

CONTROL TECHNIQUES™
 Guide to Training and Self Support Services
 Date: 8/30/21

Resource Title	Location	Content	Link
Basic EtherNet/IP	YouTube - Americas	How to map parameters in Connect, then access them using Studio 5000.	Link
EtherNet/IP and the PTi210 Module	YouTube – Americas	How to use PowerTools studio to map Ethernet/IP parameters	Link
Remote IO and the MCI210 Module	YouTube – Americas	How to use MCS software to read and write to the bus coupler.	Link
Connect Software Overview	YouTube - Americas	A tour of our Connect software	Link
Getting Started with the IO-210BC Bus Coupler	YouTube - Americas	How to add the bus coupler to an MCI210 project.	Link
Software Skills – CTScope	YouTube – Americas	How to use CTScope software	Link
Backing up a Drive using Connect software	YouTube – Americas	How to use Connect software to backup a drive	Link
Deleting an Onboard User Program using Connect software	YouTube – Americas	How to use Connect software to delete an onboard user program	Link
Updating Firmware	YouTube – Americas	How to use Connect software to update drive and module firmware	Link
Using Connect to restore an Onboard User Program	YouTube – Americas	How to use Connect software to restore a MCS project using a .app file	Link
Using the SD Card Manager	YouTube – Americas	How to use the Connect software SD Card Manager utility	Link
Unidrive M700 – Using a Smart Card	YouTube – Americas	How to backup and restore drive parameters using a Smart Card	Link
Unidrive M700 – Using Menu 13	YouTube – Americas	How to use the standard motion controller (gearing) in Menu 13	Link
Unidrive M700 – Ethernet Communications	YouTube – Americas	How to setup Ethernet communication in a Unidrive M700 using the keypad	Link
Unidrive M700 – Autotuning a Permanent Magnet (Servo) Motor	YouTube – Americas	How to use the Autotune tool in the Setup group in Connect software	Link
Configuring the drive relay contact	YouTube – Americas	How to setup and use the drive relay contact	Link

Configuring “S” Ramps	YouTube – Americas	What S ramps are, why they are beneficial and how to configure them	Link
Configuring Digital I/O	YouTube – Americas	Menu 6 usage, how to setup 3 wire control	Link
Using the Realtime Clock	YouTube – Americas	Setting the Time and Date, displaying time on keypad and in trip log	Link
Customizing the Drive Keypad	YouTube – Americas	M400 – M700 keypad. Change language, change parameter labels	Link
Using Remote Keypads	YouTube – Americas	C200,300 and M400. Using LED Remote keypad and Remote Keypad RTC.	Link
Machine Control Studio software – Beginning a new project for the Unidrive M700	YouTube – Americas	Starting a MCS software project for onboard target in Unidrive M700	Link
Machine Control Studio - Gateway Settings	YouTube – Americas	Configuring communication for accessing Unidrive M700 using MCS software.	Link
Machine Control Studio – Updating Project Components	YouTube – Americas	Opening older MCS software projects using newer versions of MCS software. Updating libraries and devices.	Link
Machine Control Studio – Starting a new project for an MCI-210 module	YouTube – Americas	Starting a new project using the MCI-210 template, MCI-210 tasks, what is a POU?	Link
Machine Control Studio – Accessing Si-IO Inputs and Outputs	YouTube – Americas	How to map I/O from the Si-IO module using Machine Control Studio software	Link
Machine Control Studio – Tutorial Project for Commander C, Unidrive M200-400 Part 1	YouTube – Americas	Webinar recording. 56 minutes long	Link
Machine Control Studio – Tutorial Project for Commander C, Unidrive M200-400 Part 2	YouTube – Americas	Webinar recording. 55 minutes long	Link
Using Menu 14 PID Loop Controller	YouTube – Americas	Webinar recording. 59 minutes long	Link
Ethercat Quick Start for Commander Drives	YouTube – Americas	30 minute introduction covering how to use our SI-Ethercat module and TwinCat software.	Link
Digitax HD Training Video	YouTube – UK	Comprehensive Training video – Overview, Auxiliary Components, Power and Control Terminals, EMC, Rear Venting, Multi-axis systems, Connect software usage, Support Suite. 70 minutes long	Link

Digitax HD – SI-Option Mounting Kit Installation	YouTube – UK	How to install the adapter kit	Link
Digitax HD – Multi-axis Kit Installation	YouTube – UK	How to common bus Digitax HD drives	Link
Digitax HD – KI Compact Display and KI Compact 485 Adapters	YouTube – UK	How install and use these adapters	Link
Digitax HD – DC Busbar Cable Connection Installation	YouTube – UK	How to install the DC buss cable connector and grommet	Link
Digitax HD – Compact Braking Resistor Installation	YouTube – UK	How to install the compact braking resistor for the Digitax HD	Link
SD Card Migration: Unidrive M300 to Commander C 300	YouTube – UK	How to use an SD card to upgrade from Unidrive M300 to Commander C 300	Link
Keypad Migration: Unidrive M300 to Commander C300	YouTube – UK	How to use the Commander keypad to commission a Commander C300	Link
Connect Migration: Unidrive M300 to Commander C300	YouTube – UK	Using Connect software to commission a Commander C300, installing the AI-485 adapter, CT-USB cable	Link
Commander C300 Quick Start Guide	YouTube – UK	C300 wiring and commissioning using the keypad. Changing security levels (Menu 1+)	Link
Commander C300 Quick Start Guide	YouTube – UK	C300 wiring and commissioning using the keypad using the “Pr” quick parameter setup method (Menu 0)	Link
Commander C200 Quick Start Guide	YouTube – UK	C200 wiring and keypad commissioning using the “Pr” quick parameter setup (Menu 0)	Link
Commander C200 Quick Start Guide	YouTube - UK	C200 wiring and commissioning using the keypad. Changing security levels (Menus 1+)	Link

America's LMS Content (Requires login to access)

Link to registration form: [Link](#)

Resource Title	Location	Content
Pocket Tech Series: Backing up a Unidrive M700	LMS	• Backing up an M700 using Connect • Backing up an M700 using card media • Backing up onboard user program using card media
Pocket Tech Series: Restoring a Unidrive M700	LMS	• Restoring an M700 using Connect • Restoring an M700 using card media • Restoring onboard PLC program using Connect • Restoring onboard PLC program using card media • Downloading Machine Control Studio program to MCI-210 using MCS software • Restoring a SyPT program using Winflasher • Compiling and downloading a SyPT project using SyPT Pro software

Getting Started: Introducing PLCOpen for Motion Control	LMS	How to incorporate a PLCOpen axis into a Machine Control Studio project. Includes functional examples of most PLCOpen function blocks. Also demonstrates how to use RTMOE to gear 2 axes together. Good for people who want to know more about MCS software.
Connect Software: Using the PLC Controlled Motion extension for Siemens PLCs	LMS	How to use the Connect setup wizard. How to import Siemens FB into PLC project. Includes example TIA Portal program to access drive parameters using the AOI. <i>For multi-protocol FFM Ethernet module.</i>
Connect Software: Using the PLC Controlled Motion extension for Allen Bradley PLCs	LMS	How to use the Connect setup wizard. How to import Allen Bradley FB into PLC project. Includes example Studio 5000 program to access drive parameters using AOI. <i>For multi-protocol FFM Ethernet module.</i>

Control Techniques Motor and Drive Sizing Presentation	LMS	Recorded webinar demonstrating how to use ServoSoft sizing software.
Advanced Drive Commissioning	LMS	• How to avoid "OV" or over voltage trips • What "Dynamic Volts to Frequency" is and how it can benefit your application • What "Slip Compensation" is, and how it can be used as a form of open loop speed regulation • How enabling "Catch a Spinning Motor" can benefit high inertia applications • How to get the most out of your motor by enabling "Over Modulation" • What affect switching frequency has and how it can benefit your application • How to set up the drive to reset itself in the event of a trip • Methods of protecting your motor from over heating • What options are available for handling dips in your AC plant power
Commander Series Drive Commissioning	LMS	How to commission a Commander C200 or C300 using Connect software.

Unidrive M400 Drive Commissioning Training	LMS	The course consists of 3 different Modules: • Module 1: Introduction to the Unidrive M400 AC Drive • Module 2: Quick Start Commissioning Using the Drive Keypad • Module 3: Drive Commissioning Using Connect Software
Unidrive M700, M701, M702 Drive Commissioning Training	LMS	This course is designed to demonstrate how to apply one of our Unidrive M700 high performance AC Drives. The course consists of 4 individual Training Modules: • Unidrive M700 Ethernet Communications • Unidrive M700 Drive Commissioning for Open Loop mode • Unidrive M700 Drive Commissioning for Rotor Flux Control for Asynchronous (RFC-A) mode • Unidrive M700 Drive Commissioning for Rotor Flux Control for Synchronous (RFC-S) mode

HVAC H300 Drives Training Course	LMS	The learning objectives for this course are: • To learn how to specify and order a H300 drive correctly • To learn how to wire a H300 drive • To learn how to properly interpret the motor nameplate data in preparation for drive commissioning • To learn how to use the H300 drive keypad to commission a drive • To learn what the H300 Digital Bypass System is • To learn how to diagnose and correct common drive trips • To learn how to network a H300 drive into a Building Automation System using either BacNet, or Modbus protocols • To learn how to use the H300 PID controller to monitor and regulate temperature/flow/pressure
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Drives and Motors Basics Course	LMS	This course is an entry level course that is designed to provide a person new to the world of drives and motors with a fundamental understanding of the concepts involved when selling and applying them. NOTE: <u>This course is not narrated.</u> The course contains 5 sections: • Electrical Engineering Terms • Electric Motor Technology • Mechanical Engineering • Electronic Drive Technology • Environmental Considerations
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The MCh HMI	LMS	This course consists of a comprehensive review of the MCh HMI. Topics covered include: • Ordering options • Installation • HMI System Settings • Communication accessories required • Programming software usage
PowerTools Studio Software-Getting Started	LMS	This course will introduce you to our <i>PowerTools Studio</i> software. This course contains 7 Modules: • Module 1: Hardware • Module 2: Setup • Module 3: Devices and Variables • Module 4: I/O • Module 5: Motion Profiles • Module 6: Using the Program Editor • Module 7: Networking using Modbus TCP/IP

Pocket Tech Series – Commander AC Drive Recovery	LMS	This course will teach you the skills required to recover a Commander AC drive using either Connect software or by using our SD card adapter. In addition, you will also learn how to restore an onboard user program using either Connect software or an SD card.
Pocket Tech Series – Backing up a Commander AC Drive	LMS	This course will teach you the skills required to make a backup copy of the drive parameter set for our Commander series AC drives using either our Connect software or our SD card adapter. In addition, you will also learn how to backup an onboard user program made using <i>Machine Control Studio</i> software.
Pocket Tech Series – Unidrive M700 Drive Recovery	LMS	This course will teach you the skills required to restore the drive parameter set for our Unidrive M700, Unidrive M701 or Unidrive M702 AC drives using either our Connect software or our Smart and SD cards. In addition, you will also learn: • How to reload an onboard user program made using <i>Machine Control Studio</i> software • How to reload a new MCI-2xx machine control module using <i>Machine Control Studio</i> software • How to reload a new SI-Applications module using our <i>Winflasher</i> software utility.

Pocket Tech Series – Backing up a Unidrive M700	LMS	This course will teach you the skills required to make a backup copy of the drive parameter set for our Unidrive M700, Unidrive M701 or Unidrive M702 AC drives using either our Connect software and also our Smart and SD cards.
Intro to SyPT Software	LMS	This course will go over how to begin using our SyPT software to create control programs for our SM-Applications modules.
Unidrive SP Training	LMS	This course will cover how to select, install and commission our Unidrive SP AC drive.