

General Contractor Requirements:

- The Contractor will not keep any information/drawings of the systems or components that have been installed following completion of the project.
- Only the approved products listed below will be allowed.
- Any equipment not listed below must be pre-approved in accordance with section B7 of bid opportunity, before proceeding.
- Installation and warranty of all equipment must be performed by Licensed, Certified and Factory Trained personnel.
- The work area must be secured at all times and be in accordance with all City of Winnipeg standards.
- No building or work area is permitted to be left unsecured when no personnel are present.
- The contractor will be responsible to supply City of Winnipeg approved personnel in the event that the building or site is not secured, in accordance with the City of Winnipeg standards.
- All sites to utilize identical setup and equipment.

Contractor obligations upon completion:

- Verification of full system and all devices. Facility system and technologies personnel must be present for the testing.
- Provide Operation and Maintenance Manuals containing complete As-Built Drawings for equipment not provided by the City of Winnipeg.
- Provide Electrical permits and final inspection reports.
- Provide Manufacturer's datasheets for all devices and software.
- Provide User and Installation manuals.

Intrusion Alarm Systems

a) Intrusion Control Panels

- Bosch B9512G / B6512 / B5512 / B4512
 - Typical Panel Installation should include:
 1. B8108 Enclosure
 2. D101 Cabinet Lock
 3. ICP-EZTS Dual Tamper Switch
 4. D122 Battery Harness
 - Cabinets shall be mounted no higher than 5'10" to the top of the cabinet.
 - Cabinets shall be installed with no impedance or impairment to accessing or servicing.
-

b) Keypads

- Bosch B930 Alpha-Numeric Keypad (Master Keypad / Panel)
- STI-7510F Keypad Enclosure

c) Door Contacts

- Metal Frame Doors
 - GRI 184-12W SPST 1" Contact
 - GRI 199-12W DPDT 1" Contact (for use with access control systems)
WBox STLDRMAG Door Channel Magnet
 - GRI MC-180 Door Channel Magnet
- EOL Resistor Pack
 - GRI 6444-1 Four State EOL Resistor Pack

d) Installation

- Installation of equipment must conform to manufactures specifications and adhere to CSA/cUL/ULC guidelines.
- Equipment Layout and Panel board configuration to follow this specifications requirements; see Riser and Diagram section.

Cabling

a) Cable Types and Manufacturers

- All cabling must be cUL/CSA approved, FT6 Rated Cabling
- Device Wiring – 22/4 Stranded or 18/4 Stranded (wire size determined by manufacturer specifications)
- Power Supply Wiring – 18/4, 18/2 Stranded
- Approved Multi-Conductor Access Control Cabling: Honeywell Profusion 3195 FT6 rated, or approved equivalent in accordance with B7.

b) Cable Installation

- All cabling to be installed in accordance with the Canadian Electrical Code.
 - J-Hooks are required for all cabling run in-ceiling or in free-air spaces.
 - Cable ties are NOT permitted as a means of support.
 - All conductors must be mechanically protected where exposed.
 - EMT must be used for all panel interconnection, stubs, cable protection and cable pathways.
 - PVC is not permitted.
 - All connectors and fittings must be insulated or have threaded plastic bushings installed.
 - All knock-outs must be fitted with an insulated bushing.
 - All unused knock-outs must be filled with approved cover.
-

Power Supplies and Batteries

- a) Power Supply Types, Batteries, and Approved Manufacturers
 - Panel Power Supply
 - 16.5 V 40VA/75VA Wire In Power Supply, CSA/cUL/ULC Listed as required
 - Auxiliary Intrusion Device Power Supply
 - Bosch B520 2A 12V Power Supply
 - Approved Battery Type – 12V 7AH Yuasa SLA – No Substitutions
- b) Installation
 - Installation of equipment must conform to manufactures specifications and adhere to CSA/cUL/ULC guidelines.
 - Equipment Layout and Panelboard configuration to follow this specifications requirements; see Riser and Diagram section.

Access Control Systems

- a) 2 Door Network Controller
 - Mercury LP1502 / MP1502 (Verify with FST Shop before use of MP1502)
 - b) 2 Door Network Controller
 - Mercury MR52
 - c) Access Control Cabinets Pre-Wired with Power Supply
 - Altronix Trove T1M1CK1D – Accommodates up to 2 Mercury Controllers (4 Doors)
 - d) Access Control Power Supplies and Batteries (replacement only)
 - Altronix eFlow 6NA8D - 24 VDC, 8 Output
 - A dedicated 120VAC 15A circuit is required
 - Outputs and connected wiring shall be labelled, as to clearly identify device and location.
 - Approved Battery Type – 12V 7AH Yuasa SLA – No Substitutions
 - e) Access Control Cabinets (Empty)
 - Trove 1M1 – Accommodates up to 4 Mercury Boards
 - f) Proximity Card Readers
 - HID Signo Multi Class Reader – 40NKS-T0-000000 (Terminal Block)
 - g) Request to Exit Sensor
 - Bosch – DS150i
 - h) Electric Strikes
 - HES 5000 Series – Low Profile Cylindrical Lockset Strike
 - HES 1006CS Series – Direct Replacement for Von Duprin 6211
 - i) Installation
 - Installation of equipment must conform to manufactures specifications and adhere to CSA/cUL/ULC guidelines.
 - Equipment Layout and Panel board configuration to follow this specifications requirements; see Riser and Diagram section.
-

These are the approved methods of mounting Mercury Devices in cabinets:

For cabinets **with** a perforated backplane:

1. Stainless / Aluminum Threaded M4 Hex Stand Off (self-tapping / drilling) affixed to existing perforated back plane with nylon spacer.
2. 1" #6 Screw fastened to existing perforated back plane, with ¾" Nylon spacer between device and perforated back plane.
3. Altronix BR3M2PK – Angled Bracket, can be affixed to back of cabinet with standard self-tapping / drilling #8 or #6 screws.

(this is the preferred method for cabinets with insufficient space)

4. 20mm Length PCB Mounting L Feet with Screws

For cabinets **without** factory mounts for Mercury devices or **without** a perforated backplane:

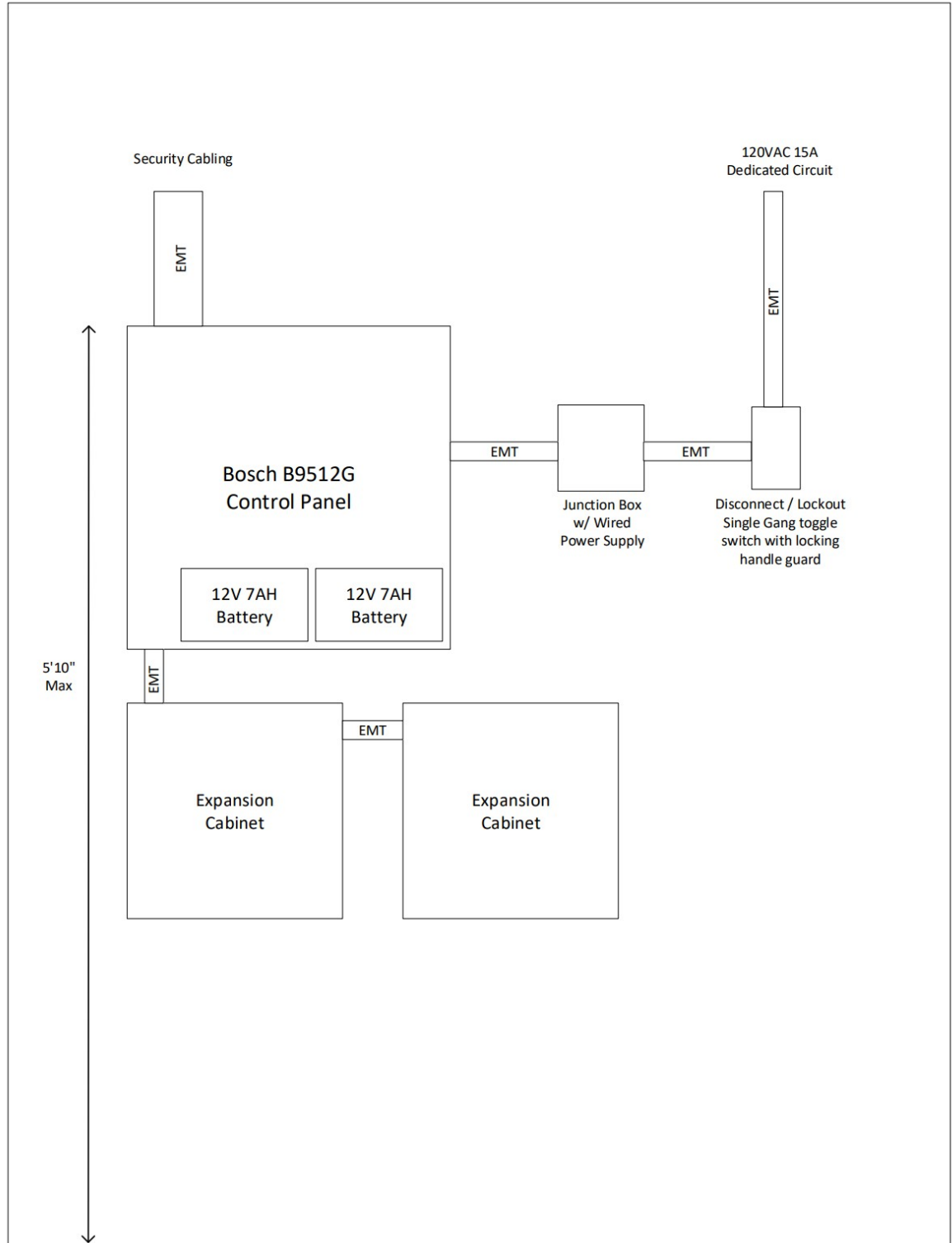
1. Altronix BR3M2PK – Angled Bracket, can be affixed to back of cabinet with standard self-tapping / drilling #8 or #6 screws.

(this is the preferred method for cabinets with insufficient space)

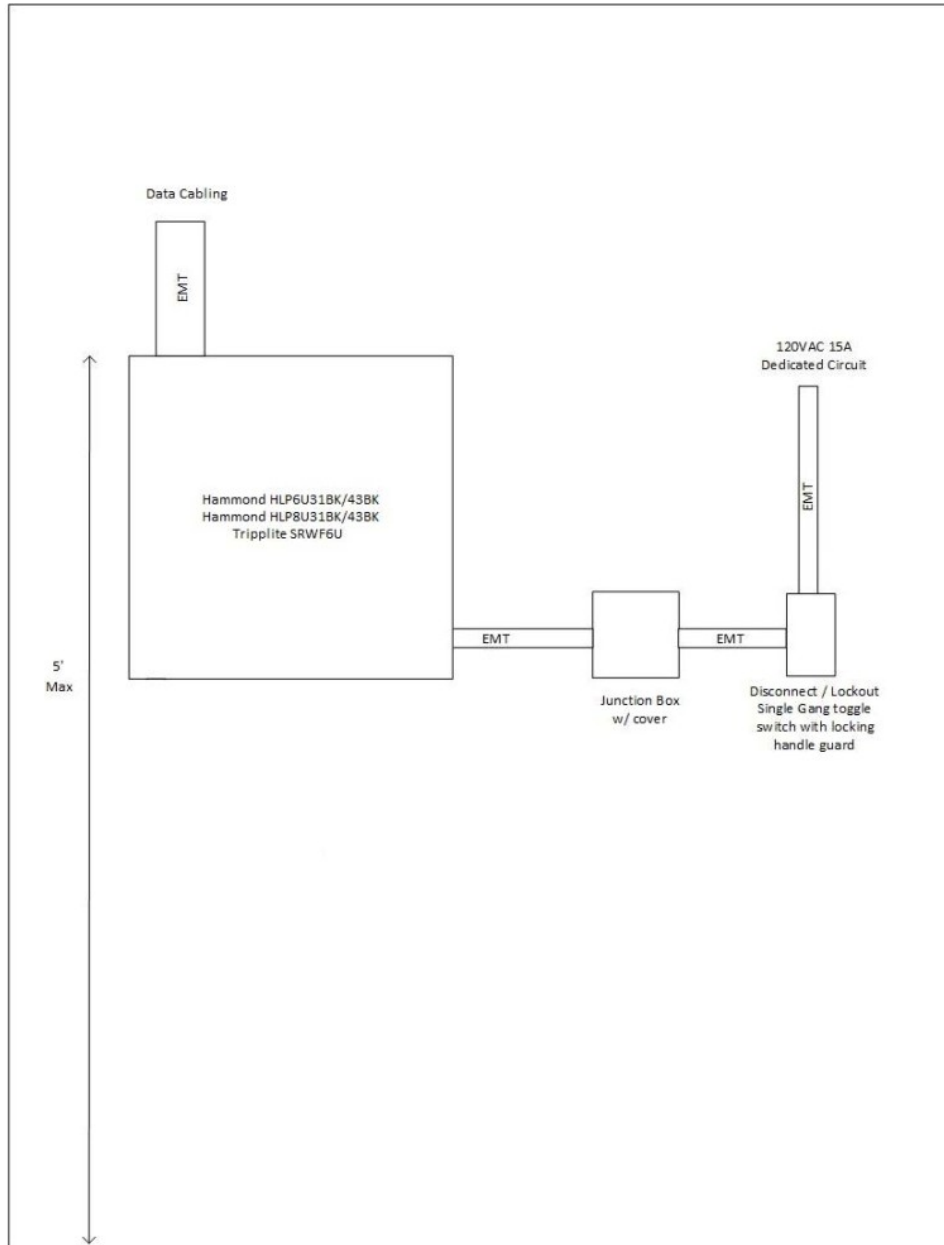
2. Altronix MM24 – Magnetic Mounting magnets with screws and nylon standoffs
 3. 20mm Length PCB Mounting L Feet with Screws
-

Risers and Diagrams

a) Intrusion Control Panel Riser



b) Intrusion Control Panel Riser



END OF SECTION