



WARRIOR

PM-8MB

ROM Module Manual

U130.0.0



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FCC Statements

15.19 – Two Part Warning

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

15.21 – Unauthorized Modification

NOTICE: The manufacturer is not responsible for any unauthorized modifications to this equipment made by the user. Such modifications could void the user's authority to operate the equipment.

15.105(b) – Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Industry Canada Statement

This device complies with Canadian RSS-210.

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/safety-code-6-health-canada-radiofrequency-exposure-guidelines-environmental-workplace-health-health-canada.html>.

Le présent appareil est conforme à la norme CNR-210 d'Industrie Canada.

Le programme d'installation de cet équipement radio doit s'assurer que l'antenne est située ou fait telle qu'elle n'émet pas de champ RF dépassant les limites de Santé Canada pour la population générale ; consulter le Code de sécurité 6, disponible auprès de Santé Canada site Web <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/safety-code-6-health-canada-radiofrequency-exposure-guidelines-environmental-workplace-health-health-canada.html>.

Industry Canada Statement

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IC Unlicensed Devices EIRP Statements for Removable Antennas

Part 1: Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (E.I.R.P.) is not more than that necessary for successful communication.

Partie 1 : Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (P.I.R.E.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Part 2: This radio transmitter (LOBSRF-310) has been approved by Industry Canada to operate with the antenna type listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Partie 2 : Le présent émetteur radio (LOBSRF-310) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.



This product may contain material that may be hazardous to human health and the environment. In compliance with EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE):

- Do not dispose of the product as unsorted municipal waste.
- This product should be recycled in accordance with local regulations. Contact local authorities for detailed information.
- This product may be returnable to the distributor for recycling. Contact your distributor for details.

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Cervis, Inc. **Safety Precautions**

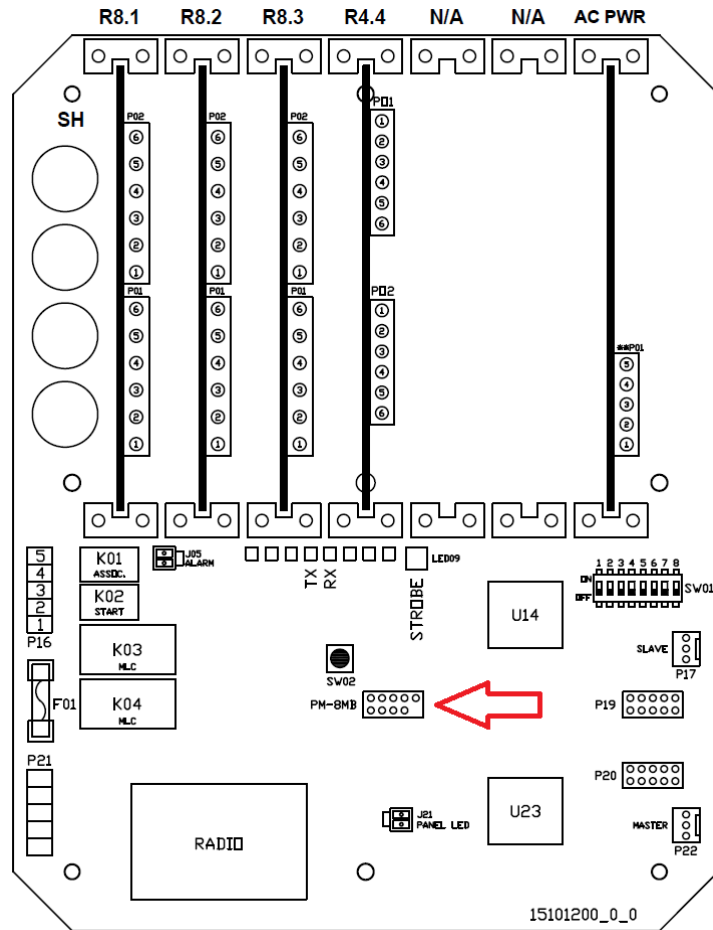
- ✓ **Read and follow all instructions.**
- ✓ **Failure to abide by Safety Precautions may cause equipment failure, loss of authority to operate the equipment, and personal injury.**
- ✓ **Use and maintain proper wiring. Follow equipment manufacturer instructions. Improper, loose, and frayed wiring can cause system failure, equipment damage, and intermittent operation.**
- ✓ **Changes or modifications made to equipment not expressly approved by the manufacturer will void the warranty.**
- ✓ **Equipment owner/operators must abide by all applicable Federal, State, and Local laws concerning equipment installation and operation. Failure to comply could result in penalties and could void user authority to operate the equipment.**
- ✓ **Make sure that the machinery and surrounding area is clear before operating. Do not activate the remote control system until certain that it is safe to do so.**
- ✓ **Turn off the transmitter and disconnect power from the receiver before attempting any maintenance. This will prevent accidental operation of the controlled machinery.**
- ✓ **Use a damp cloth to keep units clean. Remove mud, concrete, dirt, etc. after use to prevent obstructing or clogging the buttons, levers, wiring, and switches.**
- ✓ **Do not allow liquid to enter the transmitter or receiver enclosures. Do not use high-pressure equipment to clean the transmitter or receiver.**
- ✓ **Disconnect the receiver before welding on the machine. Failure to disconnect the receiver may cause destruction of or damage to the receiver.**
- ✓ **Operate and store units only within the specified operation and storage temperatures defined in this document's specifications.**
- ✓ **Keep high-energy radio frequency (RF) devices away from transmitters. For instance, activating high-power communication radios close to transmitters can cause interference and "false" circuit activation.**
- ✓ **Do not key two-way radios while using the transmitter.**

1.0 PM-8MB Compatibility

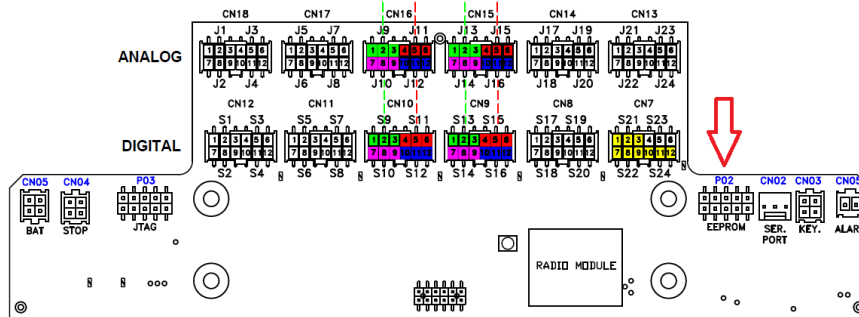
Latest releases of the WARRIOR MU-6E receiver and CB-xW transmitters now provide support for **PM-8MB** ROM module functionality. The **PM-8MB** ROM module is a small read-only memory PCB that can be used to automatically install a set of target files onto a Warrior device. The **PM-8MB** ROM module must be plugged into the ROM header on the appropriate product. Please see specific product documentation below for location of the ROM read header.

The **PM-8MB** ROM module and header should be keyed, but, even if the module is installed incorrectly no damage should occur to the module or system.

If updating an MU-6E receiver the header connection location to plug the **PM-8MB** ROM into on the motherboard is identified below (labeled PM-8MB).



If updating an CB-xW transmitter the header connection location to plug in the **PM-8MB** ROM on the motherboard is identified below (labeled P02).



The **PM-8MB** ROM is designed to contain all target files necessary for a single MU-x6E + CB-xW system. The **PM-8MB** ROM has been limited to hold only one copy of each target however. The **PM-8MB** ROM cannot hold files for more than one system, it can only be loaded with files to service one 'project's' hardware. This is due to the auto-download feature requiring no user interaction.

Each target (transmitter or receiver) will select and interact only with target files on the **PM-8MB** ROM module that are compatible.

2.0 ROM Auto-Download Steps

- STEP 1: Power down or remove power from the unit being worked with.
- STEP 2: Plug in the **PM-8MB** ROM in the header location identified above for the product being worked with.
- STEP 3: POWER the unit being worked with up.

See specific product manual for power up of device being worked with.

At power up of the target device if the **PM-8MB** ROM is present the system will attempt to copy each target file from the ROM to the target device. During this process the LEDs on the target device will 'walk' sequentially and the LED on the **PM-8MB** ROM will rapidly flash (or appear to be on solid). When the update has completed the LEDs on the target device will all flash in unison and the LED on the **PM-8MB** ROM will turn off.

STEP 4: Once the upload is complete power the unit being worked with down again and remove the **PM-8MB** ROM module.

If the **PM-8MB** ROM is left installed the system will again perform the auto-download function on the next start.

If the auto-download is interrupted from a power outage or other fault the system will likely be left in a state that will prevent it from operating normally. The auto-download procedure can simply be restarted.



- It is important to manage the files downloaded into a device properly
- KEEP ALL **PM-8MB** ROM MODULE UNDER MANAGEMENT
CONTROL/SUPERVISION: DESTROY OLD VERSIONS
- Only trained personnel should perform the process of downloading files into a device
- Improper management of files, loading the wrong file into a device can result in functionality that is not expected
- If you are uncertain of compatibility of files to the project that is being worked with call customer service prior to proceeding. (724) 741-9010.
- File uploads / changes can and will most likely change the behavior of the machine
- TEST ALL FUNCTIONALITY PRIOR TO RELEASING CONTROL OF MACHINE TO OPERATORS
- TRAIN ALL OPERATORS ON CHANGES MADE BY FILE DOWNLOADS
- WHEN IN DOUBT CALL CERVIS FOR SUPPORT (724) 741-9000



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