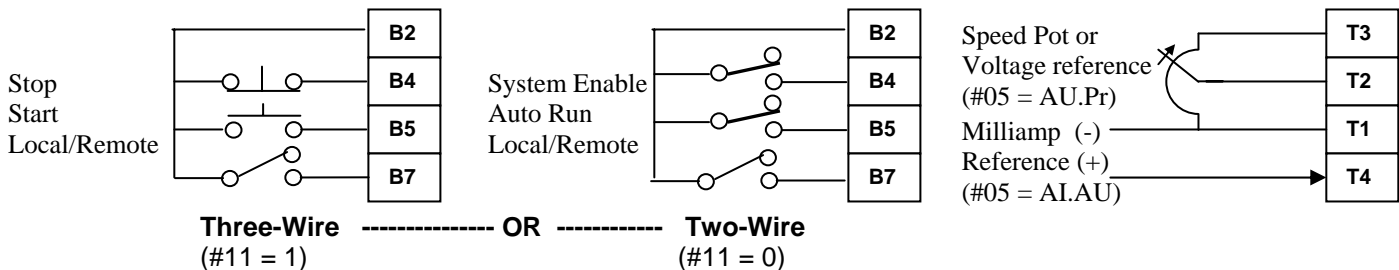
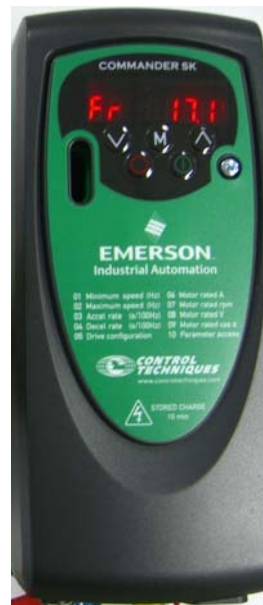


The Application Note is pertinent to the Commander SK Family

Remote Analog / Local Keypad Control

This application note will demonstrate how to set up the Commander SK for **Remote** operation using terminal strip control and **Local** control using the drive's keypad. The Remote Keypad option may also be used in the event that the drive is mounted within an enclosure and keypad control is required without having to open the enclosure door. This system will utilize the second motor map menu in the drive to provide these functions. The system will also require a Local / Remote switch or a contact to select remote operation. If the start/stop control circuit is a two-wire system, the run input and the local / remote input could simply be jumpered together. The stop key on the keypad can be configured to stop the drive (set parameter #6.12 to "ON") even if the system is in remote control. If this capability is not selected (or desired), a note should be placed by the keypad stating that the stop button is not active if the drive is in remote control mode.

Door Mounted
Remote Keypad Option



The second motor map parameters in menu 21 need to be set to the same values as set for the default motor map with the exception that parameter #1.15(0.05), reference selector, this is set for keypad control and parameter #21.03 is set to either AU.Pr for 0 to +10vdc speed reference or AI.AU for milliamp signal speed reference.

Motor Map #1	Parameter	Motor Map #2
1.07 (01)	Min speed	21.02
1.06 (02)	Max speed	21.01
2.11 (03)	Acceleration time	21.04
2.21 (04)	Deceleration time	21.05
1.15 (05)	Reference	21.03
5.07 (06)	Motor rated current	21.07
5.08 (07)	Motor rated full load rpm	21.08
5.09 (08)	Motor rated voltage	21.09
5.10 (09)	Motor rated power factor	21.10
5.06 (39)	Motor rated frequency	21.06
5.11 (40)	Motor number of poles	21.11
5.17	Motor stator resistance	21.12
5.23	Motor voltage offset	21.13
5.24	Motor transient inductance	21.14
4.15	Motor thermal time constant	21.16
4.07	Motor symmetrical current limit	21.29

(xx) denote menu 0 parameters

The motor stator resistance, voltage offset and transient inductance can be automatically set by the drive's auto tune function which normally runs only once the first time the drive is run. When the second motor map is selected for the first time it will also run only once the first time the drive is run.

Additional Parameter Changes:

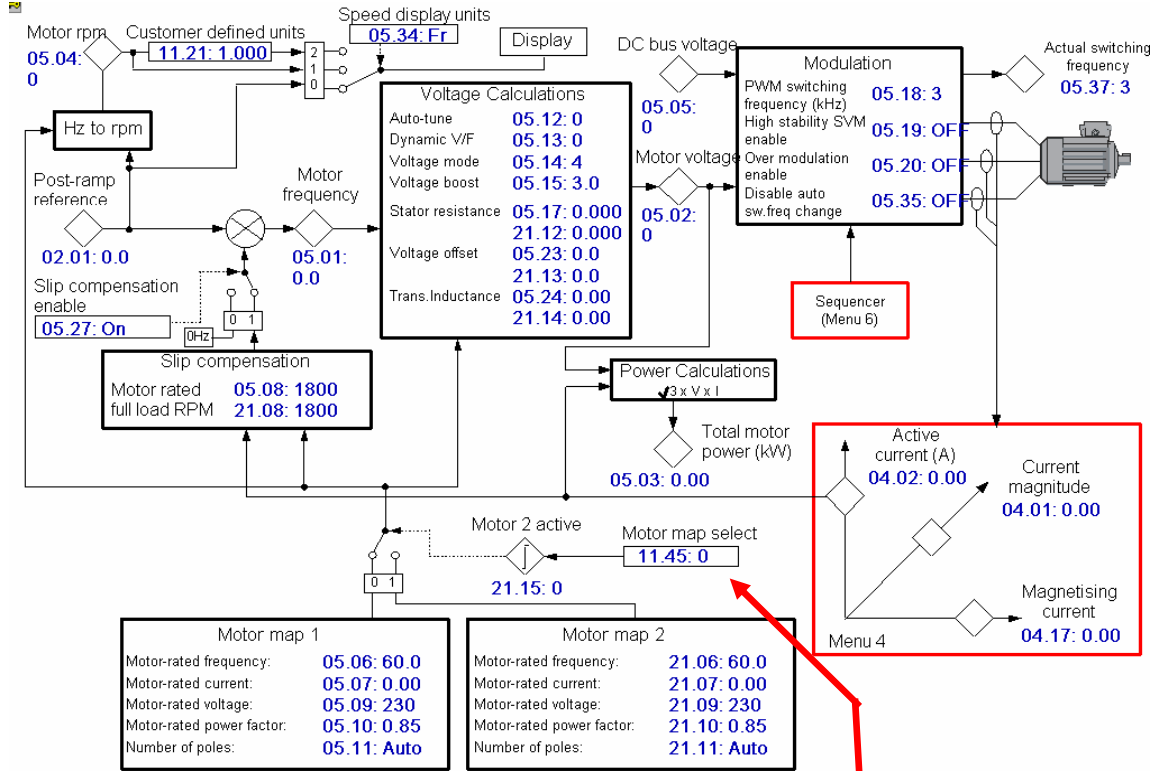
1. Parameter 8.25 = 11.45 (terminal B7 selects second motor map)
2. Parameter 8.15 = 0
3. Parameter 6.12 = On (enable stop button on keypad)
4. Parameter 11 = 0 (two-wire start) = 1 (three-wire start / stop)
5. Parameter 05 = **PA_d**
6. Parameter 21.03 = **AU.Pr** (for 0 to +10vdc) = **AI .AU** (for milliamp signal)

Note: Parameter values can be changed using Ctsoft and the CT Comms cable. If these are not available, they may be changed using the drive keypad utilizing the menu 60 and 70 parameters. Refer [CTAN272](#) for more details.

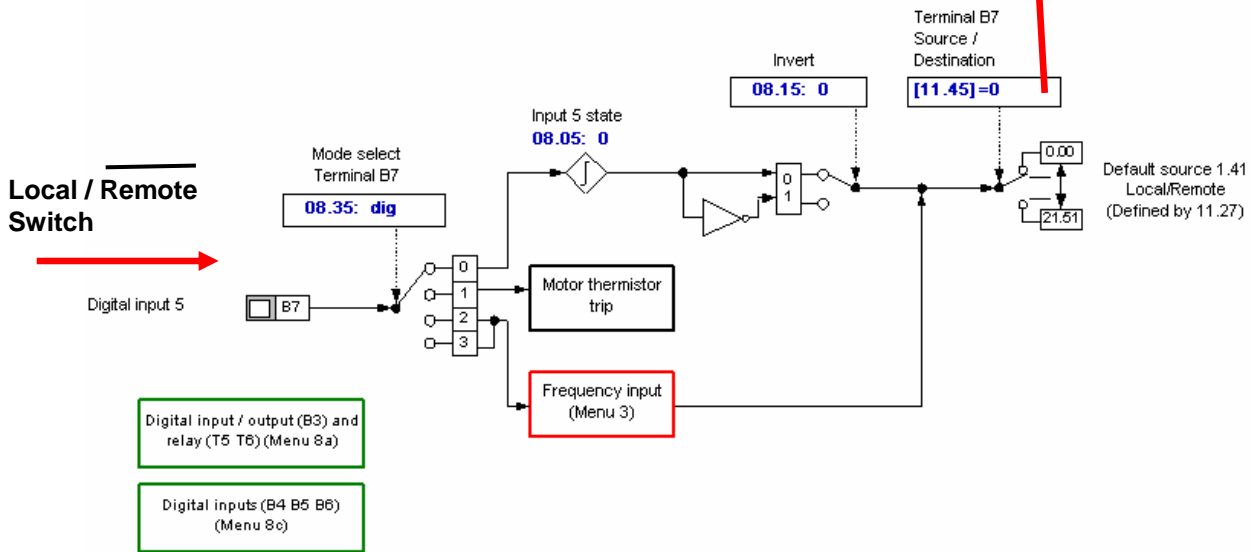
Operational Notes:

1. Drive must be in the **rd** or **ih** state to change from local to remote (or vice versa)

For additional Hand-Off-Auto and Local / Remote Control schemes which do not have the limitations listed in the notes above. See [CTAN285](#) and [CTAN286](#), note that both of these require the use of the **Optional Logic Stick**



Digital (B7), thermistor & frequency input (Menu 8b)



Questions: Ask the author ??

Steve Zaleski Email: <mailto:steve.zaleski@emersonct.com>

Tel: 716-774-1193