

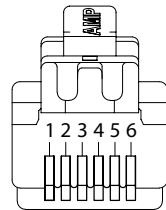
## CONNECTING MULTIPLE REMOTE CONTROLS

Up to ten remote controls on 3000 feet of cable may be connected to the master unit.

Unshielded twisted pair (UTP) cable is suggested for the cable, with suitable connectors. For example: Tyco/AMP 5-555426-3 (modular plug, 6 position, 6 termination, unshielded, long body for solid core). The tool in this example is Tyco/AMP 2-231652-7.

The table below shows the connections for the modular plug:

Pin	Signal	Pair	Suggested Color
01	GND	3-	Orange
02	COMMS+	2+	White/Green
03	VBUS	1-	Blue
04	VBUS	1+	White/Blue
05	COMMS-	2-	Green
06	GND	3+	White/Orange



COMMS+/- are the RS-485 bus connections.

GND is the common connection.

VBUS is power for the remotes coming from the master unit; or coming from another remote, or going to another remote (passing from the master unit, or an alternately powered remote - see the section on power). DO NOT make alternate power connections directly to the modular plugs or jacks.

## CONFIGURING FUNCTIONS

Please refer to the DX Navigator Help File for more information.



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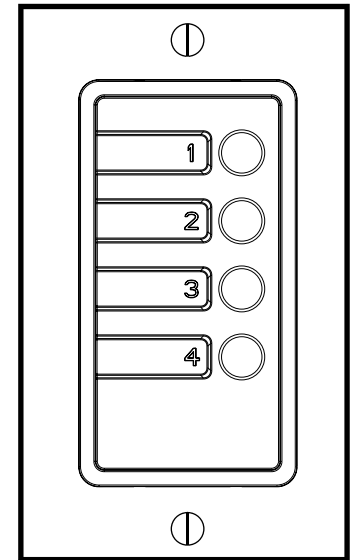
# UR2

Universal Remote Control

## Quick-Start Guide

The UR2 is a real-time universal remote control. The UR2 has four function buttons that may each be programmed to perform a different action, including Input, Output, and Group muting, preset selection, and force-on/off. Up to ten UR-family remotes may be connected to one DX Remote bus port on the rear of a DX family processor (e.g. DX1208).

The function of each DX Remote is software programmable from within the DX Navigator software application.



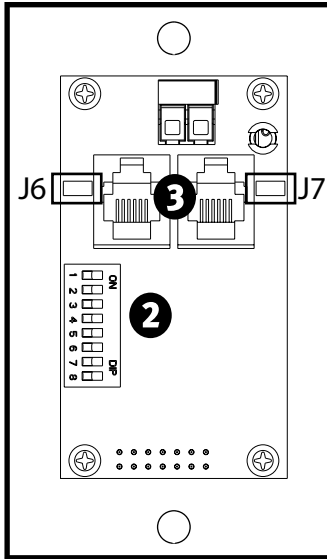
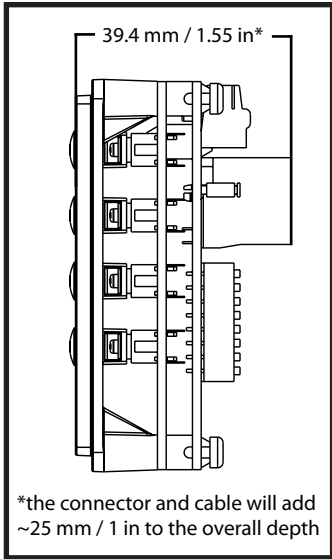
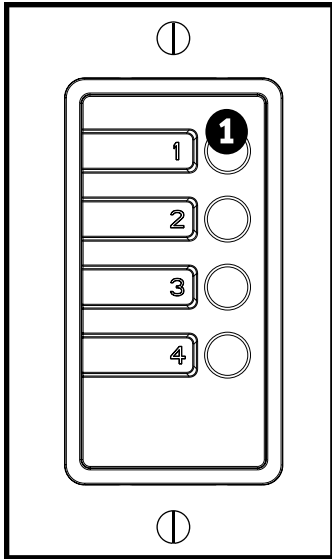
## SAFETY FIRST!

**Before connecting and using the equipment, please read this Quick-Start Guide carefully and keep it for future reference.**

**WARNING! This equipment has been designed to be installed by qualified professionals only! There are many factors to be considered when installing professional sound reinforcement systems. Some of these factors include mechanical and electrical considerations, as well as acoustic coverage and performance. LOUD Technologies strongly recommends that this equipment be installed only by a professional sound installer or contractor.**

1. Never install, connect, or disconnect the remote control with the power supply on.
2. Before applying power to the UR2, make sure the cabling is correct as described in this Quick-Start Guide.

**CAUTION: To avoid the risk of electric shock, never allow this equipment to be exposed to rain or dampness.**



## INSTALLING THE UR2

The UR2 may be installed in a single standard electrical box, or in a double-gang box along with a second UR2 or UR1 remote control.

## FRONT PANEL FEATURES

### 1 FUNCTION BUTTONS

The function buttons may be programmed for a number of actions, such as "Mute an Input" or "Recall a Priority." When a function is activated, the LED in the button illuminates. Programming is done in the Remotes window of DX Navigator.

A space is provided next to each function button for inserting a label to identify the function of each button.

## REAR PANEL FEATURES

### 2 ID

This 8-position DIP switch provides 128 (0-127) unique device IDs read via binary code. Switch 1 is the least significant bit (LSB), and switch 7 is the most significant bit (MSB). Switch 8 is ignored, but should be set off. ID '12', for example, would be set as follows: 0001100. All DIP switches are off except for three and four.

Each remote control must have the selection switch set to a unique ID. When the master unit is first turned on, it polls the REMOTE BUS and identifies the remote controls connected to it by each unique ID.

### 3 CONNECTOR (RJ-25)

Connect the cable from the master unit (e.g. DX1208) directly to this connector. It should easily snap in place. The other RJ-25 connector goes to the next remote. The order of devices or device IDs is not important. The chain must be a simple chain (no branches), and must not link back to itself at any point (no loops).

## POWER

The easiest way to power a UR2 remote is from the master unit over the remote bus cable. Both jumpers should be installed on J6 and J7 (default).

Alternative power (7-24VDC) may be used if the power required by the number of remotes needed exceeds the capability of the master unit. Connect positive to the 'Alt PWR' screw terminal and common/0V/ground to the 'GND' screw terminal.

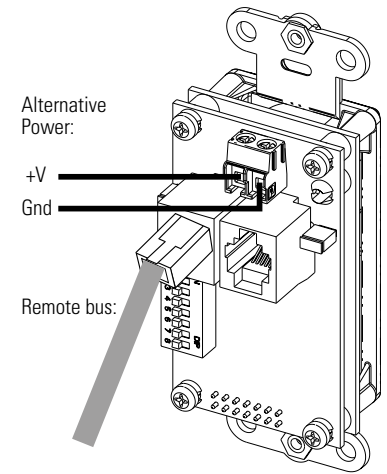
**WARNING:** power from the master unit must be disconnected at an appropriate point by removing one or more jumpers on J6 and/or J7. J6 and J7 connect and disconnect VBUS to the remote on the J1 and J2 modular jacks respectively.

The alternative power goes directly to the remote and will also connect to either or both modular jacks if the respective jumper is installed. Therefore, it is possible to power several remotes over the interconnection cable from the alternative power of one remote.

The maximum current allowed into any single alternative power connection is 0.4A (e.g. 9.6W @ 24V, 3.6W @ 9V). This is limited by a self-resetting fuse at the alternate power connection terminals in the remote.

Power required: 0.2W 7-24VDC  
For example: 8.2mA @ 24VDC, 22.2mA @ 9VDC

Voltage at the remotes must be >7VDC, even after taking account of any resistive losses in the cables.



## CONNECTION DISTANCES

As connection distances increase, or cable DC resistance increases, or VBUS current increases, the VBUS voltage losses will increase. In many situations, this will be negligible. Remotes are constant power devices within their rated voltage, so the current will increase as the voltage at the remote decreases. This, in turn, increases cable losses.

As a general guide, if using 24AWG wire, connected as specified (total resistive loss = 3Ω per 100 feet of cable - round-trip):

When using 24VDC supply capable of 0.4A (e.g. DX1208), it can typically support:

- Up to 8W load up to 250 feet\*
- Up to 2W load up to 2000 feet\*
- Up to 1W load up to 4000 feet\*

\*The load does not include cable losses.

When using 12VDC supply capable of 0.4A, it can typically support:

- Up to 4W load up to 150 feet\*
- Up to 1W load up to 1000 feet\*

\*The load does not include cable losses.