

WIRELESS MPG

Installation and commissioning

Applies to both models: Basic MPG and Advanced MPG. Read the mounting section before drilling: receiver and antenna placement determine whether you get the full 50 m range.



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SAFETY

Installation must be carried out by a qualified maintenance electrician with the machine isolated and locked off. On Advanced units the emergency relay and enable contacts form part of the machine safety chain; they must be wired and function-tested before the machine is released to production.

01 Before you start

Confirm the model on the pendant label matches the order: Basic MPG or Advanced MPG.

Check the interface cable is the variant for your control: Siemens, Fanuc, Mitsubishi, Fagor, NUM or Syntec. The pinout differs per control.

Have the machine electrical drawing to hand, specifically the sheet showing the existing MPG or handwheel port.

Fit two AA alkaline cells in the pendant (not supplied). Observe polarity; do not mix used and new cells.

02 Mounting the receiver and antenna

BASIC RECEIVER



Mount the receiver box on top of the chassis, not inside it, and route the 2.6 m shielded cable into the cabinet through a gland. The Basic receiver supports up to 5-axis output.

ADVANCED RECEIVER



DIN-rail the receiver inside the cabinet, then mount the magnetic-base external antenna on top of the chassis with a clear line of sight to the working area.

Keep the receiver and antenna at least 300 mm from drives, transformers and unshielded motor cables. Never coil the antenna lead inside a steel enclosure.

03 Wiring to the control MPG port

- 3.1 Isolate and lock off the machine. Verify the cabinet is dead before opening.
- 3.2 Disconnect the wired pendant at the MPG port and retain it until commissioning is complete.
- 3.3 Land HA, HA-, HB, HB- on the handwheel quadrature inputs. Bond the cable screen at the cabinet end only.
- 3.4 Land the axis and rate lines per the wiring diagram sheet: Model A non-coding or Model B encoding, as your control expects.
- 3.5 Advanced only: series ESTOP1 / ESTOP2 into the emergency chain and EN1 / EN2 into the enable circuit.
- 3.6 Supply the receiver from cabinet 24 VDC. Do not take the supply from a drive control output.

04 Pairing and addressing

Each pendant is paired to one receiver by a unique address, which is what allows up to 32 sets to run on the same floor without interference. Units ship pre-paired; re-address only when adding a set or replacing a pendant.

- 4.1 Set the receiver address switches to an unused value, recording it against the machine number.
- 4.2 Power the receiver and hold the pair button until the link indicator flashes.
- 4.3 Switch the pendant on within 30 seconds. A steady indicator on both units confirms the link.

05 Commissioning checks

Axis and rate Select each axis in turn at ×1, ×10, ×100 and confirm the control's position display increments correctly.	E-stop Press the pendant E-stop and confirm the machine drops to emergency state. Reset and re-test.
Enable button Confirm no axis motion is possible unless the enable button is held.	Link loss Switch the pendant off mid-jog. The relay and enable outputs must drop and the axis must hold.
Range Walk the pendant to the far corner of the cell and confirm response is stable to 50 m.	Extension keys Advanced only: press each of the three extension keys and confirm the mapped control input responds.

06 Maintenance and troubleshooting

SYMPTOM	LIKELY CAUSE	ACTION
Range below 50 m	Receiver or antenna inside the chassis	Relocate to the top of the chassis
Intermittent link	Low cells, or antenna near a drive	Fit fresh AA cells; move antenna 300 mm clear
Two pendants cross-driving	Duplicate receiver address	Re-address and re-pair per section 4
Wrong axis moves	Model A / Model B mismatch	Re-check the coding table on the wiring sheet
No pulses at any rate	Selector at OFF, or enable not held	Select an axis; hold the enable button

Wipe the keypad with a damp cloth only: no solvents. Cells last about two months of single-shift use; replace when the low-battery indicator shows. Spares and firmware support are available for every generation shipped since 2014.