBoot.hex	7/5/2012 6:13 PM	HEX File	429 KB
slPrimary.hex	9/21/2015 3:30 PM	HEX File	1,433 KB
slRamBoot.hex	6/13/2011 10:26 AM	HEX File	425 KB
UpdateUtilityProduction.exe	3/17/2016 2:47 PM	Application	6,676 KB
UpdateUtilityUser.exe	3/17/2016 2:51 PM	Application	6,676 KB

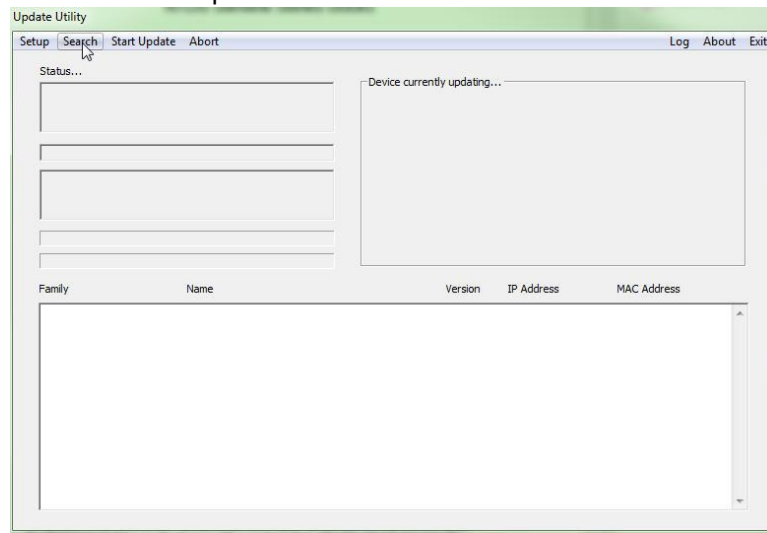
3. Click the “Setup” option from the menu bar.



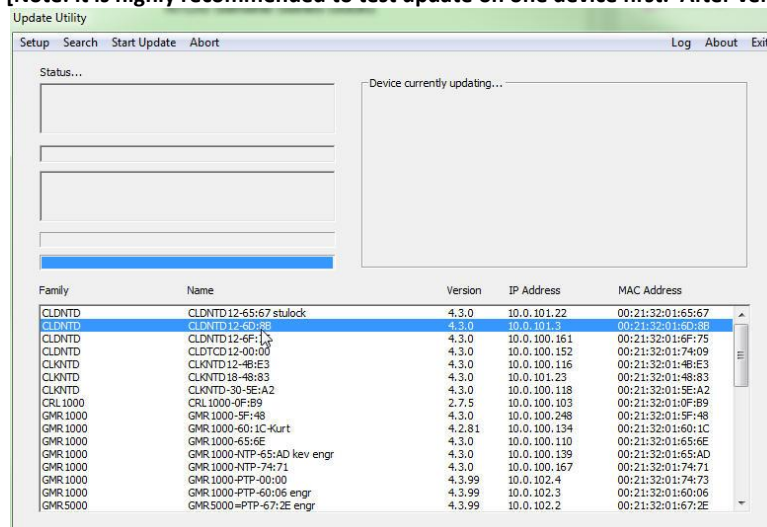
4. Click on the button “Browse...” select the “Masterclock\_Firmware bin files” folder and click “okay”.



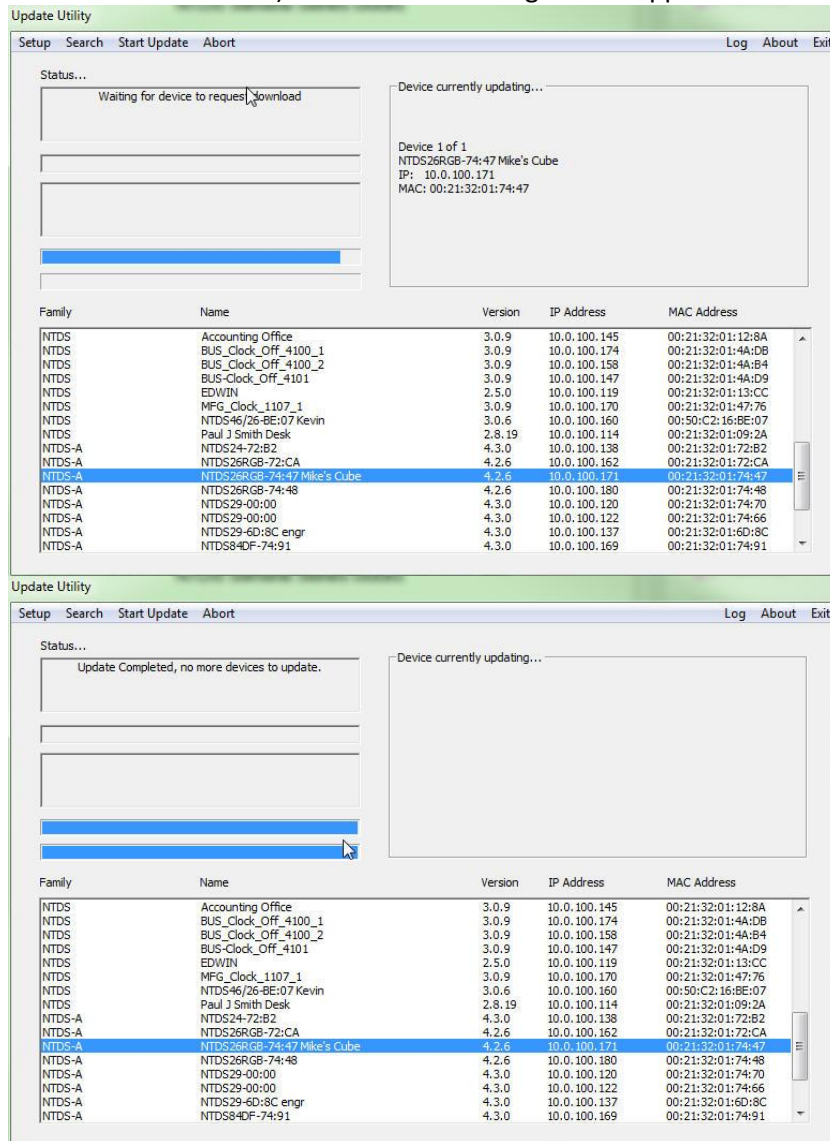
5. Enter the password {Note: the factory default password is “public”}
6. Select “Search” option from the menu bar



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.]**



- 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.



**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.