Courion iSYSTEM Wiring Schematic Notes

Read and Understand These Items Before Wiring Your Courion System

1. Courion's iSYSTEM requires only one (1) iLEARN Door Control per hoistway, including single-sided, pass-through, and staggered hoistways.

2. **POWER REQUIREMENTS** - Courion's iLEARN Door Control requires 110 VAC. Courion's Hoistway and Car Top Equipment requires a 240 VAC 3-Phase Power Supply. When the power supply exceeds 260 VAC, step-down transformers will be supplied by Courion. If the power supply is below 208 VAC, booster transformers may be supplied by Courion. See Courion's iLEARN System Manual for additional details.

3. **POWER SUPPLY DISCONNECT** - A means to disconnect the 240 VAC 3-Phase and the 110 VAC Single Phase is generally required as part of the electrical code. A disconnect switch with 10 AMP fuses should be provided by the General Contractor for the 240VAC 3-Phase service.

4. HOISTWAY WIRING MATERIAL - Courion's iSYSTEM includes the following wiring bundles (provided by Courion) as referred to in these drawings:

- iWIRE Motor Bundle (#90-947400) includes four (4) 16 AWG insulated conductors (M1, M2, M3, Spare).
- iWIRE CANbus Bundle (#90-947405) includes two sets of shielded twisted pair wires for the CANbus Network (C01, C02, C03, C04) and a Drain Wire.
- iWIRE Hoistway Bundle (#90-947409) includes five (5) 16 AWG insulated conductors (L1, L2/N, L3, G and SP01), one (1) 18 AWG insulated conductor (C05/C06) for the Address In/Out on Courion's CANbus Network, and three (3) spare 18 AWG insulated conductors (SP02, SP03, SP04).
- iWIRE Floor/Gate Bundle (#90-947415) includes fifteen (15) 18 AWG insulated conductors for the Interlock Zone Contact, EUD, Push Buttons, Gate Contact, and Safety Access Switch (01, 02, 03, 04, 05, 06, 07, DI, DI, DI, GC01, GC02, GC03, SC01, SC02)
- iWIRE Traveling Cable (#90-947416) includes five (5) 16 AWG insulated conductors (L1, L2/N, L3, G, SP01), one (1) Beldin Device Net Cable, and three (3) 18 AWG insulated conductors as spares (SP02, SP03, SP04).
- iWIRE Interconnection Cable (#90-947423) includes three (3) 16 AWG insulated conductors, and twenty (20) 18 AWG insulated conductors for the interconnection of the iLEARN Door Control and the Elevator Control.

5. **WIRE CANBUS NETWORK** - The iWIRE CANbus Cable (2 twisted pair and drain wire) is DAISY CHAINED from the iLEARN Door Control to each iD-RIVE VFD Floor Control and then to the Car Top iDRIVE VFD Gate Control(s). **IMPORTANT**: To insure proper communication over the iSYSTEM CANbus Network:

- a. Each iDRIVE must be wired IN SERIES NO BRANCHES are allowed on the CANbus Network.
- b. GROUND all shielding and drain wires in the Machine Room. Drain wires must be continuous up the hoistway to the Car Top.
- c. SEPARATE all power lines (L1, L2, L3) and motor wires (M1, M2, M3) from your CANbus Cable. DO NOT INCLUDE IN THE SAME CONDUIT.

6. **IWIRE CANbus ADDRESS WIRE** - iDRIVE Floor Controls are addressed in the order they are wired from the iLEARN Door Control in the machine room (e.g. iDRIVE 1, iDRIVE 2, iDRIVE 3). CANbus Port C05 (Address In) and C06 (Address Out) are run in series as shown from one iDRIVE Floor Control to the next. There is no C05/C06 Address Wire required for the Car Top VFD Controls.

7. INTERLOCK DOOR CLOSED CONTACT (Normally Closed) and INTERLOCK DOOR LOCKED CONTACT

(Normally Closed) See Elevator Control Wiring Diagrams for wiring information. Q Style Interlock Shown on these prints. Courion P Style Interlocks do not have a Door Closed Contact.

8. INTERLOCK ZONE CONTACT (Normally Open) Closes when the Elevator is at the floor and the Retiring Cam drops to actuate the Interlock. If you have Front Openings, the Interlock Contacts are wired between DI and 03. If you have Rear Openings, the Interlock Zone Contacts are wired between DI and 01.

9. EMERGENCY UNLOCKING DEVICE (EUD) (Normally Closed) Opens when the EUD switch is activated. If you do NOT have an EUD at a particular floor, this input must be closed with a permanent jumper.

10. HALL AND COP PUSH BUTTONS (Not By Courion)

Stop - (Normally Closed) If you do not have a STOP Button, this input must be closed with a permanent Jumper.
Close - (Normally Open)
Open - (Normally Open)
Reset - (Normally Open)

11. **FRONT AND REAR CAR GATES** - If you have a FRONT and REAR Car Gate, the iWIRE CANbus Cable MUST terminate in the FRONT Gate iDRIVE VFD Control. All iDRIVE.G Car Top Controls are set up for a FRONT Car Gate. If you have a REAR Car Gate - 1. Remove the resistor from terminals C03 and C04 inside the iDRIVE.G VFD Control, and 2. Place a jumper between terminals J4-1 and J4-2 entitled "Rear Gate" on the iDRIVE.G Expansion Module.

12. REVERSING EDGE (Normally Closed Circuit) - Opens when Reversing Edge is obstructed by an object. If there is no obstruction and Reversing Edge Contact is not made, adjust the contact on the Gate Panel for proper actuation.

13. DOOR MOTOR WIRING - Door Motors are to be wired to run in opposite directions. Invert one pair of Motor Wires between the Motors. For example, connect the Interlock side motor M1-Red, M2-WHT, and M3-BLU. Connect the non-Interlock side motor M1-BLU, M2-WHT, and M3-Red. Wire each Opening the same. When Starting-Up, if the Door Panels move in the opposite direction expected, reverse the M1 and M2 Wires inside the iDRIVE VFD Door Control.

14. DEFAULT DOOR OPERATION - iLEARN Door Control default operation is Constant Pressure Close. See iLEARN Control Manual for procedure to change default door operation.

15. START-UP - DO NOT complete the Elevator Control Interconnections until after completing the Initial Start-Up Steps described in the Courion iLEARN Control Manual. Detailed Interconnection information can be found in the iLEARN Control Manual and in your Elevator Control Wiring Schematics. Before Start-Up, INS-Inspection, HPB-Hall Push Button, and FSH-Fire Service Hold input circuits must be closed with a temporary jumper in order to operate the Courion Hoistway Doors and Car Gate.

16. WIRING SCHEMATICS - Hoistway Wiring Schematic (2 pages), Floor Wiring Schematic Detail, Car Top Wiring Schematic Detail, iLEARN Door Control Detail, Transformer Wiring Detail.

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Hoistway Wiring Schematic iLEARN Door Control	В	N/A	1 of
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