

## Using the Pendant Bypass Plug

### Introduction

This guide will help you navigate the roadblocks you may encounter when attempting to control the system without a teach pendant connected. Set up and programming will still be done with the pendant. Once complete, the bypass plug will replace the standard pendant. One difficulty with this approach is the inability to monitor the ladder in real time without the pendant being connected. There are two ways to work around this issue. For a complete solution including manual jogging and programming capabilities check out [MLX300](#).

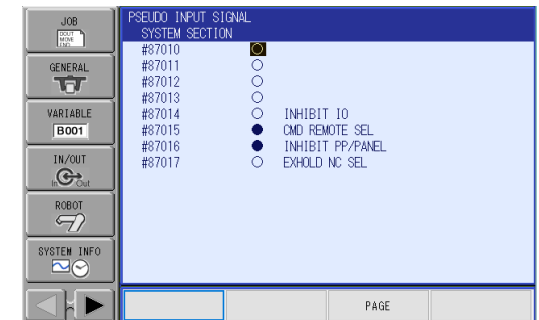
### Monitoring Signals

1. With Ladder Editor software, you can upload and monitor the controller's ladder program in real time. This is a helpful troubleshooting tool to verify external signals and system status while testing with the bypass plug installed.
2. Without Ladder Editor, you will need to map necessary specific outputs (5xxxx) to the external outputs(3xxxx) allocated to your PLC to monitor the systems status.

### Set Up

1. Pseudo Input signals 87015 and 87016 need to be set to on, 87014 needs to be off.
2. Map PLC external inputs to Specific Inputs
  - a. Cmd Remote Select #40042- On YRC1000, a Yaskawa representative will need to modify the system ladder with an unused auxiliary relay that you can use to map to on the user ladder. This is not required on the YRC1000Micro. Check with Yaskawa Technical Support regarding changes for other controller models.
    - i. 

<u>System side</u>	<u>User Side</u>
STR #80011	STR #21281
OUT #70025	
  - b. Play Mode select #40041 and Teach Mode select #40040 are needed along with typical start up specific input signals and any other you feel necessary for your process.
  - c. Continue with mapping desired specific outputs to the external outputs allocated to your plc. You will need to break out the required number of external outputs stored within the BMOV.



OR #70023

OUT #70023



PARTNER SUPPORT

*Shared Integration Experience*

This document captures ideas, experiences, and informal recommendations from the Yaskawa Partner Support team. It is meant to augment – not supersede manuals or documentation from motoman.com. Please contact the Partner Support team at [partnersupport@motoman.com](mailto:partnersupport@motoman.com) for updates or clarification.

## Operation

Once the system has been set up and the programming completed you can now power down the controller, unplug the teach pendant and install the pendant bypass plug. Restore power to the controller and the system will start up ready to receive remote signals. Test your start up sequence and recovery methods.

**Note:** If at any point you command the controller to Teach Mode, to get back to Remote Mode you must first send the signal for Play Mode Select, then CMD Remote mode. You cannot go straight from Teach Mode to Remote Mode while using the pendant bypass plug.