MODEL 65A GARAGE DOOR OPENER SYSTEM



INSTALLATION AND OPERATING INSTRUCTIONS



After installation is completed, place instructions in close proximity to garage door.

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> READ THROUGH MANUAL BEFORE BEGINNING ASSEMBLY.

HOW TO USE THIS BOOK

- 1. Use tools indicated by silhouettes at top of instruction.
- 2. Perform the instruction according to the words and illustration.
- 3. Put a check in box after completion of instruction.
- 4. Proceed to next step.



OLS NEEDED

You will need the tools shown below to assemble and install this operator.



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GENERAL NOTES



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NSTALLATION

Measure width of door to determine center.



If header does not have suitable woodwork where header bracket will be installed, then such will have to be made. It is suggested that a wood 2"x 6" be secured to nearby existing woodwork.

door does not have a center stile or suitable inchment for attaching door bracket then door must be reinforced with wood or steel at mounting point. Mark center line on door and header.



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INSTALLATION



Raise door until top section reaches its highest arc of travel. Mark header on center line at



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Mark horizontal center line of header bracket

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INSTALLATION



EXTENSION SPRING DOOR

Rest header end of boom on top edge of top door section and powerhead on top of step ladder.



Rest head end of boom on torsion spring and powerhead on top of step ladder.





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INSTALLATION



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Raise door until fully open.

Attach header pulley assembly to header bracket.



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Raise powerhead additionally if required so that boom is above high arc of door when opened.



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Position a wood 2x4 on edge between top door section and boom. Use center line of door to correctly align boom.







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INSTALLATION

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Shown are examples of various installation configurations. Determine the configuration which best suits your requirements.

- 2. If necessary, span ceiling joists with wood 2 x 4's sufficient enough to support operator.
- 3. Hold ceiling mounting angle in mounting position. Using holes in angle as a guide, drill 3/16" diameter pilot holes in ceiling joists or 2 x 4 framing.
- 4. Using $1/4" \times 1-3/4"$ lag screws, secure ceiling mounting angle to ceiling joists or 2 x 4 framing.
- 5. Notch operator end of vertical angles (Detail A).
- 6. Using $1/4"-20 \times 1/2"$ hex head bolts and lock nuts, secure angle brackets to operator.
- 7. Using 1/4"- 20 x 1/2" hex head bolts and lock nuts, secure vertical mounting angles to ceiling angle. Vertical angles may be bent at notch if necessary (Detail B).

NOT IT IS RECOMMENDED THAT OPERATOR BE MOUNTED A MINIMUM OF 7 FEET ABOVE FLOOR.

LENGTHWISE CEILING JOISTS







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LOCK NUT

OPERATOR

ON CENTER 24"-VERTICAL **CEILING JOIST** FINISHED CEILING MOUNTING ANGLE -in and in the second 0 0 0 HEX HEAD BOLT 30" - SWAY BRACE LENGTH AS REQUIRED Ο FRONT VIEW DETAIL B



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INSTALLATION



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INSTALLATION

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g operator cord into outlet and run carriage toward door using radio transmitter to control operator. Connect drawbar to carriage using clevis pin and hitch pin. Route pull cord through release lever on carriage and locate pull knob approximately 6 feet above floor.



16 - 7/16 & 9/16

Attach yokes to drawbar bracket. Tighten locknut but do not compress yokes to bracket. Yokes MUST move freely. Temporarily bolt yokes to drawbar to permit check on carriage location.



Position drawbar bracket against door to check drawbar angle. Drawbar should be at slight angle from door (as shown). If necessary readjust down limit switch (see page 15) to obtain correct drawbar position. Drawbar bracket pivot hole should be in line with top fixture

roller. If necessary remove yoke bolts and readjust. Secure yoke bolts to drawbar.

NOTE

If door strut interferes with mounting of drawbar bracket, move bracket below strut. DO NOT CUT OR MODIFY STRUT IN ANY WAY. Refer to page 11 for attachment of drawbar.



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INSTALLATION

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The illustrations below depict installation of drawbar bracket, P/N 105736-0001, on 3 types of doors. Install bracket in the appropriate manner according to door type.



CHECKLIST

Header bracket secure. Drawbar to yoke bolts tight. Door bracket-yoke pivot bolt secure, Drive chain-cable is tight (tensioned but not too tight. correctly). Header pulley assembly pivot bolt secure Carriage engagement cylinder is but not too tight. engaged with carriage. Hanging bracket bolts tight. Make fine adjustments on "UP" limit switch (See Page 16).

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WIRING



Route push button wire from powerhead along ceiling to garage entrance door. Staple wire as necessary to prevent entaglement or contact with moving objects.



with staples.

Shape wire leads like a hook, and connect leads to push button terminals.



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Shape wire leads like a hook, and connect leads to operator terminals.



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Install push button on wall near garage entrance door approximately six (6) feet from floor.



Peel backing off "PUSHBUTTON OPERATION" decal and attach to wall near pushbutton.

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WIRING

WARNING

It is important that electrical power to operator be off when powerhead cover is removed. Electrical power must remain disconnected while making electrical connections and limit switch adjustments. Keep hands and objects clear of powerhead if electrical power is re-connected with cover off.

Operator is equipped with a factory installed power cord and must be plugged into a 115 volt, 60 hertz, grounded electrical outlet.



For maximum safety, it is essential that operator be properly grounded.

If a convenient electrical outlet has to be installed it is recommended that such work be performed by a licensed electrician. Use of an extension cord is NOT RECOMMENDED.

NOTE

If extension cord is required for temporary testing and adjustment, use only 3 wire (grounded) with a minimum 10 amp rating. This will assure proper operation of electronic system.



When installing a convenient electrical outlet, it is suggested that an electrical switch be installed to facilitate emergency power cutoff.

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If local electrical codes require permanent wiring, it is recommended that such work be performed by a licensed electrician.

Remove cover (4 screws).

Remove and discard strain relief bushing and adapter.

Remove wire nuts and disconnect power cord lead wires.

Make conduit connection to chassis.

Connect permanent wiring leads to powerhead leads and re-install wire nuts.

Re-install cover.



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OPERATION AND ADJUSTMENT

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move protective backing from EMERGEN-CY RELEASE decal and install on door, near drawbar bracket.



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Install light bulb.

Depress ends of light lens and insert tabs into slots on front of operator. Depress ends to remove lens.





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wrench.

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OPERATION AND ADJUSTMENT



CHAIN CAM ADJUSTMENT

Door travel is limited by the placement of the chain limit switch cams. Moving a chain cam one chain link, varies carriage movement by approximately 1/2 inch (and thus affects door travel proportionately). Use the transmitter to control the operator when making final adjustments.



DOWN TRAVEL ADJUSTMENT

Using transmitter, run carriage to down position. Check position of carriage and, if necessary, readjust so that the drawbar will be almost vertical when the door is closed. To readjust, use transmitter to move carriage approximately 2 feet in the open direction, stop, then adjust chain cam. Using transmitter, again run the door to closed. Check to see that the door is sealing properly to floor. Repeat procedure if further adjustment is needed.

UP TRAVEL ADJUSTMENT

Using transmitter, run carriage to the up position. Check door position and readjust chain cam as necessary to stop door just after clearing the top of the door opening. Do not allow the door to open beyond this point. , -

GENERAL INFORMATION

 When "Emergency" or "Manual" operation of door is required, refer to "EMERGENCY RELEASE OPERATION" decal mounted on garage door.



- 2. Operate door only when fully visible and clear of all persons and obstructions.
- 3. Do not permit children to play in door area or with transmitter.
- 4. If light does not work when operator is in use replace bulb.



- 5. Oil door hinges, rollers and springs once each year with 30 wt. oil. Wipe off excess oil.
- Transmitter is equipped with a standard 9 volt battery. Do not substitute with any other voltage input.
- 7. Operator motor is pratected against burn-out by an internal protector which will stop motor if door is opened and closed too many times in succession or if some other overload condition exists. If motor stops, allow it to cool 10–15 minutes, then, press wall push button to resume operation.
- It is suggested that every 6 months door be disconnected from operator and manually operated. Door should open and close freely. If door does not operate freely, correct the problem.

CAUTION

Repairs and adjustments to cable and spring assemblies can be hazardous and should be performed by qualified door service people.

- Lubrication of operator rotating parts, is not required, as motor is permanently lubricated and all other parts are nylon.
- 10. DO NOT lubricate boom. It is possible a film may develop inside the nylon carriage. This film may cause binding in freezing weather. To correct, spray boom, on either side of carriage, with a spray lubricant (WD 40, LIQUID WRENCH, etc.), run operator open and closed, then wipe boom clean.

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE			
Operator inoperative from transmitter or pushbutton when pressed. BUT Light flashes at 1/2 second intervals.	 Both limits are on (Door at one ond the other defective). 			
Door will not apen using radio or pushbutton when pressed.	Short in wall pushbuttan, lighted pushbuttan or pushbuttan circuit.			
Door will not open using rodio but will with pushbutton.	Defective transmitter, check battery in transmitter Defective radio receiver.			
Door starts down, runs 1 second and reverses.	Open safety switch or circuit.			
Door runs down, hits floor ond reverses within 1/2 second.	Improper adjustment of down limit switch. # Defective limit switch. # Defective circuit boord.			
Door storts down, runs longer than 1 second, then reverses.	Obstruction in doorway or raller pothway. Hard aperating ar defective door. Sensitivity control set too light.			
Door roises, carriage hits powerhead.	Improper adjustment of up limit switch, * Limit switch defective, * Circuit boord defective,			
Door runs up, won't run down.	 Down limit switch or circuitry open, Circuit boord defective. 			
Door runs down, won't run up.	 # Up limit switch or circuitry open. # Circuit board defective. 			
Door runs down, hits obstruction, does not reverse immediately, but reverses in 30 seconds.	 Defective safety switch or circuitry or mechonism. 			
Motor runs, door will not open.	Broken chain,chain-coble, drive sprocket, or drive gear.			
Door drives into floor and does not stop running until thermal shutdown.	♥ Stuck relay contact.			
Door drives into powerhead ond does not stop running until thermol shutdown.	 Stuck relay contact. 			

Requires the assistance of a qualified repoirman.

The following is the self test the new microprocessor will do at first when the unit is powered up and also at the end of the light timing cycle (4 minutes). The light timing cycle of four minutes is olways just after a motor run period. "Symptom" lists what the operator light will signal if there is a self test follure and "Possible Cause" lists what the detected follure is that causes the microprocessor to signal the problem. It is assumed at the time of power up, that there will be only ane limit on (if ony) and no signal from the radio receiver or pushbutton.

Light floshes of 1/2 second intervals.	Both limits ore on (door ot one and the other defective).
Light floshes at 1 second intervals.	Safety switch is onor the safety circuit is defective,
Light flashes at 1 1/2 second intervals.	Short in wall pushbutton, lighted pushbutton or pushbutton circuit , or a failure in the radio output circuit .

TRANSMITTER SERVICE HINTS

NATURE OF DIFFICULTY:

1. Short Distance-

When Battery Condition Light is quite dim or begins to flicker, replace battery. (Refer to "Frequency Coding" on Poge 15.

- 2. Inoperative or Intermittent Operation-
 - A. Check Frequency Code Switches in transmitter or receiver.
 - B. When Battery Condition Light is quite dim or begins to flicker, replace battery.
 - C. Be sure bottery connector makes good contact to battery terminals.

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OPERATION AND ADJUSTMENT

How To Change Frequency Coding Operation 1. Disconnect power to door opener. TO START OPERATOR: 2. Remove door opener cover to expose receiver circuit board. 1 time ·s transmitter button 3. Open transmitter access door as shown. ...s pushbutton 1 time TO STOP OPERATOR BATTERY NDICATOR LIGHT 1 time Press transmitter button 1 time Press pushbutton Insert small screwdriver in ac-(Operator will restart in opposite direction.) cess door slot and snap out Door restarts in "OPEN" cycle after power failure. code switch access door. TRANSMITTER FIGURE 2 Sensitivity Adjustment

This adjustment controls the amount of force the operator can apply in the "Down" direction before reversing if door travel is obstructed. For minimum closing force, adjust screw for less sensitivity.

Because each door/operator combination is nat the same, the "Down" sensitivity must be set for each installation. Adjustments must be made with at least 1/2 turn increments (See Fig. 1 below). Far maximum sensitivity (minimum permitted closing force), alternately turn adjusting screw counterclockwise and operate door in closing cycle. Repeat until door will not close without reversing. Next, turn adjusting screw clockwise until door can be operated through a complete closing cycle without reversing. To test, place a firm but pliable item, such as a paste board carton or a plastic trash con (laid on its side) in the poth of door and start operator to close. Door should reverse without crushing object. Test sensitivity periodically.



Your Radio Control System

Your Trinary Digital Radio Control is designed to give years of trouble-free service. The concept of Digital Control is to allow you, the homeowner, the availability of changing the frequency coding of your control, should you experience "phantom" operation. Phantom operation is the inadvertent opening or closing of your garage door by an outside signal source other than your own a hand-held transmitter.

Should you experience this inadvertent operation, follow these simple steps to change the frequency coding of your transmitter(s) and receiver. We DO NOT recommend changing frequency coding UNLESS you are experiencing "phantom" operation.

4. To change the frequency code simply change the position of one or two of the code switches on the Receiver and Transmitter(s) circuit board. PLEASE NOTE: The code switches (three position) of the Receiver and Transmitter(s) must correspond to each other. Example: If code switch No. 1 is "+" in the Receiver, code switch No. 1 must be "+" in the Transmitter(s). If code switch No. 2 is "-" in the Receiver, code switch No. 2 must be "-" in the the Transmitter(s), and so on.



5. If you have purchosed only one Transmitter and you wish to purchase a second one, specify the frequency code found on the white sticker on the back of the Transmitter or Receiver case.

	EXAMPLE:
FREQ 340-AVO	Specify frequency number
MFG. 810915	and letters when ordering
	a second transmitter.

When you receive the new transmitter it will NOT work with your present Digital receiver if you have previously changed the frequency code switches in the receiver. You MUST position the new transmitter frequency code switches to the same "+", "0", "-" sequence as your receiver frequency code switches.

(REFER TO ITEM 4)

- 6. Replace door opener cover.
- 7. Reconnect power to door opener.

- NOTE: -

Warranty on the Control will be nullified if service other than specified in the service hints is not performed at the factory.

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ILLUSTRATED PARTS BREAKDOWN



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PARTS LIST

		1					
2	1	106566-0001	Cover Assembly		25	102104-0001	Gear Guard
	2	102147-0001	Motor Support		26	604067-0001	Lampholder
	3	102142-0001	Motor		27	080813-0001	Bell Cord Wire
	4	102137-0001	Motor Mounting Angle		28	106527-0001	Push Button
	5	102105-0001	Motor Bracket	1 2.20	29	105352-0004	Control Wiring Harness (not shown)
	6	102101-0001	Safety Trigger		30	104107-0002	Power Wiring Harness (not shown)
	7	105359-0001	Circuit Board Mounting Bracket		31	101601-0001	Terminal Bracket
	8	105358-0002	Circuit Board Mounting Bracket		32	104703-0001	Terminal Strip
	9	106549-0001	Circuit Board 107871-1 Case 108267-		33	086575-0508	Screw, Hex Hd., Sltd, 6-32 x 1/2"
	10	077156-0001	Capacitor, 330VAC, 54-64 µF 5/2		34	086480-1232	Nut, Hex w/Lockwasher, 8–32
	11	077452-0001	Capacitor Clip		35	080105-0404	Bolt, Hex Hd, 1/4-20 x 1/2"
1	12	106484-0001	Limit Switch Assembly		36	086480-1620	Nut, Hex w/Lockwasher, 1/4-20
V	13	106505-0001	Limit Switch		37	080288-0810	Screw, Rd. Hd., Sltd, 4-40 x 5/8"
	14	106504-0001	Down Sensitivity Switch		38	086480-0840	Nut, Nex w/Lockwasher, 4–40
	15	080628-0000	Adapter		39	607083-0001	Screw, Hex Hd., 6-32 x 3/8"
	16	076877-0012	Strain Relief Bushing		40	604723-1006	Screw, Hex Hd., 10-32 x 3/8"
	17	077085-0000	Power Cord	/	41	086480-1332	Nut, Hex Lk. Fig., 10-32
>	18	106649-0001	Main Frame		42	086480-0840	Nut, Hex Lk., 4-40
	19	104050-0001	Eyelet		43	080288-1232	Screw, Rd. Hd., Sltd, 8-32 x 2"
	20	102102-0001	Safety Trigger Retainer		44	086584-0002	Nut, Spotweld, 8-32
	21	102087-0001	Sensitivity Spring		45	086575-0504	Screw, Hex Hd., 6-32 x 1/4"
	22	104086-0001	Main Drive Gear Assembly		46	104059-0001	Light Lens
	23	102103-0001	Chain Idler		47	104039-0001	Lampholder Bracket
	24	102106-0001	Support Bracket		48	106465-0001	Plate, Spacer/Retain
					49	080105-0405	Bolt, Hex Hd., 1/4-20 x 5/8"

NOTE: Item 12, Limit Switch Assembly contains two limit switches (item 13)

PARTS AND SERVICE

For parts and service, contact the nearest Distributor.

When ordering parts, specify:

MODEL NUMBER

PART NUMBER

PART DESCRIPTION

Repairs to transmitter and receiver should be performed by a qualified repairman. See Radio Control Instructions.

NOTE TO OWNER

IF SERVICE IS REQUIRED ON THE CONTROL MAIL THE COMPLETE UNIT (RECEIVER AND TRANSMITTERS) to

Overhead Door Corporation Advance Operator Division 801 St. Joe Shelbyville, IN 46176

> Advance Industries 3233 W. Harvard Santa Ana, CA 92704

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WIRING DIAGRAM

WIRING SCHEMATIC







LIMITED WARRANTY

authorized distributor of Overhead Door Corporation products whose appears below ("Seller") warrants this automatic garage door opener system to be free from defects in material and workmanship under normal use and service. This warranty extends only to the original consumer ("Buyer").

During the following periods after the sale, Seller shall furnish the goods and services indicated to repair or replace any portion of the system determined by Seller to be defective:

- 1 year All parts and labor (including installation, if the system was installed by Seller)
- 2 years Parts only
- 5 years Motor only

The foregoing represents Seller's sole obligation under this warranty, and is conditioned upon Buyer giving notice to Seller within the respective warranty period. Proof of purchase is required.

If Seller concludes that repair or replacement is necessary. Seller will commence work within a reasonable time after the decision to repair or replace is made.

This warranty does not apply if the system has been altered or repaired by any person not authorized by the Seller, or has been subject to misuse, neglect or accident.

Seller has not established any informal dispute settlement procedure of type described in the Magnuson-Moss Warranty Act.

SELLER ASSUMES NO LIABILITY FOR INCIDENTAL OR CONSE-QUENTIAL DAMAGES. WARRANTIES IMPLIED BY LAW ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF SALE.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

Inquiries to the Seller concerning this warranty should be directed to: