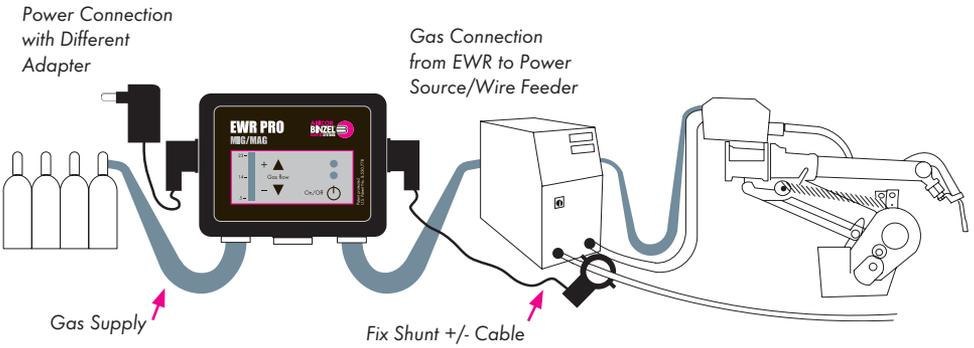




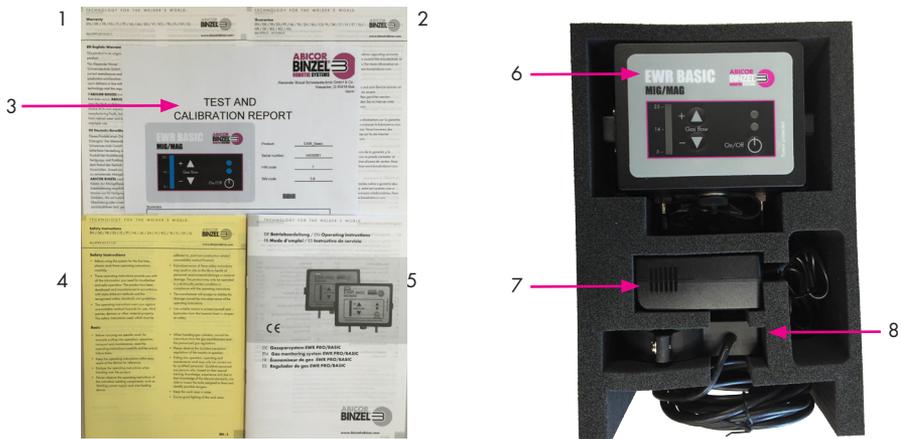
# EWR Quick Install Instructions



## Binzel EWR Installation Overview



### STEP 1: Check Inventory of Package



#### Inventory Checklist

1. Warranty
2. Guarantee
3. Calibration Report
4. Safety Documentation
5. Operating Instructions
6. EWR or EWR Pro (Basic Model shown)
7. 110v AC Power Supply
8. Current Measuring Shunt\*

\*Confirm that the current capacity of the measuring shunt is adequately sized for the welding operation that it will be used for. Measuring shunts are available in 150, 300, & 500 amp models.

## STEP 2: Mount the EWR Regulator



The EWR Regulator has the flexibility to be mounted wherever it makes the most sense for your application. A few guidelines to consider:

- The EWR should be mounted on a stable location away from welding sparks or places where it can be damaged.
- The current measuring cable, gas hoses, and power supply cable must have easy, bind-free access to their respective connectors on the regulator.
- Mounting location for optimum performance of EWR is between 6 to 30 feet behind the solenoid on your wire feeder. Ideal location for robotic installations is on the pedestal at the base of the robot. Semi-automatic and Manual applications can vary as noted. Refer to Steps 5, 7, and 8 for additional information on hose lengths and tuning of system.

## STEP 3: Shunt Installation

- Pass either the work or electrode cable through the shunt and affix the shunt onto a stable location.
- Route the shunt connection cable back to the EWR. Secure the shunt connection cable utilizing non-conductive fasteners and ties. Ensure the shunt cable is not damaged. **Do not coil any excess cable.**
- Connect the shunt measuring cable to the EWR or EWR Pro regulator box.

*Note: Do not have any part of the shunt cable in close proximity to or in contact with any electrically charged cord, as this will give a false current signal to the regulator.*

## STEP 4: Connect Gas Supply to EWR Regulator

- Remove any gas flow limiting orifices, regulator, or regulator flowmeters from the incoming gas source line.
- Ensure gas source delivery pressure is no less than 35 PSI and no more than 65 PSI.
- Connect hose from the supply line to left gas barb on the EWR Regulator.

EWR Pro shown



Attach Gas Supply Line to Regulator here

## STEP 5: Connecting Gas to Wire Feeder

- Attach one end of the gas hose to the right gas barb of the regulator.
- Route the gas hose to the feeder to ensure that the hose will not be exposed to pinching, binding, or damage. Ensure hose is of sufficient length for the robot's entire range of motion.
- Connect hose to the wire feeder's gas supply fitting.
- Optimal hose length is considered 1 foot longer than the torch length with a minimum of 6 feet. For instance, if the torch is 7 feet, then the gas hose between the EWR and the feeder should be no less than 8 feet.

EWR Pro shown



Wire Feeder

Gas to Wire Feeder Connection

## STEP 6: Connect EWR to Electrical Power

- Connect one end of the AC Power adapter to the power supply connector on the right side of the regulator.
- Connect the AC Power adapter to a suitable outlet.
- Secure excess cable so as not to create a trip hazard.



## STEP 7: EWR Initialization

### Gas Flow Schedules

The EWR offers you the ability to select the most efficient gas delivery schedule for your application. There are a total of 11 schedules on the EWR and EWR Pro. Selection is done by simply pressing either the plus (+) or minus (-) buttons. The factory default setting is right in the middle of these schedules and serves as a starting point for the majority of welding applications. There are five schedules that provide a greater volume of delivery than the factory default and five schedules that provide less volume than the factory default.

The illuminated yellow LED at 14 is an indication that the default setting is the schedule that is being used. The factory default schedule provides a flow of 14L/Min (or 29.7 CFH) at 15 to 90 amperes of welding current, ramping up to a flow rate of 21 L/Min (44.5 CFH) at 300 amperes. *Note: for reference, conversion to CFH from L/Min is 2.12:1 (e.g. 20 L/Min = 42.4 CFH)*

The green LED indicates that the minus (-) button has been pushed, changing the schedule so that 13 L/MIN (27.6 CFH) will be delivered at 15 to 90 amperes (versus 14L/Min on the default setting). The flow will ramp up to 20L/Min at 300 amperes (versus 21 L/Min on default).



See chart on back cover for gas flow schedules in relation to ampere usage.

## STEP 7: EWR Initialization (Cont.)

### Setting the Gas Flow

Begin with the default setting (yellow LED displayed at 14) and complete weld. If the weld is not acceptable due to porosity, unstable arc, etc., continue to Troubleshooting. If the weld is acceptable, continue with the following procedure:

- Press the minus (-) button once and repeat.
- Continue with this process, moving towards a schedule with less flow, until the weld exhibits excessive spatter, instability, and/or porosity.
- At this point, press the plus (+) button once.
- Complete another weld and verify that this setting is acceptable. If so, move on to Step 8.

### Troubleshooting

- Press the plus button (+) once and repeat the weld. If the weld is acceptable, this procedure is completed and you can move on to Step 8.
- If the weld still is not acceptable, repeat the procedure until an acceptable weld is achieved, then move on to Step 8.

## STEP 8: Setting the Gas Flow Pressure

### What is this Adjustment?

The gas pressure between the EWR and the closed magnetic valve in the power source or feeder can be adjusted. This adjustment is necessary if you have longer cable assemblies or other circumstances which might affect a proper gas flow. The factory default setting is 0.6bar (8.7 PSI) outgoing pressure. The pressure can be changed from 0.2bar – 2.0bar (2.9 PSI – 29 PSI).

### BINZEL Recommendations for MIG/MAG

Length of Cable Assembly	Recommended RMA Gas Flow Pressures
Under 8m (26 feet)	0.4 - 0.6bar (5.8 - 8.7 PSI)
9 - 18m (29 - 59 feet)	0.8 - 1.0bar (11.6 - 14.5 PSI)
19 - 40m (62 - 131 feet)	1.2 - 1.4bar (17.4 - 20.3 PSI)
Longer than 41m (134 feet)	1.6 - 2.0bar (23.2 - 29 PSI)

## Setting the Gas Flow Pressure



1. Disconnect Power Supply



2. Reconnect power supply while pressing the ON/OFF button. The EWR is now in setup mode for pressure.



3. Press the plus (+) or (-) button to adjust the outgoing pressure. The first illuminated LED indicates that the EWR is in pressure mode. Each additional illuminated LED represents 0.2bar of pressure; i.e. 3 LEDs = 0.4bar, 6 LEDs = 1.0bar, or 11 LEDs = 2.0bar.

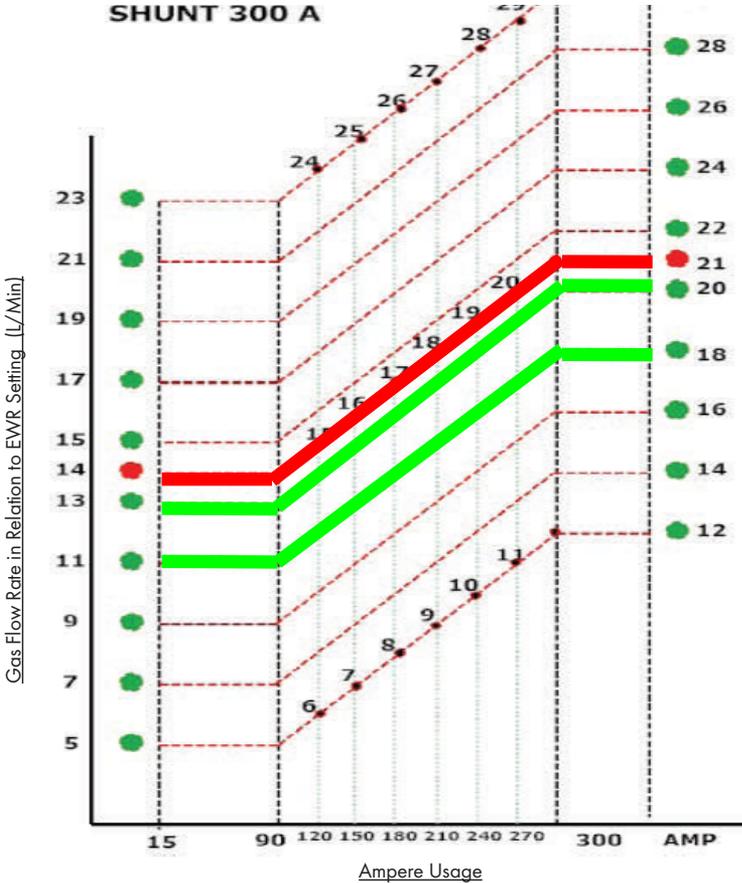


4. Press and hold the ON/OFF button until the lights make a quick flash. The flash confirms the new setting is saved, and the EWR returns to normal mode of operation.

## APPENDIX: BINZEL EWR Part Numbers

Part Number	Items and Description
514.1005	Measuring Shunt 150A 1.5m for EWR Basic/PRO
514.1006	Measuring Shunt 300A 3m for EWR Basic/PRO
514.1007	Measuring Shunt 500A 5m for EWR Basic/PRO
514.1008	Holder for EWR Basic/PRO/TIG
514.1009	Transport Case for Welding Monitor
514.1019	EWR Basic Complete Package (500A/5m)
514.1020	EWR PRO Complete Package (500A/5m)
514.0143	EWR Splitter for EWR PRO (MIG/MAG)

Gas Flow Measurement Chart for the EWR



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