**Start-up Guide for the Almega 2 / Ziehl 4C connected to a geared machine.**
Switching the panel onto INSPECTION for the first time.

For all the below procedures please use site specific drawings for correct connections prior to wiring!

Installation State:

1. The main 3 phase power, Motor, Braking resistors, Encoder (if closed loop), Motor Thermistor's, Brake and brake monitoring switches along with associated screening & earths are to be connected to the control panel. Motor wiring must be connected correctly ensuring that from the inverter the terminal U is connected to U on the motor, V to V & W to W otherwise this could cause irregularities in setup & control.

    I. If no motor thermistors are present, then please connect the provided 1k resistor to terminal's THA/THB.

    II. If closed loop then the encoder being used can now be connected to the inverter, please refer to the below table / manual for pin assignment. If no encoder is being fitted then this can be adjusted within drive settings.
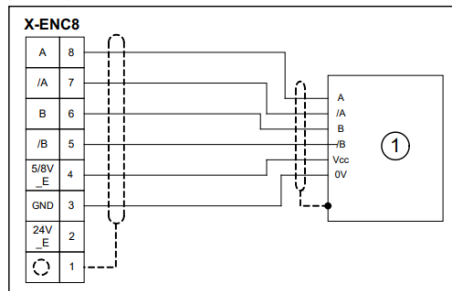
Inverter Motor connection   Encoder connection to terminal X-ENC8
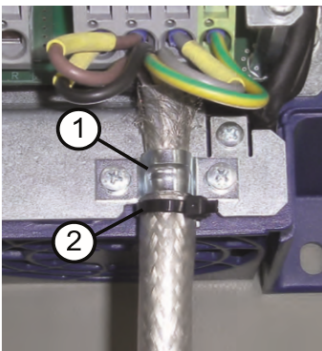
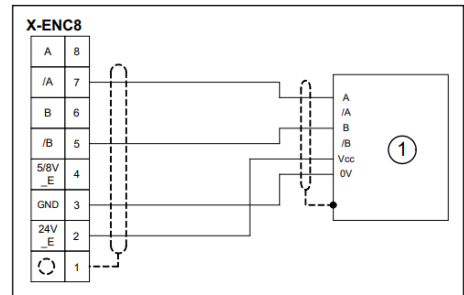
ZAdyn4C 011-032
1   Clip
2   Cable tie for strain relief

TTL encoder (30V)
1   TTL- or sine encoder

HTL encoder connection
1   HTL-encoder

2. The safety and lock circuits must be in a state of continuity starting at OTL then following the site-specific drawings to the end which will be G4. If using Pre-locks, then the end will be G5.

3. The test limits must be wired in, these are normally closed contacts, so continuity is needed between TUL to TU & *(if fitted)* TDL to TD.

    Note: If almega version is 4.15 or higher then INSTALLATION MODE can be set, this will deactivate the monitoring of THERMISTOR, PRE-FLIGHT CHECK, CAR GATE MONITORING, UMD FAILURE, ROPE MONITORING, BRAKE TEST MODE whilst working on INSPECTION CONTROL. This can be found in ENGINEERS SELECTION.

4. The door limits must be wired in. These are normally closed contacts so the processor should show limit OP closed and limit CL open.

    If there are physical slowing limits in the shaft and NOT electronically via the positioning system:
5. These must be wired in. The connections for these are G2 to RSU & G2 to RSD, the processor should show RSU & RSD as Black when mid shaft and both top & bottom limits not activated.

    If a panel test pendant is provided within the lift controller:
6. The panel test pendant MUST be switched to INSPECTION, then continuity must be made between terminals TTS to TS via the cartop controls test/normal switch. NOTE: CARE MUST BE TAKEN AS THIS IS THE CONNECTION FOR THE LIFT TO OPERATE IN NORMAL CONDITION.
    Please ensure that all wiring is connected correctly and checked prior to switching on.

7. The panel can now be switched on.

8. Check the incoming 3 phase sequence is correct, if incorrect the phase failure will display a flashing LED.

9. Check that the TR contactor is NOT energised, this proves that the panel is not in the normal state.

10. *(if fitted)* The PIT ACCESS RESET PUSH needs to be pressed,

11. Pre-checks on the main lift viewer display:
     I. EMR,CARL,LANL, (PRE-Locks if fitted) are displayed as active.
     II. OP limit is shown as closed; CL limit is shown as open.
     III. If physical slowing limits both RSU & RSD are shown as not active (Black).
     IV. Within ENGINEERS SELECTION check the following are set to NO
          UMD MON FAILURE
          OVERTRAVEL FAULT
          CAR GATE MONITORING
     (Almega Ver 4.15 or higher will have INSTALLATION MODE which can be used as per above Note)

12. Drive settings:
     Within MOTOR NAME PLATE
     Motor Type must be set to - ASM
     n = Rated speed - RPM
     f = Frequency - HZ
     p = Pole pairs of the motor
     I = Rated current - A
     U = Rated voltage - V
     P = Rated power - KW
     Cos phi = Power factor if obtainable
     TYP = Motor connection type- The motor should be connected in Star
     Within ENCODER & BC
     ENC_TYP - Set to encoder type being used (if open loop select No ENC)
     ENC_INC - Enter the encoder pulses – PPR.
     BC_TYP – Enter the used braking resistor.
     Within INSTALLATION
     V* = Rated speed - RPM (This parameter should be set via communication to the Almega 2)
     MOD_n* = Calculate
     _D = Sheave diameter - mm's
     _iS = Roping arrangement = type of suspension
     _i1 = Gearbox ratio (factory setting 38.00)
     _i2 = Gearbox ratio (factory setting 1)
     Q = Elevator installations rated load
     F = Elevator car weight
     G = Elevator counterweight weight

13. The lift should now be able to move on INSPECTION CONTROL, please observe the direction of travel and check this is correct, if the direction is incorrect then adjust MO_DR in CONTROL SYSTEM within the drive unit.

If needed please contact technical@lestercontrols.co.uk where someone will be able to assist.