

NOTICE

Ground per Article 760 of the National Electric Code. Failure to make a proper Earth Ground connection to a metal cold water pipe or a driven Ground Rod to this terminal will result in loss of Lightning protection, reduce the tolerance of the system to transients and will adversely affect its operation. Panel Neutral or Conduit Ground is not acceptable. Minimum Wire Size: 12 AWG

Signal Circuit Power Boosters are supplied for additional NAC power as well as to allow the installer to use smaller gauge wire over shorter

WARNING

THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR THE WIRING OF ALL DEVICES, THE WIRE TYPE AND THAT ALL WIRE SIZES MEET STATE AND LOCAL CODE REQUIREMENTS. THE INSTALLING CONTRACTOR IS ALSO RESPONSIBLE THAT THE INSTALLATION IS FREE OF ALL DEFECTS.

WIRING SPECIFICATIONS

DATA/SLC- 16 AWG MIN 12AWG MAX. TWISTED - ZONE/IDC- 16 AWG MIN 12AWG MAX.

> TWISTED SHIELDED CABLE. POWER LIMITED AND NON POWER LIMITED

CABLE CAN NOT BE RUN THROUGH THE SAME RACEWAY.

- 1 Must be grounded to a driven ground rod
- No AC voltage on any terminal other than those specified.
- maximum line capacitance is 0.5 micro-farad per loop.
- Existing Notification Devices
 Device Type & Quantity Unknown.
- Existing Initating Devices.
 Device type & Quantity Unknown.
- 6/ Existing Voice Devices.
- Device type & Quantity Unknown.
- To Elevator Controller, Recall Elevator To Alternate Floor. Component must be installed within 3' of the controlled device.
- To Elevator Controller, Firemans Hat Warning Light. Component must be installed within 3' of the controlled device.
- To Elevator Shunt Trip Breaker.
 Component must be installed within 3' of the controlled device.

Ground terminal must be connected to Earth

The Signal Circuit Power Booster should be installed in the field in close proximity to the Notification Appliances they are powering.

CABLE. SHIELDED CABLE NOT ACCEPTED. SIGNAL/NAC- 16AWG MIN 12AWG MAX

- POWER- 16AWG MIN 12AWG MAX

SPEAKER- 16AWG MIN. 12AWG MAX. TWISTED SHIELDED CABLE, SHIELDS MUST BE CONNECTED AT EACH TERMINATION POINT AND TAPED TO ISOLATE FROM GROUND. GROUND CONNECTION TO BE MADE AT VOICE

ANNUNCIATOR DATA- 16AWG MIN. 12AWG MAX

NOTES

- or the cold water pipe on the street side of the main shut off valve.
- Maximum line resistance is 40 Ohms,

- To Elevator Controller, Recall Elevator To Primary Floor. Component must be installed within 3' of the controlled device.

GENERAL NOTES

- ALL Fire Alarm System wiring shall comply with the National Electrical Code, Applicable State and Local Fire and Safety Codes, as well as being coordinated with the Local Authority
- Having Jurisdiction. 2. CAUTION: <u>DO NOT</u> connect any power to control panel (batteries or 120 vac) until all other field wiring is tested
- 3. <u>DD NDT</u> install F.A.C.P. or smoke detectors in any unheated area.

and connected.

- 4, <u>DO NOT</u> install any A.C. current carrying conductors close to or in the same raceway
- with fire alarm system conductors. 5. Dotted lines indicate factory wiring. Solid lines indicate connections to be made by the installer.
- 6. See Installation Manual for additional wiring instructions. 7. All relays are shown in normal supervisory
- condition. All relay dry contacts
 28 VDC @ 1A DNLY.
- FACP Indicating circuit outputs are 1.7 amps at 24 VDC per circuit INX/10A circuit outputs are 2.5 amps. each. Not to exceed 10 amps total.

9. Cabinet Dimensions:

NDDE 1 (BBX-FXMNS) - L 61.5000" W 20.0000" D 9.0000" INX-10A - L 20.0000° W 14.5000° D 4.5000° FX-LDCR - L 25.0000° W 15.0000° D 5.5000°

SPECIAL FUNCTIONS

All Wiring To Be Class A. Existing Strobes Are Not Synchronized & Will Not Be Synchronized With New Devices.

<u>LEGEND</u>

Addressable Manual Pull Station

25 🕏 Analog Photoelectric Smoke Detector

Auxiliary Relay Addressable Relay Module

Addressable Monitor Module

Speaker Strobe

15 Candela 30 Candela

75 75 Candela 110 110 Candela

Ground

SIGNAL CIRCUITS

	CKT #	LOAD	CAPACITY %
	NAC ₃ CKT 1	1.3900	56%
	NAC ₃ CKT 2	1.6000	64%
	NAC ₃ CKT 3	0.9000	36%
•	NAC ₃ CKT 4	SPARE	0%
	NAC ₃ CKT 5	SPARE	0%

WIRE SIZE TO BE DETERMINED BY INSTALLING CONTRACTOR IN FIELD. ALL SYSTEM WIRING SHALL BE 16AWG MIN. AND 12AWG MAX.

Existing System is 70 VAC. New Speaker devices are 25 VAC. As a rule of thumb, speaker taps should be set according to strobe candella ratings. 15cd = 1/4 watt, 30cd = 1/2 watt, 75cd = 1 watt,

 $\|$ & 110cd = 2 watts. Individual speakers that do not have a strobe are generally set to 1/4 watt. Ambient conditions in building may require further

adjustments to meet the required decibel level.



Audio Note:

Mammoth Fire Alarms 1-800-995-9808

Lowell, MA 01854-3126

FA-101

Lowell, MA 01854-3126

Property Protection Monitoring Lowell, MA 01854-3126 Scale: None :: Approved By: :: Drawn By: MAD

Date: 3/20/15 :: Mike K 3/20/15 :: Revised: Project Info

Maine College of Art (Basement Renovation) 522 Congress Street Portland, Me.

Prepared For:

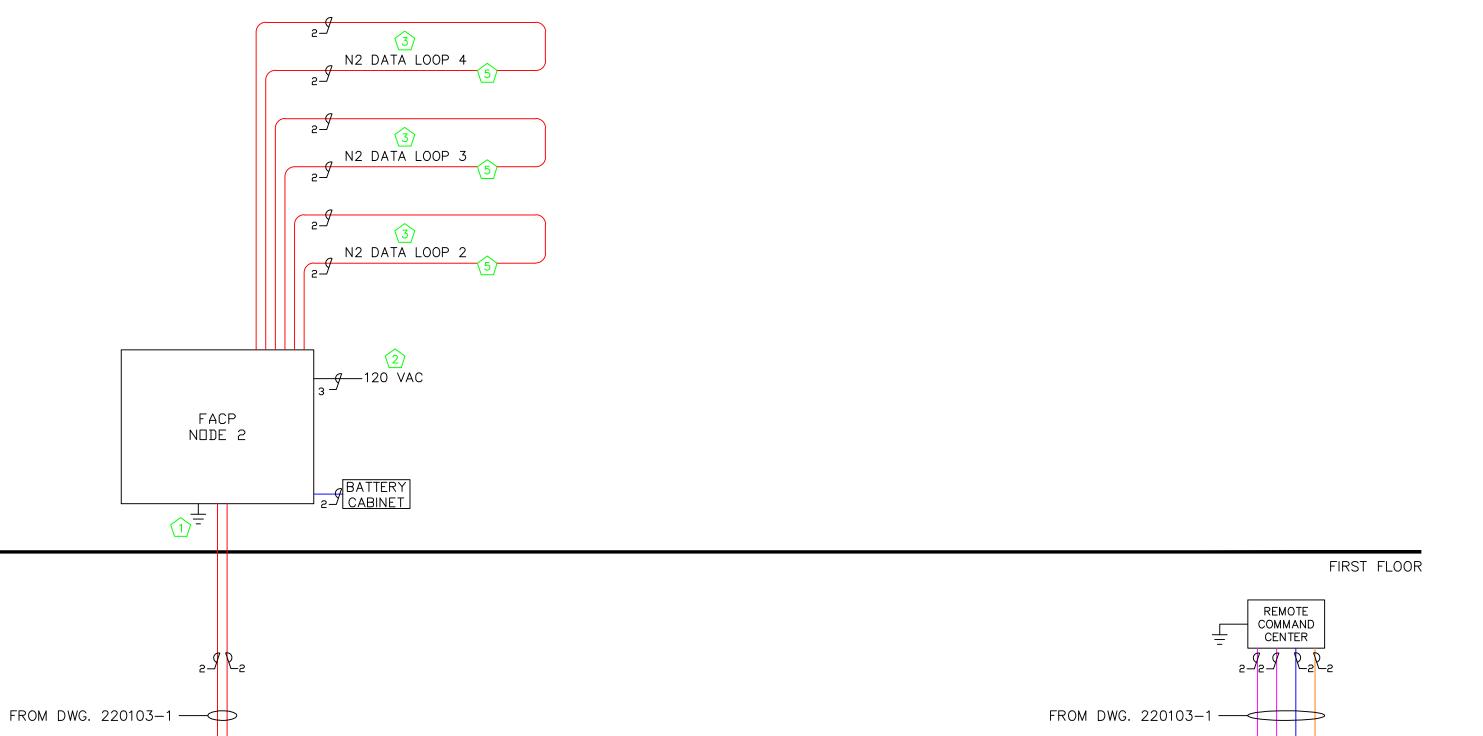
Mancini Electric 179 Sheridan Street Portland, Me. 04101

ADDRESS DIRECTORY

DATA LOOP 5

		# OF	1004701//051/1050	7/05	Lagra guerra
	MODULE	DEVICES		TYPE	
L5S001	2251	1	BASEMENT SMOKE OVER FACP		GENERAL ALARM
L5S002	2251	1	BASEMENT SMOKE ART GALLERY		GENERAL ALARM
L5S003	2251	1	BASEMENT SMOKE ART GALLERY		GENERAL ALARM
L5S004	2251	1	BASEMENT SMOKE ART GALLERY		GENERAL ALARM
L5S005	2251	1	BASEMENT SMOKE ART GALLERY		GENERAL ALARM
L5S006	2251	1	BASEMENT SMOKE MAIN STAIRS		GENERAL ALARM
L5S007	2251	1	BASEMENT SMOKE GALLERY STORAGE		GENERAL ALARM
L5S008	2251	1	BASEMENT SMOKE GALLERY STORAGE		GENERAL ALARM
L5S009	2251	1	BASEMENT SMOKE UTILITY ROOM		GENERAL ALARM
L5S010	2251	1	BASEMENT SMOKE PUMP ROOM		GENERAL ALARM
L5S011	2251	1	BASEMENT SMOKE FRT ELEV LOBBY		GENERAL ALARM
L5S012	2251	1	BASEMENT SMOKE HALL 3		GENERAL ALARM
L5S013	2251	1	BASEMENT SMOKE HALL 3		GENERAL ALARM
L5S014	2251	1	BASEMENT SMOKE HALL 3		GENERAL ALARM
L5S015	2251	1	BASEMENT SMOKE HALL 1		GENERAL ALARM
L5S016	2251	1	BASEMENT SMOKE HALL 1		GENERAL ALARM
L5S017	2251	1	BASEMET SMOKE BY COMP LAB		GENERAL ALARM
L5S018	2251	1	BASEMET SMOKE BY NEW STAIRS		GENERAL ALARM
L5S019	2251	1	BASEMENT SMOKE HALL 2		GENERAL ALARM
L5S020	2251	1	BASEEMENT SMOKE HALL 2		GENERAL ALARM
L5S021	2251	1	BASEMENET SMOKE ELEV LOBBY		GENERAL ALARM
L5S022	2251	1	BASEMENT SMOKE GALLERY LOBBY		GENERAL ALARM
L5S023	2251	1	BASEMENT SMOKE STORAGE		GENERAL ALARM
L5S024	2251	1	BASEMENT SMOKE REAR STAIR		GENERAL ALARM
L5S025	2251	1	BASEMENT SMOKE DET TBD		GENERAL ALARM
L5M101	710	1	BASEMENT PULL BY MAIN STAIRS		GENERAL ALARM
L5M102	710	1	BASEMENT PULL BY NEW STAIRS		GENERAL ALARM
L5M103	710	1	BASEMENT PULL BY REAR STAIRS		GENERAL ALARM
L5M104	710	1	BASEMENT PULL BY FREIGHT ELEV		GENERAL ALARM
L5M112	M500R	1	PRIMARY ELEV RECALL		Elev Recall Sequence to be Det on Site
L5M113	M500R	1	ALT ELEVATOR RECALL		Elev Recall Sequence to be Det on Site
L5M114	M500R	1	FIRE HAT		Elev Recall Sequence to be Det on Site
L5M115	M500R	1	SHUNT TRIP		Elev Recall Sequence to be Det on Site
L5M116	M500M	1	MONITOR SHUNT TRIP POWER		Supervisory
L5M190	Input	•	Basement INX Common Trouble	Trbl	Trouble Input Only
L5M191	Rly		Basement INX Silence	Rly	Correlate to Signal Silence Only
L5M192	Input		Basement INX AC Failure Trouble	Trbl	Trouble Input Only
L5M193	Input		Basement INX Battery Trouble	Trbl	Trouble Input Only
L5M194	Input		Basement INX Ground Fault Trouble	Trbl	Trouble Input Only
L5M195	Sig		Basement INX Circuit 1 Control/Status	Sig	GENERAL ALARM
L5M196	Sig		Basement INX Circuit 2 Control/Status	Sig	GENERAL ALARM
L5M197	Sig		Basement INX Circuit 3 Control/Status	Sig	GENERAL ALARM
L5M198	Sig		Basement INX Circuit 4 Control/Status		GENERAL ALARM
	2.9		Basement INX Circuit 5 Control/Status	Sig	GENERAL ALARM

SECOND FLOOR



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Signal Circuit Power Boosters are supplied for additional NAC power as well as to allow the installer to use smaller gauge wire over shorter signal runs. The Signal Circuit Power Booster should be

installed in the field in close proximity to the Notification Appliances they are powering.

WARNING

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WIRING SPECIFICATIONS

DATA/SLC- 16 AWG MIN 12AWG MAX. TWISTED CABLE. SHIELDED CABLE NOT ACCEPTED.

—— POWER- 16AWG MIN 12AWG MAX

SPEAKER- 16AWG MIN. 12AWG MAX. TWISTED SHIELDED CABLE, SHIELDS MUST
BE CONNECTED AT EACH TERMINATION POINT
AND TAPED TO ISOLATE FROM GROUND. GROUND CONNECTION TO BE MADE AT VOICE

ANNUNCIATOR DATA- 16AWG MIN. 12AWG MAX. TWISTED SHIELDED CABLE.

POWER LIMITED AND NON POWER LIMITED CABLE CAN NOT BE RUN THROUGH THE SAME RACEWAY.

NOTES

- Must be grounded to a driven ground rod or the cold water pipe on the street side of the main shut off valve.
- 2 No AC voltage on any terminal other than those specified.
- Maximum line resistance is 40 Ohms, maximum line capacitance is 0.5 micro-farad per loop.
- Existing Notification Devices
 Device Type & Quantity Unknown.
- Existing Initating Devices.
 Device type & Quantity Unknown.
- 6 Existing Voice Devices.
- Device type & Quantity Unknown.
- To Elevator Controller, Recall Elevator To Primary Floor. Component must be installed within 3' of the controlled device.
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- To Elevator Shunt Trip Breaker.
 Component must be installed within 3'
 of the controlled device.

 ALL Fire Alarm System wiring shall comply with the National Electrical Code, Applicable State and Local Fire and Safety Codes, as well as being coordinated with the Local Authority Having Jurisdiction.

and connected.

2. CAUTION: <u>DO NOT</u> connect any power to control panel (batteries or 120 vac) until all other field wiring is tested

GENERAL NOTES

- 3. <u>DD NDT</u> install F.A.C.P. or smoke detectors in any unheated area.
- 4. <u>DD NOT</u> install any A.C. current carrying conductors close to or in the same raceway
- with fire alarm system conductors. 5. Dotted lines indicate factory wiring.
- Solid lines indicate connections to be made by the installer. 6. See Installation Manual for additional wiring instructions.
- 7. All relays are shown in normal supervisory
- condition. All relay dry contacts 28 VDC @ 1A DNLY.
- FACP Indicating circuit outputs are 1.7 amps at 24 VDC per circuit: INX/10A circuit outputs are 2.5 amps. each. Not to exceed 10 amps total.

9. Cabinet Dimensions: NDDE 1 (BBX-FXMNS) - L 61.5000" W 20.0000" D 9.0000" INX-10A - L 20.0000" W 14.5000" D 4.5000" FX-LDCR - L 25.0000" W 15.0000" D 5.5000"

SPECIAL FUNCTIONS

All Wiring To Be Class A. Existing Strobes Are Not Synchronized & Will Not Be Synchronized With New Devices.

Audio Note: Existing System is 70 VAC. New Speaker devices are 25 VAC.
As a rule of thumb, speaker taps should be set according to strobe candella ratings. 15cd = 1/4 watt, 30cd = 1/2 watt, 75cd = 1 watt, $\|$ & 110cd = 2 watts. Individual speakers that do not have a strobe are generally set to 1/4 watt. Ambient conditions in building may require further adjustments to meet the required decibel level.



Prepared By: Mammoth Fire Alarms

1-800-995-9808 Lowell, MA 01854-3126

Property Protection Monitoring Lowell, MA 01854-3126

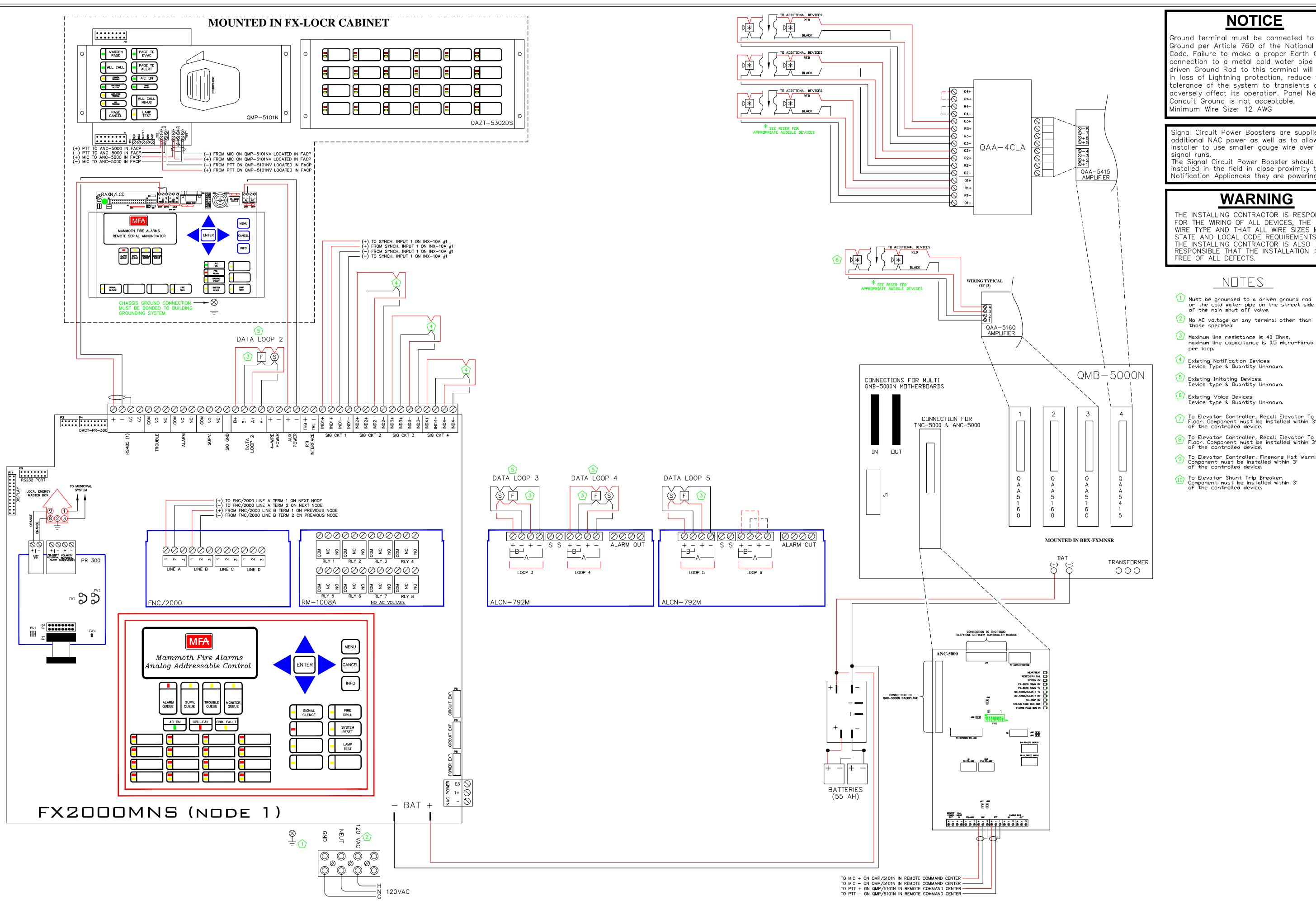
Mammoth Fire Protection Systems
Incorporated
1-877-637-3569 Lowell, MA 01854-3126 :Scale: None ::Approved By: ::Drawn By: MAD Date: 3/20/15 :: Mike K 3/20/15 :: Revised:

Project Info:

Maine College of Art (Basement Renovation) 522 Congress Street Portland, Me. Prepared For:

Mancini Electric 179 Sheridan Street Portland, Me. 04101

FA-102



NOTICE

Ground terminal must be connected to Earth Ground per Article 760 of the National Electric Code. Failure to make a proper Earth Ground connection to a metal cold water pipe or a driven Ground Rod to this terminal will result in loss of Lightning protection, reduce the tolerance of the system to transients and will adversely affect its operation. Panel Neutral or Conduit Ground is not acceptable. Minimum Wire Size: 12 AWG

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- 1 Must be grounded to a driven ground rod or the cold water pipe on the street side of the main shut off valve.
- 2 No AC voltage on any terminal other than
- (3) Maximum line resistance is 40 Dhms,
- 4 Existing Notification Devices
- Device Type & Quantity Unknown.
- 5 Existing Initating Devices. Device type & Quantity Unknown.
- 6 Existing Voice Devices.
- 7 To Elevator Controller, Recall Elevator To Primary Floor. Component must be installed within 3' of the controlled device.
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and connected.

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- conductors close to or in the same raceway with fire alarm system conductors.
- Solid lines indicate connections to be made by the installer. 6. See Installation Manual

5. Dotted lines indicate factory wiring.

- for additional wiring instructions.
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SPECIAL FUNCTIONS

All Wiring To Be Class A. Existing Strobes Are Not Synchronized & Will Not Be Synchronized With New Devices.

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idjustments to meet the required decibel level. Prepared By:



Audio Note:

Mammoth Fire Alarms 1-800-995-9808

Lowell, MA 01854-3126

Lowell, MA 01854-3126

Lowell, MA 01854-3126

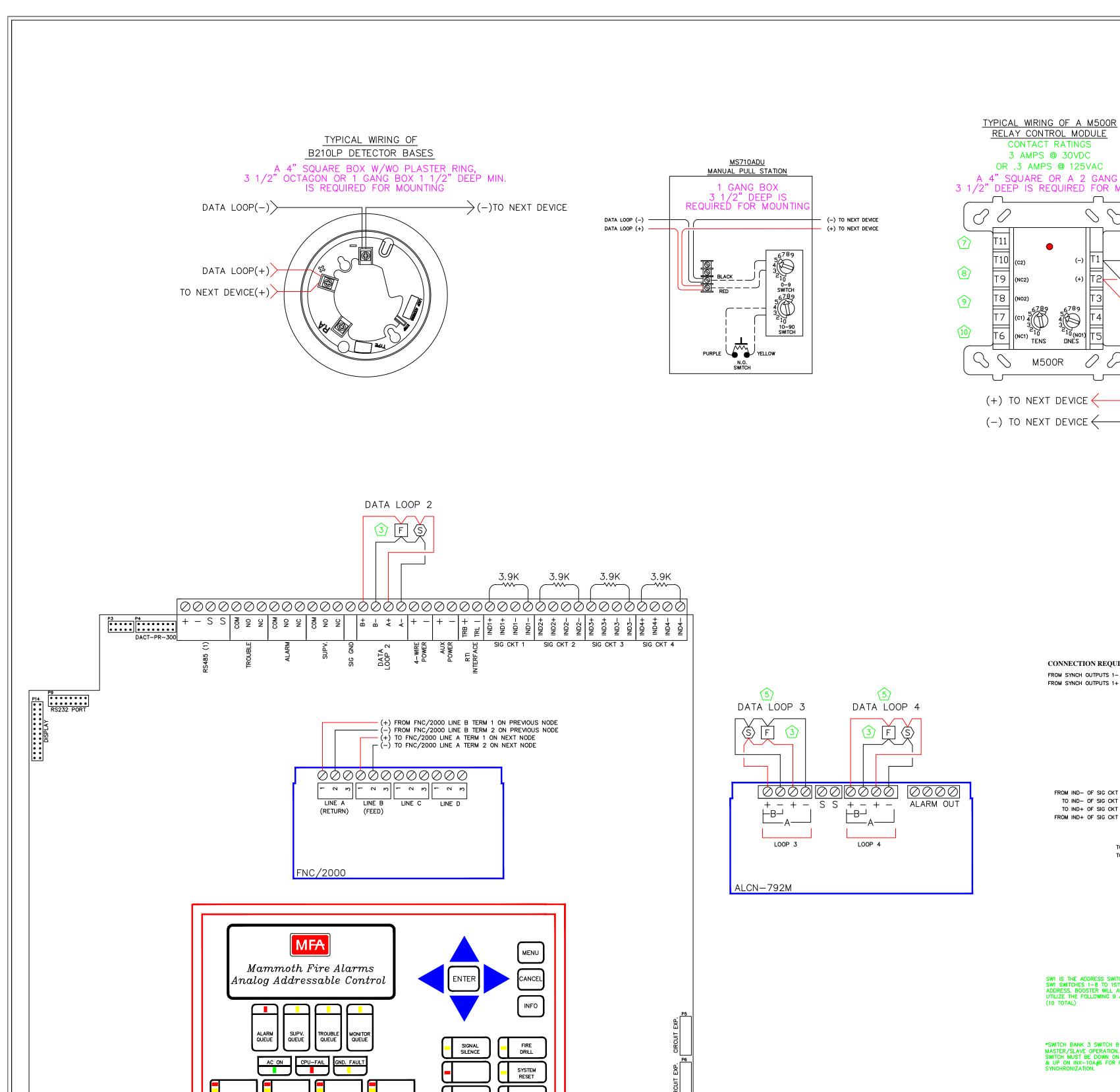
Scale: None ::Approved By: ::Drawn By: MAD Date: 3/20/15 :: Mike K 3/20/15 :: Revised:

Project Info Maine College of Art (Basement Renovation) 522 Congress Street Portland, Me.

Prepared For:

Mancini Electric 179 Sheridan Street Portland, Me. 04101

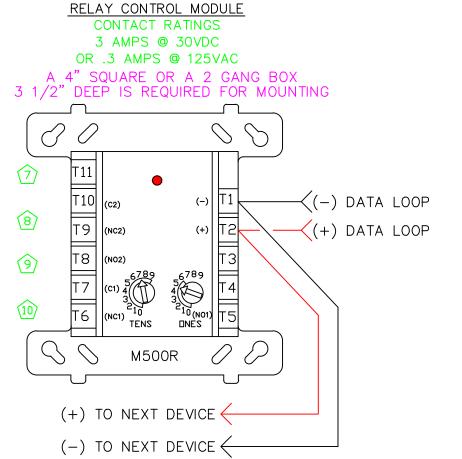
FA-103



- BAT +

BATTERIES

FX2000ND (NODE 2)



CONNECTION REQUIRED ON INX-10A #2 & INX-10A #3

(4) N^{*} (√ √ (

POWER ON

ADD. LINE ACTIVITY/

COMMON TROUBLE

CPU FAIL

ACK.

N*

AUX OUTPUT TROUBLE

SYNCH. OUT TROUBLE GROUND FAULT

BATTERY

FROM SYNCH OUTPUTS 1- ON PREVIOUS INX-10A ---FROM SYNCH OUTPUTS 1+ ON PREVIOUS INX-10A ----

FROM IND- OF SIG CKT 1 ON FX-2000MNS TO IND- OF SIG CKT 1 ON FX-2000MNS -

DATA LOOP (-) -

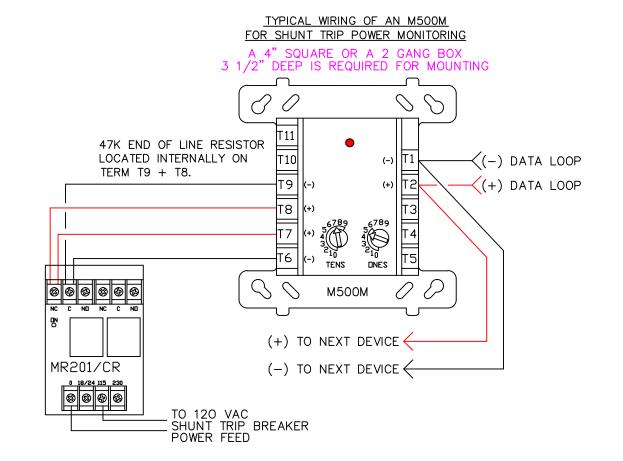
TO NEXT DEVICE (-) ----TO NEXT DEVICE (+) -DATA LOOP (+) -

TO IND+ OF SIG CKT 1 ON FX-2000MNS -

FROM IND+ OF SIG CKT 1 ON FX-2000MNS -

*SWITCH BANK 3 SWITCH 8 SETS

MASTER/SLAVE OPERATION.
SWITCH MUST BE DOWN ON INX-10A #1-#/
& UP ON INX-10A#6 FOR PROPPER
SYNCHRONIZATION.



CONNECTION REQUIRED ON

INX-10A #1 & INX-10A #2

INX-10A

AC IN

(+) TO SYNCH. INPUT 1 ON NEXT INX-10A
(-) TO SYNCH. INPUT 1 ON NEXT INX-10A

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WARNING

NOTES

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GENERAL NOTES

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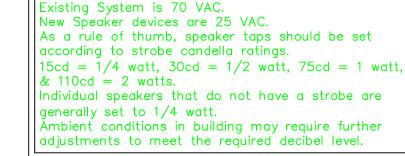
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SPECIAL FUNCTIONS

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Audio Note:

Mammoth Fire Alarms 1-800-995-9808

Lowell, MA 01854-3126

Lowell, MA 01854-3126 Lowell, MA 01854-3126 Scale: None ::Approved By: ::Drawn By: MAD

Date: 3/20/15 :: Mike K 3/20/15 :: Revised: Project Info

Maine College of Art (Basement Renovation) 522 Congress Street Portland, Me.

Prepared For:

Mancini Electric 179 Sheridan Street Portland, Me. 04101

FA-104