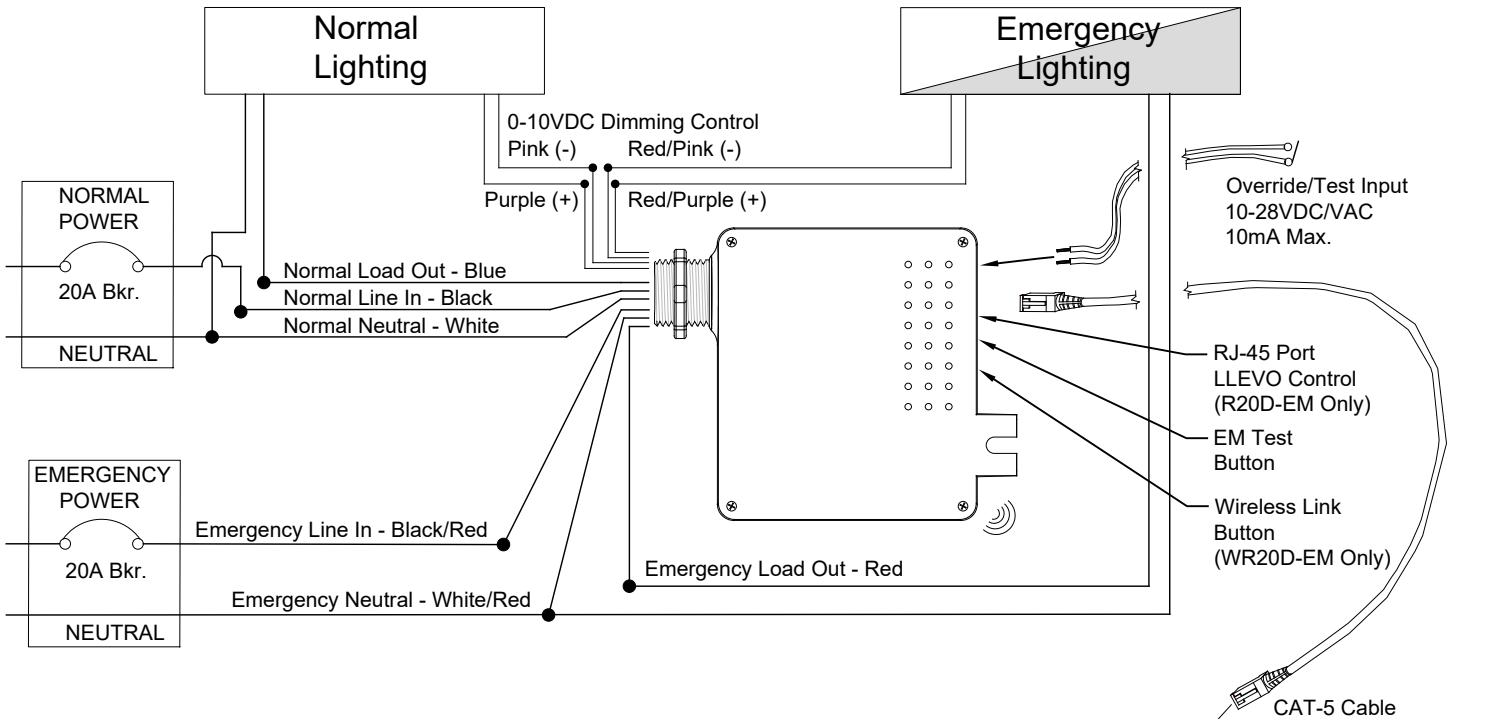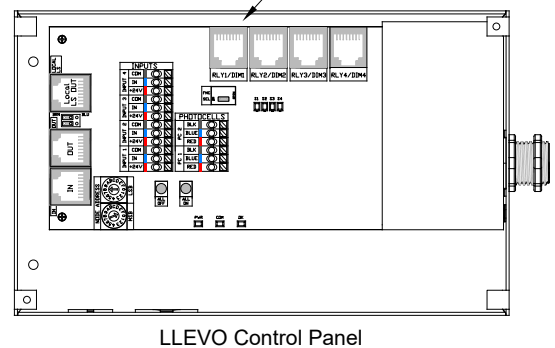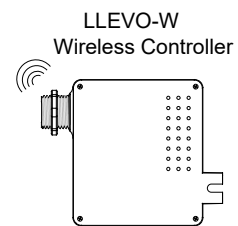# R20D-EM and WR20D-EM
Bypass Relay Wiring Details

The R20D-EM Relay combines both normal and emergency powered lighting control in the same device. Both loads operate together under normal conditions, when normal power is lost the Emergency load and 0-10V dimming are forced ON.

Normal Lighting

Emergency Lighting

0-10VDC Dimming Control
Pink (-)   Red/Pink (-)
Purple (+)   Red/Purple (+)

NORMAL POWER
20A Bkr.
NEUTRAL

Normal Load Out - Blue
Normal Line In - Black
Normal Neutral - White

EMERGENCY POWER
20A Bkr.
NEUTRAL

Emergency Line In - Black/Red
Emergency Neutral - White/Red
Emergency Load Out - Red

Override/Test Input
10-28VDC/VAC
10mA Max.

RJ-45 Port
LLEVO Control
(R20D-EM Only)

EM Test Button

Wireless Link Button
(WR20D-EM Only)

CAT-5 Cable

LLEVO Control Panel

LLEVO-W
Wireless Controller

- The R20D-EM or R20D-EM relay is powered by two electrical circuits, verify that both circuit breakers are OFF before connecting.
- Connect the Emergency power line and load wires as shown above.
- Connect the Normal power line and load wires as shown above.
- Keep the Emergency and Normal power separated per NEC Code.
- Connect all 0-10VDC dimming control wires as shown above, cap all unused leads.
- Press the Emergency Test button to force an Emergency state.
- Connect any remote test switches or connections from a Fire Alarm system and test the operation.
- Connect the R20D-EM relay to a LLEVO controller using a CAT-5 data cable for direct control of the loads.
- For wireless control of the WR20D-EM refer to TB0401 for direct link instructions, and TB0402 for linking to a LLEVO-W controller.

Caution:
The R20D-EM and WR20D-EM devices are feed from two independent electrical circuits, when servicing verify both circuit breakers are switched OFF to prevent accidental harm.

Emergency Power Connections:
Neutral = White/Red
Line In = Black/Red
Load Out = Red
0-10VDC (+) = Red/Purple
0-10VDC (-) = Red/Pink

Normal Power Connections:
Neutral = White
Line In = Black
Load Out = Blue
0-10VDC (+) = Purple
0-10VDC (-) = Pink

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WD0201 Rev. A