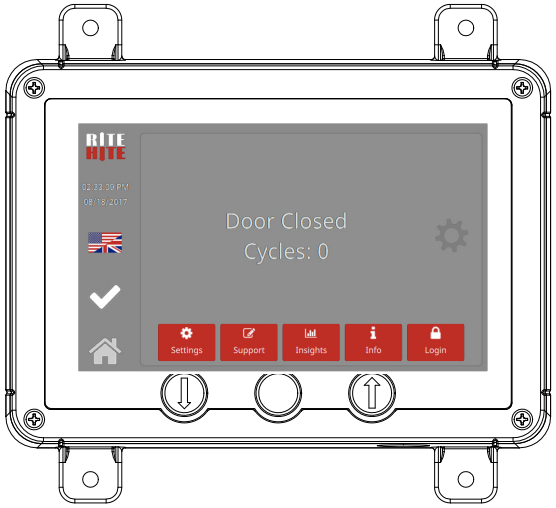
RITE-HITE®
ALWAYS LOOKING AHEAD

i-COMM™ 3

Touch Screen Control

Installation/Service Manual

This manual covers units shipped: To date



Language: **English**

Model: **iCOMM3**
Publication: **AMEN00125 2017-12-04**

NOTICE TO USER

The i-COMM™ 3 Touch Screen Controls are used to manage and adjust settings for Rite-Hite doors.

The English version of this manual shall prevail over any error in, or conflicting interpretation of, any translations.

Rite-Hite reserves the right to substitute and/or modify parts and drawings. If separate prints are included with the unit they supersede those contained in the manual.

A Planned Maintenance Program (P.M.P.), customized to your specific operation is available and recommended. For a P.M.P., contact your local Rite-Hite representative or Rite-Hite technical support at (U.S.) 1-563-589-2722, (S.A.) +55 21 99616 4421, (E.U.) +49-5693 98700.

Portions of this software may utilize copyrighted and/or Open Source materials which are acknowledged on the following website along with source code where required.

https://bitbucket.org/rhdengineering/acknowledgements

FCC Compliance

NOTE: This device complies with Part 18 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTE: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Specifications

- Input Voltage 24 VDC +/- 10%
- Terminals accept wire sizes 12 – 22 AWG.
- 8 Digital Inputs (24VDC; 10 mA).
- 4 Relay Outputs (24VAC/DC; 1 AMP).
- 6 DC Outputs. (24VDC; 0.3 AMP MAX).

SAFETY

Safety Identifications

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

Indique une situation dangereuse qui, si elle n'est pas évitée, peut entraîner la mort ou de graves blessures.

WARNING / AVERTISSEMENT

Indicates a hazardous situation which, if not avoided, *could result in death or serious injury*.

Indique une situation dangereuse qui, si elle n'est pas évitée, *peut entraîner la mort ou des blessures graves.*

CAUTION / ATTENTION

Indicates a hazardous situation which, if not avoided, *could result in minor or moderate injury*.

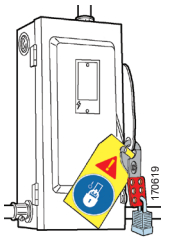
Indique une situation dangereuse qui, si elle n'est pas évitée, *peut entraîner des blessures légères à modérées.*

NOTICE

Indicates a situation which can cause damage to the equipment, personal property and/or the environment, or cause the equipment to operate improperly.

NOTE: A note is used to inform you of important installation, operation, or maintenance information.

Lockout Procedure



Barricade work area and post safety warnings.

Power supply/control must:

- Be disconnected or locked in OFF position using a lockout device approved by local codes.
- Have signage that:
  - Clearly states repairs are being made.
  - Identifies person responsible for lockout condition.

    NOTE: Only this person should be able to remove warnings and lockout device.
  - Withstands environmental conditions (weather, wet, and damp, etc.) and remains readable.

SAFETY

General

⚠ DANGER

A qualified electrician should install the wiring in accordance with local electrical codes.

Use lockout procedures to prevent death or severe personal injury.

L'installation du câblage doit être effectuée par un électricien qualifié, conformément aux normes électriques nationales et locales.

Afin de réduire le risque de blessures graves ou mortelles, utilisez des procédures de verrouillage.

⚠ DANGER

To reduce risk of injury or death, an earth ground connection must be made to the green/yellow control box ground terminal.

If metal conduit is used as the ground connector, a ground bushing and green/yellow wire must be properly attached to the conduit for connection to the ground terminal, per local electrical codes.

Pour réduire le risque de blessures ou de décès,un raccordement de terre doit être fait à la boite de contrôle verte/jaune de la borne de terre.

Si le connecteur de terre utilisé est un conduit métallique, un manchon de mise à la terre et un câble vert/jaune doivent être correctement fixés au conduit un raccordement à la borne de terre, par codes électriques locales.

⚠ WARNING / AVERTISSEMENT

STAND CLEAR!

TENEZ-VOUS À L'ÉCART

Rapid moving door could cause serious injury or death.

La porte mobile rapide peut causer des blessures graves ou la mort.

Door could close automatically.

La porte peut se fermer automatiquement.

DO NOT stand in the doorway, and DO NOT walk under moving door. Keep door in full view and free of obstructions while operating.

NE PAS rester debout dans la porte et Ne PAS marcher sous la porte mobile. Garder la porte en pleine vue et sans obstruction pendant l'opération.

Repairs or adjustments should be made only by a trained door systems technician.

Les réparations ou les ajustements ne doivent être effectués que par un technicien agréé.

⚠ WARNING / AVERTISSEMENT

The Variable Frequency Drive (in control box) has a stored charge, it is unsafe to work on for 10 minutes after disconnecting power.

Le variateur de fréquence (dans la boîte de contrôle) a une mémoire de charge, il est dangereux de travailler pendant 10 minutes après la coupure de l'alimentation.

SAFETY

General *Continued*

⚠ CAUTION / ATTENTION

During installation and repair, barricade both sides of the door to prevent unauthorized use.

Pendant l'installation et la réparation, délimitez et protégez les deux côtés de la porte pour éviter toute utilisation non autorisée.

⚠ CAUTION / ATTENTION

Forklift drivers should sound horn when approaching the door to alert others.

Les conducteurs de chariot élévateur doivent faire sonner le klaxon lorsqu'ils s'approchent de la porte pour alerter les autres.

NOTICE

The safest location for conduit is at the bottom of the control box. Failure to install conduit at the bottom of the control box may void the warranty.

Be extremely careful when drilling conduit holes into the control box. Drilling too deeply or allowing debris to fall into electrical components may cause severe equipment damage or component failure.

DO NOT turn control box upside down when drilling holes. Holes on top of control box may allow dust and moisture to enter the control box.

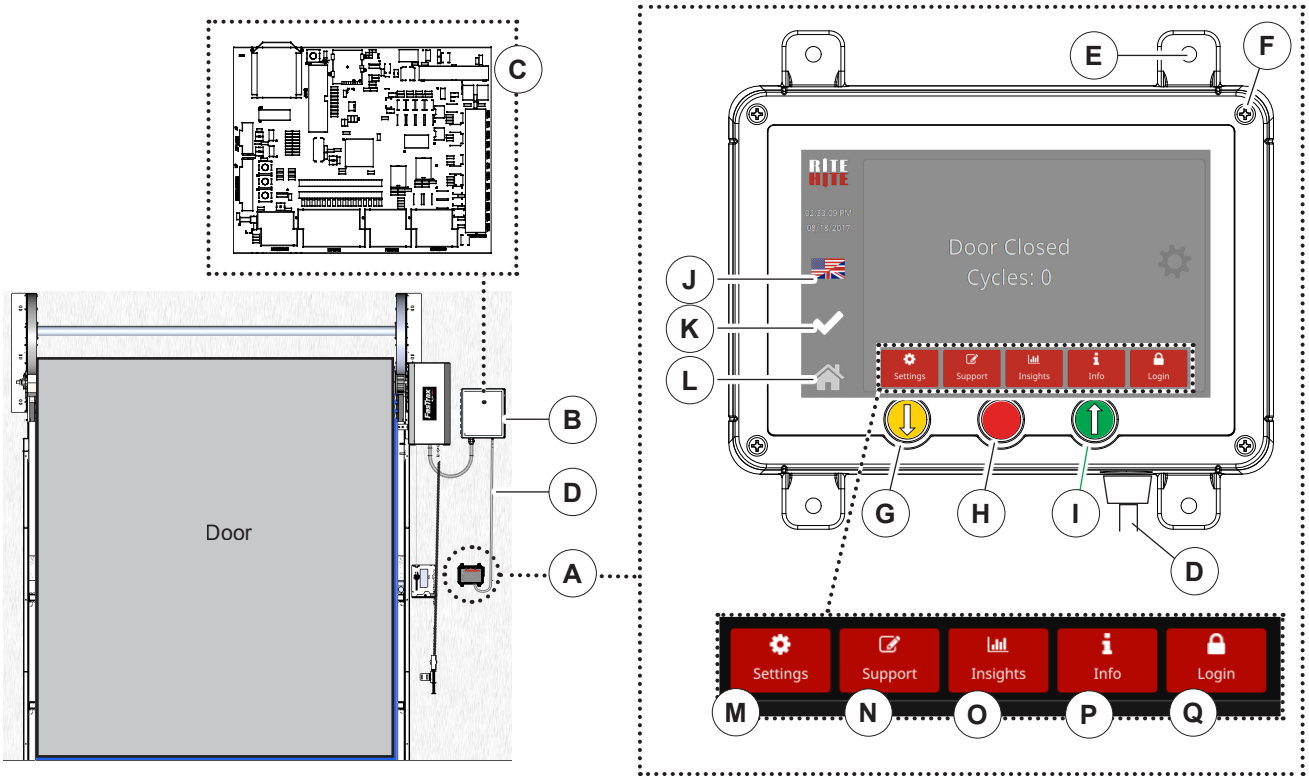
NOTICE

In freezer and cooler applications where a conduit passes from a warm to cold temperature zone, the conduit must be sealed with an approved material per local electrical codes.

NOTICE

DO NOT attempt to drive through a door that is not open when in a fault mode.

FEATURES



A. Touch Screen Controls /GUI (Graphical User Interface)
B. Control Box
C. i-COMM™ 3
D. Communication Cable
E. Wall Attachment (x4)
F. Enclosure screw (x4)

Buttons:

G. Close (Yellow)*
H. Stop (Red)*
I. Open/Reset (Green)*
J. Language indicator
K. Door Status:

Red	Fault
Yellow	Warning
White	Operating Normally

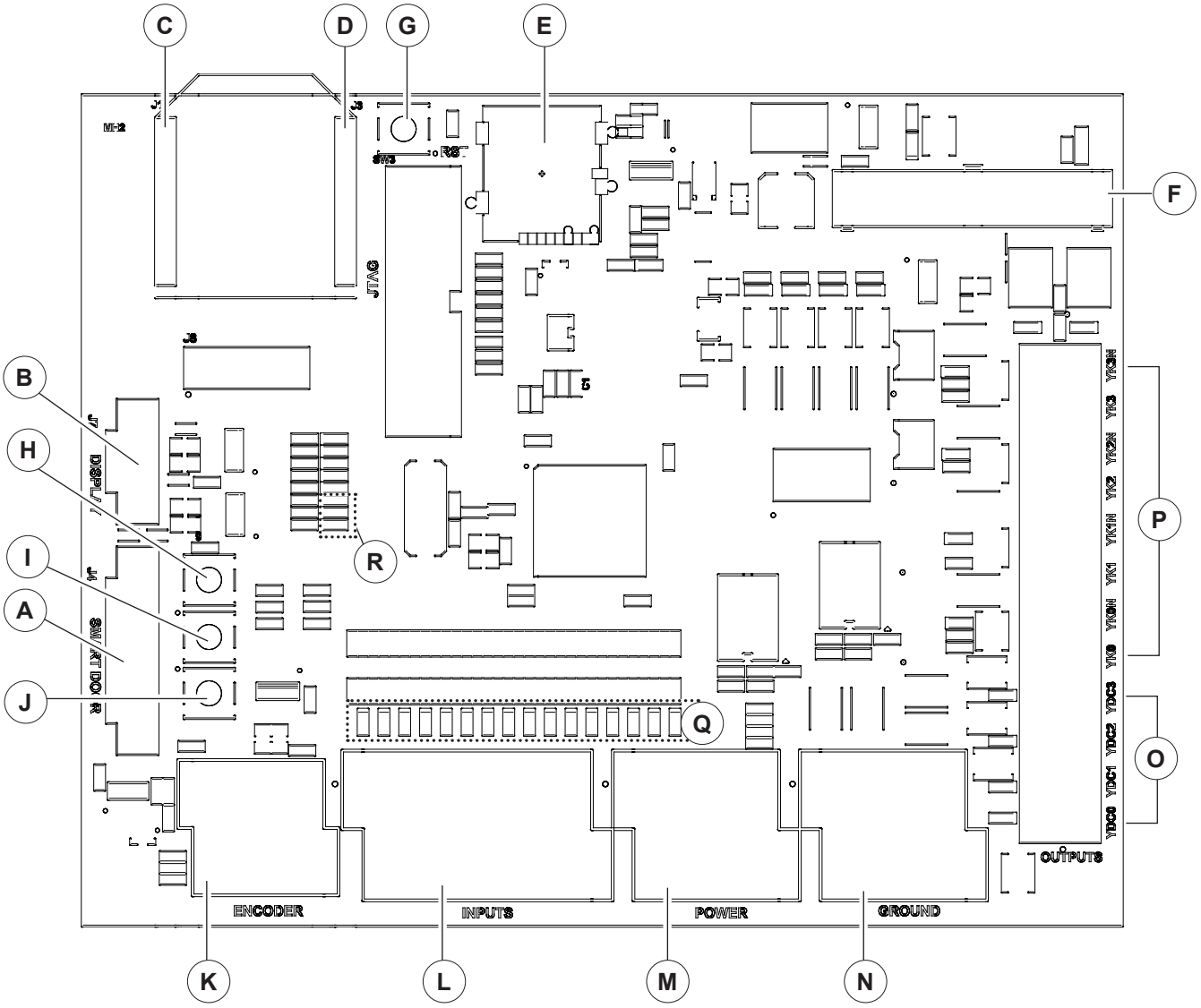
L. Home
M. Settings**
N. Support**
O. Insights**
P. Info**
Q. Login**

*Buttons are mirrored on the i-COMM 3 for use during installation.
**Conditional buttons. Shown: Home Screen.

Figure 1

INSTALLATION

i-COMM™ 3 Layout

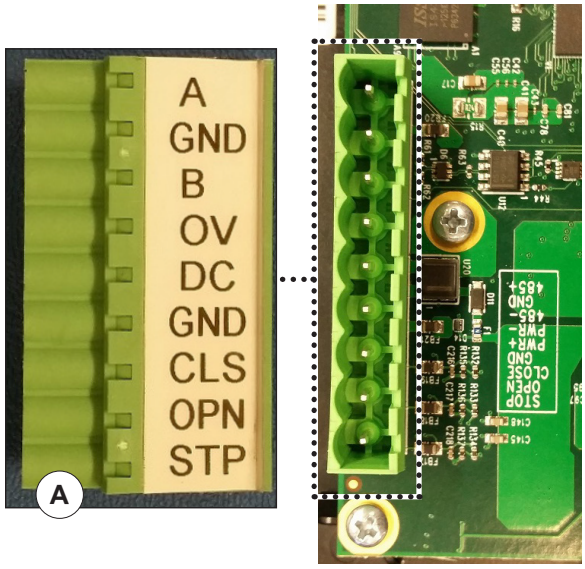


A. J4 Connector (GUI – 9 pin)
B. J7 Connector (LED countdown – 5 pin)
C. J1 Header (wireless interlock)
D. J3 Header (wireless interlock)
E. SD Card (minimum 2GB required)
F. J6 Connector (controls connector – 20 pin)
G. Reset Button
H. Open Button (SW0 – Up)
I. Stop Button (SW1)
J. Close Button (SW2 – Down)
K. Encoder Terminals
L. Input Terminals
M. DC Terminals
N. 0V Terminals
O. Solid State Outputs
P. Relay Outputs (Dry contacts)
Q. Input LED's indicate status
R. Blue blinking LED indicates proper status of communication with:
   D31: VFD
   D32: GUI
   D34: Wireless Interlock.

Figure 2

INSTALLATION

Touch Screen Controls



TERMINAL	COLOR
A	BN/WH
GND	no connection
B	BN
OV	BU/WH
DC	BU
GND	no connection
CLS	GN/WH
OPN	OG
STP	OG/WH
clip	GN
clip	Drain

Figure 3

Use **Figure 1** unless otherwise noted.

1. Follow Lockout procedure.
2. Open the main control box (B).
3. Plug 9 pin connector on communication cable to i-COMM™ 3 (**Figure 2** (A))
4. Feed opposite end of cable thru bottom of control box.
5. Securely anchor touch screen control to wall with anchors and fasteners (E) (supplied by others) .
6. Remove 4 screws on front of touch screen controls enclosure (F).
7. Remove the terminal block in J12 ((A) **Figure 3**).
8. Route cable through connector on bottom of touchscreen control (D).

   Cable must:
   - Exit the bottom of enclosure
   - Be cut to appropriate length

   NOTE: **DO NOT** coil excess cable in control box or touch screen enclosure.
9. Connect communication cable according to table (**Figure 3**). Isolate unused wires (Green, Drain) so they do not come in contact with other electrical components.
10. Re-insert terminal block into J12.
11. Replace screws in enclosure
12. Turn power onto door.
13. When the door is first powered up for the first time the screen will start at the "Door Setup Wizard".
14. Follow the directions on the screen.

INSTALLATION

Set-Up – Input / Output Values

TYPE	#	FUNCTION	DESCRIPTION
Input	0	Interlock In	Interlock Input - When Input is set to this function door will not open until input is ON. Valid only for inputs X3, X4, and X5.
	1	Stop N.C.	Stops the door when input is OFF.
	2	Activation	Opens the door when input is ON, w/ Auto close.
	3	Toggle	Open and Closes the door when ON. Door will not automatically close when opened by a toggle input.
	4	Close	Closes the door when input is ON.
	5	Sequential Activation	Activates door and blocks sequential activation output from triggering opposite door. Use only for sequential interlocks.
	6	Reverse	Reverses the door when input is ON.
	7	Stop N.O.	Stops the door when input is ON.
	8	Manual Open	Opens the door when input is ON. This input will open from a stop condition, unlike activation. **DO NOT** connect motion sensors or other automatic devices to a manual open input.
	9	Auto / Manual	When input is ON reclose timer is disabled.
	10	Partial Open Activation	Opens the door to the partial open position when ON
	11	Partial Open Toggle	Toggle open/close door to and from partial open position. See #3 **"Toggle".**
	12	Toggle w/ Auto Close	Open and Closes the door when ON. Door will automatically close when opened by this type of toggle input.
	13	Hand / Auto Mode	When input is ON reclose timer is disabled and hold-to-run close is enabled.
	14	Disabled	Input disabled.
	15	Reverse N.C.	Reverses the door when input is OFF.
	16	Clean	Opens door to "Cleaning" position when on.
	17	E-Stop	Places door in fault when OFF.
	18	Seq. Activation 2	Consult Engineering
	19	LZR in N.C.	Reverses the door when off and monitors the input for fault
	20	Pre-announce to Open	Opens the door after the set amount of time in the Preann. to Open timer. Immediate reversal/activation if the door is not closed.
	21	Interlock Override	Opens the door and overrides any standard interlock configuration
	22	Manual Partial Open	Opens the door to (partial open) when input is ON. This input will open from a stop condition, unlike activation. **DO NOT** connect motion sensors or other automatic devices to a manual open input.
	23	Manual Open N.C.	Opens the door when input is OFF. This input will open from a stop condition, unlike activation. **DO NOT** connect motion sensors or other automatic devices to a manual open input.
	24	Activation N.C.	Opens the door when input is ON, w/ Auto close.

INSTALLATION

Set-Up – Input / Output Values *Continued*

TYPE	#	FUNCTION	DESCRIPTION
Output	0	Interlock	ON when door is closed.
	1	Interlock N.C.	OFF when door is closed.
	2	Pre-announce	ON during pre-announce to close, and stays on until the door is closed.
	3	Open	ON when door is open.
	4	Open N.C.	OFF when door is open.
	5	Fault	ON during fault.
	6	Ready	ON when not in fault.
	7	Activation	ON during activation.
	8	Run Open	ON during run open.
	9	Run Close	ON during run close.
	10	Run	ON during run open or close.
	11	At Limits	ON when door is open or closed.
	12	I-Zone Alarm	ON during I-Zone alarm.
	13	Door Open 30 sec.	ON when door is open for more than 30 seconds.
	14	Door Open 60 sec.	ON when door is open for more than 60 seconds.
	15	Door Open 120 sec.	ON when door is open for more than 120 seconds.
	16	Sequential Activation	ON to activate opposite door. Use for sequential interlock.
	17	Run Open N.C.	OFF during run open.
	18	Run Close N.C.	OFF during run close.
	19	Run Close N.C.	OFF during run open or close.
	20	Disabled	Always OFF.
	21	Flash 3.1 Hz	Flashes at 3.125 Hz.
	22	Flash 1.6 Hz	Flashes at 1.5625 Hz.
	23	Partial Timer	Consult Engineering
	24	Reverse / Activation	ON when any reverse command or activation signal is on.
	25	Door Open Alarm	ON when door has been opened for time set in "Open Alrm Time"
	26	Interlock Pass-Thru	ON when door is able to be opened (Interlock Input is not preventing door from opening)
	27	Interlock Pass-Thru N.C.	OFF when door is able to be opened (Interlock Input is not preventing door from opening)
	28	Pre-announce & Close	ON during pre-announce to close, and while closing. ***Note:*** this output will turn on while door is closed from Toggle or Close command or re-close timer.
	29	Photoeye Test	ON when emitters are on, OFF to test photoeyes
	30	Encoder Bit 9	Consult Engineering
	31	Encoder Bit 10	Consult Engineering
	32	Encoder Bit 11	Consult Engineering
	33	Encoder Bit 12	Consult Engineering
	34	Pre-announce & Open	ON during the set pre-announce to open time.
	35	Pre-announce to Close	ON only during pre-announce to close. OFF during run close
	36	Pre-announce & Flash	Flashes at 3.1 Hz during pre-announce to close. OFF during run close.
	37	Flash 1Hz	Flashes at ≈ 1 Hz
	38	38 Flash 6 Hz	Flashes at ≈ 6 Hz

INSTALLATION

Set-Up – Folders

General

- Region
  - Set Time Zone
  - Measurement
  - Set Date
  - Set Time
  - Date Format
  - Time Format
- Info
  - Door Model 🔒
  - Serial Number
  - RHC Number
  - Cycles 🔒
  - Rep. Name
  - Rep. Phone
  - Square Feet
  - Legal 🔒
- Options
  - Reversing Edge
  - Spec. Package
  - Reverse Delay
  - Non-Powered Open
  - Voltage
  - Speed Threshold 🔒
- Security
  - User PIN
  - Service PIN 🔒
  - Lock / Unlock
- Reset Maintenance
- Maintenance Info.
  - Maintenance (Months)
  - Maintenance (Cycles)
  - Next Maintenance Date
  - Next Maintenance Cycle Count
- Reset to Default
- Backlight

Limits

- Limit Setup
- Close Position Adj.
- Open Position Adj.
- Advanced
  - Lower PE Cut-Out Height 🔒
  - Upper PE Cut-Out Height 🔒
  - i-Zone Cut-Out Height 🔒
  - Partial Open 🛠
  - Encoder Baud 🛠
  - Drive Side 🛠
- Approach Close
- Approah Open 🔒

IO Settings

- Open/Reset Function
- Loop Function
- i-Zone System
- Relay Outputs
  - Output YK0
  - Output YK1
  - Output YK2
  - Output YK3
- DC Outputs
  - Output Type YDC0
  - Output YDC1
  - Output Type YDC1
  - Output YDC1
  - Output Type YDC2
  - Output YDC2
  - Output Type YDC3
  - Output YDC3
  - Output YDC4
  - Output YDC5
  - Output YDC6
  - Output YDC6
- Inputs
  - Input X0
  - Input X1
  - Input X2
  - Input X3
  - Input X4
  - Input X5
  - Input X6
  - Input X7
  - Input X8
  - Input X9

🔒 = Locked
🛠 = Service Only

INSTALLATION

Set-Up – Folders *Continued*

Timers

- Set Close Timer
- Preann. to Close
- Advanced
  - Preann. to Open
  - Autocycle Timer
  - Open Alarm Time
  - Logout Timer
  - Return Home Timer
  - Backlight Timer

Inverter

- Inverter Type 🔒
- Speeds
  - Open Speed
  - Close Speed
  - Approach Speed
  - Jog Speed
- Ramps
  - Acceleration Time
  - Acceleration Time 2
  - Deceleration time
- Torque Reversing Level
- Injection Braking Time
- Injection Braking Level
- Program Inverter 🔒

Load/Save

- Update Software (TFTP)
- USB Software Update

Network

- DHCP/Static (IP)
- Static IP
  - IP Address
  - DNS
  - Subnet Mask
  - Gateway
- Wi-Fi
  - Wi-Fi Enable
  - SSID Name
  - Wi-Fi Password
- Advanced
  - Enable NTP server
  - NTP Server
  - Update Server
- Modbus TCP
  - Modbus TCP Port
  - Modbus TCP Slave
- BACnet
  - BACnet ID
  - BACnet Permissions
  - BACnet Name
- Modbus RTU
  - Modbus RTU Baud Rate 🔒
  - Modbus RTU Parity 🔒
  - Modbus RTU Data Bits 🔒
  - Modbus RTU Stop Bits 🔒
  - Modbus RTU Slave ID 🔒
- Interlocks
  - Interlock Control Reg.
  - Door Interlock 1
  - Door Interlock 2
  - Door Interlock 3
  - Door Interlock 4
  - Door Interlock 5
  - Door Interlock 6
  - Door Interlock 8
  - Door Interlock 9
  - Door Interlock 10
  - Door Interlock 11
  - Door Interlock 12
  - Door Interlock 13
  - Door Interlock 14

Setup-Wizards

- Door
- Network
- Wi-Fi
- Modbus TCP

🔒 = Locked
🛠 = Service Only

INSTALLATION

Set-Up – Logic Chart

Input Table (Default Values)

	INPUT	TRAKLINE	FASTRAX/FR/LD/ FRLD/CL	FASTRAX XL	SPLITSECOND	LITESPEED	BARRIER GLIDER	DEFENDER
Function	X0	Open PB						Close Command
	X1	Stop PB						Stop Command N.C.
	X2	Activation Command			Torque Reverse	Activation Command		
	X3	Activation Command						Manual Open Command
	X4	Close PB						Stop Command N.C.
	X5	Toggle Command						Close Command
	X6	Activation Command						
	X7	Activation Command						
	X8*	–		Curtain Monitoring	–	–	–	–
	X9*	–		Counterweight Photoeye	36in Photoeye	–	–	–
	X10*	16in Photoeye Input	18in Photoeye Input				Torque Reverse	–
	X11*	24in Photoeye Input	54in Photoeye Input			Header Photoeye	Unused	–
	X12	Open/Reset PB						
	X13	Induction Loop Input						
	X14*	Fault Input						
	X15*	Input Power						
– = Unused								

*Not shown in I/O menu and not programmable

Output Table

	I-COMM 3	FUNCTION / DEFAULT VALUE	PROGRAMMABLE
Relay Output	YK0	Interlock Out	✓
	YK1	–	✓
	YK2	–	✓
	YK3	–	✓
DC Output	YDC0	On when door Open	✓
	YDC1	Photoeye Test	✓
	YDC2	Photoeye Test	–
	YDC3	–	✓
	YDC4	Open/Reset PB Light	–
	YDC5	I-Zone Alarm	–
	YDC6	Pre-Announce to Close	–
	YDC7	NPO Contactor	–

INSTALLATION (OPTIONAL)

Set-Up – Wireless Interlock

Only 1 door is allowed to be open at a time.

NOTE: The door serial number is located on the side of the control box or the front of the door sideframe.

NON-SEQUENTIAL INTERLOCK
2-16 doors (total)
1. Close door. Press Stop button. 2. **Home ►Login ►Settings ►Network ►Interlock** 3. In parameters “Door Interlock 0” – “Door Interlock 14”, enter serial numbers (1 per line) of doors to interlock with. Leave unused parameters at ‘0’. 4. Set Interlock Control Reg. to ‘Non-Sequential Interlock’. Log out. Cycle Power to door. 5. Repeat steps 1 - 4 at remaining door(s). 6. Verify operation.

SEQUENTIAL INTERLOCK
2 doors (total) After a door has been activated and then re-closes, it will automatically activate the other door.
1. Close door. Press Stop button. 2. **Home ►Login ►Settings ►Network ►Interlock** 3. In parameter “Door Interlock 0”, enter serial number of door to interlock with. Leave unused parameters at ‘0’. 4. Set Interlock Control Reg. to ‘Sequential Interlock’. Log out. Cycle Power to door. 5. Repeat steps 1 - 4 at remaining door. 6. Verify operation.

To disable Wireless Interlock:

Home ►Login ►Settings ►Network ►Interlock Set “Interlock Control Reg.” to “Interlock Disabled”.

INSTALLATION (OPTIONAL)

Building Management System Interface

BACnet and Modbus Parameter

		MODBUS TCP		BACNET	
PARAMETER	**TYPE**	**REGISTER**	**ADDRESS**	**NAME**	**TYPE**
Door State	Enumeration	0	40001	gui_state	48 : Object Positive Integer Value
Active Fault	Integer	1	40002	active_fault	
Door Cycles Low Word		2	40003	cycle_count_stored	
Door Cycles High Word	–	3	40004		
Serial Number Low Word	Integer	4	40005	sn_prop	
Serial Number High Word		5	40006		
RHC Number Low Word		6	40007	rhc_prop	
RHC Number High Word		7	40008		
Door Model	Enumeration	8	40009	–	–
Percent door Closed	Integer	9	40010	percent_closed	48 : Object Positive Integer Value
Total Time Closed Low Word		10	40011	time_closed	
Total Time Closed High Word		11	40012		
Total Time Open Low Word		12	40013	time_open	
Total Time Open High Word		13	40014		
Cycle Count Ave. (24 Hrs) Low Word		14	40015	cycle_count_average	
Cycle Count Ave. (24 Hrs) High Word		15	40016		
Time Open Ave. (24 Hrs) Low Word		16	40017	time_open_average	
Time Open Ave. (24 Hrs) High Word		17	40018		
Input Status Low Word		18	40019	io_input_status	
Input Status High Word		19	40020		
Output Status Low Word		20	40021	io_output_status	
Output Status High Word		21	40022		
Active VFD Fault		22	40023	active_vfd_fault	

Door State

DOOR STATE	VALUE	DESCRIPTION
Pre-Fault	0	Prepare for fault state
Fault	1	Door is faulted
Pre-Run Open	2	Prepare to run open
Run Open State	3	Door is running open
Pre-Open Position	4	Door is at Open (activated)
Open Position	5	Door is Open (counting down)
Pre-Run Close	6	Prepare to run close
Run Close	7	Door is running close
Pre-Door Closed	8	Prepare for closed
Door Closed	9	Door is closed
Not Used	10-13	Reserved for future use
Pre-Stopped State	14	Prepare to stop
Stopped State	15	Door is stopped

Door Model Value

DOOR MODEL	VALUE
FasTrax	8
FasTrax FR	9
SpitSecond	10
FasTrax CL	11
LiteSpeed	12
FasTrax FRLD	13
FasTraXL	14
Defender	15
Barrier Glider BP	16
Barrier Glider SS	17
Reserved	18
TrakLine Roll	19
TrakLine Fold	20
TrakLine PL	21

OPERATION

Opening, Closing, and Stopping

See **"Figure 1".**

#	OPERATE DOOR:	PRESS BUTTON:
G	Close	Yellow
H	Stop	Red
I	Open/Reset	Green

Optional activation devices (e.g., motion/presence sensors, photoeyes, radio controls, pull cords, push buttons, and floor loops) can be used to open and close the door. Contact your local Rite-Hite representative for specific instructions based on your application.

Common activation device connections:

Home ►Support ►Activation Help

Security

All parameters are protected by a PIN (Personal Identification Number). Login is required before changing any settings.

There are 2 security levels:

1. End User

   NOTE: Default PIN for the user is 3667. PIN can be changed (**Home ►Login ►Settings ► General ►Security ►User PIN**).

2. Service Technician

   PIN is provided by your Service Manager or Leader.

To Login (see Figure 1):

1. Press **Home** (L)
2. Press **Login** (Q)
3. Enter PIN
4. Press **Login**
5. The display will return to the main screen after successful login

NOTE: The system will log you out automatically based on Logout Time specified in **Settings ►Timers ►Advanced ►Logout Timer.**

OPERATION

Common Locations

LOCATION:	NAVIGATE TO:
Change PIN	**Home ►Login ►Settings ►General ►Security ►User PIN**
Activation Wiring Help	**Home ►Support ►Activation ►Help (choose screen)**
Fault and Change History	**Home ►Support ►Logs ►(choose screen)**
Local Representative	**Home ►Support ►Local Rep.**
Troubleshooting Guides – Faults	**Home ►Support ►Fault Help (choose screen)**

Common Tasks

TASK		NAVIGATE TO:	
Door Setup (Installation)		**Home ►Login ►Settings ►Setup Wizards ►Door**	Quickly setup: Region Settings (Time, Date, Etc.) Door Limits (Encoder).
Limit (Encoder) Setup	Reset all limits:	**Home ►Login ►Settings ►Limits ►Limit Setup**	Follow all on-screen prompts
	Adjust Open Limit:	**Home ►Login ►Settings ►Limits ►Open Position Adj.**	To adjust the limit so the door opens: • Further, enter a positive value. • Less, enter a negative value.
	Adjust Close Limit:	**Home ►Login ►Settings ►Limits ►Close Position Adj.**	To adjust the limit so the door closes: • Further, enter a negative value. • Less, enter a positive value.
	Door Closing Timers	**Home ►Login ►Settings ►Timers**	Total open time is the sum of Close Timer and Pre-announce to Close Timers. or Total open time = Close Timer + Pre-announce to Close Timers
Reset Maintenance		**Home ►Login ►Settings ►General ►Reset Maintenance**	
Network Setup	Wired	**Home ►Settings ►Setup Wizards ►Network**	
	Wireless	**Home ►Settings ►Setup Wizards ►Network** **Home ►Settings ►Setup Wizards ►Wi-Fi**	Install USB wireless module.

TROUBLESHOOTING

Common Startup Issues

ISSUE:	SOLUTION:
Blank Screen	• Verify wiring to touchscreen matches wiring diagram • Verify that SD card on the back of the touchscreen is seated properly • Verify unit is receiving power
Screen does not update	Verify that LED D32 is blinking. If LED does not blink verify wiring to touchscreen.
VFD Communication Loss	Verify that LED D31 is blinking. If LED does not blink refer to instructions in **Home ►Support ►Fault Help ►VFD Comm**
Encoder Faults	Refer to specific instructions in **Home ►Support ►Fault Help**

TROUBLESHOOTING

LEDs Functions or Input / Output Values

	FUNCTION	DESCRIPTION	LED COLOR	Reference
Status LEDs	Open	On Solid when open, flashes during opening	Green	D28
	Stop	On Solid when stopped	Red	D29
	Close	On Solid when closed, flashes during closing	Yellow	D30
	Door Command	On Solid when activation on, flashes when reversing device active	Red	D33
	Not Used	–	Red	D35
	VFD	Flashes when communicating with inverter (VFD)	Blue	D31
	Touch Screen	Flashes when communicating with touch screen	Blue	D32
	Wireless Radio	Flashes when communicating with wireless interlock radio	Blue	D34
Output LEDs	Fault	Flashes during fault	Red	D5
	I-Zone	On for I-Zone fault	Red	D6
	YDC6 (Warning Device)	On when YDC6 output is active	Red	D7
	Fault Output	On when no in fault	Red	D8
	YDC0	On when output is active	Red	D44
	YDC1	On when output is active	Red	D45
	YDC2	On when output is active	Red	D46
	YDC3	On when output is active	Red	D47
	YK0	On when output is active	Red	D14
	YK1	On when output is active	Red	D16
	YK2	On when output is active	Red	D18
	YK3	On when output is active	Red	D20
	OPTO1	On when inverter output 1 is active	Red	D41
	OPTO2	On when inverter output 2 is active	Red	D42
Intput LEDs	X0	On when input is on	Green	X0
	X1	On when input is on	Green	X1
	X2	On when input is on	Green	X2
	X3	On when input is on	Green	X3
	X4	On when input is on	Green	X4
	X5	On when input is on	Green	X5
	X6	On when input is on	Green	X6
	X7	On when input is on	Green	X7
	X8	On when input is on	Green	X8
	X9	On when input is on	Green	X9
	X10	On when input is on	Green	X10
	X11	On when input is on	Green	X11
	X12	On when open/reset (via J6) is on	Green	X12
	X13	On when loop input is on	Green	X13
	X14	On when not in fault	Green	X14
	X15	On when power is on	Green	X15

TROUBLESHOOTING

Inverter (VFD) Programming

230/460V – Emerson M200 Drive

These instructions are only to change parameters when not using the i-Comm 3.

Basic Navigation

5.1 Understanding the display

5.1.1 Keypad

The keypad display consists of a 6 digit LED display. The display shows the drive status or the menu and parameter number currently being edited.

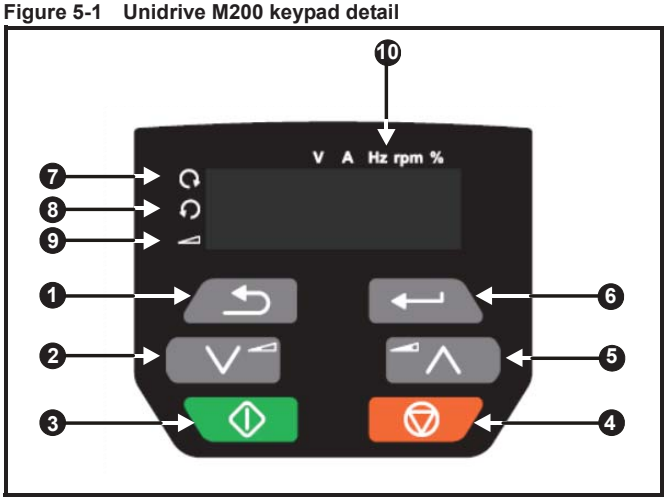
The option module Unidrive menu (S.mm.ppp) is only displayed if the option module is installed. Where S signifies the option module slot number and the mm.ppp signifies the menu and parameter number of the option module's internal menus and parameter.

The display also includes LED indicators showing units and status as shown in Figure 5-1. When the drive is powered up, the display will show the power up parameter defined by *Parameter Displayed At Power-Up* (11.022).

NOTE

The values in the *Status Mode Parameters* (Pr **22** and Pr **23**) shown on the display when the drive is running, can be toggled by using the escape button.

Figure 5-1 Unidrive M200 keypad detail



1. Escape button
2. Down button
3. Start button (green)
4. Stop / Reset button (red)
5. Up button
6. Enter button
7. Run forward indicator
8. Run reverse indicator
9. Keypad reference indicator
10. Unit indicators

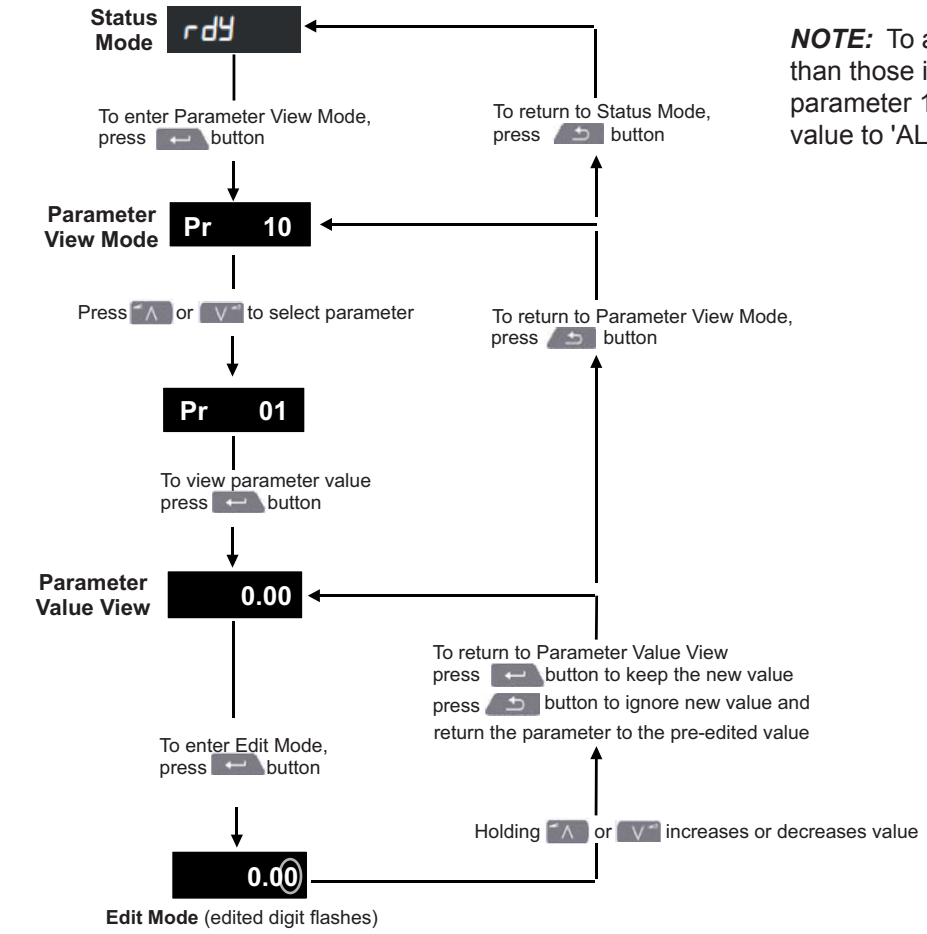
<unidrive-m200-m201-control-user-guide.pdf>

Figure 4

TROUBLESHOOTING

230/460V – Emerson M200 Drive *Continued*

Parameter Access



NOTE: To acccess parameters other than those in menu zero, navigate to parameter 10 (PR 10) and change the value to 'ALL'.

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⚠ WARNING / AVERTISSEMENT

Consult factory before changing any parameters not listed in this table.

Contactez l'usine avant de modifier les paramètres non répertoriés dans ce tableau.

PARAMETER #	NAME	EXAMPLE VALUE	UNITS
00.003	Acceleration Rate 1	0.5	s/100 Hz
00.004	Deceleration Rate 1	0.5	s/100 Hz
00.006	Motor Rated Current	2.93	A
00.010	Security Status	L2	–
01.022	Close Speed	25.00	Hz
01.023	Open Speed	60.00	Hz
01.024	Approach Open Speed	25.00	Hz
12.004	Torque Detection Level	60	%
06.006	Injection Braking Level	70	%
06.007	Injection Braking Time	.7	seconds

Figure 5

TROUBLESHOOTING

230/460V – Emerson M200 Drive *Continued*

Status Indicators

String	Description	Drive output stage
inh	The drive is inhibited and cannot be run. The Drive Enable signal is not applied to the drive enable terminal or Pr **06.015** is set to 0. The other conditions that can prevent the drive from enabling are shown as bits in *Enable Conditions* (06.010)	Disabled
rdy	The drive is ready to run. The drive enable is active, but the drive inverter is not active because the final drive run is not active	Disabled
Stop	The drive is stopped / holding zero speed.	Enabled
S.Loss	Supply loss condition has been detected	Enabled
dc inj	The drive is applying dc injection braking	Enabled
Er	The drive has tripped and no longer controlling the motor. The trip code appears on the display.	Disabled
UV	The drive is in the under voltage state either in low voltage or high voltage mode.	Disabled
HEAt	The motor pre-heat function is active.	Enabled

12.1 Status modes (Keypad and LED status)

Figure 12-1 Keypad status modes

1 Drive OK status

2 Trip status

3 Alarm status

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Figure 6

Error Screens

Table 5-4 Alarm indications

Alarm string	Description
br.res	Brake resistor overload. *Braking Resistor Thermal Accumulator* (10.039) in the drive has reached 75.0 % of the value at which the drive will trip.
OV.Ld	*Motor Protection Accumulator* (04.019) in the drive has reached 75.0 % of the value at which the drive will trip and the load on the drive is >100 %.
d.OV.Ld	Drive over temperature. *Percentage Of Drive Thermal Trip Level* (07.036) in the drive is greater than 90 %.
tuning	The autotune procedure has been initialized and an autotune in progress.
LS	Limit switch active. Indicates that a limit switch is active and that is causing the motor to be stopped.
Opt.Al	Option slot alarm.
Lo.AC	Low voltage mode. See *Low AC Alarm* (10.107).
I.AC.Lt	Current limit active. See *Current Limit Active* (10.009).
24.LoSt	24 V backup not present. See 24V Alarm Loss Enable (11.098).

5.2 Keypad operation

5.2.1 Control buttons

The keypad consists of:

- Up and down button - Used to navigate the parameter structure and change parameter values.
- Enter button - Used to change between parameter edit and view mode as well as entering data. This button can also be used to select between slot menu and parameter display.
- Escape button - Used to exit from parameter edit or view mode. In parameter edit mode, if parameter values are edited and the escape button pressed, the parameter value will be restored to the value it had on entry to edit mode.
- Start button - Used to provide a 'Run' command if keypad mode is selected.
- Stop / Reset button - Used to reset the drive. In keypad mode can be used for 'Stop'.

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Figure 7

PARTS

#	QTY	DESCRIPTION	PART #
1	1	Cable,touch,50’ (non FSTXXL models)	15650343
2	1	Cable,touch,75’ (FSTXXL only)	15650344
3	1	Interface,GUI,ip67	55150353
4	2	FTG,STRT,L/T,PG11,3.5-10mm	45550004

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One (1) Year(s) labor, based on approved travel and labor repair times.

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