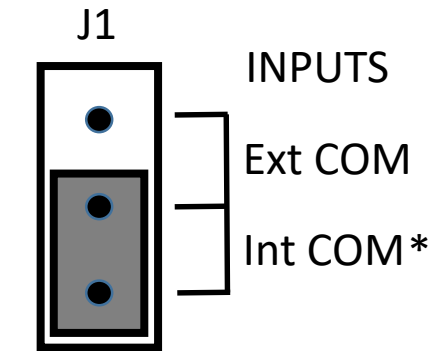# QC-DIO-8CH Box Setup Guide

Installation Guide Lines

1) It is best to mount the DIO Box to the Controller using the provided mounting brackets and screws.
2) For best results, use the .5M USB Cable provided with the unit.
3) If a longer USB Cable is required DO NOT exceed 2M in length.
4) The supplied Ground Strap must be used. One end connects to the DIO Box's terminal screw. The other end should be attached to any one of the Controller's housing screws.
5) DO NOT run the USB Cable or any of the Input or Output signal wires in parallel to any higher voltage power lines or wires with high current switching.
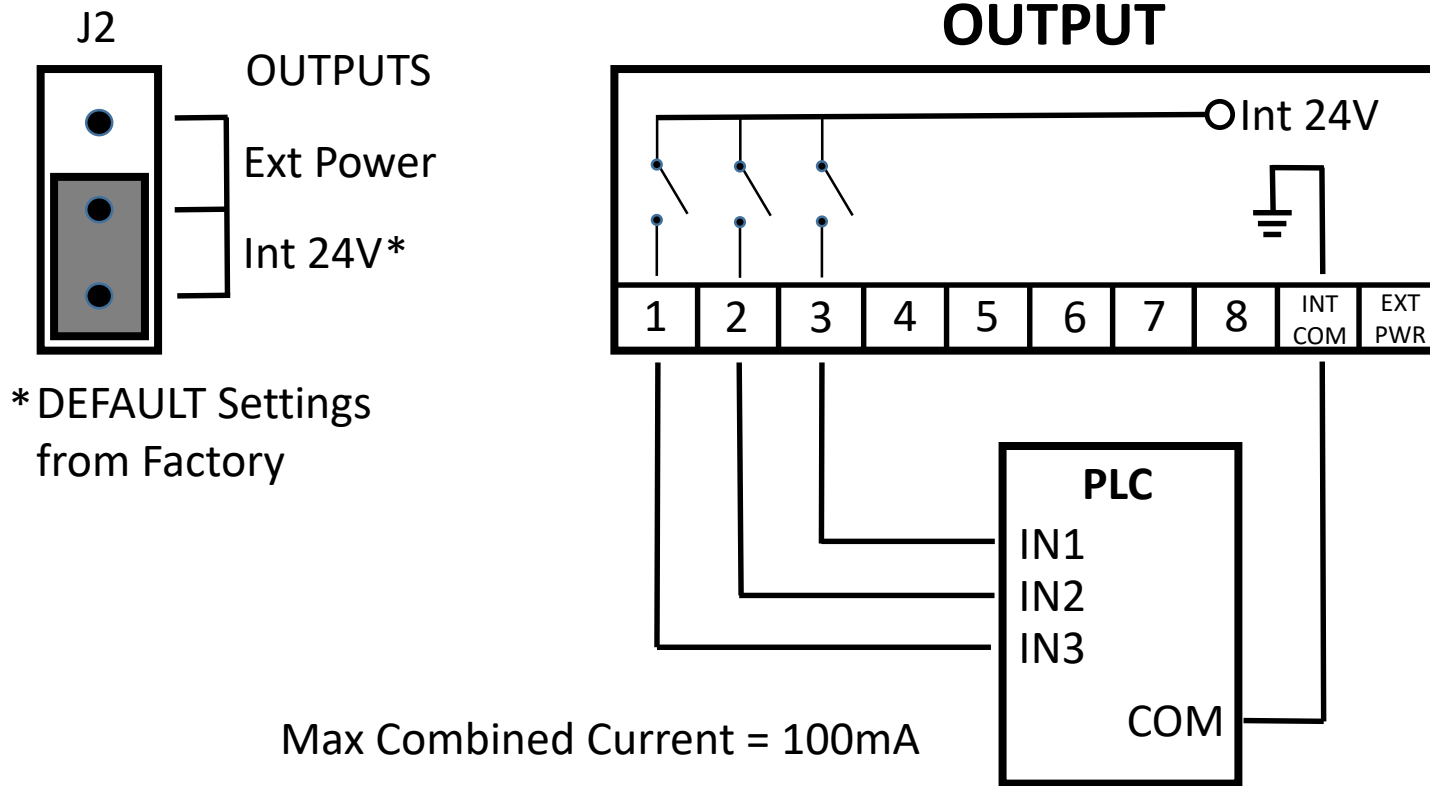
Wiring Inputs using the internal power supply

J1

INPUTS

Ext COM

Int COM*

*DEFAULT Settings
from Factory

INPUT

24V

1	2	3	4	5	6	7	8	INT 24V	EXT COM
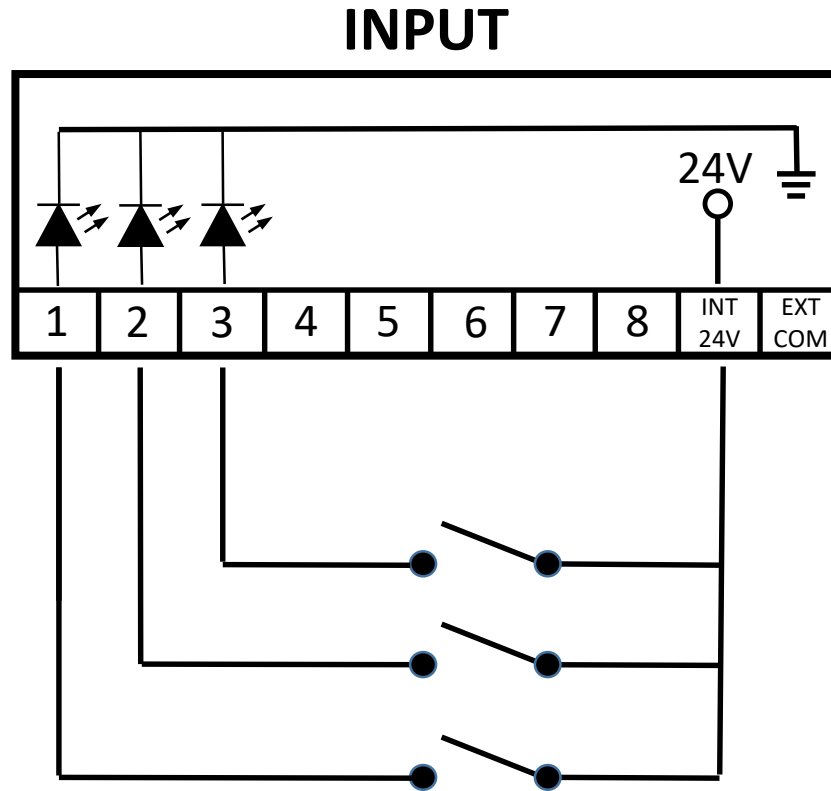
NOTE: If Inputs become unstable or fail to turn ON, an External Supply may be needed.
See Page 4 for how to configure

Ingersoll Rand.

Page 2

Wiring Outputs using the internal power supply

OUTPUT

J2

OUTPUTS

Ext Power

Int 24V*

*DEFAULT Settings
from Factory

Int 24V

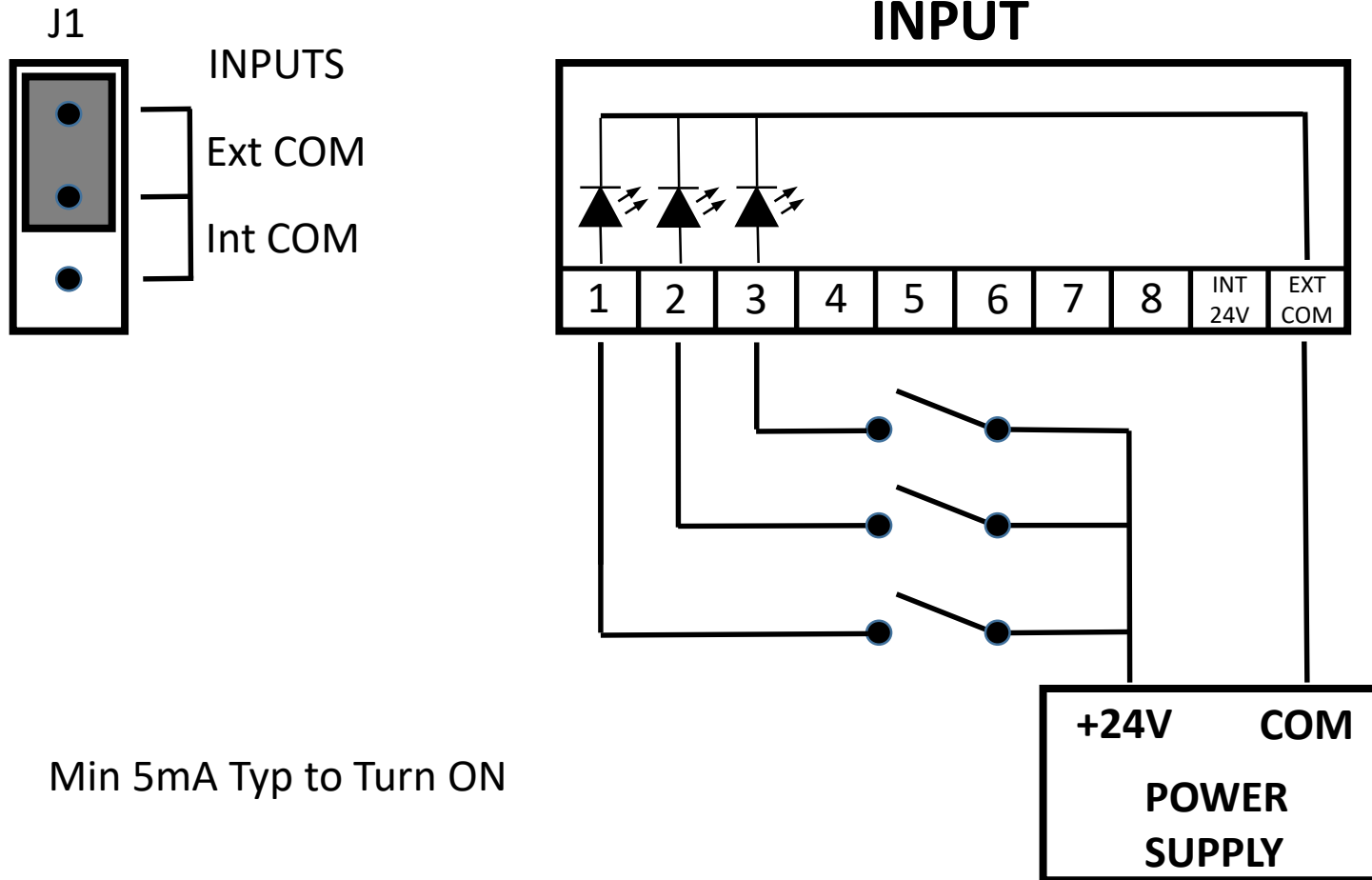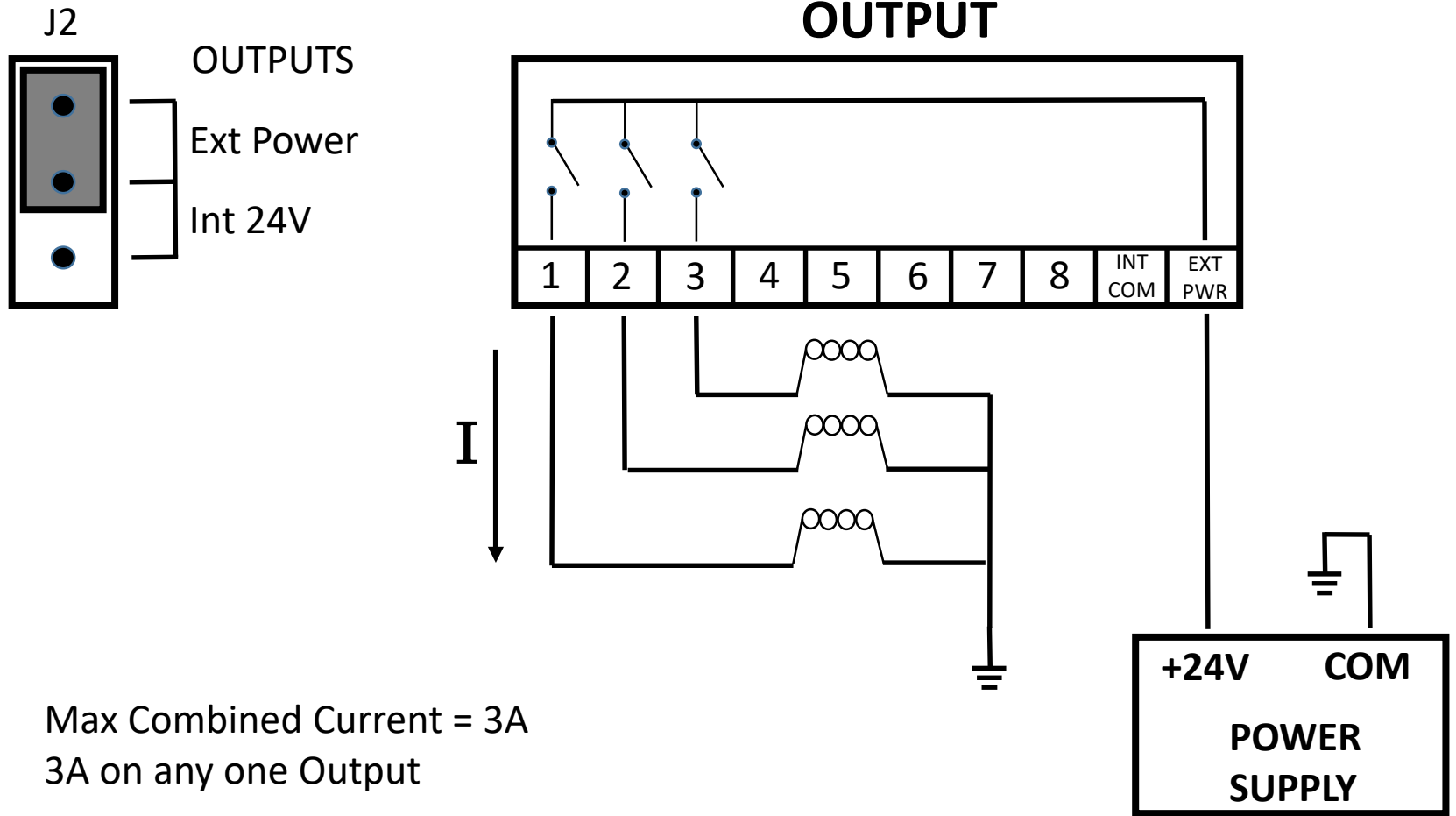| 1	2	3	4	5	6	7	8	INT COM	EXT PWR

PLC

IN1

IN2

IN3

COM

Max Combined Current = 100mA

NOTE: If Outputs become unstable or fail to turn ON, an External Supply may be needed. See Pages 5 & 6 for how to configure.

Ingersoll Rand.

Wiring Inputs using an external power supply
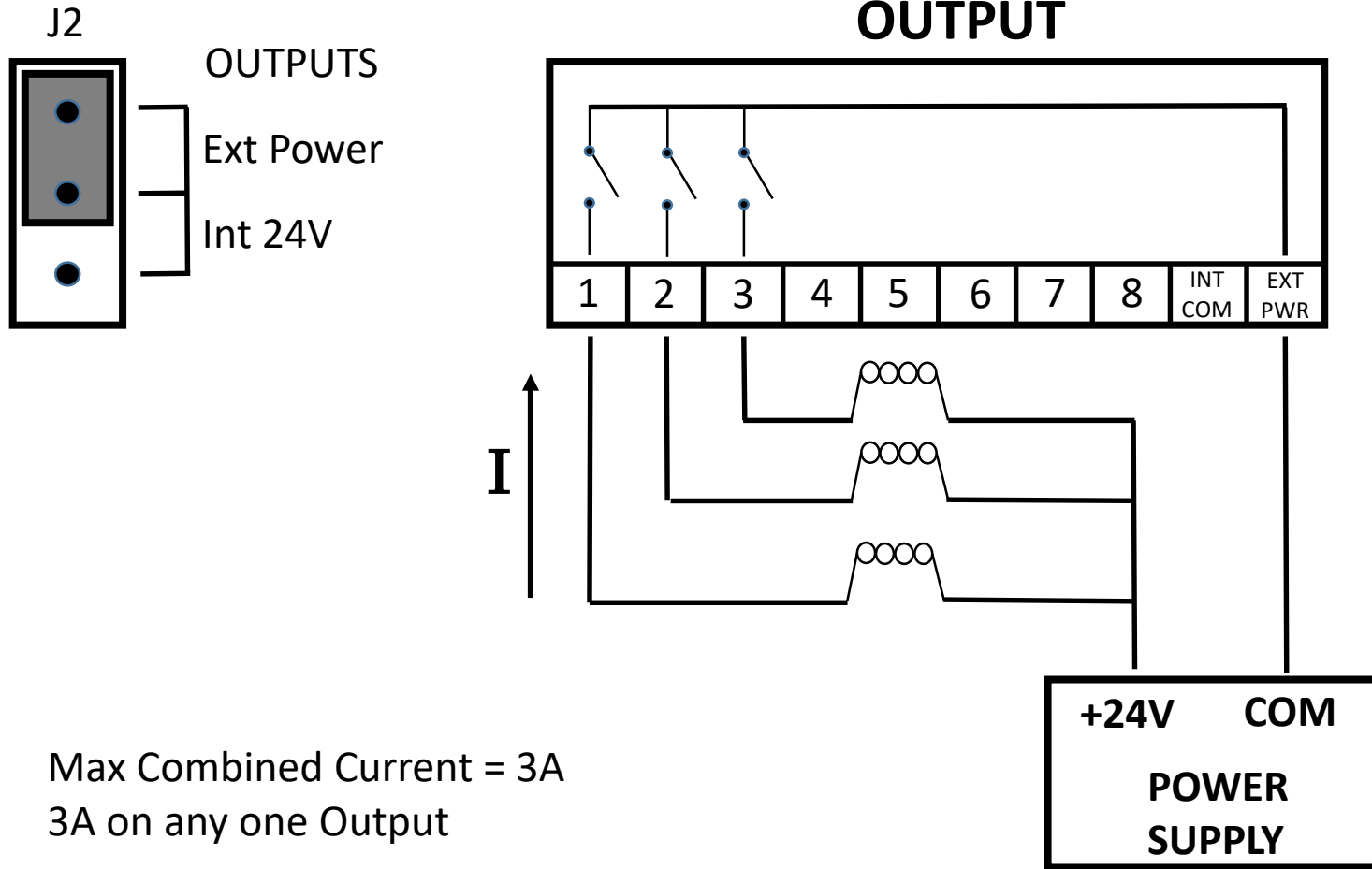
J1

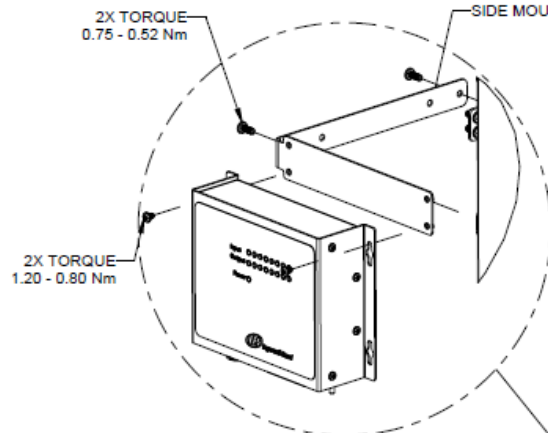INPUTS

Ext COM

Int COM

INPUT

1	2	3	4	5	6	7	8	INT 24V	EXT COM

+24V   COM

POWER SUPPLY

Min 5mA Typ to Turn ON

IR *Ingersoll Rand.*

Wiring Outputs using an external power supply – Sourcing

OUTPUT

J2

OUTPUTS

Ext Power

Int 24V

1	2	3	4	5	6	7	8	INT COM	EXT PWR

I

+24V   COM

POWER SUPPLY

Max Combined Current = 3A
3A on any one Output

Ingersoll Rand.

Wiring Outputs using an external power supply – Sinking

J2

OUTPUTS

Ext Power

Int 24V

OUTPUT

1	2	3	4	5	6	7	8	INT COM	EXT PWR

I

+24V   COM

POWER SUPPLY

Max Combined Current = 3A
3A on any one Output

Ingersoll Rand.

QC-DIO-8CH Mounting Options

2X TORQUE
0.75 - 0.52 Nm

SIDE MOUNTING L-BRACKET

2X TORQUE
1.20 - 0.80 Nm

DIO BOX MOUNTED ON SIDE (L/R) OF THE CONTROLLER,
PERPENDICULAR TO CONTROLLER DISPLAY

BOTTOM/TOP MOUNTING BRACKET

2X TORQUE
0.75 - 0.52 Nm

DIO BOX MOUNTED ON TOP OF THE CONTROLLER

BOTTOM/TOP MOUNTING BRACKET

4X TORQUE
1.20 - 0.80 Nm
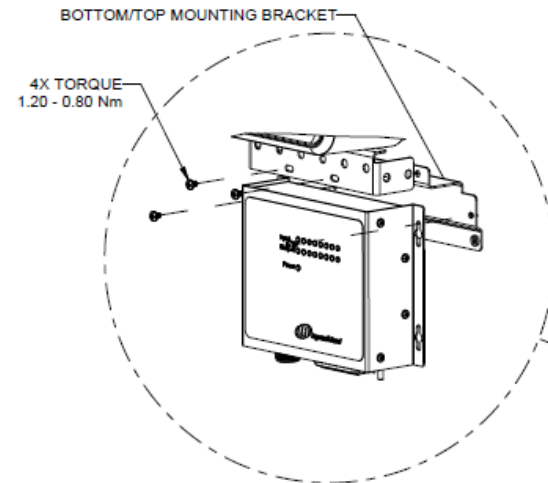
DIO BOX MOUNTED AT BOTTOM OF THE CONTROLLER

SIDE MOUNTING STARIGHT BRACKET

2X TORQUE
0.75 - 0.52 Nm

2X TORQUE
1.20 - 0.80 Nm
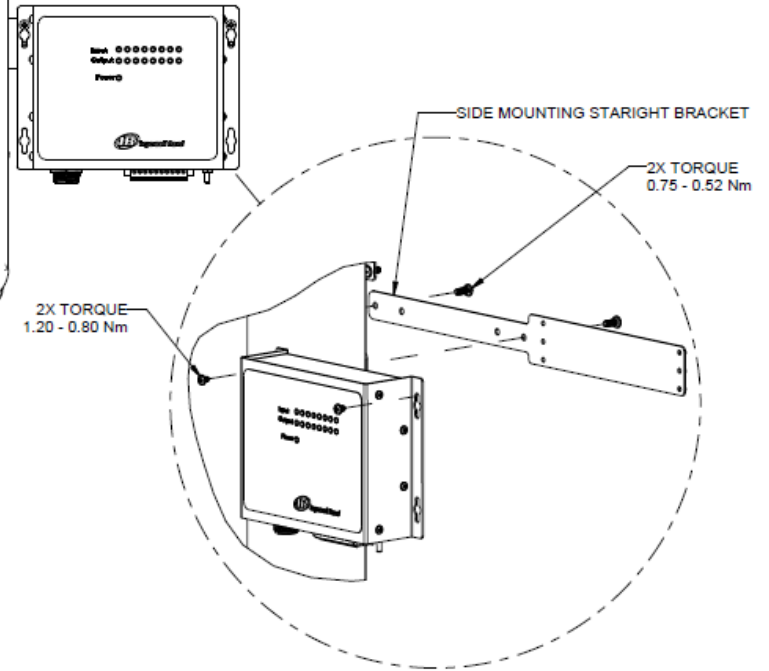
DIO BOX MOUNTED ON SIDE (L/R) OF THE CONTROLLER,
PARALLEL TO CONTROLLER DISPLAY