

AXXESS INDUSTRIES INC.

READY MAID PLUS (System 3.5)

INSTALLATION INSTRUCTIONS

Rev. July 2008

The Ready Maid /Ready Maid Plus product consists of 2 main components, the Master Unit which mounts inside the guest room and the Slave Unit, which mounts in the hallway. In addition, Ready Maid / Ready Plus ships with a standard 24" long Wiring Harness, which connects the Master and Slave units with a simple RJ45 style plug in connection, as well as 2 finish screws for each of the Master Unit and the Slave Unit (if not mounted in signage).

The customer must determine the exact location in consultation with the architect and the authority having jurisdiction. It is our current understanding that federal ADA guidelines set a max side-reach height of 54" (which would apply to the doorbell) and the height of the center of the room number sign at 60" from the finished floor level. Thus, it would appear to be reasonable to set the height so that the doorbell is at 54". However, these requirements may differ from location to location and from time to time. ANSI standards may differ. Customers are advised to confirm the requirements that apply in the place where the hotel is located before installation.

The standard wiring harness has a length of 24". If the Master and Slave units are located farther apart than can be accommodated with the 24" harness, a special order wiring harness is required, which can be supplied at additional charge (or the rough-in installer may install Cat 5 wire with RJ45 style connectors for which he must obtain pin-out instructions).

Rough-in Requirements: (Sketch Drawing supplied)

1.0 Master Unit

1.1 Electrical

- 1) Standard 4 square electrical box (2 ½" deep) with single gang mud-ring (1/2" deep) to be mounted in the guest room; (single gang electrical box possible in some circumstances, but this needs to be discussed with Axxess technical staff); any less depth requires factory authorization. It is assumed that the device mounting tabs on the mudring come to within 1/8" of the finished wall face. If they are significantly deeper (because of double sheetrock or the like) you must advise us, since extra long mounting screws may be required. Even more important, the face of the mudring cannot protrude out of the wall board as this will cause damage and problems. Please ensure that the electrical box is mounted plumb, else the final fit of the Ready Maid Panel will be out of plumb.
- 2) If the Axxess Master Unit is to be mounted in a multi-gang electrical box with other switch devices, special care must be taken to ensure that:
 - a) the Axxess device is mounted in one of the 2 outboard locations of the multi-gang electrical box;
 - b) the multi-gang electrical box is (over)sized so as to fit the micro-transformer;

- c) the separation between line voltage wires and devices and the Axxess low-voltage device is observed by
- (i) not running line voltage wires through the low-voltage device cavity;
 - (ii) installing the separator plate required by code;
- 3) The Axxess Master Units are powered by a Low Voltage circuit with min. 190mA at min. 15VDC available to each device;
2 alternatives are typical for power supply:
First, Axxess can supply (at separate charge) a micro-transformer for each room, with 110VAC primary and 15VAC secondary; these transformers are small enough (size approx 1.51" x 1.36" x 1.1") to fit into a 4 square box with other wiring (and in some instances even into a single gang electrical device boxes; installation into single gang boxes must be approved by Axxess first);
Second, Axxess can supply (at a separate charge) 24 VDC supplies to be installed in a utility space, supplying up to 18 rooms in parallel connection. Wiring should be sized to ensure that each unit receives voltage and available current within the Device Specifications. NOTE: Ideally, wiring for these units should not be daisy-chained, but rather be home-run to the power supply. If power supply daisy chaining is required, please consult with Axxess technical staff. NOTE also, that significant length of DC wiring causes voltage drop. The minimum voltage at the Ready Maid unit should be 15VDC at 190 mA.

If a home-run Cat 5 wire is run from each Guest Room Master to a punch-down panel on that floor, then 1 pair of that Cat 5 wire may be used for the network communication and 1 pair may be used for power. In that case, somewhat adjacent to the punchdown, provision should be made for placing/mounting of the number of central power supplies required on that floor. (number of rooms/18). A shelf-unit on which desktop style supplies can be strapped down works well. The power supplies do require some ventilation space.

(Unless otherwise specified in the Purchase Order, the cost of power supplies is additional to the quoted Ready Maid price and depends on the specifics of each installation.).

Wire size is in the discretion of the LV electrical contractor in order to meet minimum Device Specifications, HOWEVER, the wire ends terminating the power supply at the Ready Maid units should be Solid Core Wire (not stranded) no larger in diameter than 22ga. If stranded wire or larger gauge wire is used for the run from the power supply, a solid wire pig-tail no larger than 22ga must be attached for termination as part of rough-in.

1.2 Networking (optional) Wired

1.2.1 Wiring Specifications:

Wire Required: 1 Twisted Pair; Cat 5 type or better; shielding is optional;
(120 Ohm characteristic impedance wire is acceptable) wire size at Ready Maid Master unit connector cannot exceed 22ga diameter and must be solid core;

Job Layout Specs:

- Each room should have a home run from the Master to a punch-down panel in the utility room of that floor;

- All the positive and negative wires at the punch down will be connected in parallel;
- From the Utility Room we require 1 Cat 5 wire to the dedicated server computer location (usually the Network Operations Center);

Any wiring configuration requiring more than 1 repeater port for each 64 units will incur additional charges for additional repeaters, which will be charged to the customer.

1.2.2 Recommendations:

- A more sophisticated network can be built by adding 1 repeater per floor, or 1 repeater for every 32 or 64 rooms; also galvanically isolated repeaters are available; (unless requested, our quotes do not include such additional repeaters)

1.3 Networking (optional) Wireless- Zigbee

1.3.1 Description

Axxess' Ready Maid product is available with ZigBee wireless networking capability.

1.3.2 Requirements

The basic Master installation remains the same, however, electrical box depth and loading considerations are more critical. Care must be taken to observe Axxess' electrical box size specifications at their maximum. Any reductions need to be approved by Axxess before rough-in.

In the IDF room on each floor, the owner must accommodate a ZigBee to Ethernet Converter with 110V wall plug;

Owner to supply:

- a) A shelf for placing and strapping a 4" x 7" device;
- b) A 110V power outlet with 24" of the shelf;
- c) An Ethernet port connected to the hotel network;

2.0 Slave Unit

2.01 A four square electrical box with single gang mud ring is to be mounted in hallway wall at the indicator location. Depth of 4 square box: 2" plus ½" deep mudring. Any less depth would require factory authorization. Single gang boxes can be used in some circumstances, but require factory authorization. If Ready Maid is incorporated into room number signs, ADA (or ANSI) regulations require certain mounting parameters. Please consult with you local compliance authority. Frequently, the height center of our signs will be located within 1" of the center of the mudring, but exact height will vary with the sign design chosen. General sign layout must be determined before rough-in. The facing edge of the mudring must not protrude to the surface of the sheetrock; instead the facing edge of the mudring should be recessed by at least 1/8".

Please ensure that the electrical box is mounted plumb/level, else the final fit of the Ready Maid Panel will be out of plumb.

2.02 The electrical boxes for the Master and Slave units are to be connected by a conduit with min 1/2" ID. The conduit must readily admit pulling through an RJ45 plug (found at the end of any computer network cable)

3.0 FINISH INSTALLATION:

Please ensure the 110 power supply (plug in adapter or breaker) is disconnected/switched off during installation!

This is a 2 person job. You cannot allow the Ready Maid components to dangle from the wire harness or power hookups!

3.01 Run wiring harness between Master Unit electrical box and Slave Unit electrical box; (be careful not to damage the RJ45 Plug, particularly the release prong, it is best to wrap a piece of electrical tape around the plug to protect it while pulling it through.

3.02 Insert 6-32 screw into top hole of mudring.

3.03 Plug Master/Slave wiring harness into Slave Unit, but do not final mount slave before testing. Hang the sign on the mounting screw by the keyhole in the back of the sign;

3.04 Install Master Unit:

3.05 Plug Master/Slave wiring harness into Master Unit;

3.06 If applicable, connect Network wires (N+ N-) polarity is important

3.07 If applicable, connect Occupancy indicator leads (if feature was purchased)

3.08 Where applicable, connect ADA non-Audible Signal device (if feature was purchased)

3.09 Connect power leads (P1 P2) Polarity is irrelevant;

Ensure that all wires are stripped far enough (1/4" – 5/16") that conductor (not sheathing) makes contact with terminal contact, but not so far as to allow blank wire conductors to protrude from terminal block;

3.10 Mount Master switch unit to the guest room electrical box/mudring with 6-32 screws;

3.11 Test for full functionality before finish mounting the Slave/sign.

You cannot allow the Ready Maid components to dangle from the wire harness or power hookups!

3.12 Mount Slave Unit.

The Slave Unit must be mounted in such a way as to be serviceable. This involves some kind of mechanical mount, in some case aided by a few small dabs of silicone (the size of a dime or nickel after pressure has been applied) on the back of the sign.

Please Note: If silicon is used in mounting, the sign may not come off without damage to the wall surface. In order to be able to dislodge a sign where silicon has been used to aid mounting, there must be enough of an air-gap between the sign and the wall to allow slipping a thin putty knife behind the sign to break the silicon bond. Be sure that the adhesive is applied at least 3/8" " inboard from the outside edge of the sign. If Slave unit needs to be removed for any reason, take care that wall surface is not damaged outside of area covered by sign;

Please Note: Doorbell will not ring when the Do Not Disturb red LED is lit.

4.0 Device Specifications:

Min. Operating Voltage (at the Device)	15VDC
Max Operating Voltage (at the Device)	36VDC
Minimum supply current available at each unit	190mA (at 15VDC)
Typical Operating Current	140mA (at 15VDC)

For technical questions please contact Logan Murphy or Joerg Wagner at Axxess Industries Inc. Toll-free: 1-866-680-2457

MAINTENANCE

1) Cleaning:

Do Not Use any cleaners containing abrasives, solvents, spirits (including Isopropyl Alcohol) to clean the signs. The only approved cleaners are those specifically safe for acrylic and polyester plastics surfaces.

Do Not spray any cleaners (or water) at the sign. Instead, apply cleaning liquid to a soft 100% cotton rag to moisten the rag, (but don't make it sopping wet), and wipe the sign.

2) Dismounting the Sign

Should it be necessary to dismount the sign,

- a) Remember that the sign hangs on a mechanical mount (by a keyhole, for example). Levering the sign out will break out the keyhole. If it is a keyhole mount, you must slide the sign up about 1/4"- 3/8" to release the keyhole hold;
- b) carefully slide a thin flexible putty knife behind the sign in the spots where silicon has been applied (if any). Be careful not to hit any of the electronic parts, protruding out the back, in the process; the action of the putty knife must break the bond of the silicon.
- c) Slide the sign up about 1/4" – 3/8", until you can feel the screw clearing the keyhole opening; Then lift the sign off the screw;
- d) Unplug the network-style cable, DO NOT allow the sign to dangle off the network cable, as this would ruin the connector and the PCB.;
- e) If return to the manufacturer is required be sure to wrap and package the sign so as to avoid all possible damage. These are custom made signs, that cannot be replaced from stock.