



# Application Note

## MIC Power Supply Unit Extension

28 September 2012

Customers can extend the distance between their MIC camera and the MIC PSU by using two junction boxes (customer-supplied). The boxes must be weather proof or explosion proof, depending on the model and the physical location of the box. The second junction box is required to reduce the size of the cable and to reduce the amount of conduit connections to the MIC PSU.

All cables used outdoors must have a UV-resistant outer jacket, or must be installed inside permanently earthed metal conduit. See the table below for the maximum distance and wire gauge recommended for each camera. The maximum distance is the distance between the two customer-supplied junction boxes.

	MIC MODELS					
	400 (AL and Stainless)	412	500 Classic	500 Pro	550 (Standard and Classic)	612
Maximum Watts, Camera	25.2 W	50 W	25 W	25 W	18 W	36 VA
Maximum Watts, Heater	11.8 W	--	--	11.8 W	--	18 VA
<b>Maximum Distance in</b>						
<b>Meters (Feet)</b>						
23 m (76 ft)	--	18 AWG	--	--	--	--
32 m (106 ft)	--	--	--	--	--	18 AWG
37 m (121 ft)	--	16 AWG	--	--	--	--
46 m (151 ft)	18 AWG	--	18 AWG	18 AWG	--	--
51 m (168 ft)	--	--	--	--	--	16 AWG
59 m (192 ft)	--	14 AWG	--	--	--	--
64 m (211 ft)	--	--	--	--	18 AWG	--
73 m (240 ft)	16 AWG	--	16 AWG	16 AWG	--	--
81 m (267 ft)	--	--	--	--	--	14 AWG
93 m (306 ft)	--	12 AWG	--	--	--	--
102 m (336 ft)	--	--	--	--	16 AWG	--
116 m (381 ft)	14 AWG	--	14 AWG	14 AWG	--	--
129 m (425 ft)	--	--	--	--	--	12 AWG
163 m (534 ft)	--	--	--	--	14 AWG	--
185 m (606 ft)	12 AWG	--	12 AWG	12 AWG	--	--
259 m (849 ft)	--	--	--	--	12 AWG	--

**Notes:**

1. Based on 18 VAC -15% = 15.3 VAC as the minimum voltage.
2. To achieve the distances listed, any models with the heater option **MUST USE** two conductors for camera power and two additional conductors for the heater.
3. For specific details about extending the distance between a MIC440 explosion-protected camera and a MIC PSU, please see the MIC440 User Manual.
4. MIC IR models are not approved for extended distances because of the special power requirements for the IR illuminators.

See the next page for diagrams of the connections between the MIC cameras, the junction boxes, the MIC PSU, and the head-end system.

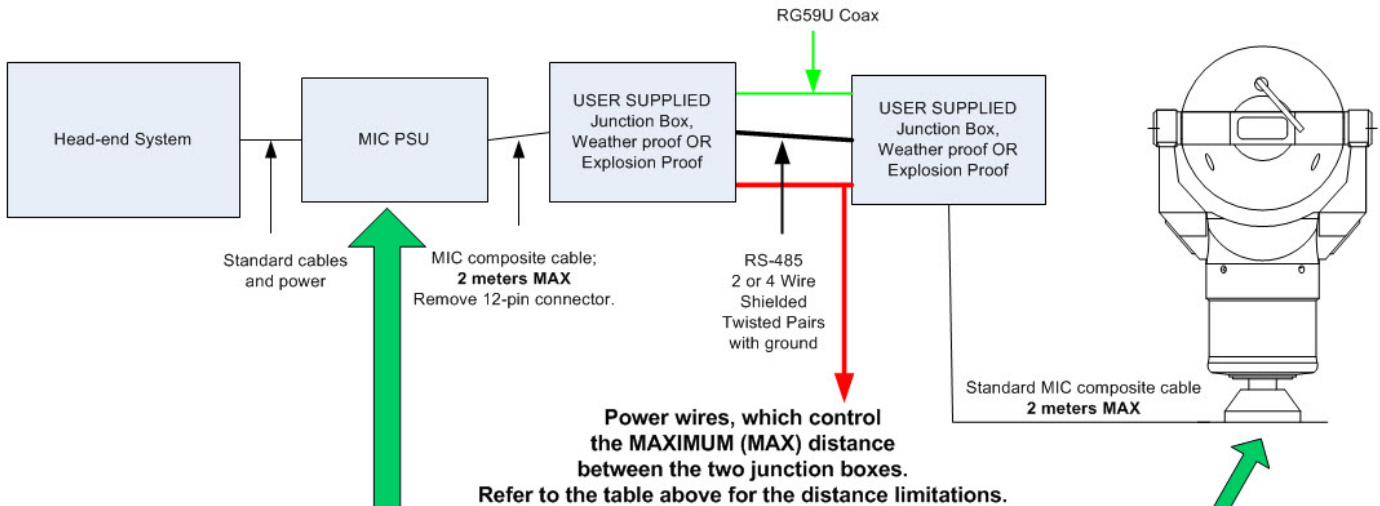


# Application Note

## MIC Power Supply Unit Extension

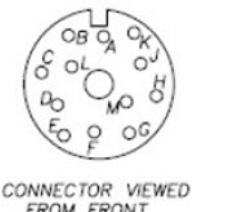
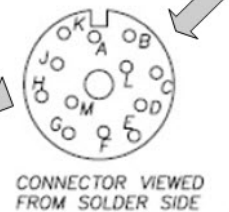
28 September 2012

Connections for MIC camera models 400 (AL and SS), 412, 500 Classic and Pro, 550 Standard and Classic



### CONNECTION

Video Signal	Coax Core	A
Video Ground	Coax Sn/T/P Drains	B
Power A	Red	L
Power B	Green	M
Tamper Sw	Black	C
Tamper Sw Return	Brown	D
Washer Drive Rtn	Grey	E
Washer Drive	Orange	F
RS-485 Out (A)	Blue	G
RS-485 Out (B)	Violet	H
RS-485 IN (A)	Yellow	J
RS-485 IN (B)	White	K



Connector Shell

Green arrows indicate where to connect each end of the MIC composite cable.

The curving gray arrow indicates the section of the diagram that illustrates the pins at the end of the connector.

The straight gray arrow indicates the matches between the pin out letters and the wire colors.

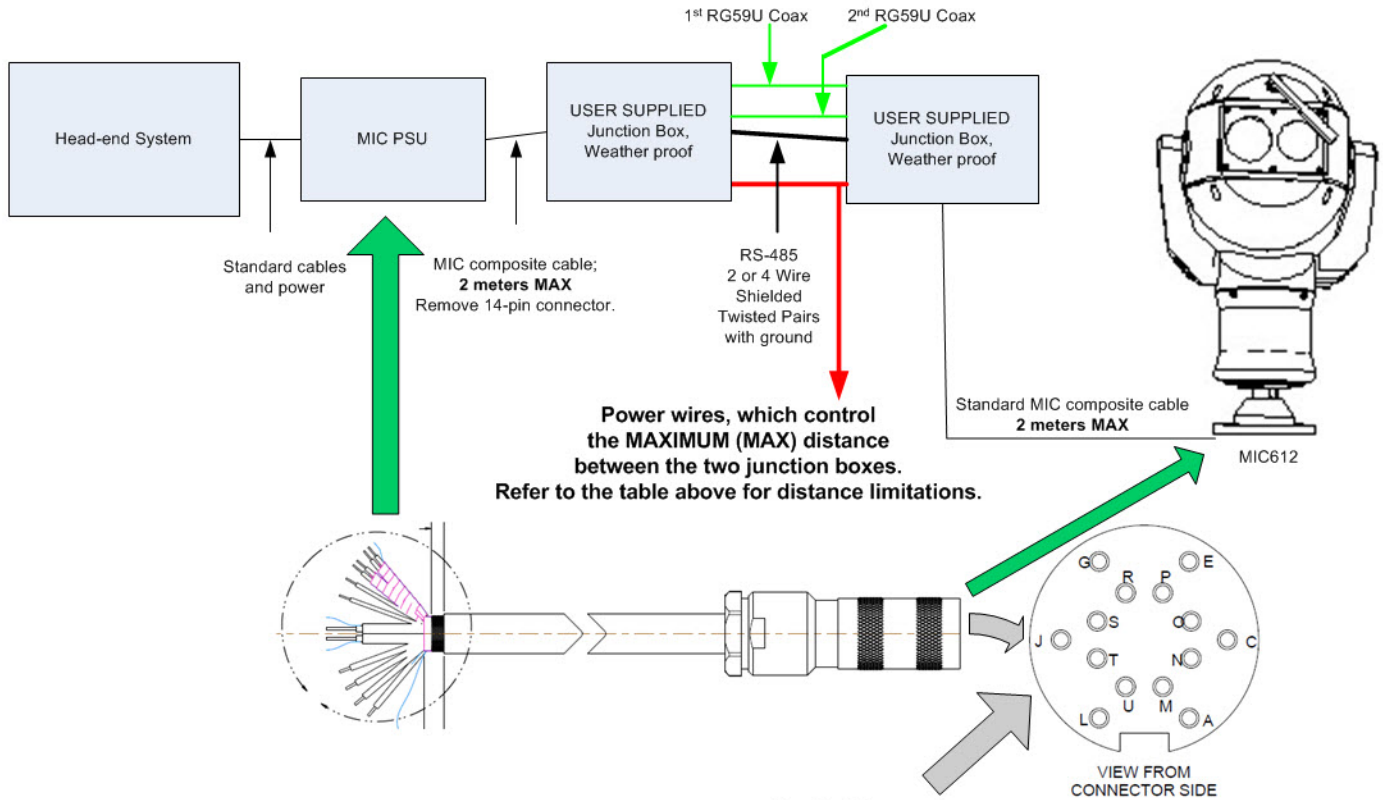


# Application Note

## MIC Power Supply Unit Extension

28 September 2012

### Connections for MIC612 Thermal Camera



**Green** arrows indicate where to connect each end of the MIC composite cable.

The curving **gray** arrow indicates the section of the diagram that illustrates the pins at the end of the connector.

The straight **gray** arrow indicates the matches between the pin out letters and the wire colors.

### Pin Out Connections

SCREEN OVERALL	CONNECTOR SHELL
1	A VIDEO 1
SCREEN 1	C GND
12	E VIDEO 2
SCREEN 12	G N/C
6	J AC 1
7	L AC 2
8	M AUX 1
9	N AUX 2
11	O WASHER
10	P TAMPER
4	R RXA
5	S RXB
SCREEN 2345	T TXA
2	U TXB
3	