Static RAM (SRAM) Option Card
NPB-SRAM

INSTALL SHEET

This document covers the mounting of a Static RAM (SRAM) option card in a Tridium® JACE® controller, including models T-200/600 (JACE 2/6), T-700 (JACE 7), and T-202/602-XPR (M2M JACE).

Table 1   Option card description.

Description	Models / Notes
Option card with static RAM (SRAM) and integral backup capacitor for data storage during power lost or brownout periods. This option card can allow "battery-less" operation, that is, the controller to be installed **without** a backup battery (no onboard NiMH battery pack or external sealed lead-acid battery). Alternatively, it can provide "extended" battery time operation (see Note below).	Currently one model is available: NPB-SRAM Includes 512KB of SRAM. ***NOTE:*** In order to use this option card, the JACE requires the following: • NiagaraAX-3.6 or later. • software module (.jar file) "platDataRecovery" installed. • feature "dataRecovery" in its installed license file.

Note   Starting in NiagaraAX build 3.6.44, the controller can use this SRAM option card *and* its backup battery (e.g. onboard NiMH battery). This permits an "extended time" shutdown delay in a power loss event—up to 10 minutes vs. 1 minute. However, if the JACE is running an *earlier* AX-3.6 build, it is strongly **recommended** that you *disconnect and remove* any JACE backup battery (NiMH, external sealed lead-acid type).

This document does not cover NiagaraAX (software) topics about this option card. See the following document, also available online in Workbench help:

• *JACE Data Recovery Service (SRAM support) - Engineering Notes*

Included in this Package

Included in this package you should find the following items:

• SRAM option card, without end plate.
• A descriptive label to apply on the JACE's existing end plate (for the option slot used).
• This *Static RAM (SRAM) option card Install Sheet*, Part Number 11858 Rev 2.

Figure 1   Static RAM (SRAM) option card.
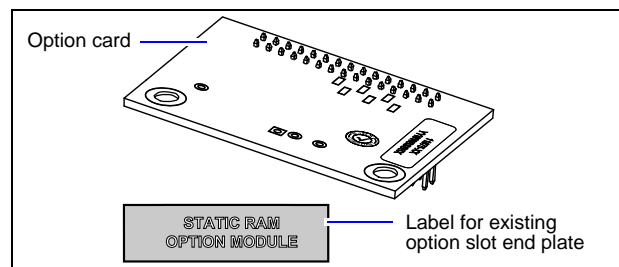
Material and Tools Required

The following supplies and tools are required:

• #2 Phillips screwdriver: used to install the SRAM option card.
• If installing in a T-*x*02-XPR, a #1 Phillips screwdriver to remove both JACE covers.

Pre-installation

Note   Installation does not affect COM port assignments on the JACE controller (unless another option card was removed).

Prior to mounting the option card, make sure that the JACE is licensed for the "dataRecovery" feature, and it is running NiagaraAX-3.6 or later with the "platDataRecovery" software module installed.

If installing in a controller that is currently running a station at a job site, first backup that station using normal Workbench platform tools.

Note   An installed SRAM option card can typically retain unsaved data (that is, not already saved to Flash memory) for at least two (2) weeks without power to the JACE. However, longer outages might result in corrupted data, such that a "reformat" of the SRAM may be required. For details on reformatting, please refer to the document *JACE Data Recovery Service (SRAM support) - Engineering Notes*.

Mounting

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Warning **Power to the controller must be OFF when installing or removing option cards, or damage will occur! Also, you must be very careful to plug any option card into its connector properly (pins aligned).**

Mount the SRAM option card in either of the option card slots of the controller, as needed. Note the T-*x*02-XPR series has only *one* option card slot.

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Note If the JACE is running build 3.6.44 (or later) of NiagaraAX, after inserting the SRAM option card, you can elect to *either*: reinstall or replace the NiMH battery pack, **or** remove/leave off for a "battery-less" configuration. If running a *prior AX-3.6 build*, it is strongly recommended that you *disconnect and remove* all batteries (for a "battery-less" configuration only).

If removing the NiMH battery pack, observe all local, state, and federal regulations to **dispose** of the battery assembly. See "Battery Disposal" on page 3 for more details.

Procedure 1   Mounting SRAM option card.

1. **Stop** any running station using the Application Director platform view.

2. **Remove all power** from the controller—see the previous Warning. If applicable, disconnect any external 12V sealed lead-acid (SLA) battery.

3. Remove the JACE cover or covers (T-*x*02-XPR). For all but the T-*x*02-XPR, press in the four tabs on both ends of the unit, and lift the cover off.

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   Note If accessory modules are plugged into the controller, you may need to slide them away from the unit to get to the cover tabs.

   For the T-*x*02-XPR, first remove the right cover, then the left cover, retaining the two screws that secure each cover.

4. If a T-200/600 series, remove the NiMH battery pack and bracket assembly by taking out the screws holding it in place, setting the screws aside for later. Unplug the battery from the controller. Figure 2 shows an exploded view of a T-200/600.

Figure 2   Remove screws and battery assembly.
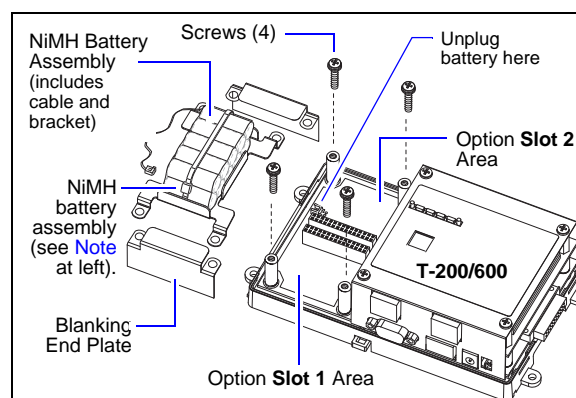
5. If a T-700 or T-*x*02-XPR, remove the option slot blanking plate, retaining the two screws.

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   Note Slot 2 option card installation in an early (Revision 1) T-700 controller requires careful attention! See the *T-700 Mounting and Wiring Guide* for details. This document focuses on installation in a T-200/600 series (JACE 2/6) controller.

6. Remove the blanking end plate for the slot you are installing the option card into. (Apply the included label onto the end plate—see Figure 3).

Figure 3   SRAM option card going into Slot 2.
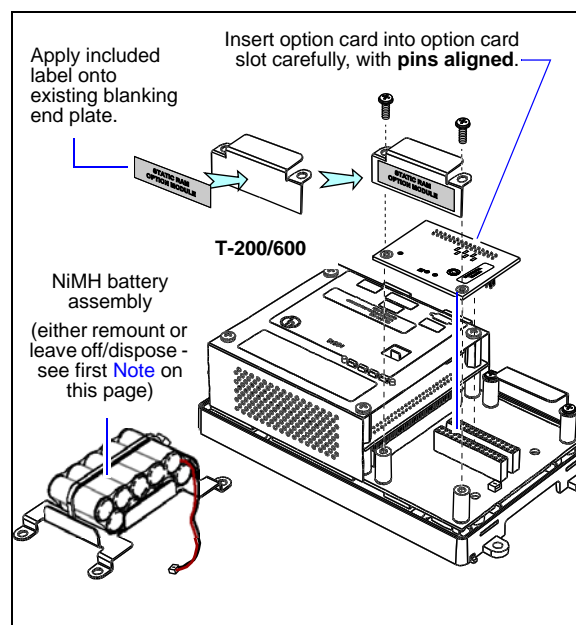
7. Carefully insert the pins of the SRAM option card into the socket of the appropriate option card slot. Mounting holes on the option card should line up

with the standoffs on the base board. If they do not, the connector is not properly aligned. Press until the option card is completely seated.

Figure 3 on page 2 shows the SRAM option card going into **Slot 2** of a T-200/600 series controller.

8. If a T-200/600 series (JACE 2/6) running build 3.6.44 or later, and you wish to *retain* the onboard NiMH battery pack, plug the battery cable back into the controller.

Otherwise, skip to step 10.

9. Reposition the battery assembly over the option slots, with mounting holes aligned with the standoffs.

Figure 4   Re-fasten screws through battery bracket.
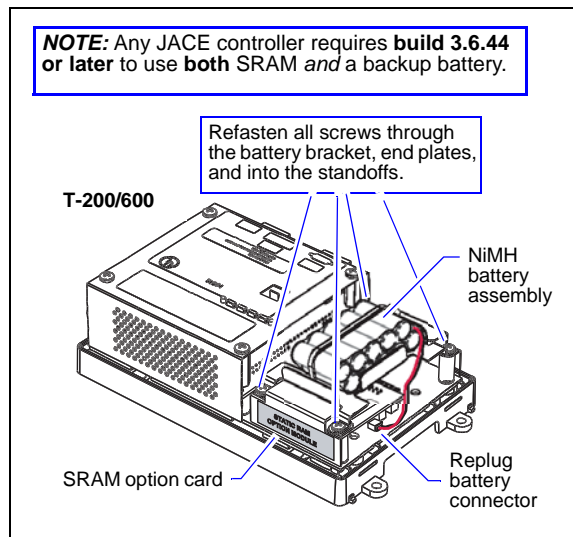
Screws enter holes in the battery bracket first, then through option slot endplates, into standoffs on the JACE base board. Using a screwdriver, hand tighten these screws. See Figure 4.

To finish, skip to step 12.

10. For a "battery-less" JACE controller, leave the onboard NiMH battery pack disconnected and removed from the controller.

Note   If a T-700 or T-*x*02-XPR to run "battery-less", disconnect and remove the onboard NiMH battery pack, and also disconnect any external sealed lead-acid 12V battery.

11. Place screws through the option slot end plates and into the standoffs on the JACE base board. Using a screwdriver, hand tighten these screws. See Figure 5.

Figure 5   Re-fasten screws through end plates.
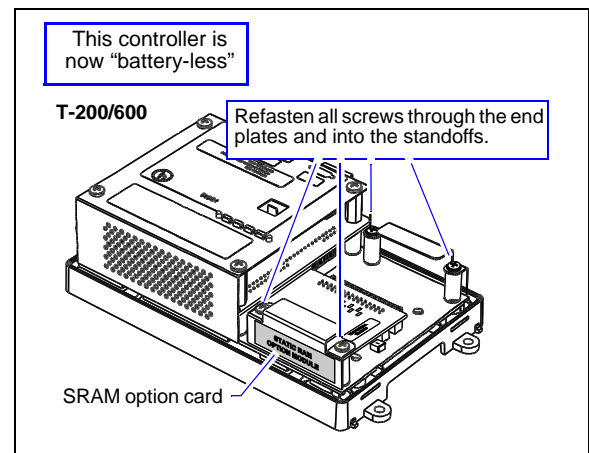
12. Replace the JACE cover.
If accessory modules were unplugged, plug them back into the JACE as before, and secure.

Battery Disposal

Please dispose of any removed NiMH battery pack in accordance with local, state, and federal regulations. Also, if disposing of an external, sealed lead-acid (SLA) battery, observe these same regulations.

Warning   **Do not incinerate or mutilate a battery, as this may cause it to burst or release toxic materials.**

If regulations specify returning the old battery to a recycling center, but no acceptable recycling center can be found, please return the old battery packs to Tridium for proper disposal.

NPB-SRAM (Static RAM) Option Install Sheet

4