

Alltec Industries Inc.

Automatic Gates & Controls

2100 SERIES SLIDE GATE OPERATOR OPERATION MANUAL

Rev. 0601

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2100 SERIES OWNERS MANUAL

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TWO YEAR LIMITED WARRANTY

ALLTEC INDUSTRIES, INC. warrants to the original purchaser-consumer of its product that it is free of defects in materials and workmanship. Any defect, malfunction, or other failure of the product to conform to this warranty will be remedied by ALLTEC INDUSTRIES in the manner provided below.

This warranty, together with any and all warranties implied by law, shall be limited to a duration of two (2) years from the date of original purchase by the consumer.

This warranty does not apply to defects that result from abuse, misuse, alteration or damage not caused by ALLTEC INDUSTRIES, INC.

THIS WARRANTY DOES NOT COVER, AND IS INTENDED TO EXCLUDE, ANY LIABILITY ON THE PART OF ALLTEC INDUSTRIES, WHETHER UNDER THIS WARRANTY OR UNDER ANY WARRANTY IMPLIED BY LAW, FOR ANY INDIRECT OR CONSEQUENTIAL DAMAGES FOR BREACH HEREOF OR THEREOF.

NOTE: Some states prohibit limitations on the duration of implied warranties and on the exclusion of indirect or consequential warranties and so the above limitation on implied warranties and on incidental and consequential damages may not be applicable to you.

RESPONSIBILITY OF ALLTEC INDUSTRIES, INC.

ALLTEC INDUSTRIES responsibility under this warranty shall be to repair at its expense, at no charge to the original purchaser-consumer, any product that is actually defective, malfunctioning or otherwise in violation of this warranty.

If ALLTEC INDUSTRIES for any reason cannot repair a product covered hereby within two (2) years after receipt of the original purchaser-consumer's notification of a warranty claim, then ALLTEC INDUSTRIES responsibility shall be, at its option, either to replace the defective product with a comparable new unit at no charge to the consumer or to refund the purchase price prorata.

NOTICE: ALLTEC INDUSTRIES obligations of repair, replacement or refund are conditional upon the consumers return of the defective product to ALLTEC INDUSTRIES, INC.

RESPONSIBILITY OF THE CONSUMER

The original purchaser-consumer's responsibility in the instance of a warranty claim shall be to notify ALLTEC INDUSTRIES of the defect, malfunction or other manner in which the terms of this warranty are violated. You may secure performance of obligations hereunder by (in writing):

1. Identify the product involved by model or serial number or other sufficient description that will allow ALLTEC INDUSTRIES to determine which product is defective.
2. Specifying where, when and from whom the product was purchased.
3. Describing the nature of the defect, malfunction or other violation of this warranty.
4. Return defective parts as designated by ALLTEC INDUSTRIES, INC.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

SAFETY

Although ALLTEC INDUSTRIES, INC operators employ the latest safety devices, anyone who uses an automatic gate should be aware of its potential hazards. Any machine has the ability to cause injury!

1. Stay clear of the gate and operator at all times. Automatic gates can be activated without warning.
2. Never leave children unattended near an automatic gate.
3. Always wait until the gate has fully opened and stopped before driving through.
4. Proceed completely through the gate. Never stop in its path.
5. Never try to push or stop the gate when it is in motion.
6. Always turn the power to the gate "OFF" when any service is being performed even if you are only removing trash or debris.
7. Never activate the gate unless it is in plain view.

INTRODUCTION

The 2100 Series slide gate operators were designed with you and the following objectives in mind.

First, we wanted to produce a reliable gate operator that would work in all weather conditions.

Second, we wanted it to be easy to repair with all information and parts available to the owner.

Third, we wanted it to be inexpensive and require little or no maintenance at all.

We accomplished all three of our objectives. We did not use the newest technology available, we used the best technology available. With over two decades of slide gate experience, we know what a gate goes through and how much of the wear and tear can be prevented by the manufacturer.

Just one example of this is the hand wired control panel. While the new solid state components are remarkable and reliable, they are still much more delicate than relays and 18 gauge wires. Operators with solid state components are cheaper to build but more expensive to repair. When there is damage to one solid state component the technician has to replace the entire circuit board, because he either does not know how to fix it or he does not have the equipment to fix it. In a lot of cases the

boards are too expensive or too delicate for the technician to carry, so you are told "I have to order the parts".

The 2100 series operators are different. Most parts are not at all expensive and none are delicate. They are readily available from ALLTEC IND. and many other sources such as electrical and industrial suppliers in your area. The control panel cover has a color coded electrical diagram and this manual has a trouble shooting guide to help the technician. ALLTEC is also available with both technical assistance to your serviceman and on site service in many areas of the country.

A unique feature of the 2100 is the limit switches we use. Limit switches determine where the gate stops in both directions. Most gate operators have two limit switches, one for each direction. If the chain breaks or comes off of a typical operator, you must know how to get the chain back on in sync with the limit switches. The 2100 senses the position of the gate itself, therefore, the chain simply has to be put back on anywhere and the gate resumes normal operation. Simple!

With the exception of the chain, there is no maintenance needed on the 2100. All the chain needs is adjusting and oiling. If you have our Automatic Chain Tensioner and Nickel plated chain, no maintenance will be required for about two years.

There is another reason that the 2100 series operators are unique. They can do anything any other operator can do with out relying on the talent of the installer. Installers are normally highly qualified to add controls and options that modify a gates operation to fit the job requirements. The 2100 is different! Most operating modes are standard and are covered in the supplied literature. If, in the future, the installer is no longer available, he is not the only one who knows how your system works. Repairs can be done by any qualified person.

We at ALLTEC INDUSTRIES, INC. would appreciate your comments, good or bad. Call or write us at:

ALLTEC INDUSTRIES, INC.
CUSTOMER SERVICE DEPT.
722 Pleasant Street
WORCESTER, MA 01602
(508) 752-5095

OPERATION

There are two types of powered slide gates. Those operated manually and those with automatic controls.

All 2100 Series gate operators accommodate all types of controls and are fully automatic. Standard equipment includes a timer to close the gate and a vehicle detector. While the installer decides what type and how many control devices are used, the operator terminal strip is already set up for them. In most cases the controls only open the gate.

ALLTEC INDUSTRIES recommends the use of an override switch (gate open switch) that is independent of all controls to give you the ability to open the gate and hold it open.

WARNING: WHEN USING AN OVERRIDE SWITCH, REMEMBER THAT WHEN YOU TURN IT "ON" THE OVERRIDE SWITCH BYPASSES THE SAFETY DEVICES AND THE GATE WILL TRY TO OPEN REGARDLESS OF CONDITIONS AROUND IT. IF THE GATE IS JAMMED OR OBSTRUCTED TURN THE POWER SWITCH OFF UNTIL THE PROBLEM IS CORRECTED.

1. **MANUAL OPERATION** - A manually controlled slide gate is a gate that a person opens and closes with a switch or a radio transmitter.

If you control your gate manually, never open or close it unless you can see it. Be sure no person or vehicle is in its path.

The 2100 Series gate operator have many standard safety features that can be disabled by the installer to achieve functional variations, however, all safety devices should be kept operational.

- a. **Safety Loops** - Even with a manually controlled gate, safety loops should be employed. They can prevent you from accidentally closing the gate on a car.
- b. **Mechanical Reversing Device (MRD)** - The MRD is the device that makes the gate reverse when it hits an obstruction. It also will stop the gate if it is jammed closed. Although it can be disabled, the MRD should be kept operational and periodically tested by a qualified technician.

ALLTEC INDUSTRIES, INC. DOES NOT RECOMMEND DISABLING ANY SAFETY DEVICE FOR ANY REASON.

2. **AUTOMATIC OPERATION** - An automatic gate is opened by a control (Keypad, Card Reader, Radio Transmitter, Loop or other sensor) and closes automatically with an internal timer.

After the gate is triggered open, it is fully automatic. This means the gate operator and its controls decide to close or reverse the gate. The user is not involved.

The following is a brief description of each of the automatic controls and features that decide what the gate does.

- a. **TIMER CLOSE BOARD** - The timer close board determines how long the gate stays open. The timer starts as soon as the gate is fully open and any vehicles present clear the loops. The timed interval is adjustable from 1 second to 20 minutes. It should be set by the installer. Remove J2 from the main terminal strip to disable the timer.
- b. **SAFETY LOOPS** - Safety loops should be used with all powered slide gates to prevent the gate from closing until all vehicles are clear. The 2100 is capable of either reversing the gate when a second vehicle is sensed or closing after each vehicle (**ANTI-TAILGATING**). If you using one of the four anti-tailgating features, be sure to properly instruct your user on there operation.

WARNING: CLOSING THE GATE AFTER EACH VEHICLE (ANTI-TAILGATING) AND POSSIBLY HITTING A SECOND VEHICLE IS NOT RECOMMENDED. DAMAGE TO THE GATE OR VEHICLE IS POSSIBLE REGARDLESS OF THE OBSTRUCTION DEVICE (MRD) DESCRIBED BELOW.

- c. **MECHANICAL REVERSING DEVICE (MRD)** - The MRD is the device that makes the gate reverse when it encounters an obstruction. It also will stop the gate if it is jammed closed. It can be set to stop the gate when activated instead of reversing in the open direction. Although it can be disabled, the MRD should be kept operational and periodically tested by a qualified technician. If J4 is removed the gate will stop if obstructed in the open cycle. Jumper 4 (J4) is located in the operator electrical panel about half way up on the left side.

MAINTENANCE

The 2100 Series gate operators are maintenance free by design. There are no adjustments to be made by the user for maintenance purposes. However, there are some things you should consider.

CAUTION: THE 2100 SERIES SLIDE GATE OPERATORS ARE MACHINES AND SHOULD BE SERVICED AND REPAIRED BY QUALIFIED TECHNICIANS ONLY! THERE ARE NO USER SERVICEABLE PARTS IN THE UNIT. THE CONTENTS OF THIS BOOKLET ARE FOR INFORMATIONAL PURPOSES ONLY.

1. **CHAIN LUBRICATION** - The drive chain should be oiled from time to time. The frequency is determined by the weather and the amount of use the gate gets. In high traffic or extreme weather conditions the chain should be oiled about once a month. In the best of conditions it should be oiled every 6 months. A nickel plated chain should be oiled annually. Turn the gate power off and spray the chain with a quality roller chain lubricant. Chain lubricant is available from ALLTEC INDUSTRIES part no. 1305-ATY.
2. **CHAIN ADJUSTMENT** - The drive chain will stretch as it wears and will need tightening. The chain should not sag more than an inch in the middle. If it does, adjust it by tightening the chain adjuster bolts at each end. When you run out of adjustment, some chain links can be removed to make adjustment possible again. A quality drive chain almost never breaks in normal conditions. If your chain breaks check for a problem with the gate. (binding, bent, seized rollers or wheels, etc.)
3. Periodically check for debris around the gate. A smooth rolling gate is a reliable gate.
4. Visually inspect the gate as a matter of routine. If you see worn rollers or wheels, a loose or rusty chain or any other potential problem, have it repaired before it becomes a major problem.
5. The 2100 does not need any maintenance. The only thing we recommend is to wipe it off from time to time and wax the cover to maintain its appearance. The better your equipment looks the better you look!
6. We recommend periodic maintenance inspections by a qualified technician to check that all the safety features and controls are functioning properly.

ADJUSTMENTS

1. **TIMER CLOSE BOARD** - The timer close board determines how long the gate stays open. See OPERATION page 5. The adjustment is inside the operator electrical panel under the weather cover on the right side labeled "Clockwise Increases Close Delay". Turn it clockwise to increase the amount of time the gate stays open. There is a small switch above the adjustment wheel. If the switch is down, the wheel adjusts from 1 second to 60 seconds. If the switch is up, the wheel adjusts from 1 minute to 60 minutes. See page 5 for more details.

2. **THE "MECHANICAL REVERSING DEVICE" (MRD)** - The MRD is factory and installer adjusted and should not require readjustment. Before adjusting the MRD be sure all other adjustments are correct, especially the chain. A loose chain can cause the gate to dance back and forth. If needed, adjustment of the MRD is accomplished by turning the two cams found in front of and above the gear box. Loosen the cam you want to adjust and turn it towards the switch to increase the sensitivity and away from the switch to decrease the sensitivity. Never turn the cams outward past top center or the switch could be damaged. The left switch controls the open cycle and the right switch controls the close cycle. Jumper J4 determines if the gate reverses or stops when it is obstructed while opening. See page 5 for more details.

CAUTION: ALWAYS TURN THE POWER OFF WHEN ADJUSTING THE MRD. BE SURE YOU AND YOUR CLOTHING ARE CLEAR OF ALL MOVING PARTS BEFORE TURNING THE POWER ON.

After you have made each adjustment test the operation of the MRD before proceeding.

3. **BELT ADJUSTMENT** - The drive belt on the 2100 Series gate operators does not need adjustment. Even if it is loose it will not cause problems. If, however, you wish, it can be adjusted by shimming the motor.

There are no other adjustments and except for periodic inspections, you should never have to touch the 2100.

PERIODIC INSPECTIONS - About every two or three months inspect the gate operator. Remove the cover and check the drive belt for cracks. Look for oil leaks or debris that may have blown up under the cover. Clean the cover and spray some lock lubricant into the cover lock. Doing this once or twice a season will keep your 2100 in excellent condition.

TROUBLESHOOTING

Repairs to the 2100 Series operators should be done by a qualified technician.

CAUTION: ALWAYS TURN THE POWER OFF BEFORE SERVICING OR REPAIRING THIS EQUIPMENT!

1. **GATE WILL NOT OPEN** - Check all opening devices before servicing the 2100. Because the 2100 has open terminals common to all opening devices, be sure that no opening device will open the gate. If any opening device opens the gate the problem is not in the 2100.

- a. Check that the gate is not jammed. With the power off and the cover off, try to turn the drive belt by hand. It should turn and move the gate. If not, look for an obstruction.
- b. CS-2101 & CS-2140 - Check the fuses on top of the control panel.
CS-2112 - Check the fuse and the circuit breaker/power switch on top of the control panel.
- c. CS-2100 & CS-2140 - Check the main power circuit breaker.
CS-2112 - Check the condition of the battery. The battery can be hot shotted just like a car.
- d. Press the motor re-set button.

2. **GATE WILL NOT CLOSE** -

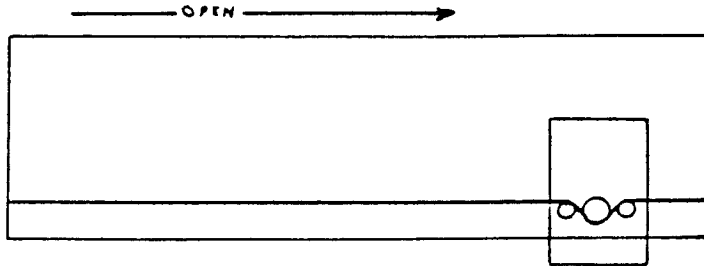
- a. Check items a thru d above.
- b. Check the override switch (if equipped). Be sure it is in the NORMAL or OFF position.
- c. Check the vehicle detector in the 2100 electrical panel. After removing the cover turn the power on. A small red indicator on the detector should go on then off one time. (The detector is located on the left side of the inside of the control panel.) If the red indicator is on or flashing, there is a problem with the safety loops.
- d. Check that the gate is completely open. If the gate has stopped because of an obstruction or safety device, it will not close until told to do so. The best thing to do is to try to open the gate with the override switch or some other opening device and then allow it to close.

INSTALLING THE CHAIN

The 2100 Series operators determine which way the gate travels by how the chain is routed through the sprockets.

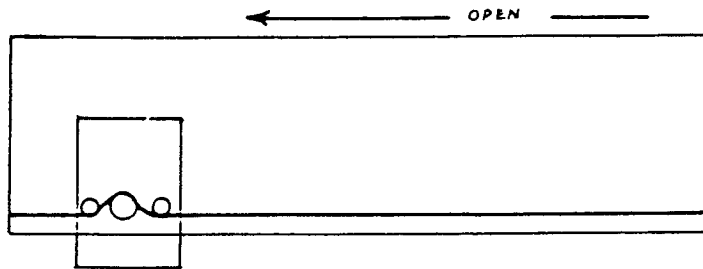
If, when viewed from the outside of your property, the gate moves to the right to open, route the chain over the first idler sprocket, under the drive sprocket and over the second idler sprocket. See figure 1 below.

FIGURE 1 - GATE OPENS RIGHT WHEN VIEWED FROM THE OUTSIDE



If, when viewed from the outside of your property, the gate moves to the left to open, route the chain under the first idler sprocket, over the drive sprocket and under the second idler sprocket. See figure 2 below.

FIGURE 2 - GATE OPENS LEFT WHEN VIEWED FROM THE OUTSIDE



Follow the procedure below to reinstall it.

1. Turn the gate power OFF!
2. Check the sprockets to be sure they are clear of debris and in good condition.
3. Slide the gate about half way open.
4. Route the chain according to the diagram above that applies to your gate.
5. Connect the chain ends to the gate brackets with master links and chain adjuster bolts.
6. Tighten the chain so there is less than 1 inch of sag from end to end.
7. Turn the power on and test the gate by activating an opening device.

REPLACING THE BATTERY - The CS-2112 is powered by a 12VDC small equipment battery or an externally mounted car battery. When replacing the battery, use the following procedure.

USE A FULLY CHARGED BATTERY. DO NOT RELY AN THE CHARGER TO CHARGE A WEAK OR DEAD BATTERY!

1. Turn the gate power switch OFF. The CS-2112 power switch is located on the top of the operator control panel under the gray weatherproof cover.
2. Unplug the battery charger located in the office or control room.
3. Wear eye protection and protective clothing whenever you are servicing or maintaining the battery.

WARNING: BATTERIES CONTAIN SULFURIC ACID WHICH CAN CAUSE BURNS ON CONTACT WITH THE EYES OR SKIN.

4. Remove the battery box cover and disconnect the negative battery wire first.
5. Disconnect the positive battery wire.
6. Remove the battery from the box. Be careful not to get the battery acid on your skin. The acid can cause a severe burn.
7. Clean the battery box with warm soapy water.
8. Clean the battery terminal ends with a battery terminal brush.
9. Install the new battery in the box and connect the positive wire first.
10. Connect the negative terminal and close the battery box.
11. Turn the gate power on and install the cover.
12. Plug the charger in and test your gate.

CAUTION: REFER TO THE BATTERY AND BATTERY CHARGER MANUFACTURERS INSTRUCTIONS FOR ADDITIONAL SAFETY INFORMATION

ALLTEC INDUSTRIES, INC
2100 SERIES SLIDE GATE OPERATOR PARTS LIST

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ITEM NO.	DESCRIPTION	PART NO.	QTY/ UNIT
1**	ANTENNA, EXTERNAL RADIO	1288-ALL	1
2	BELT, 2338 - CS-2101 + CS-2112	1662-GRA	1
3	BELT, 2310 - CS-2140	1385-GRA	1
4	BOARD, MULTI TIMER	1207-IEI	1
5*	BOLT, 1/4" X 20 X 3/4" PLATED	1262-GHS	2
6*	BOLT, 5/16" X 18 X 1-1/4" PLATED	1537-GHS	4
7*	BOLT, 5/16" X 18 X 1" PLATED	1210-GHS	4
8	BOLT, 5/16" X 18 X 1-3/4" PLATED	1399-GHS	2
9*	BOLT, 5/16" X 18 X 1/2" STAINLESS	1212-GHS	2
10	BOLT, 1/2" X 13 X 3-1/4" PLATED	1088-GHS	2
11	BOLT, 1/2" X 13 X 1-1/2" PLATED	1404-GHS	2
12	BOX, 2" X 4" HANDY - CS-2101 + CS-2140	1213-FAI	1
13	BOX, 12" X 12" X 4" JUNCTION	1214-FAI	1
14			
15	BREAKER, 30A CIRCUIT - CS-2112	1311-NEW	1
16	BUSHING, 2100 BRASS PIVOT	1224-GRA	1
17*	BUSHING, 1/2" PLASTIC SNAP-IN	1215-GES	3
18			
19**	CABLE, EXTERNAL ANTENNA	1289-ALL	1
20	CAM, 2100 SAFETY SWITCH ADJ.	1280-LES	2
21	CAPACITOR, 470uf ELECTROLYTIC	1217-NEW	1
22	CAPACITOR/RESISTOR, 2200/100	1538-ALL	1
23	CONDUIT, 3/8" FLEX 11"	1271-GES	1
24	CONNECTOR, 3/8" FLEX 90 INSULATED	1218-GES	2
25	COVER, 2100 SERIES PLASTIC	1546-ALL	1
26	COVER, HANDY BOX SWITCH - CS-2101 + CS-2140	1220-GES	1
27	DETECTOR, D/S 12VDC (416-23)	1221-DSY	1
28	FRAME, CS-2101	1395-DOS	1
29	FUSE, 2A MINI	1081-NEW	1
30	FUSE, 15A MINI - CS-2101	1135-NEW	1
31	CONNECTOR, 3/8" FLEX 90	1539-GES	2
32	GEARBOX, 30:1 - CS-2101 + CS-2112	1173-EMP	1
33	GEARBOX, 60:1 - CS-2140	1379-EMP	1
34	HOLDER, FUSE PANEL MOUNT	1223-NEW	3
35**	JACK, EXTERNAL ANTENNA	1293-FAI	1
36**	KEY, 1454 CHICAGO	1225-CLK	1
37	KEY, 3/16" SQ. 3/4" L	1226-GHS	3
38*	LABEL, DANGER HIGH VOLT - CS-2101 + CS-2140	1227-GPR	1
39*	LABEL, 2100 FUSE ID - CS-2101 + CS-2140	1228-GPR	1
40*	LABEL, 2112 FUSE ID - CS-2112	1282-GPR	1
41*	LABEL, J4 - J5 TERMINAL ID	1229-GPR	1
42*	LABEL, 24 TERMINAL ID	1230-GPR	1
43*	LABEL, TIMER ADJUST ID	1231-GPR	1
44*	LABEL, 2100 WARNING TURN POWER OFF	1232-GPR	1
45*	LABEL, 2112 WARNING TURN POWER OFF	1283-GPR	1
46**	LOCK, 3786/1454 CHICAGO	1233-CLK	1
47	MAGNET, STANDARD LIMIT (1/2")	1291-ALL	2
**	MAGNET, WIDE GAP LIMIT (1")	1290-ALL	2
48	MODULE, REVERSE DELAY - CS-2140	1403-ALL	1
49	MOTOR, 1/2HP 2 CAP LEESON - CS-2101	1065-LSN	1
50	MOTOR, 1/4HP 12VDC LEESON - CS-2112	1284-LSN	1
51	MOTOR, 1HP 220VAC LEESON - CS-2140	1374-LSN	1
52	NIPPLE, 1/2" CLOSE - CS-2101 + CS-2140	1540-GES	1
53*	NUT, 1/4" X 20 HEX	1263-GHS	2

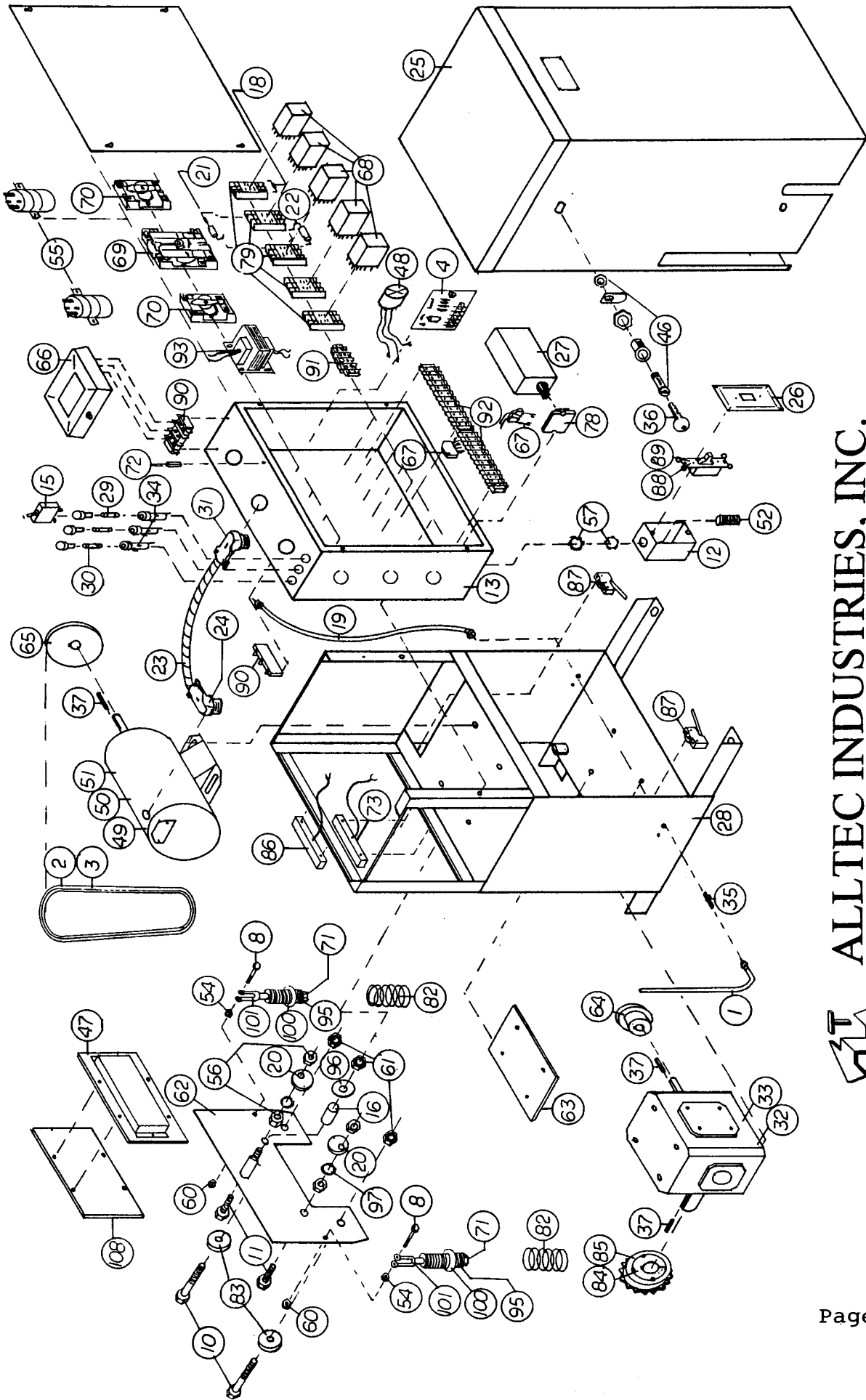
54	NUT, 5/16" X 18 HEX	1236-GHS	6
55	SOLENOID, 2112 POWER	1536-GRA	2
56	NUT, 1/2" x 13 HEX	1136-GHS	4
57	NUT, 1/2" LOCKING - CS-2101 + CS-2140	1238-GES	2
58*	NUT, 6-32 NYLOCK	1234-GHS	28
59*	NUT, 10-24 NYLOCK	1277-GHS	6
60	NUT, 5/16" NYLOCK	1239-GHS	2
61	NUT, 1/2" NYLOCK	1087-GHS	3
62	PLATE, 2101 IDLER PIVOT	1396-DOS	1
63	PLATE, GEARBOX SPACER	1535-ALL	2
64	PULLEY, 5/8" X 2.80	1241-MTN	2
65	PULLEY, 5/8" X 3.95 - CS-2101 + CS-2112	1242-MTN	1
66	RECEIVER, 12VDC MULTICODE	1528-ALL	1
67	RECTIFIER, 50V BRIDGE - CS-2101 + CS-2140	1119-NEW	2
68	RELAY, 12VDC 4PDT 14 PIN	1409-FAI	4
69	RELAY, 12VDC DP MOTOR CONT. - CS-2140	1244-GRA	1
70	RELAY, 12VDC SPST MOTOR	1443-GRA	2
71	ROD/BOLT, 2101 MRD Spring	1410-ALL	2
72*	SCREW, 6-32 x 1-1/4" FH	1279-GHS	4
73	SWITCH, LIMIT 1046 CLOSE	1533-ADI	1
74*	SCREW, 6-32 X 1-1/4 RH	1657-GHS	5
75			
76			
77*	SCREW, 10-24 X 3/4 FH	1413-GHS	6
78	SOCKET, 11 PIN RELAY	1246-FAI	1
79	SOCKET, 14 PIN RELAY	1402-NEW	5
80			
81			
82	SPRING, #60 1" X 3" MRD	1411-GHS	2
83	SPROCKET, 40/41 PLASTIC IDLER	1545-MTN	2
84	BUSHING, TAPLCK 7/8" TAPERED	1421-MTN	1
85	SPROCKET, #41 22 TTH TL - CS-2101 + CS-2112	1249-MTN	1
86	SWITCH, LIMIT 1045 OPEN	1532-ADI	2
87	SWITCH, SP/DT MICRO	1079-GRA	2
88	SWITCH, 120VAC TOGGLE - CS-2101	1257-GES	1
89	SWITCH, 220VAC TOGGLE - CS-2140	1377-FAI	1
90	TERMINAL, 3 POSITION BLOCK	1252-NEW	1
91	TERMINAL, 4 POSITION BLOCK	1253-NEW	1
92	TERMINAL, 12 POSITION BLOCK	1254-NEW	2
93	TRANSFORMER, 12VAC 48VA - CS-2101 + CS-2140	1255-FAI	1
94*	WASHER, #10 FLAT	1285-GHS	4
95	WASHER, 1/4" FLAT	1334-GHS	68
96	WASHER, 1/2" FLAT	1372-GHS	1
97	WASHER, 1/2" INTERNAL TTH LOCK	1287-GHS	2
98*	WASHER, 5/16" LOCK	1337-GHS	8
99			
100	WASHER, 5/16" FENDER	1405-GHS	2
101	YOKE, 5/16" FEMALE THREADED	1251-GHS	2
102*	TRANSMITTER, DT-A	1020-MOM	1
108**	PLATE, MAGNET BACKING	1299-BMW	

**** OPTIONAL ITEMS**

*** ITEMS NOT SHOWN**

*	BOX, BATTERY - CS-2112	1296-GHS	1
*	LINK, 50A FUSE - CS-2112	1294-ALL	2
*	CHARGER, 10/2 AMP BATTERY - CS-2112	1369-SHU	1

* PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE *



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 REV. 1198