KÄRCHER

DATE: 11/28/2023

TO: Thomas McKegney
Paul Vaughn
Justin Lamar
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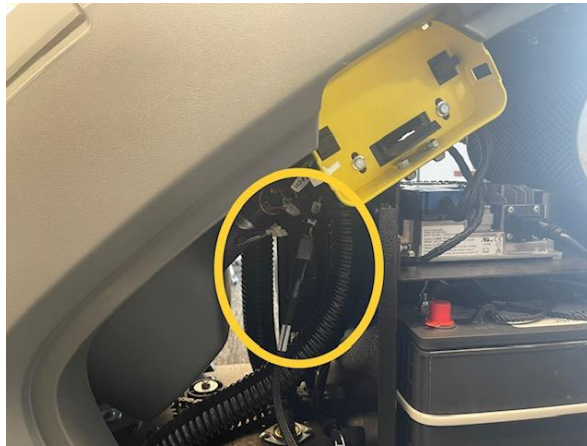
FROM: Seth Kenney

RE: Deluxe CV60/1 Field Service Programming Instructions Rev 3

This memo details the process for updating the firmware on the Deluxe CV60/1. This does not cover process for updating the KIRA CV60/1 (see _KIRA_CV60/1_Field_Service_Programming_Instructions.pdf_)

This document is supporting documentation for detailing programming instructions for CV60/1 machines that will be used with the Karcher Machine Interface Suite.

Updating Firmware

1. Turn on the main breaker and reset the e-stop. Turn the key switch off.

2. Connect the service harness (8.645-398.0) to the service port (B-C32) inside the left door (see figure 16).

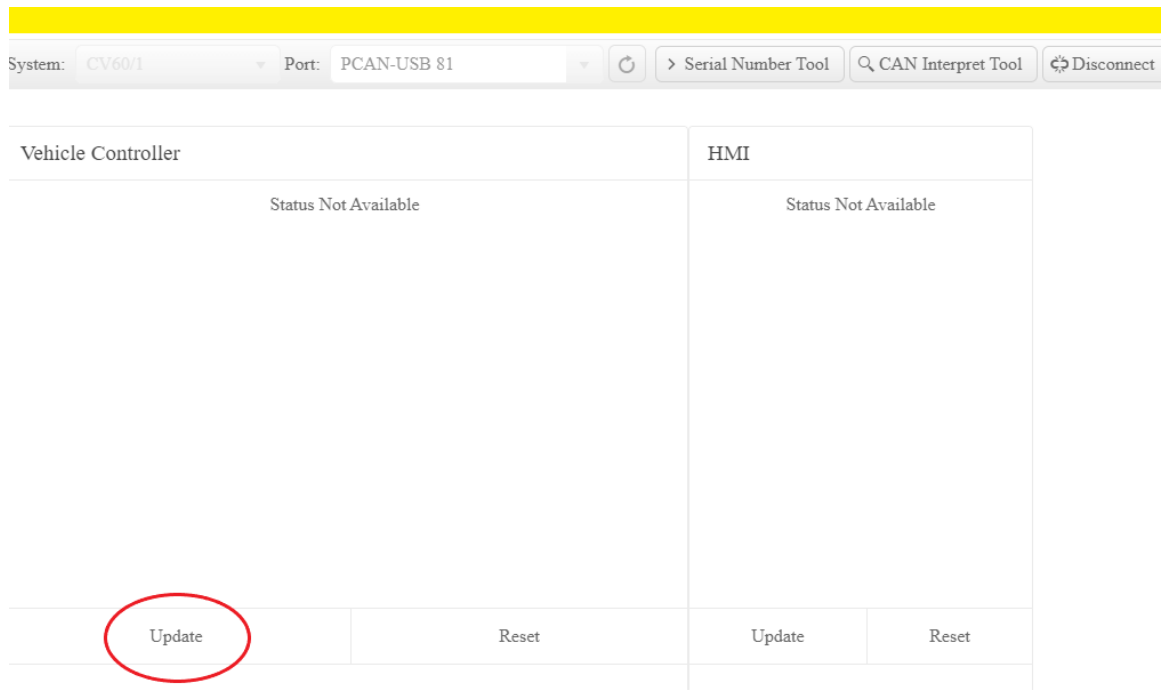[Figure 16: B-C32 - Service Harness Connected to the Service Port]

3. Connect the PEAK USB CAN tool (8.645-399.0) to the service harness and computer.

4. Make sure that CV60/1 is selected in the drop-down box and verify that the "PEAK 81" tool is recognized by the program. Press _Connect_ (see figure 17).

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[Figure 17: Connect the PEAK USB CAN Tool in Software]

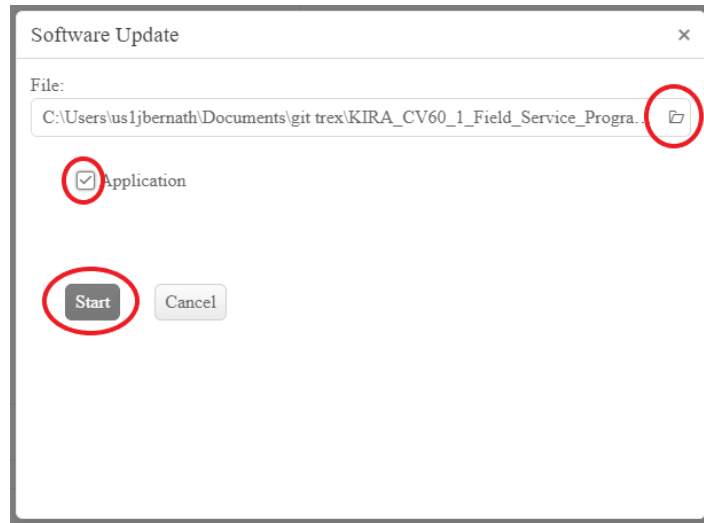5. In the *Vehicle Controller* Pane, select *Update* (see figure 18).

[Figure 18: Vehicle Controller Update]

6. In the *File:* dialog box file (see figure 19), open the following.

    Karcher-MIS-main\Karcher-Floor-Care-Karcher-MIS-xxxxxxx\TREX_Firmware\Trex_VCM_Application_3_4_13\manifest.json
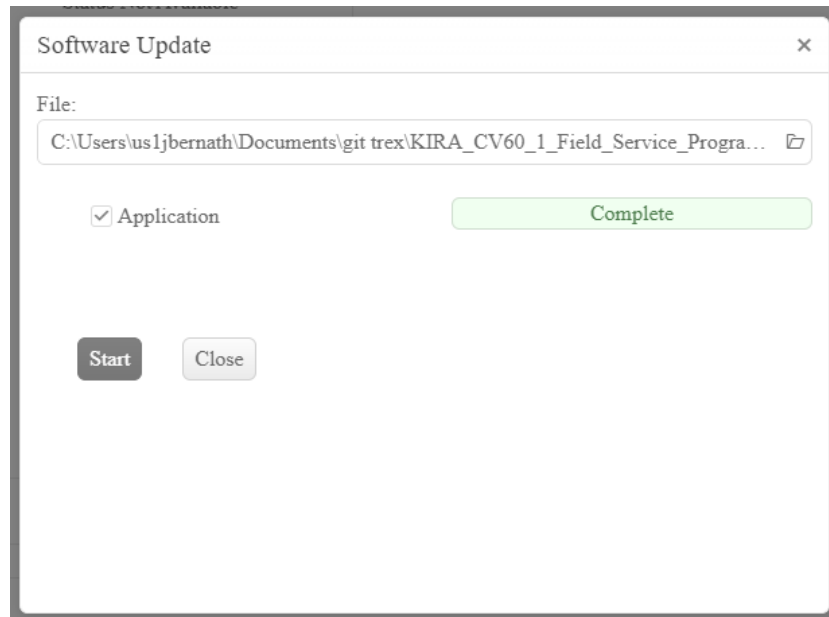
7. Check the *Application* box (see figure 19).

8. Press *Start* (see figure 19).
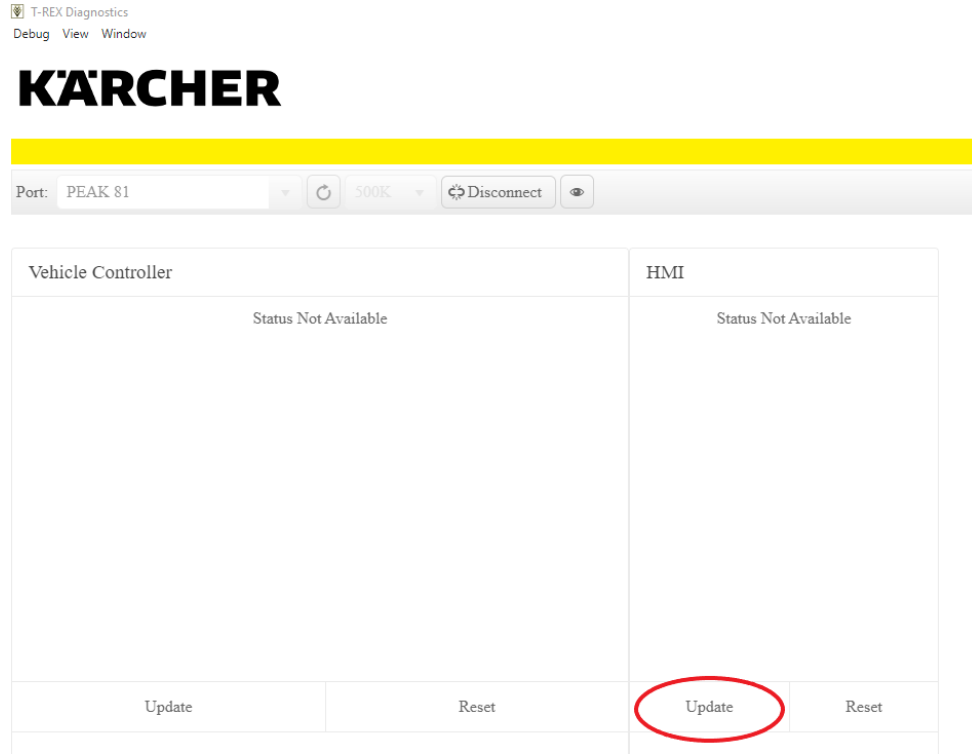
[Figure 19: Program VCM]

9. If programming was completed successfully, "Complete" will be displayed in the progress bar (see figure 20).

[Figure 20: Successful Programming Message]

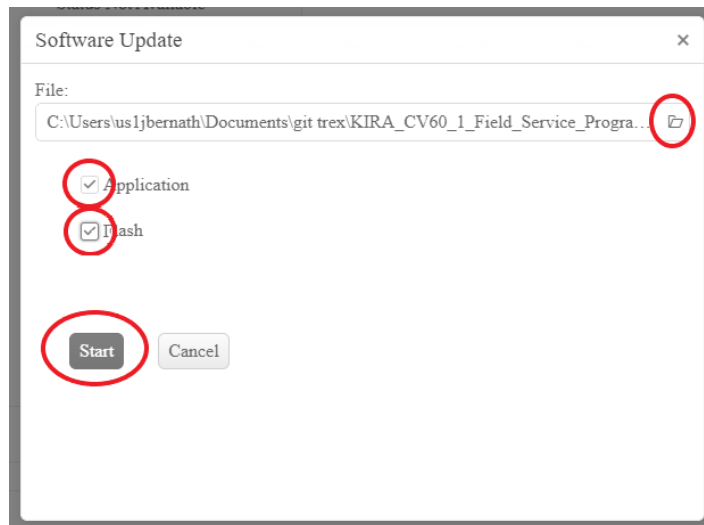10. In the *HMI* Pane, select *Update* (see figure 21).

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[Figure 21: HMI Update]

11. In the *File:* dialog box file (see figure 22), open the following.

    Karcher-MIS-main\Karcher-Floor-Care-Karcher-MIS-xxxxxxx\TREX_Firmware\Trex_HMI_Application_3_4_13/manifest.json
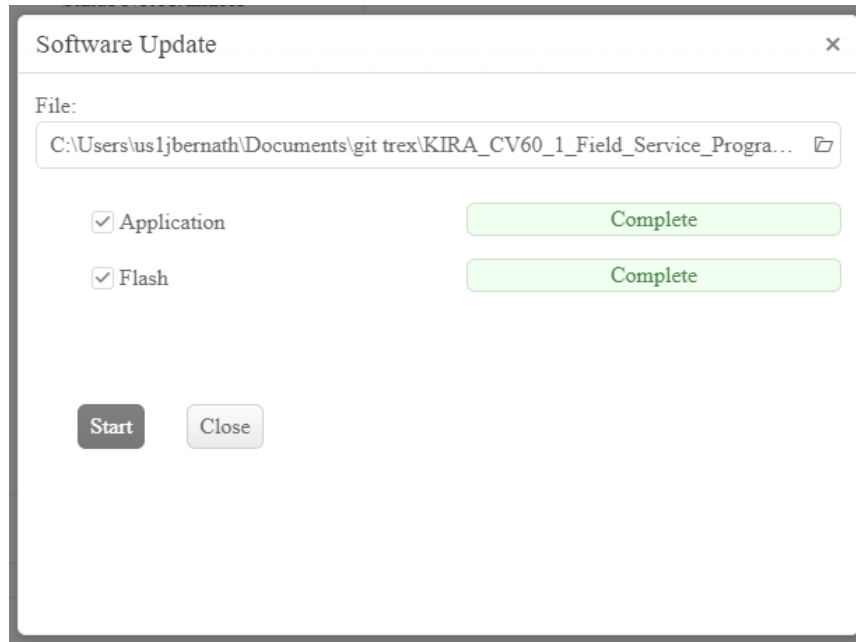
12. Check the *Application* and *Flash* box (see figure 22).

13. Press *Start* (see figure 22).

[Figure 22: Program VCM]

14. If programming was completed successfully, "Complete" will be displayed in both progress bar (see figure 23).
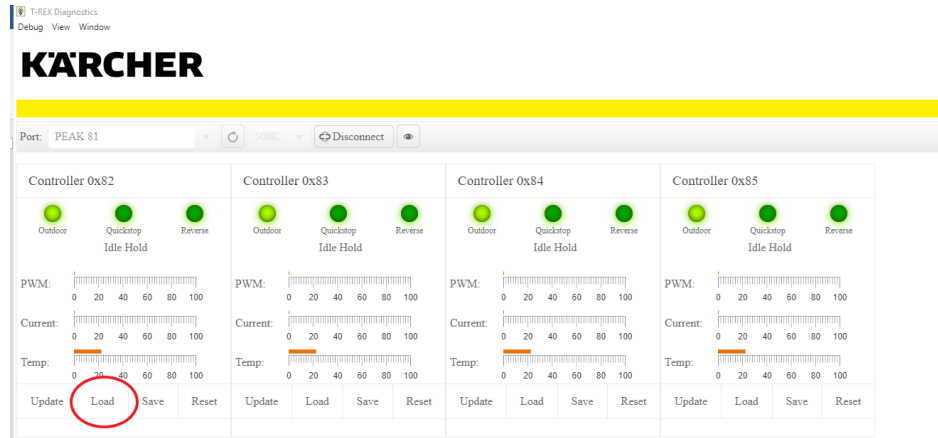

[Figure 23: Successful Programming Message]

15. Turn the key switch on.

16. Select *Load* in the *Controller 0x82* Pane (see figure 24) and open the following.

   Karcher-MIS-main\Karcher-Floor-Care-Karcher-MIS-xxxxxxx\TREX_Firmware\Trex_DMC_Configurations_3_4_13/SWEE000340B_EE_59_tract_82.ee

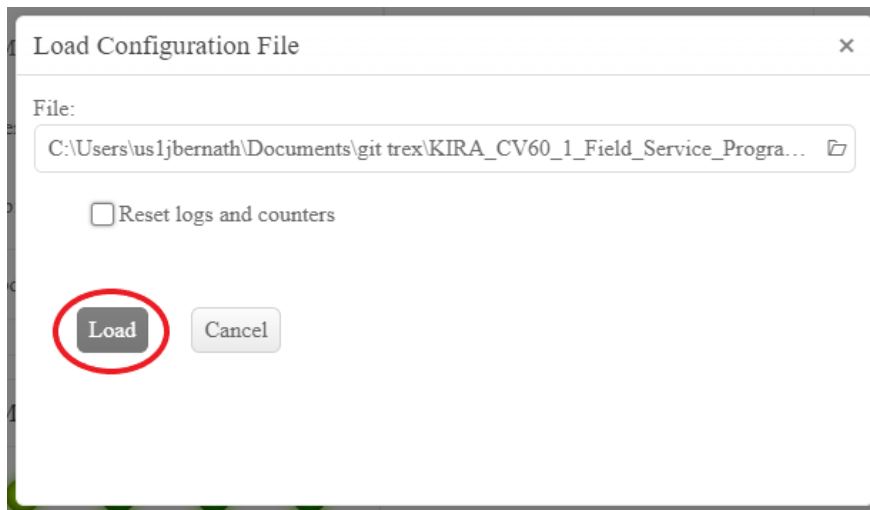   **Warning: The controllers are not always displayed in order from lowest to highest.**

   Each controller must be programmed with the correct setting.

[Figure 24: Motor Controller Load]

17. Press *Load* (see figure 25).

[Figure 25: Load Motor Controller Settings]

18. If programming was completed successfully "Configuration loaded from file" will be displayed in the lower right corner (see figure 26). Ignore the error message.

[Figure 26: Successful Programming Message]

19. Repeat step 11-14 for *Controller 0x83*, *Controller 0x84* and *Controller 0x85*. Use the following files for each.

Controller 0x83

Karcher-MIS-main\Karcher-Floor-Care-Karcher-MIS-xxxxxxx\TREX_Firmware\Trex_DMC_Configurations_3_4_13/SWEE000341B_EE_59_brush_83.ee

Controller 0x84

Karcher-MIS-main\Karcher-Floor-Care-Karcher-MIS-xxxxxxx\TREX_Firmware\Trex_DMC_Configurations_3_4_13/SWEE000342B_EE_59_vac_84.ee

Controller 0x85

Karcher-MIS-main\Karcher-Floor-Care-Karcher-MIS-xxxxxxx\TREX_Firmware\Trex_DMC_Configurations_3_4_13/SWEE000343B_EE_59_side_br_85.ee
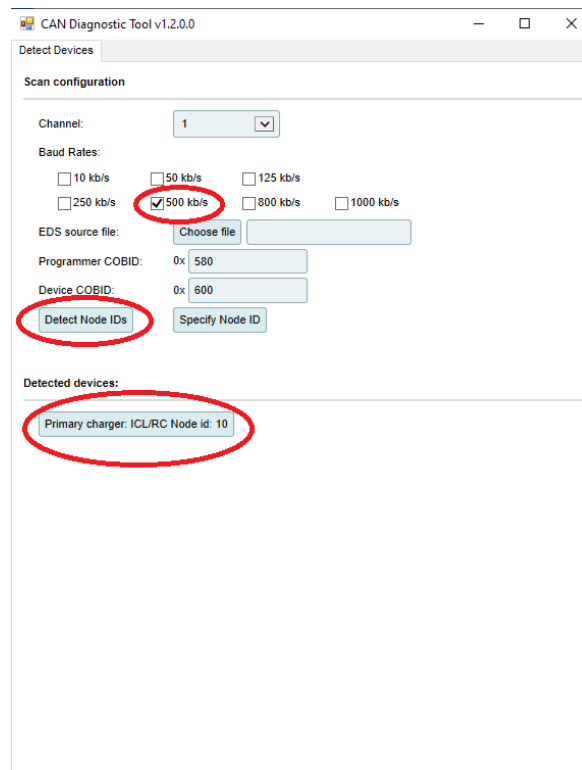
20. The Firmware has been successfully updated.

Updating Charger Configuration

21. Turn off the main breaker and turn the key switch off.

22. Plug the charger into AC power.

23. Connect the service harness (8.645-398.0) to the service port (B-C32) inside the left door (see figure 16).

24. From the *Charger CAN_Diagnostics_tool_v1.2.0* package that was downloaded by clicking the "Download Documentation" button open the following:
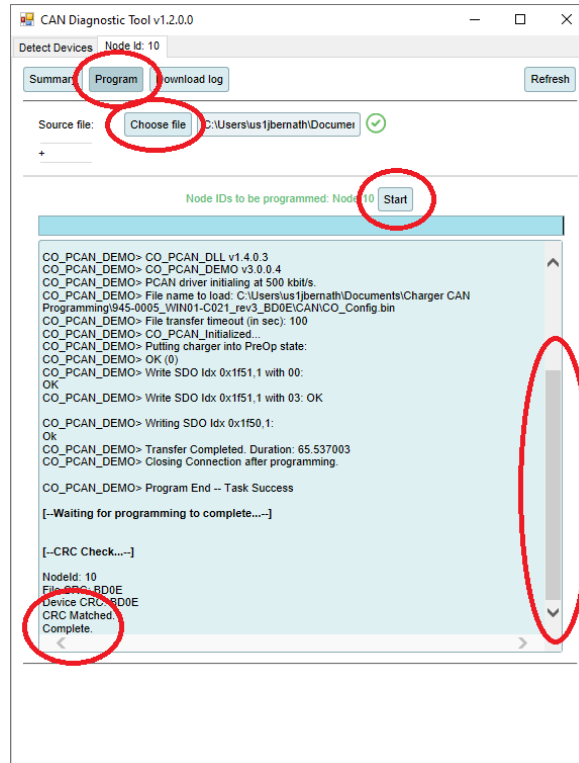
    Karcher-MIS\Charger CAN_Diagnostics_tool_v1.2.0\RC1\CAN Diagnostic Tool.exe

25. Set the *Baud Rate:* to 500Kb and press *Detect Node IDs* (see figure 27).

26. After the charger has been detected, it will show up in the *Detected devices:* window (see figure 27). Select it.

[Figure 27: Charger CAN Diagnostic Tool – Connect to Charger]

27. Press *Program* to use the programming Window (see figure 27).

[Figure 28: Charger CAN Diagnostic Tool – Charger Programming]

28. Select _Chose file_, open the following and press start (see figure 28).

    Karcher-MIS-main\Karcher-Floor-Care-Karcher-MIS-
    _xxxxxx\TREX_Firmware\Trex_Charger_Configuration\CAN\CO_Config.bin_

29. If programming was completed successfully "Complete" will be displayed at the bottom of the status window (see figure 28). Scroll down to view the bottom of the window.