



AUTO RESET ALARM RELEASE BOX

MODEL AR-C

INSTRUCTION MANUAL

WARNING

1. CAUTION: Review all installation instructions, procedures, cautions and warnings contained within this manual prior to installing and/or servicing this product. As with all releasing device systems, maximum fire protection is provided when installed in accordance with factory specifications and used with fuse link systems.
2. **DO NOT** install this unit without fuse links.
3. Installation and testing to factory specifications shall be performed by factory authorized personnel for proper operation in accordance with all of the latest National fire Protection Association (NFPA), Underwriters Laboratories (UL), National electrical Code (NEC), local, state, county, district and/or other applicable building and fire standards, guidelines, regulations and codes including, but not limited to, all appendices and amendments and the requirements of the local authority having jurisdiction (AHJ).
4. To be performed by factory authorized personnel only.
5. Clear fire door opening and prohibit all traffic through door opening during testing of system!

Installation Tip: Test this unit before installing onto a fire door system. Test and learn the release mechanism before connecting to a fire door.

INTRODUCTION

The releasing device is a failsafe constantly energized solenoid mechanism. It is designed for use on rolling doors, single-slide and center-parting level and inclined track doors. Inside the mechanism, contact relays receive the alarm signal from the fire alarm control panel. When the unit receives the signal, the power to the solenoid is cut, releasing the fire door mechanism and hence close the fire door. The alarm signal is Form C dry contact. Any interruption of power will release the solenoid mechanism. The release has a 5~10 second delay on alarm and automatic reset. When power and alarm are restored, the unit will reset itself automatically.

SPECIFICATION

Input Power:	115VAC, 0.12A; 230VAC, 0.06A
Alarm Dry Contact Rating:	24VDC, 0.4A, 2.64 ohms max line impedance
Frequency:	50Hz or 60Hz
Release Pull:	12.8 lbs (5.8 kgs)
Fuses:	F1: 3A@250V, Slo-Blo Type F2: 2A@250V, Slo-Blo Type

- Must install with UL approved fusible links.
- 18-gauge wire recommended.
- For “Indoor Dry” location use only.
- The releasing device should only be used with Lawrence hand chain and crank units, FGRL and FGH operators (Not applicable for larger than 2hp).
- Per NFPA72, 2007 edition paragraph 6.16.6.4 “Magnetic door holders that allow doors to close upon loss of operating power shall not be required to have a secondary power source.” This alarm release does NOT require battery back up.

INSTALLATION



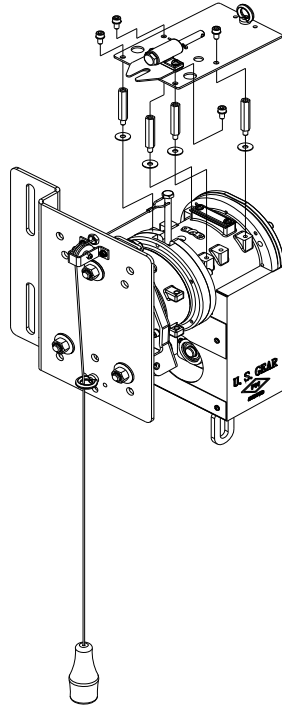
Disconnect power supply before servicing.

- For “Indoor Dry” location use only. All wiring must satisfy the most current version of NFPA72 – National Fire Alarm Code and the National Electric Code.
- 18-gauge wire is recommended

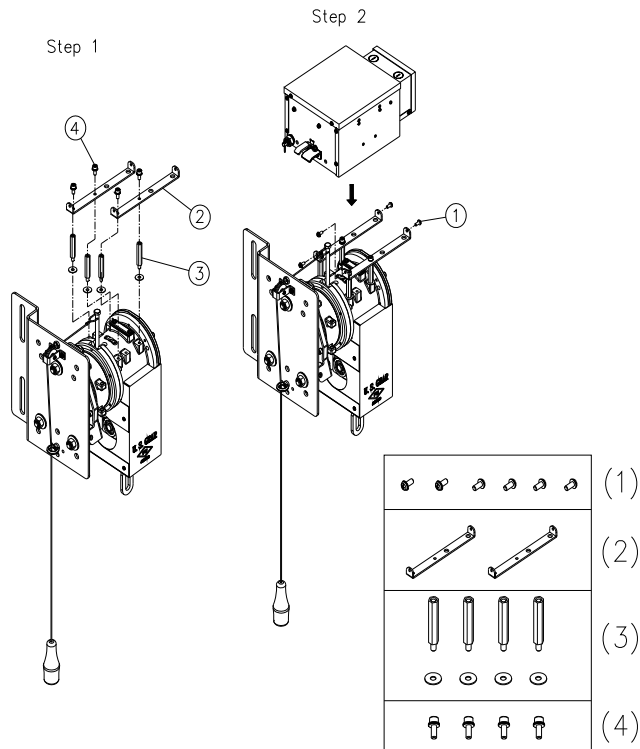
INSTRUCTION & DRAWING

For Model FHC and FHK:

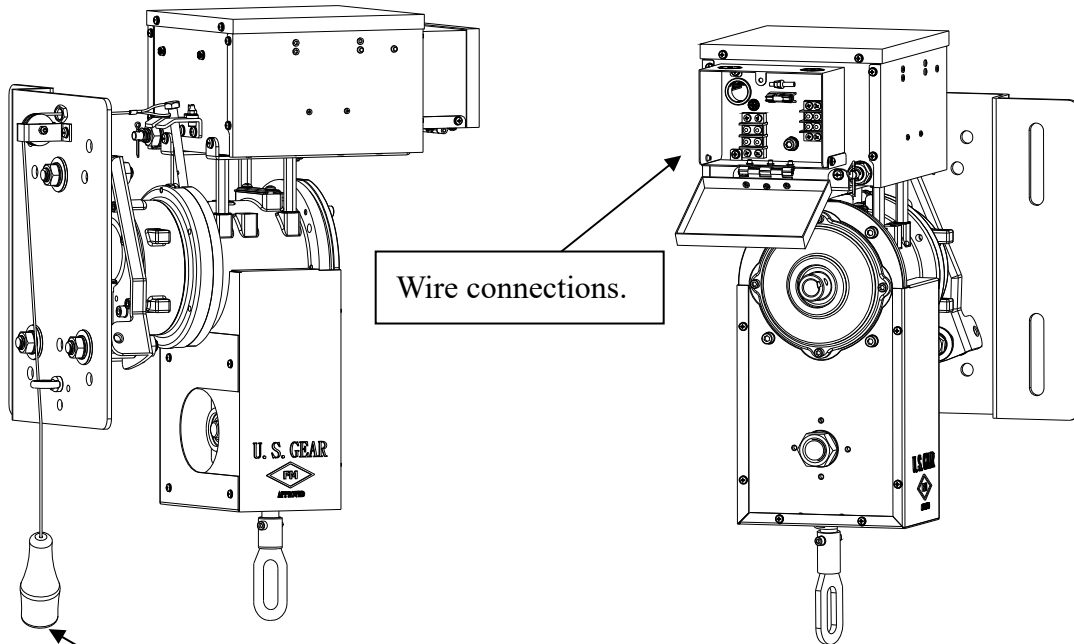
Replace fusible link release with alarm release box. Loosen screws and legs.



Use the included screws, legs and brackets to mount the alarm release. See drawing below for reference.



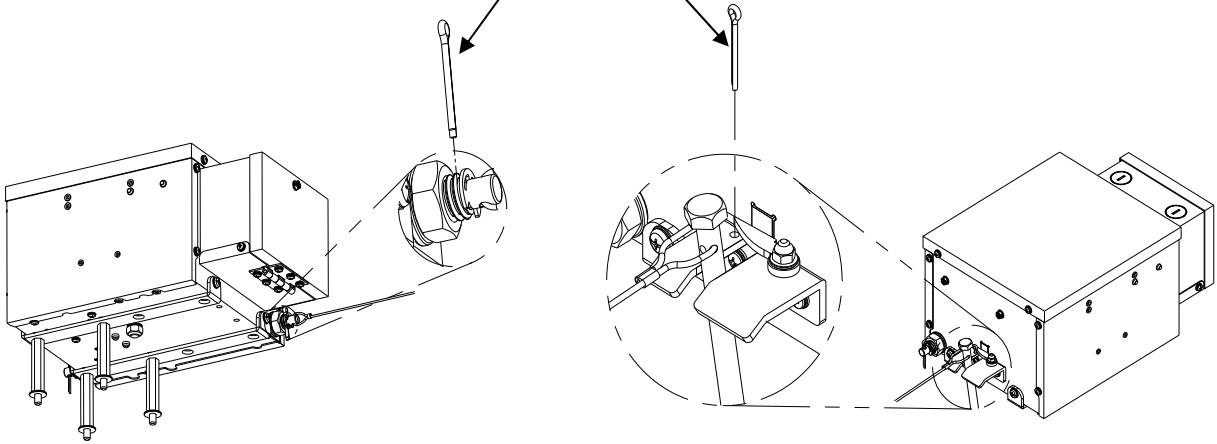
Warnings and Operation.



Pull cable to close fire door.

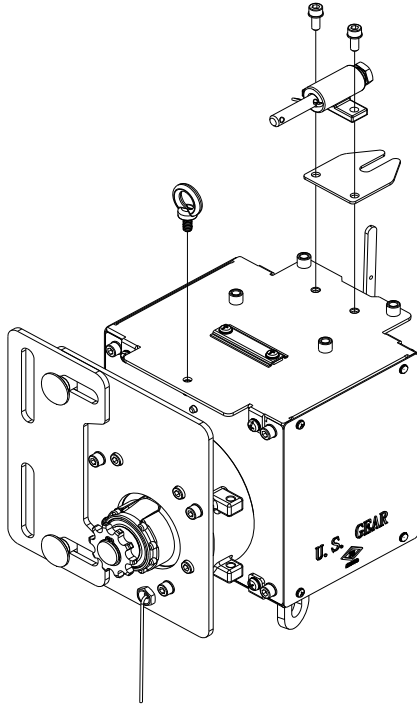
Fusible Link Connection
Consult NFPA-80
and the authority
having jurisdiction for
location(s) and method.

Must remove cotter pin after fusible link connection and installation.

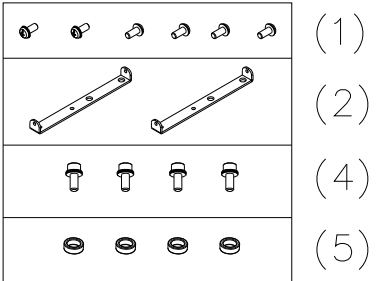
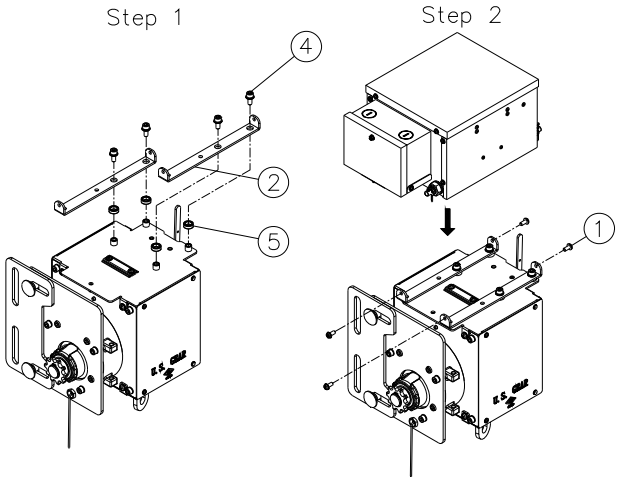


For Model FHCM and FHKM:

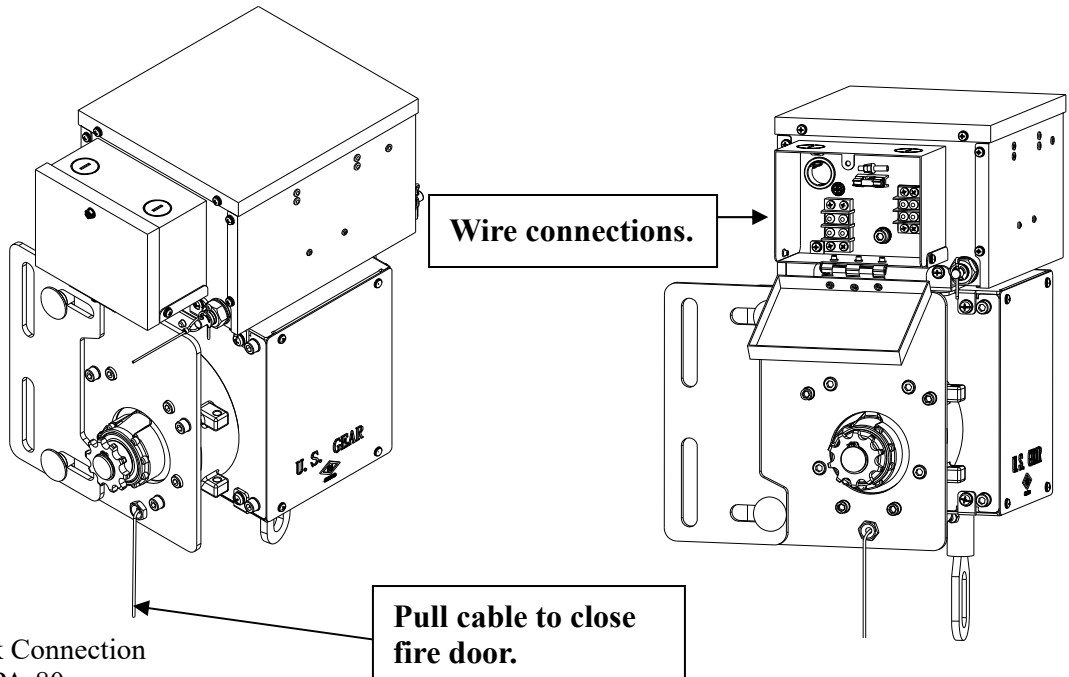
Replace fusible link release with alarm release box. Loosen screws and remove plunger.



Use the included screws and brackets to mount the alarm release. See drawing below for reference.

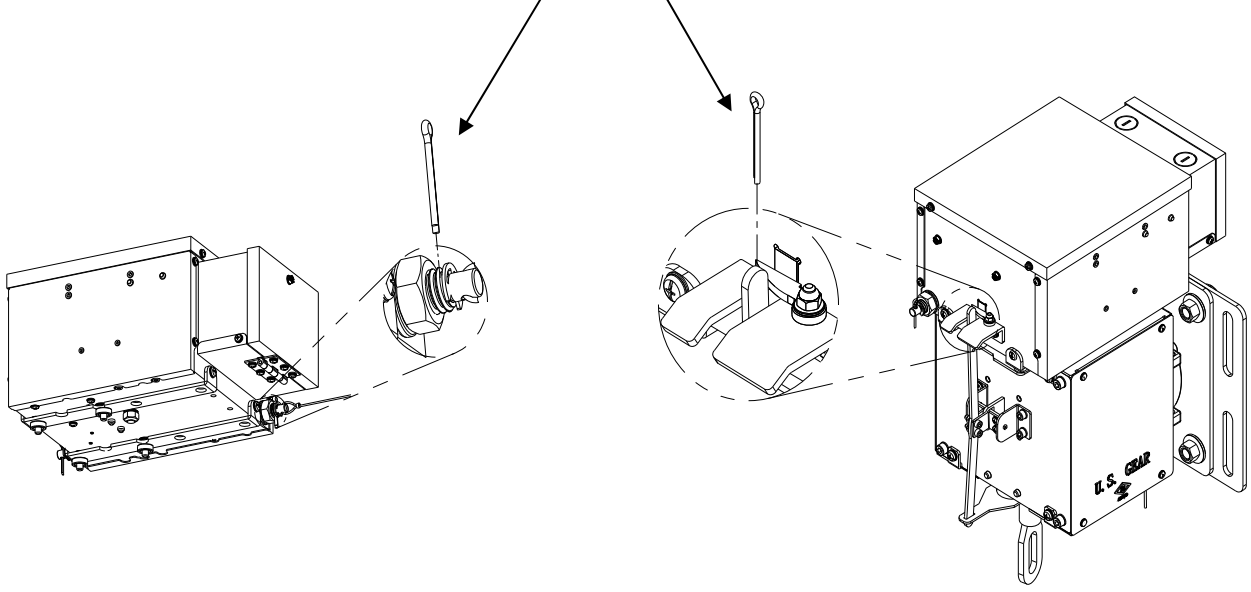


Warnings and Operation.



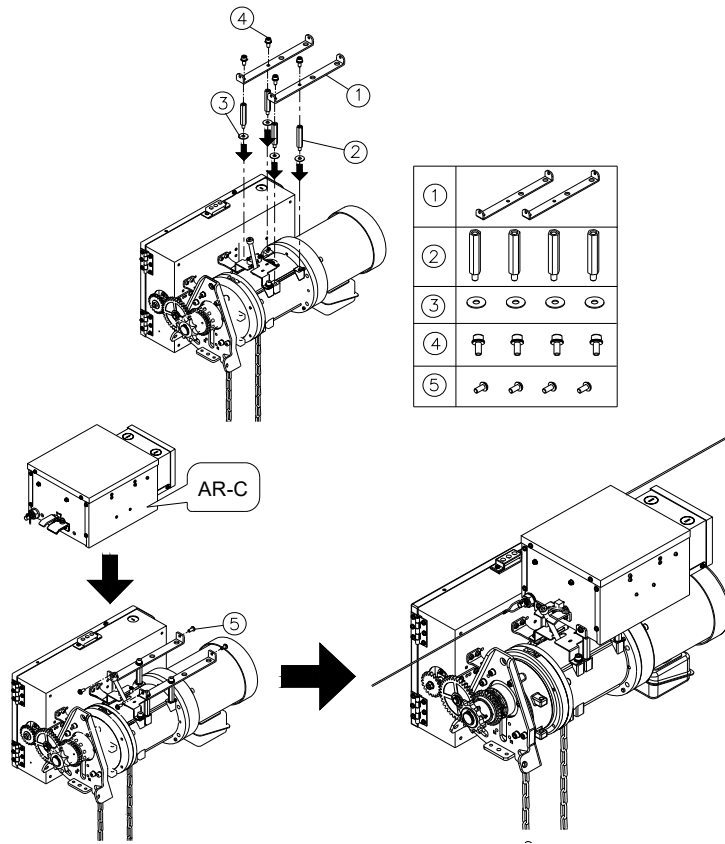
Fusible Link Connection
Consult NFPA-80
and the authority
having jurisdiction for
location(s) and method.

Must remove cotter pin after fusible link connection and installation.



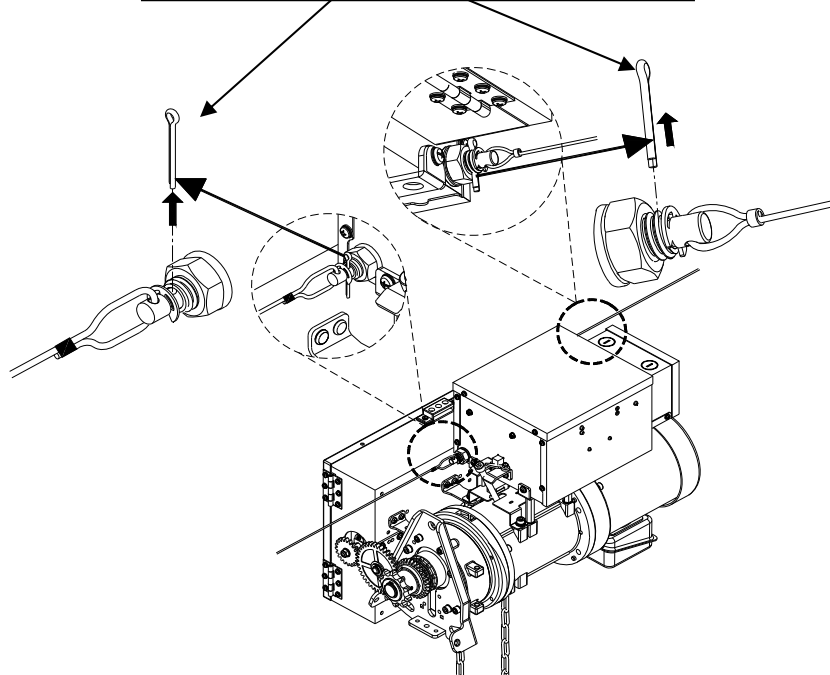
For Model FGH:

Use the included screws, legs and brackets to mount the alarm release. See drawing below for reference.



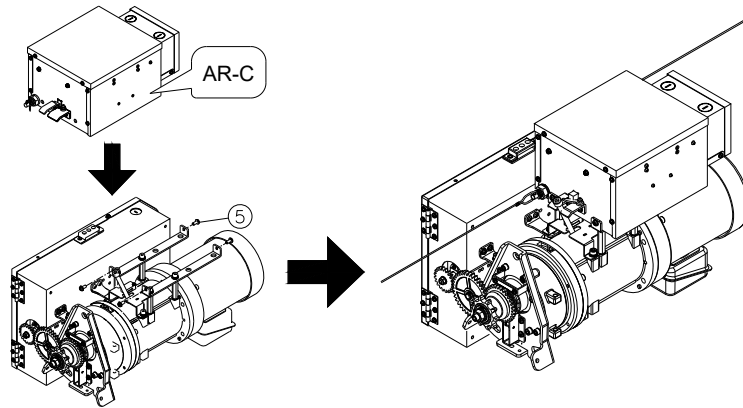
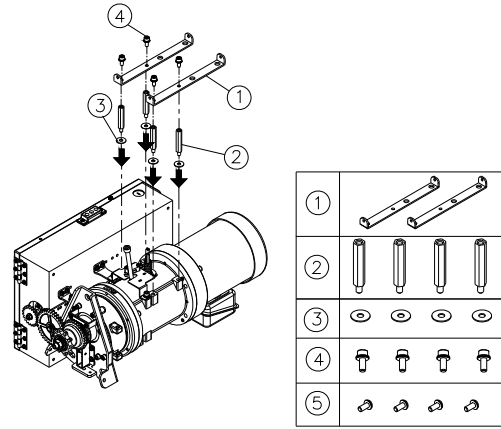
Fusible Link Connection
Consult NFPA-80
and the authority
having jurisdiction for
location(s) and method.

Must remove cotter pin after fusible link connection and installation.



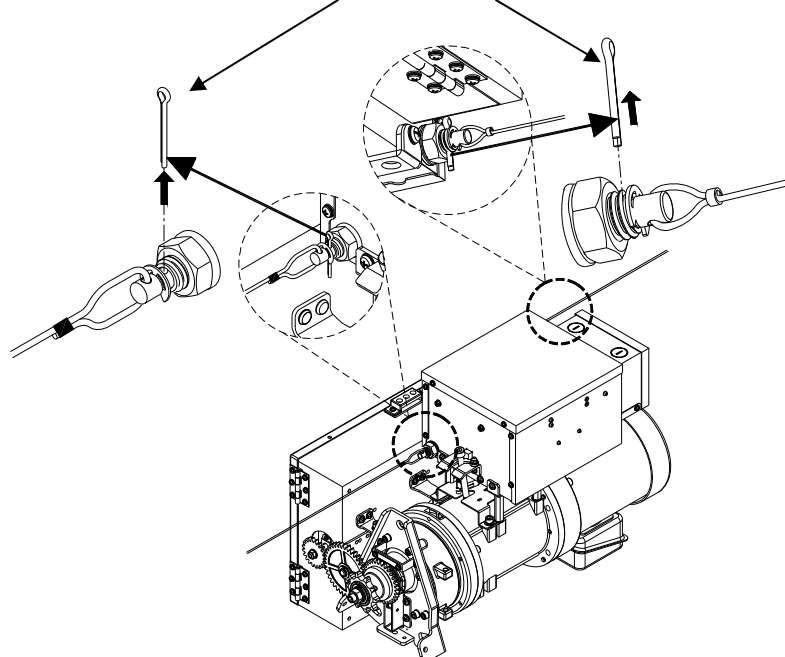
For Model FGRL:

Use the included screws, legs and brackets to mount the alarm release. See drawing below for reference.



Fusible Link Connection
Consult NFPA-80
and the authority
having jurisdiction for
location(s) and method.

Must remove cotter pin after fusible link connection and installation.





Disconnect power supply before servicing.

1. ELECTRICAL CONNECTIONS – All models

Installation of all wiring and connections shall be performed in accordance with, but not limited to, the latest NFPA, U.L. and N.E.C. standards. In addition, all installations subject to Canadian standards shall be performed in accordance with the Canadian Electrical Code, Part I, with respect to wiring material, wiring gauge related to power capacity requirements and circuit length and wiring methods.

2. Verify voltage rating of release device to power source being utilized.
3. Connect fusible link and fire door system to release box.
4. Connect power and alarm connection to the unit.

TESTING

1. Simulate an alarm condition and see if the solenoid disengages and releases the fire door.
2. Simulate a power failure and see if the solenoid disengages and releases the fire door.

RESETING

1. Make sure power and alarm connection is normal.
2. Verify the solenoid is holding.
3. Connect fusible links to the fire door system.

Note: If the power or the alarm is not normal, solenoid will not hold. Hence the release rod will not stay in the slot.

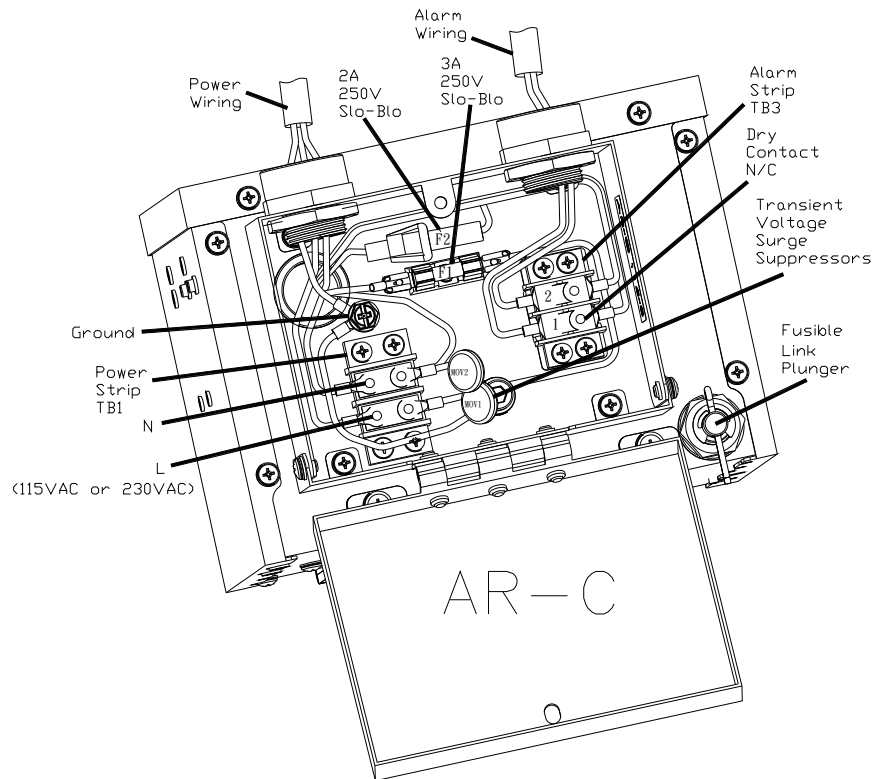
Warning: Must perform drop-test after installation.

WIRING



Disconnect power supply before servicing.

WIRE ROUTING



TERMINAL CONNECTIONS



Disconnect power supply before servicing.

TB1

L	N
Input power 115VAC or 230VAC	

TB3

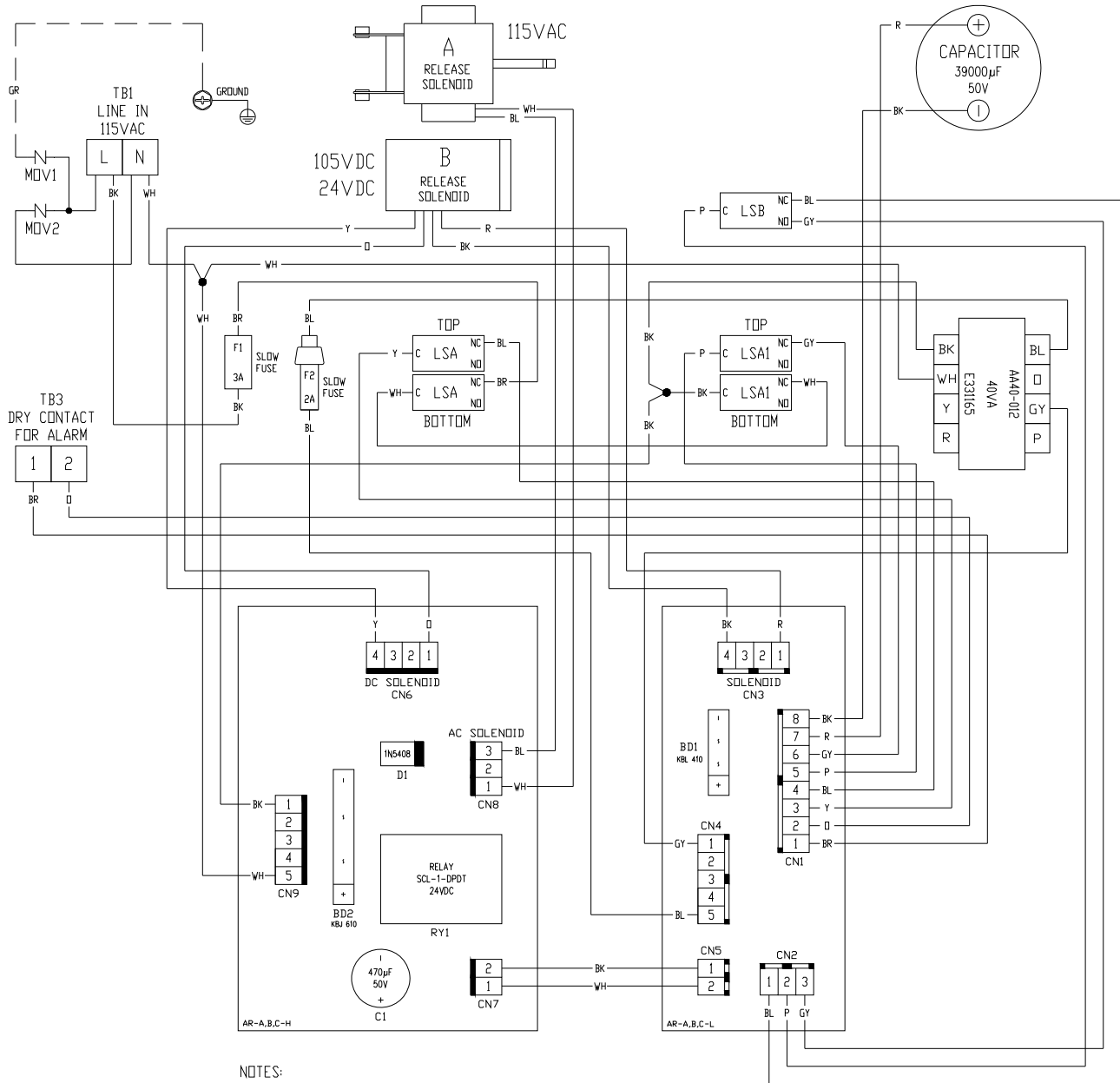
1	2
Alarm Dry Contact	

WIRING DIAGRAM

AUTO-RESET RELEASE BOX C-TYPE(115V 1Ø)

AR-C 115-6

DRY CONTACT ALARM CONNECTION



NOTES:

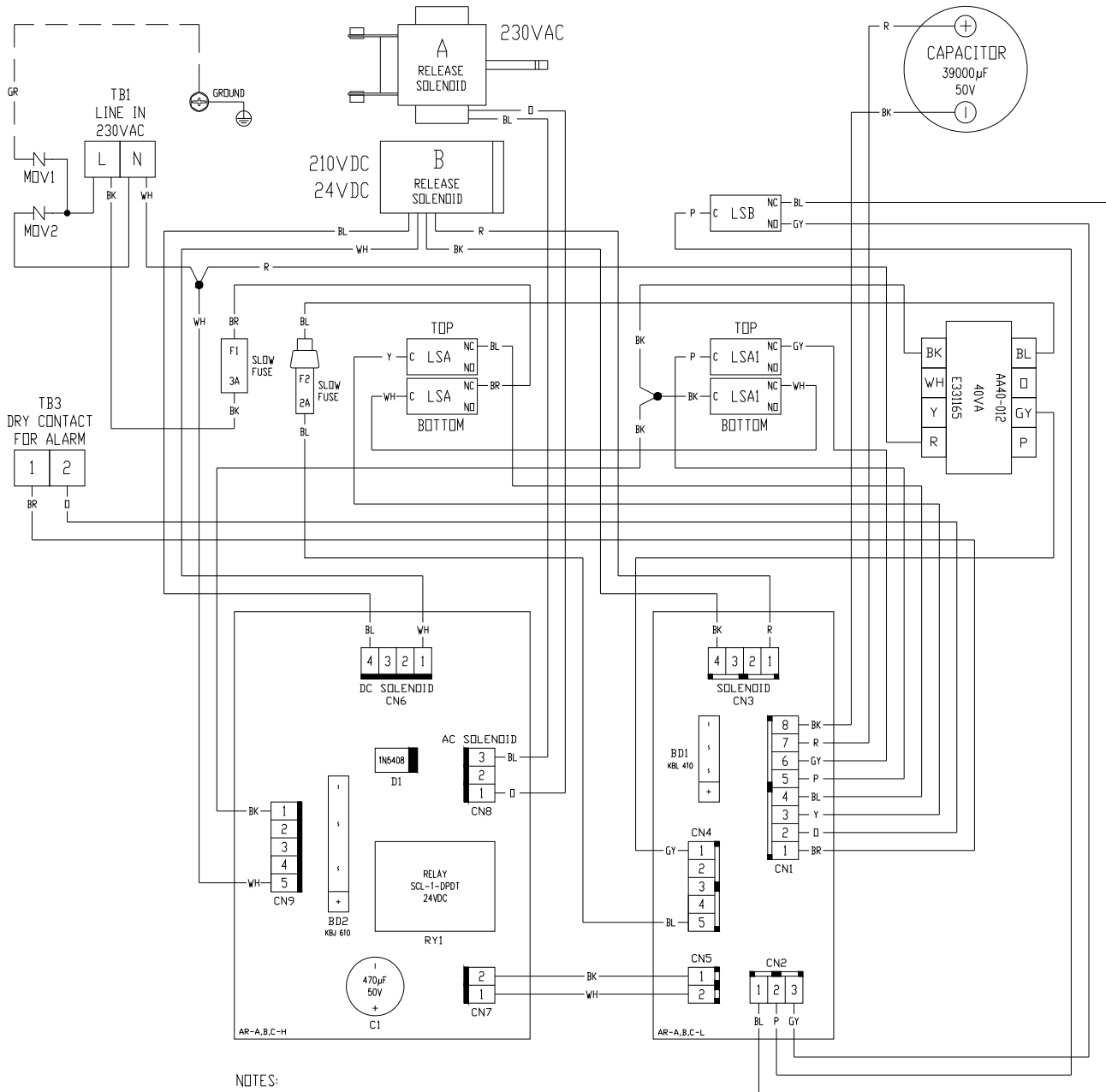
1. TB1-TERMINAL L & N INPUT 115V 1Ø
2. TB3-TERMINAL 1 & 2 DRY CONTACT FOR ALARM
3. SOLENOID A - 115VAC
4. SOLENOID B - 105VDC (Y & D) 24VDC (BK & R)
5. LSA & LSA1 (TOP & BOTTOM) - FUSIBLE-LINK SWITCH
6. LSB - HIGH VOLTAGE SWITCH
7. RELAY(RY1) - HIGH VOLTAGE RELAY (COIL 24VDC)
8. MOV1&2 - TRANSIENT VOLTAGE SURGE SUPPRESSORS

2012.05.30

AUTO-RESET RELEASE BOX C-TYPE(230V 1Ø)

AR-C 230-6

DRY CONTACT ALARM CONNECTION



NOTES:

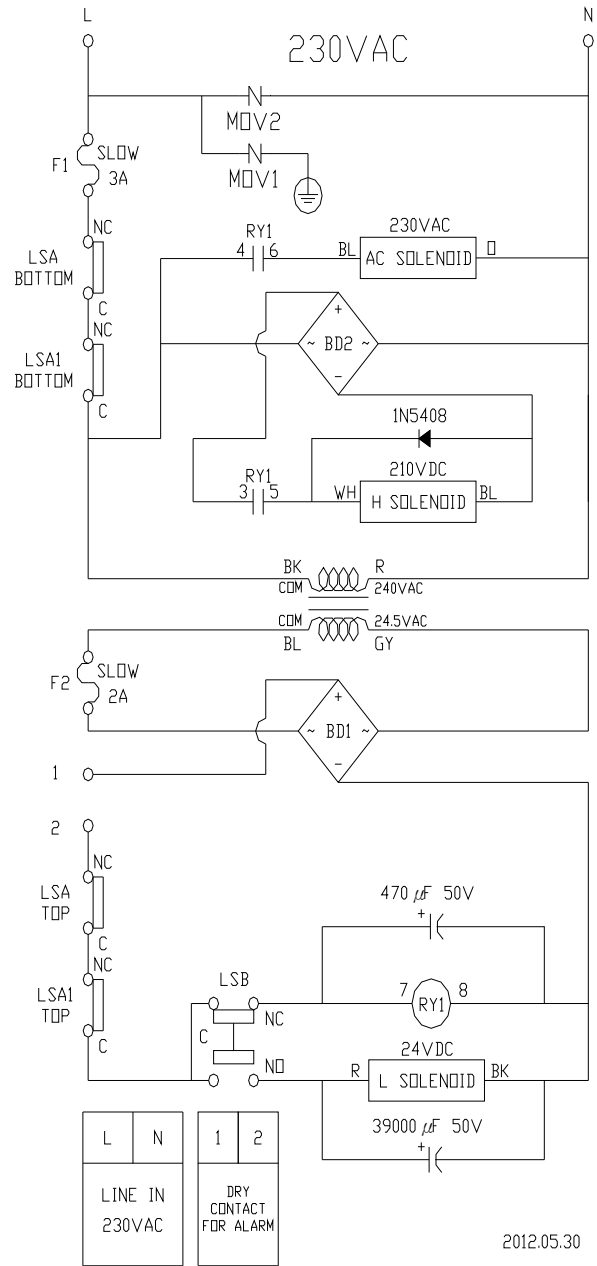
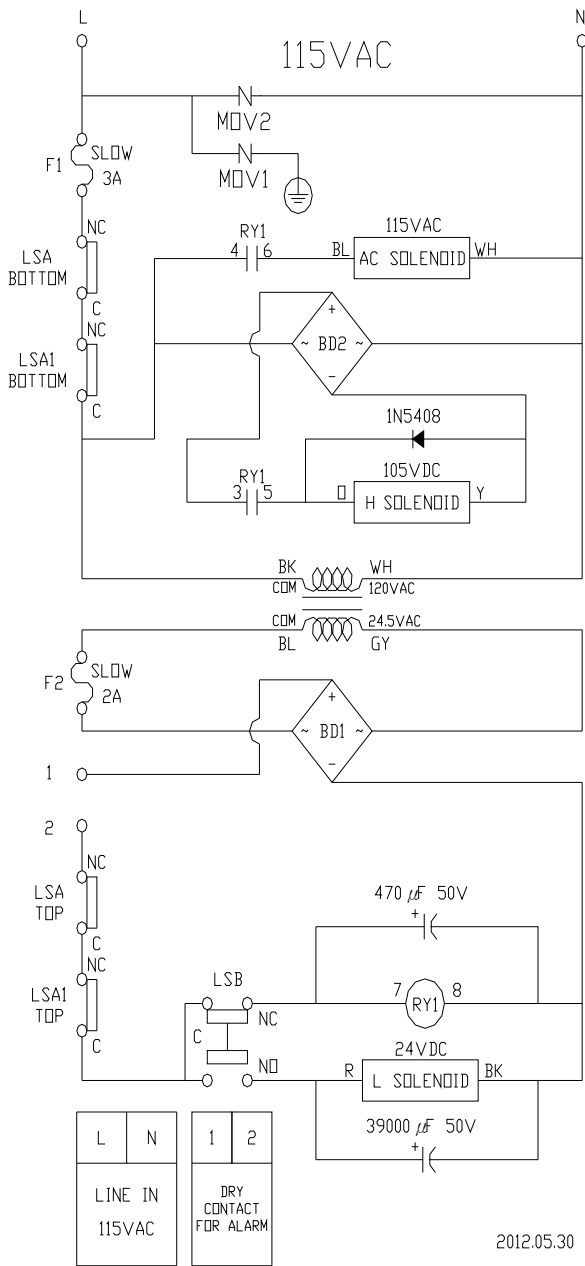
1. TB1-TERMINAL L & N INPUT 230V 1Ø
2. TB3-TERMINAL 1 & 2 DRY CONTACT FOR ALARM
3. SOLENOID A - 230VAC
4. SOLENOID B - 210VDC (WH & BL) 24VDC (BK & R)
5. LSA & LSA1 (TOP & BOTTOM) - FUSIBLE-LINK SWITCH
6. LSB - HIGH VOLTAGE SWITCH
7. RELAY(RY1) - HIGH VOLTAGE RELAY (COIL 24VDC)
8. MOV1&2 - TRANSIENT VOLTAGE SURGE SUPPRESSORS

2012.05.30

SCHEMATIC

TYPE C

CAR-C-6



MAINTENANCE INSTRUCTIONS



Disconnect power supply before servicing.

Check the following items at the intervals listed:

CHECK LIST	DESCRIPTION	EVERY 3 MONTHS	EVERY 6 MONTHS	EVERY 12 MONTHS
Fasteners	Check & tighten as required		●	
Drop-test	Inspect door, drop-test for proper operation and full closure per NFPA-80			●

- ❖ Inspect and service whenever a malfunction either door or release device is observed or suspected.
- ❖ Before servicing, always disconnect power supply to the release device.
- ❖ Replace fuses only with those of the same type and rating.
- ❖ All replacement parts must be obtained from the door manufacturer per NFPA-80.

Testing of the “AR” release device is independent of, and shall in no way be interpreted as an alternative method of, testing of the fire alarm system, and/or any other system component employed on the fire door or counter fire door installation. TESTING SHALL BE PERFORMED AND WITNESSED FOR PROPER OPERATION.