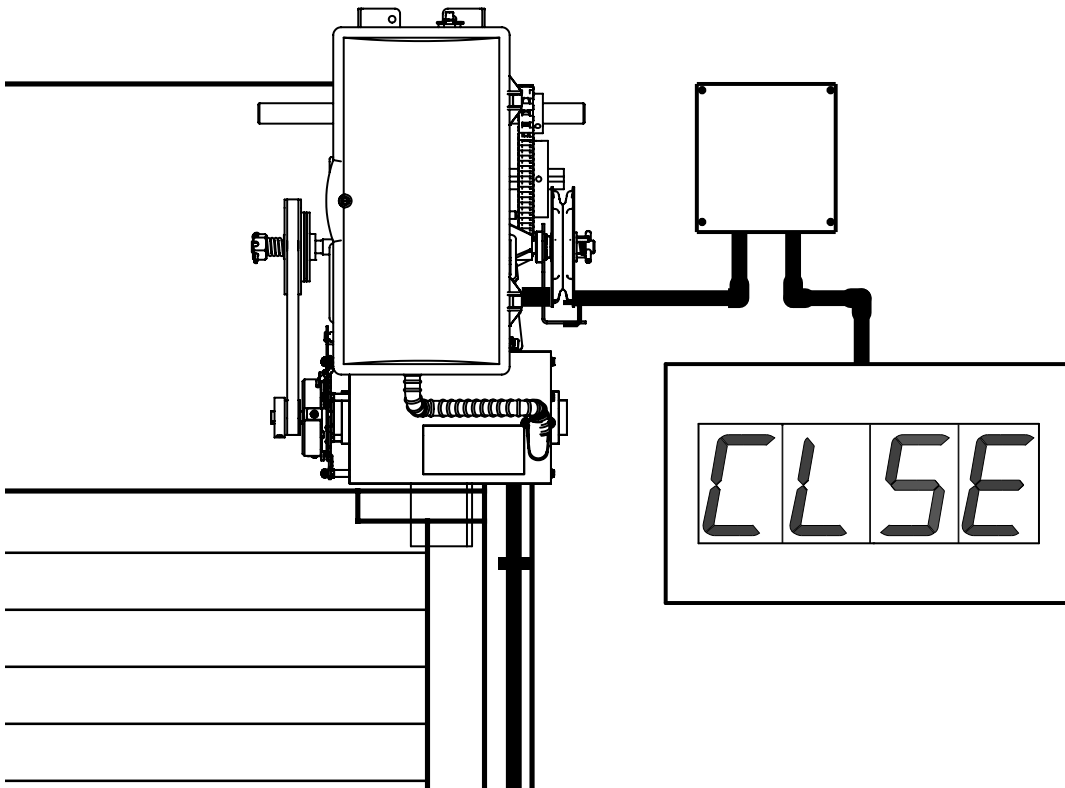


The Genuine. The Original.



COUNTDOWN TIMER INSTALLATION MANUAL



INDEX

Important installation notes	3
Safety Information	4-5
Assemble and install display	6-7
Assemble and install interface	7
Electrical Safety Information	9
Connecting interface to display.....	10
Connecting interface to opener	11-13
Programming interface.....	14
Interface LED signals and operations.....	15
Display functions and operation	16
Warranty	17
Service Parts	18

FCC Part 15.21 Statement:

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

FCC / IC Statement:

This device complies with FCC Part 15 and Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Required items needed to complete this installation and special installation notes:

Opener will require an Auxiliary Output Module (AOM). P/N OPABIOX.S

Opener will require a monitored safety device such as ODC/STB photocells or T3 Monitored edge system.

Opener will require a 24vac Transformer Kit:

- 111087.0004.S 1phase kit
- 111087.0005.S 3ph kit
- 111087.0006.S 575V 3ph kit.

Opener will require an external receiver if using remote controls for countdown operation. DO NOT use internal receiver with this Countdown Timer Kit.

If a monitored edge is used in conjunction with a monitored photocell, a Timer Close Module (TCM) part number OPABTCX.S or Edge Sensing Module (ESM) part number OPABESX.S is required. Move the YELLOW wire from the NO REVERSE terminal on the main board to the MON EDGE terminal on the TCM/ESM. See Note 1 Page 12 & 13.

SAFETY INFORMATION






WARNING

Motorized Doors are large, heavy objects that move with the help of springs under high tension and electric motors. Since moving objects, springs under tension, and electric motors can cause injury, your safety and the safety of others depend on you reading the information in this manual. If you have any questions or do not understand the information presented, call your nearest factory service representative.

In this manual the words Danger, Warning, and Caution are used to stress important safety information. The word:

- DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- CAUTION** indicates potentially hazardous situation which, if not avoided, may result in injury or property damage.

The word **NOTE**, is used to indicate important steps to be followed or important considerations.

POTENTIAL HAZARD	EFFECT	PREVENTION
MOVING DOOR 	WARNING Could result in Serious Injury or Death	Do Not operate unless the doorway is in sight and free of obstructions. Keep people clear of opening while door is moving. Do Not allow children to play with the door operator. Do Not change operator control to momentary contact unless and external reversing means is installed. Do Not operate a door that jamps or one that has a broken spring.
ELECTRICAL SHOCK 	WARNING Could cause Serious Injury or Death	Turn off electrical power before removing operator cover. When replacing the cover, make sure wires are not pinched or near moving parts. Operator must be electrically grounded.
HIGH SPRING TENSION 	WARNING Could cause Serious Injury or Death	Do Not try to remove, repair or adjust springs or anything to which door spring parts are fastened, such as wood block, steel bracket, cable or any other structure or like item. Repairs and adjustments must be made by trained service representative using proper tools and instructions.

IMPORTANT

READ PRIOR TO ANY DOOR OPERATION

1. Read manual and warnings carefully.
2. Keep the door in good working condition. Periodically lubricate all moving parts of door.
3. If door has a sensing edge, check operations monthly. Make any necessary repairs to keep it functional.
4. AT LEAST twice a year, manually operate the door by disconnecting it from the operator. The Door should open and close freely. If it does not, the door must be taken out of service and a trained service representative must correct the condition causing the malfunction.
5. The Operator Motor is protected against overheating by an internal thermal protector. If the motor protector is tripped, a trained service technician may be needed to correct the condition which caused the overheating. When the motor has cooled, thermal protector will automatically reset and normal operation can be resumed.
6. In case of power failure, the door can be operated manually by pulling the release cable to disconnect the operator drive system.
7. Keep instructions in a prominent location near the pushbutton.






AVERTISSEMENT

Les portes basculantes sont de gros objets lourds qui fonctionnent à l'aide de ressorts soumis à une haute tension et de moteurs électriques. Dans la mesure où les objets en mouvement, les ressorts sous tension et les moteurs électriques peuvent entraîner des blessures, votre sécurité et celle des autres exigent que vous preniez connaissance des informations stipulées dans ce manuel. Si vous avez des questions ou si vous ne comprenez pas les informations ci-incluses, veuillez contacter le représentant de service le plus près.

Dans ce manuel, les mots Danger, Avertissement, et Attention sont utilisés pour faire ressortir d'importantes informations relatives à la sécurité. Le mot :

- ▲ **DANGER** signale une situation dangereuse imminente qui si elle n'est pas évitée, risque d'entraîner des blessures graves, voire mortelles.
- ▲ **AVERTISSEMENT** signale une situation potentiellement dangereuse qui, si elle n'est pas évitée, risque d'entraîner la mort ou des blessures graves.
- ▲ **ATTENTION** signale une situation potentiellement dangereuse qui, si elle n'est pas évitée, risque d'entraîner des blessures ou des dommages matériels.

Le terme **REMARQUE** est utilisé pour signaler les étapes importantes à suivre ou d'importants éléments à prendre en considération.

DANGER POTENTIEL	EFFET	PRÉVENTION
PORTE EN MOUVEMENT 	▲ AVERTISSEMENT Pourrait entraîner des blessures graves voire la mort	Utiliser uniquement si la porte est en vue et libre de tout obstacle. Ne laisser personne se tenir dans l'ouverture de la porte pendant qu'elle est en mouvement. Ne pas permettre aux enfants de jouer avec l'opérateur de la porte. Ne pas modifier la commande de l'opérateur à contact momentané à moins qu'un moyen d'inversion externe soit installé. Ne pas faire fonctionner une porte qui bloque ou dont le ressort est cassé.
CHOC ÉLECTRIQUE 	▲ AVERTISSEMENT Pourrait entraîner des blessures graves voire la mort	Couper le courant avant d'enlever le couvercle de l'opérateur. Lorsque le couvercle doit être remplacé, s'assurer que les fils ne sont ni coincés ni près des pièces mobiles. L'opérateur doit être correctement mis à la terre.
TENSION ÉLEVÉE RESSORT 	▲ AVERTISSEMENT Pourrait entraîner des blessures graves voire la mort	Ne pas essayer d'enlever, réparer ni ajuster les ressorts ou toute autre pièce à laquelle le ressort de la porte est attaché, y compris blocs de bois, supports en acier, câbles ou autres articles semblables. Les réparations et les réglages doivent être effectués par technicien qualifié qui se sert d'outils appropriés et qui respecte les instructions.

INSTALLING DIGITAL DISPLAY HOUSING

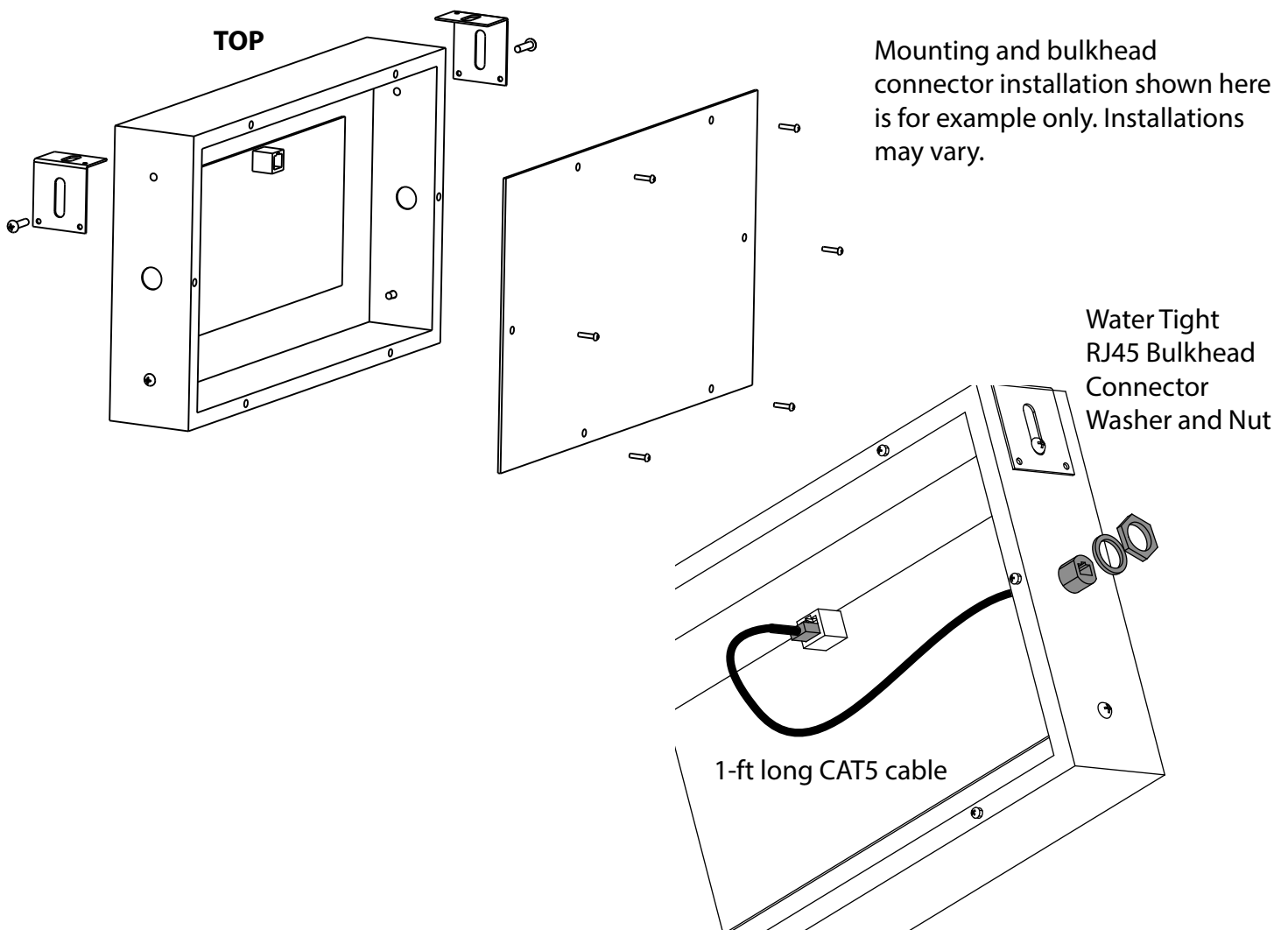


IMPORTANT NOTE: *If display is to be mounted outdoors, use of RJ45 watertight connector must be used to prevent water intrusion into display box. See instructions next page.*

1. Determine mounting location and method.
2. Remove rear panel. Orient enclosure with RJ45 connector at the top.
3. Remove knock out plug in housing for best connection for the installation.
4. Install RJ45 watertight bulkhead connector (included) into housing.
5. Install the 1ft long Cat 5 cable into rear of display panel and RJ45 connector.
6. Install rear panel cover.

NOTE: *If mounting outside building or in damp conditions it is highly recommended to apply a bead of silicone caulking around rear panel and rear panel screws.*

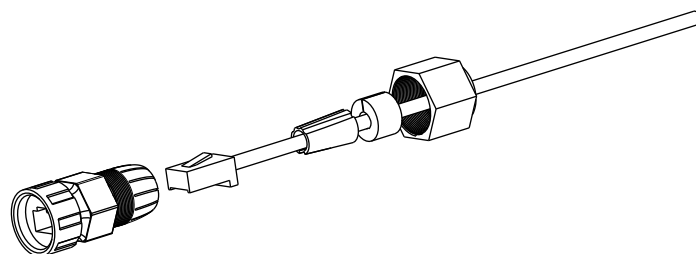
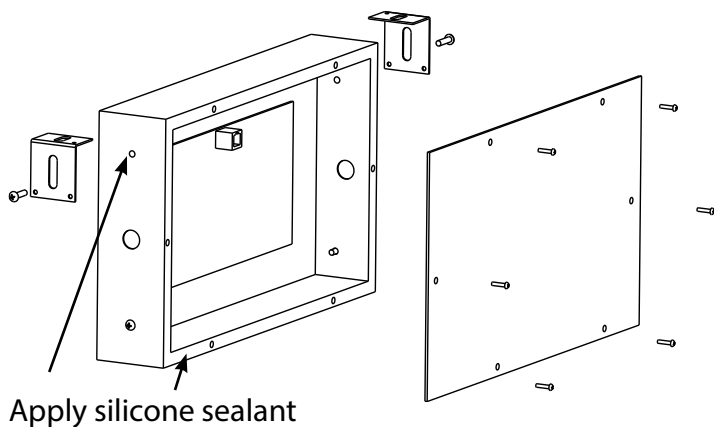
7. Install mounting brackets to main housing to best suit the installation.
8. Mount brackets to suitable structure.



OUTDOOR or DAMP AREA INSTALLATIONS

When display is to be mounted outside or in damp locations, the watertight connector kit (included) must be used.

Disassemble RJ45 watertight connector and install onto 25' CAT5 cable as shown and reassemble connector. Apply a small bead of silicone sealant (included) around rear panel and mounting screws to seal out water from enclosure.



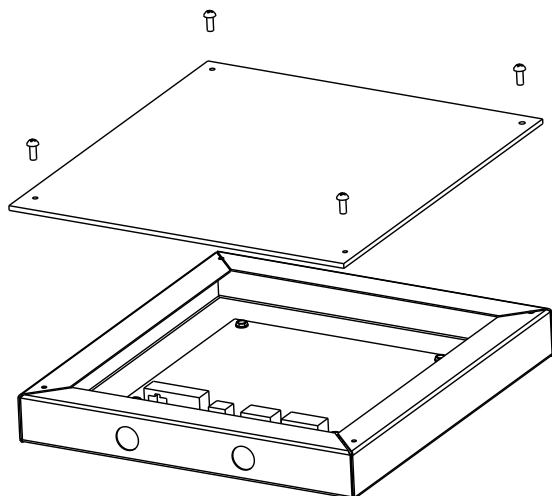
RJ45 Watertight connector assembly

INSTALLING INTERFACE JUNCTION BOX INDOORS ONLY

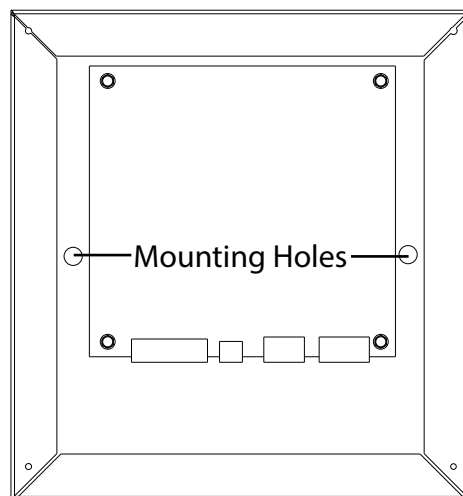


IMPORTANT NOTE: *Cables included with this kit are 4 feet long. If junctions box is more than 3 feet away from operator, additional wires and connections will be required to lengthen wires. This junction box must be mounted indoors.*

1. Determine mounting location for interface junction box.
2. Remove cover.
3. Remove knock out plugs on bottom of enclosure.
4. Mount junction box to suitable structure using provided holes with a suitable fastener (not provided)



Knockouts



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WIRING THE COUNTDOWN TIMER TO X -SERIES OPERATOR

WARNING

RISK OF ELECTRICAL SHOCK. Be sure that electrical power to the operator has been disconnected. There should be no live circuits inside the electrical box while installing this countdown timer. An appropriate lock-out/tag-out procedure is recommended. DO NOT APPLY POWER UNTIL INSTRUCTED TO DO SO.

AVERTISSEMENT

RISQUES DE CHOCS ÉLECTRIQUES Assurez-vous que l'alimentation électrique à l'opérateur a été coupée. Il ne doit pas y avoir de circuits sous tension à l'intérieur du coffret électrique lors de l'installation de ce compte à rebours. Une procédure de verrouillage/étiquetage appropriée est recommandée.
NE PAS METTRE SOUS TENSION TANT QUE L'INSTRUCTION N'EST PAS DONNÉE.

WARNING

All wiring to the operator must meet all local building codes. Overhead Door Corporation recommends that all work involving electrical circuits and line voltage wiring be performed by a qualified electrician.

AVERTISSEMENT

Le câblage vers l'opérateur doit satisfaire aux codes de construction locaux. Overhead Door Corporation recommande que les travaux concernant les circuits électriques concernés et le câblage au secteur soient effectués par un électricien qualifié.

WARNING

LOW VOLTAGE/CONTROL WIRING MUST BE KEPT SEPARATE FROM LINE VOLTAGE WIRING!

AVERTISSEMENT

LE CÂBLAGE DE COMMANDE/BASSE TENSION SOIT ÊTRE DISTINCT DU CÂBLAGE DE TENSION DE LA LIGNE !

CAUTION

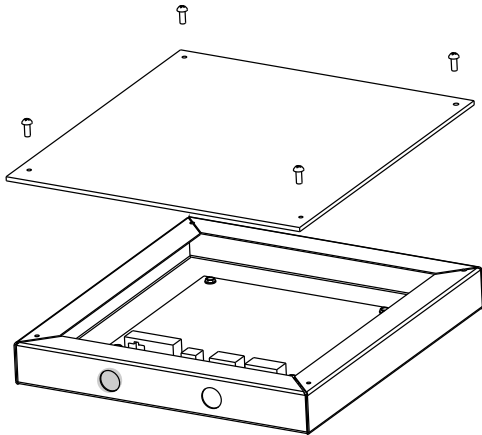
Check working condition of door and operator before installing any expansion Module.

ATTENTION

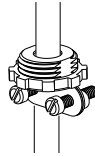
Vérifier l'état de marche de la porte et de l'opérateur avant d'installer le module de sortie auxiliaire.

CONNECT INTERFACE TO DISPLAY PANEL

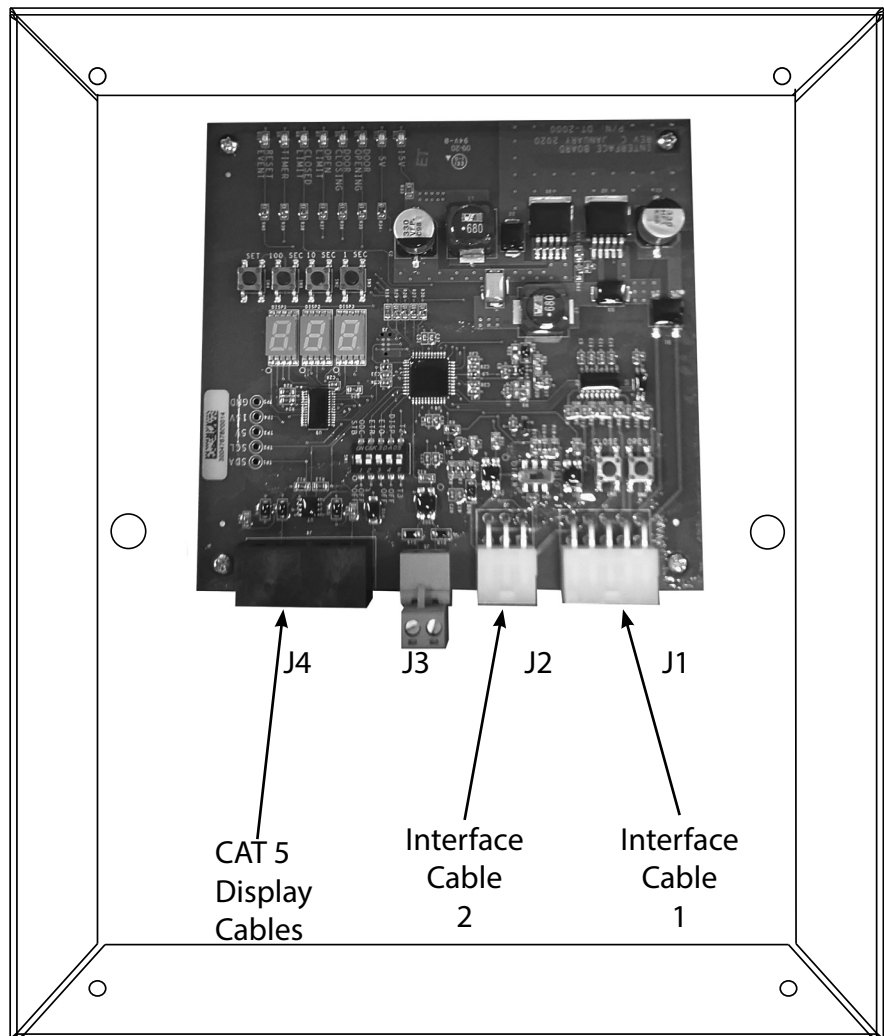
1. Install cord grip or conduit connector to interface junction box for CAT 5 cable(s).
2. Plug CAT5 cable into display and route cable to interface box.
3. Plug CAT5 cable into J4 connector on circuit board.
4. Plug CAT 5 cable from second display (if used) into J4 connector on circuit board.



Remove knockouts



Install 1/2in. NPT or other suitable connector into enclosure. (Adhere to local electrical code(s) and regulations).



CONNECT INTERFACE TO OPERATOR



IMPORTANT NOTE: Cables included with this kit are 4 feet long. If junction box is more than 3 feet away from operator, additional wires and connections will be required to lengthen wires. This junction box must be mounted indoors.

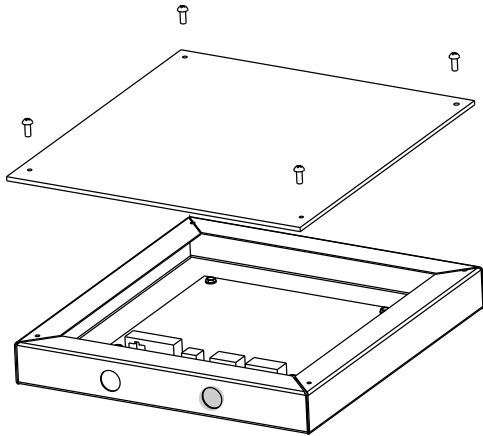


IMPORTANT NOTE: Operator must have the Auxiliary Output Module (AOM) (P/N OPABIOGX.S) installed. Contact your local distributor for module installation.

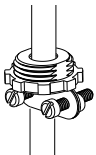


IMPORTANT NOTE: If using remote controls to operate opener, an external radio must be used to activate this countdown timer.

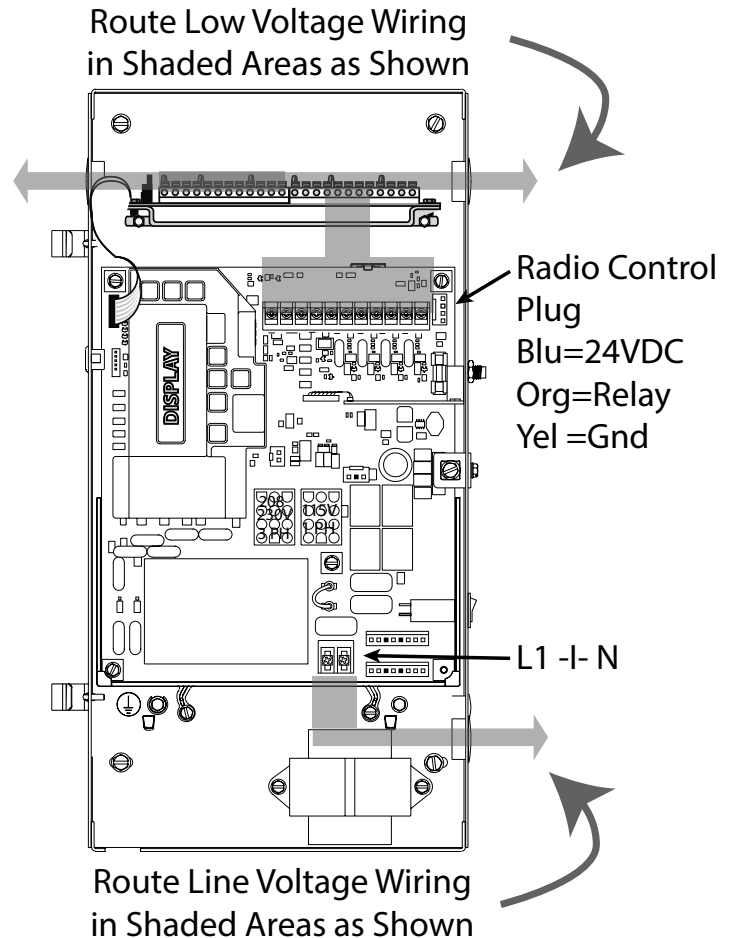
1. Install cord grip or conduit connector to interface junction box for control harnesses.
2. Plug 6 and 10 conductor harnesses into J2 & J1 connectors on interface board.
3. Route wire into operator using cord grips or conduit.
4. ONLY use low voltage inputs to operator. DO NOT route wire into operator through high voltage inputs.
5. Install wiring in operator per charts and wire diagrams on following pages.



Remove knockout



Install 1/2in. NPT or other suitable connector into enclosure. (Adhere to local electrical code(s) and regulations).



CONNECT INTERFACE TO OPERATOR

Install #4 forked terminal connectors to each wire and install them per chart below and wire diagram.



IMPORTANT NOTE: *Cables included with this kit are 4 feet long. If junctions box is more than 3 feet away from operator, additional wires and connections will be required to lengthen wires. This junction box must be mounted indoors.*

OPERATOR TERMINAL STRIP ID	INTERFACE CABLE 1 WIRE COLORS	WIRE FUNCTION
OPEN	GREEN	OPEN SENSE
CLOSE	BLUE	CLOSE SENSE
STOP	RED	STOP SENSE
GND	WHITE	GROUND
1-BTN	PURPLE	SINGLE ONE BUTTON
ODC-STB	N/A	
ODC-STB	ORANGE	MONITORED SAFETY
N/O REVERSE	N/A	
N/O REVERSE	YELLOW (*SEE NOTE #1)	N.O. SAFETY
EXT INTLK	N/A	
EXT INTLK	BROWN	INTERLOCK
J18 AC POWER CONNECTION		
YELLOW	BLACK	24V POWER
BLACK	BLACK	24V POWER

NOTE #1: If using a monitored edge, connect yellow wire to MON EDGE terminal on TCM or ESM.

MON-EDGE	INTERFACE CABLE 1	YELLOW	MONITORED SAFETY EDGE
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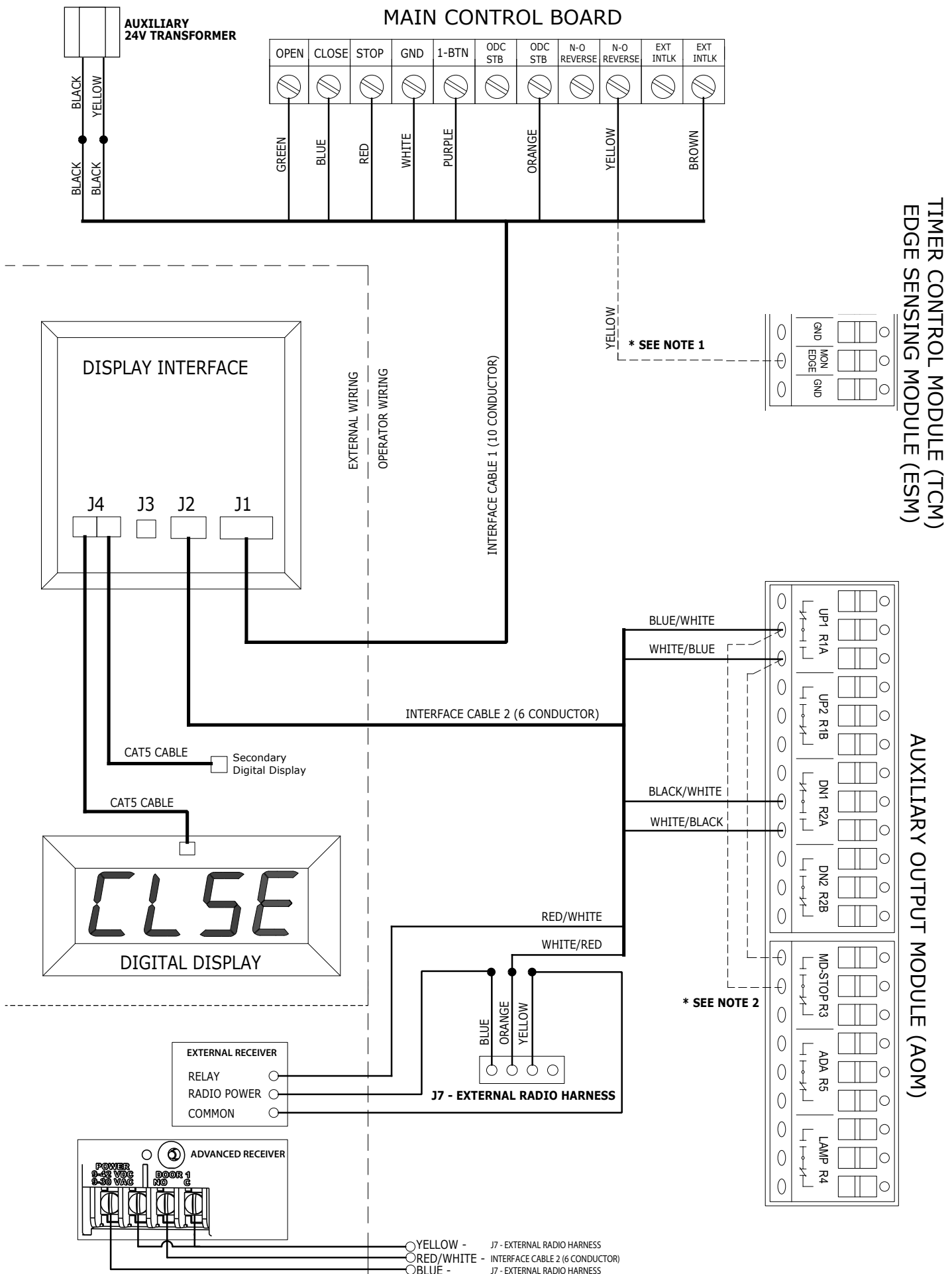
NOTE #2: If the MID-STOP feature on the operator is used, a jumper set must be installed between the MID-STOP relay on the AOM board to the UP1 N/O and COM contacts.

AOM LABEL	INTERFACE CABLE 2 WIRE COLORS	WIRE FUNCTION
UP1 - COM	WHITE/BLUE	OPEN LIMIT COMMON
DN1 - COM	WHITE/BLACK	CLOSE LIMIT COMMON
UP1 - N/O	BLUE/WHITE	OPEN LIMIT
DN1 - N/O	BLACK/WHITE	CLOSE LIMIT

J7 EXTERNAL RADIO HARNESS		
EXTERNAL RADIO IN	WHITE/RED	N/O RADIO CONTACT (Orange)
EXTERNAL RECEIVER		
RELAY OUTPUT	RED/WHITE	RADIO RELAY OUTPUT

Connection types:

#4 Terminal Connector



PROGRAMMING THE INTERFACE

SECTION A: STATUS LEDs

Section A of the Interface will show the status of various functions of the operator and timer. Used for convenience and troubleshooting.

- LED-1 = 15V. Shows presence of control voltage.
- LED-2 = 5V. Shows presence of control board voltage.
- LED-3 = DOOR OPENING: Activates when door is moving to the up limit.
- LED-4 = DOOR CLOSING: Activates when door is moving to the down limit.
- LED-5 = OPEN LIMIT: Illuminated when door is on the UP limit.
- LED-6 = CLOSE LIMIT: Illuminates when door is on the DOWN limit.
- LED-7 = TIMER: Flashes when countdown timer is activated and counting.
- LED-8 = RESET EVENT: Flashes when a timer initiate input is activated.

SECTION B: COUNTDOWN PROGRAMMING

Section B of the interface is used to program the set time to close.

This is set with the SECOND buttons in 100, 10, and 1 second intervals. The countdown seconds can be set from 1 second up to 300 seconds (5 minutes).

1. Determine the countdown and press each button until timer is set.
2. Press the SET button to lock in the desired countdown. The display will read the countdown for approximately 10 seconds.

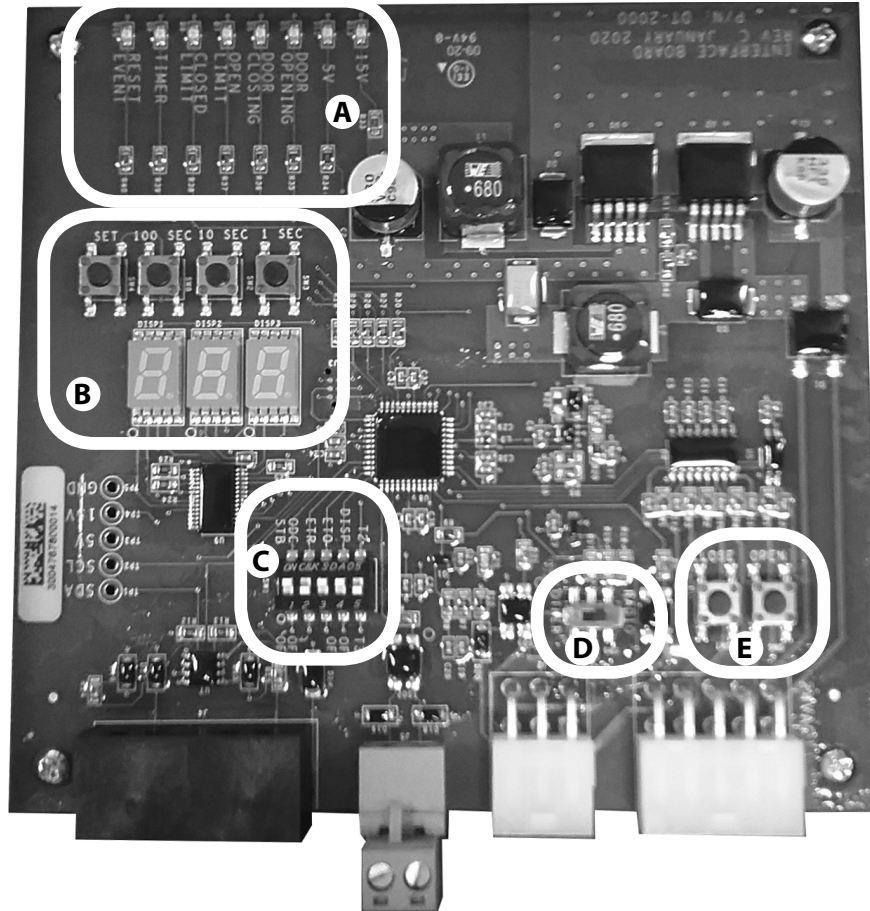
SECTION C: GENERAL PROGRAMMING

Section C of the interface is used to program various parameters of the board. See Chart.

LABEL	FUNCTION
ODC-STB	Enables/Disables monitoring of the photocell input to the opener.
ETR	Enable Timer Via Radio - Countdown initiated by remote control.
ETO	Enable Timer Via Open Button - Countdown initiated by Open button.
DISP	Display OPEN message or blank display when door is open and static
T2/T3	Select between T2 or T3 type safety edge sensors.

T2		T3	SET to T3 if a monitored edge sensor is used. SET to T2 if a non-monitored or no edge is used.
DISP		OFF	SET to ON if display should show OPEN when door is open. SET to OFF if display should remain black when door is open.
ETO		OFF	SET to ON if countdown is to be timed to close with the OPEN button.
ETR		OFF	SET to ON if countdown is to be timed to close with a remote control.
ODC/ STB		OFF	SET to OFF if timer should ignore an ODC/STB safety reversal. SET to ON if display should read Obst upon safety reversal.

INTERFACE SECTIONS	CONTROLS
A	Activity LEDs. LED will light to show current state of operator and timer.
B	Timer Countdown set and display.
C	Programming Dip switches. Sets various controls for operator and interface.
D	External Radio control. Set on or off depending on active external radio control.
E	OPEN & CLOSE. Press for open or close operator function.



Normal Operation

Once the system has been setup, the door allay will display the time to close value on the digital display every time the door is completely opened. The timer will start at the programmed values and countdown to “1”, followed by a flashing “CLSE” message indicating that the door is closing. This is the case whether the door is opened by use of an external remote control or through a wired set of pushbuttons if active ETO & ETR switches.

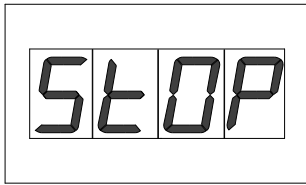
If the door is wired with a three-push button switch, the countdown timers will function normally if the timer cycle is allowed to run to completion. If the CLOSE button is pressed during the countdown sequence, the door close sequence will commence immediately and the countdown value on the display will switch to the “CLSE” message until the door is fully closed.

If the STOP button is pressed while the door is open, a “STOP” message will appear on the display for several seconds and the countdown value will disappear. The door will remain open indefinitely until the STOP mode is terminated. This can be done by pressing the CLOSE button or a remote control button. This will re initiate the countdown timer sequence and the door will close once the sequence reaches zero.

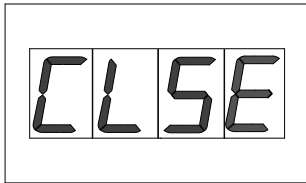
Function and Operation

The following is a list of messages that the countdown timer will display.

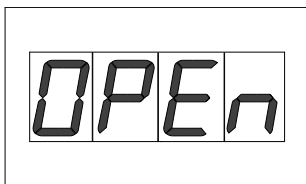
When in countdown mode, a series of numbers will be displayed showing the time (in seconds) remaining until door will operate. The countdown timer can be adjusted from 0 to 300 seconds.



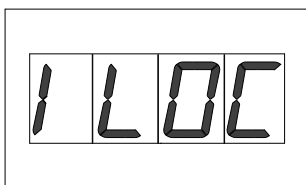
Message displayed if a wired STOP button is pressed while the door is opening, closing or during a countdown. This message will remain for as long as the stop condition exist.



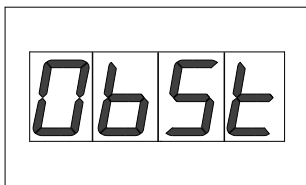
Message will flash during a door closing sequence. At the completion of the sequence the display will turn off.



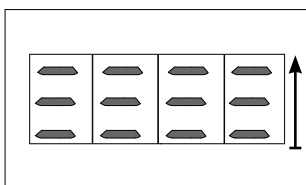
Message will appear briefly when a door has reached it fully open position. It will normally be followed by a countdown sequence. The display can be programmed to show this message continuously if the door is open with the countdown timer disabled. This message also appears when a transmitter or an open button is pressed while an active countdown sequence is in progress. The countdown value will be reset and the countdown sequence will be restarted.



Message is displayed if the system interlock is enabled and a lockout condition has occurred. This message will be constantly displayed until INTLCK condition is cleared and unit is activated.



A flashing **ObSt** message indicates that a safety sensor connected to the ODC/STB input is either blocked or is out of alignment. A steady **ObSt** message indicates that a safety sensor activation or fault has been detected by the MON EDGE input or NO-REV input. Interrupting the photocell beam while an active countdown sequence is in progress will re-initiate the sequence. The display will show the message '**ObSt**' as long as the beam is interrupted and will restart the countdown sequence once the photocell path has been cleared. There is no limit to the number of restarts that can occur while the door is open and in an active countdown sequence.



ROLLING BARS - Starts with the bottom segment of each digit, then add the middle segment and finally the top segment. This pattern will repeat until the open limit position is reached. This pattern is displayed while the door is opening to indicate the door is moving in an upward direction.

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COUNTDOWN TIMER ACCESSORY LIMITED WARRANTY

The authorized distributor of Overhead Door Corporation products whose name appears below ("Seller") warrants to the original purchaser of the ACCESSORY specified below ("ACCESSORY"), subject to all the terms and conditions hereof, that the Operator will be free from defects in material and workmanship under normal use and service until the earlier of the following to occur:

1. ONE (1) year after the date of installation

Sellers sole obligation under this warranty is specifically limited to repairing or replacing, at it's option, any parts which shall be determined by Seller to be defective during the warranty period. Any labor charges are excluded and will be the responsibility of the owner.

This warranty applies only to an accessory which is installed in commercial or industrial building applications. This warranty does not apply if the Accessory has been altered or repaired by any person not authorized by Overhead Door Corporation to do so, or if it has been damaged due to misuse, accident or failure to provide necessary maintenance. This warranty is made only to the original purchaser of the Accessory and is not transferable or assignable.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL OVERHEAD DOOR CORPORATION BE RESPONSIBLE FOR, OR LIABLE TO ANYONE FOR, SPECIAL, INDIRECT, COLLATERAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES, even if Overhead Door Corporation has been advised of the possibility of such damages. Such excluded damages include, but are not limited to, loss of goodwill, loss of profits, loss of use, interruption of business, or other similar indirect financial loss.

Claims under this warranty must be made in writing promptly to the Seller whose name and address appears to the right, and must be made within the warranty period. (Proof of purchase and identification as the original purchaser may be required.)

Overhead Door Corporation's Accessory Division will only accept returned materials that are in warranty. Products being returned must be accompanied by a Return Authorization (RA) Tag. To obtain a Return Authorization Tag please use the following guidelines.

- Complete Accessories will not be replaced without prior approval from the Accessory Division.
- To return an Accessory part during the warranty period, the Seller must contact the Technical Service Group of the Accessory Division at 1-800-275-6187. The following information is required: Accessory Model Number, Date Code, Voltage, Phase & Horsepower, and a description of the malfunction. The Technical Service Group will issue, via mail, an RA Tag for the part.
- Upon receipt of the part, the Accessory Division will evaluate the part for a defect in material and/or workmanship. If it is determined there is a defect, the Seller will be credited the cost of the part. If it is determined there is not a defect in material and/or workmanship, no credit will be issued.

SERVICE PARTS

113079.0001.S	INTERFACE PCB.
113080.0001.S	HARNESS KIT. 1 each, 6 wire/10 wire
113081.0001.S	CONNECTOR KIT, CAT 5. Standard & Watertight included
113082.0001.S	CABLE, CAT 5, 1FT.
113082.0002.S	CABLE, CAT 5, 25FT.
113083.0001.S	KIT, BRACKET
113084.0001.S	SILICONE TUBE, LOCTITE

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The Overhead Door Corporation
1 Door Drive
Mount Hope Ohio 44660
1-800-275-6187