



DMDPCIW

Digital Phone Connect Solutions

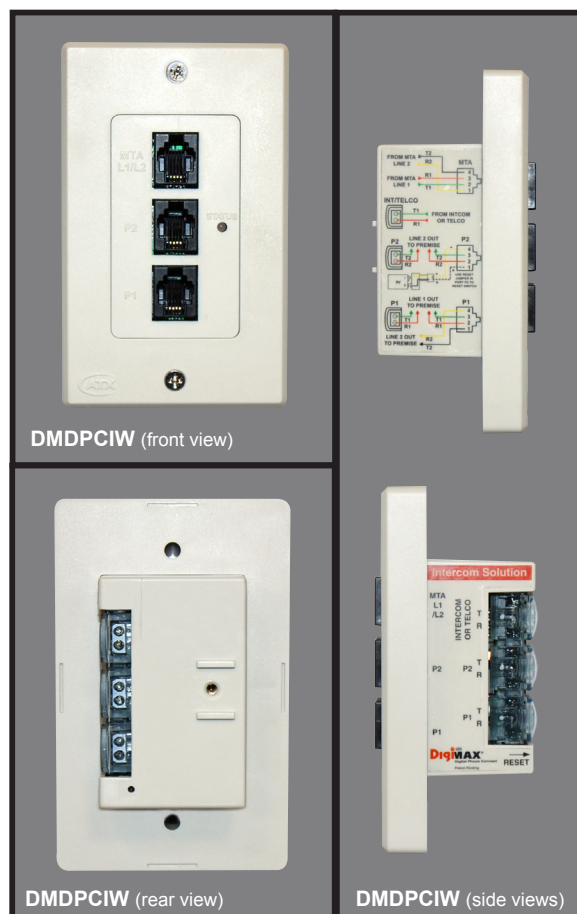
Digital Phone Connect Intercom Switch (DMDPCIW):

General Overview:

- ▶ The DMDPCIW Intercom Switch Solution is ideal for MDUs provisioned with No Subscriber Line (NSL) intercom products. It provides a one time switch-over from incumbent Telco to MTA-based service, as well as a conditions-based switch-back to Telco from the MTA service in the event of Telco/Intercom ring or MTA disconnection or power loss
- ▶ Accommodates local number portability (LNP) without any customer down time
- ▶ Accommodates for MTA 2nd line functionality by providing connectivity to premise 1st & 2nd lines through both RJ11 connectors & insulation displacement connectors (IDCs)
- ▶ Unique wall plate form factor unit allows for a clean installation into the customer premise by fitting into any standard size electrical outlet box – an optional wall plate spacer is included with every unit for depth limited installations
- ▶ The unit is also designed to be easily wall-mountable for applications where the MTA & Telco demarcation point are co-located and use of IDCs for Telco/Intercom & premise line connectivity is desirable
- ▶ NOTE: cross connect or direct route bypass from Telco demarcation point required

DMDPCIW Intercom Switch Specifications

SPECIFICATIONS		DMDPCIW
IMPLEMENTATION REQUIREMENTS		
CROSS CONNECT / REROUTE OF TELCO DEMARCATION		See Wiring Diagram
INPUT		
DC LINE VOLTAGE		22 - 60 VDC (on R/G of MTA port)
POWER UP TIME ⁽¹⁾		30 seconds max
QUIESCENT CURRENT (MTA / TELCO)		3.5mA/1mA
OPERATION		
MTA / TELCO RING DETECTION		40 VAC to 115 VAC
SWITCH TO MTA / TELCO		within 1-2 Ring cycles
STATUS INDICATION		LED Flashing Red = MTA Connected & Powered, Initial Install Mode, Switch in TELCO position
		LED Flashing Green = MTA Connected & Powered, Intercom Mode, Switch in MTA position
		LED Flashing Orange = MTA Connected & Powered, Intercom Mode, Switch in TELCO position
		LED Off = MTA Not Connected/Powered or off hook voltage too low ⁽²⁾
DEVICE RESET		9 VDC applied across Y/B of P2 (front) or reset button at rear (NOTE: RESET must be held for min. 15 sec.)
OTHER		
TEMPERATURE		-40°C to +60°C (-40°F to +140°F)
SWITCH ISOLATION		1000 Mohm @ 500 VDC applied for 1 minute
SURGE WITHSTAND		1500V Longitudinal, 800V Metallic
		IEEE CAT C62.41 Combination Wave on all ports & in both switch positions
NOTES:		
(1) Charge up time before device enters operational state.		
(2) In the event of multiple phones being off hook on an MTA call, it is possible that the DPCIW will enter sleep mode. In this case the switch remains in MTA position. If the MTA is disconnected or loses power or is reset and not yet connected to a powered MTA, the switch will be in the TELCO position.		



Ordering Information

Part Number	Description
DMDPCIW	DPC Intercom Wall Plate Switch w/ IDC Connectors

Digital Phone Connect Intercom Switch (DMDPCIW):

Operational Functionality:

INITIAL INSTALL MODE OPERATION

DMDPCIW switches premise wiring from incumbent Telco to MTA provided service on the first ring from the MTA. After initial switch-over from Telco to MTA device enters into **INTERCOM MODE**.

INTERCOM MODE OPERATION

DMDPCIW maintains premises connection to MTA service until it detects a ring from the Telco service.

Scenario 1:

If ring from Telco is detected and user is on MTA call, call waiting tone is generated:

- User can flash over to Telco/Intercom call
- MTA call is maintained
- Once Telco/Intercom call is complete DMDPCIW switches back to MTA

Scenario 2:

If ring from Telco is detected and user is not on MTA call:

- DMDPCIW switches to Telco/Intercom
- If user does not answer and/or answers and completes the Telco/Intercom call the DMDPCIW switches back to MTA

Scenario 3:

If MTA power is lost or MTA is disconnected:

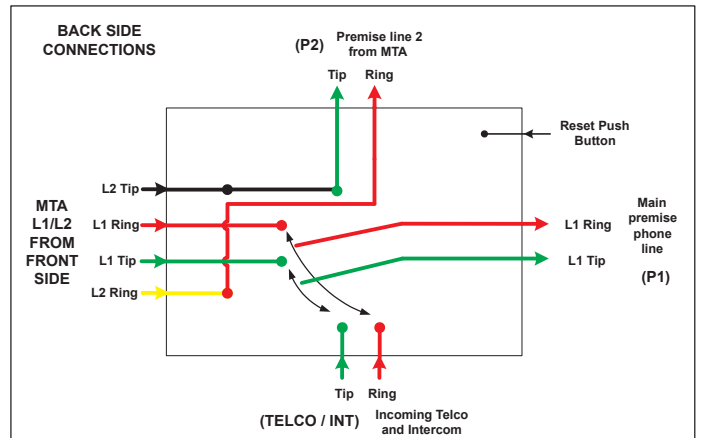
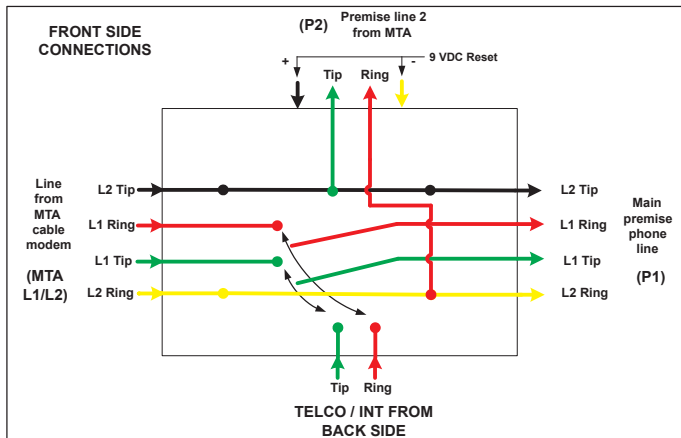
- DMDPCIW switches to Telco/Intercom until power from MTA is restored
- Upon detected return of MTA power the DMDPCIW switches to MTA

Scenario 4:

9V applied continuously for 15 sec. across P2 Port B/Y (on front) or depression of reset button (at rear):

- DMDPCIW switches back to Telco/Intercom and is set back to INITIAL INSTALL mode
- **Note: RESET is essential if device is to be used in a new MTA installation** application requiring initial number porting functionality

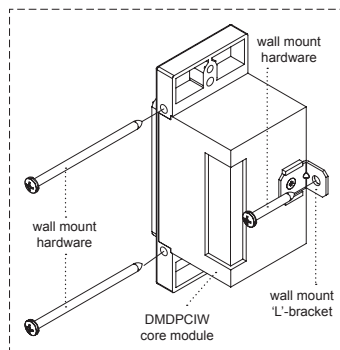
Device Functional Schematics



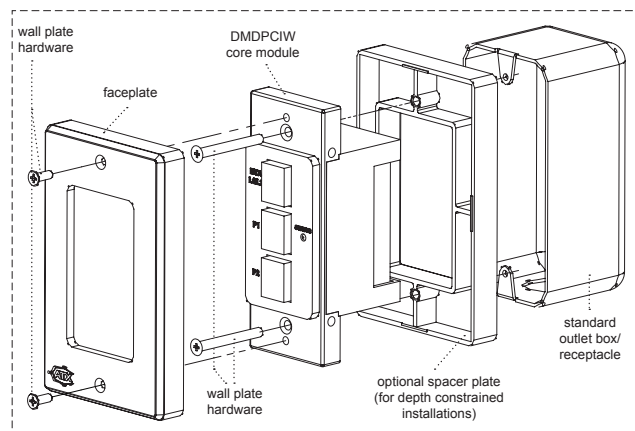
Installation Diagrams

Wall Mount

(Ideal for cases where MTA & Telco demarcation point can be co-located)



Wall Plate (Outlet Box)



(DMDPCIW units ship with all components & hardware shown except outlet box/receptacle)

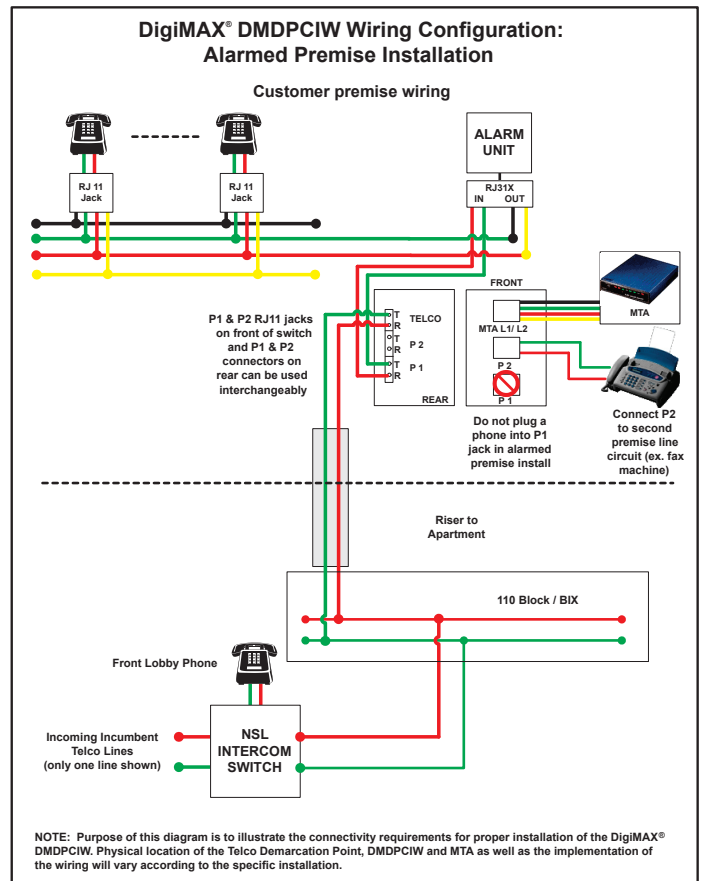
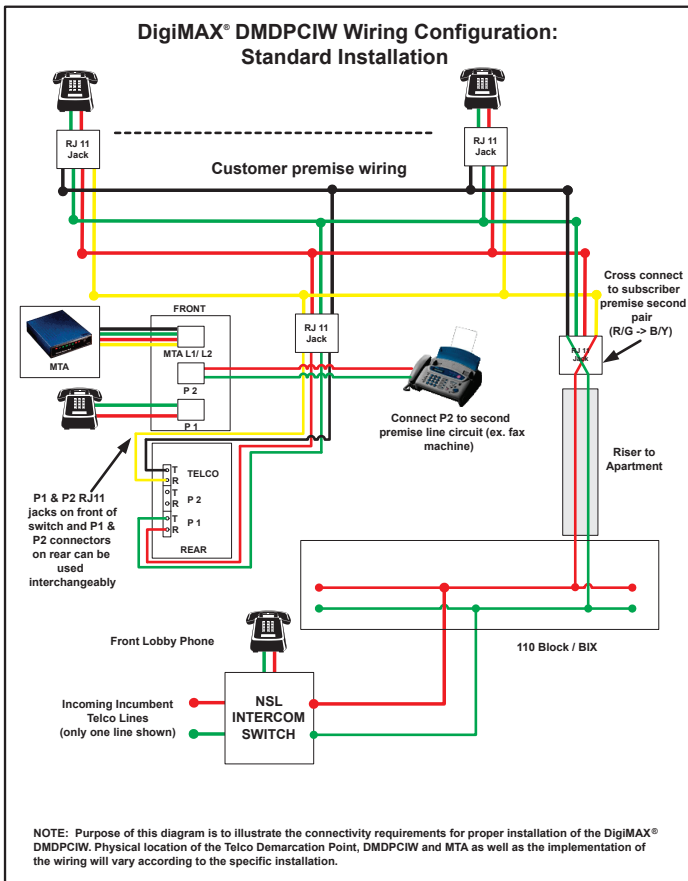
Digital Phone Connect Intercom Switch (DMDPCIW):

Installation Instructions:

NOTE: For proper operation, device must be mounted to a stable surface using screw-down tabs.

1. Ensure DMDPCIW is Reset. See instruction #9 below.
2. Cross connect or re-route incoming telco/intercom signal to arrive at TELCO/INT connector on rear of DMDPCIW.
3. Connect output of MTA to MTA L1/L2 port on DMDPCIW. (Note: If use of 2nd MTA line is desired, ensure a 4-wire jumper is used to connect MTA to MTA L1/L2 port on switch)
4. Ensure MTA is powered.
5. After approximately 30 seconds, the LED will start to flash red indicating that the MTA is connected and the device is ready for operation.
6. Connect the tip and ring from primary premise line to P1 connector on the rear of the device or via an RJ11 connector to the P1 port on the front.
7. If desired, connect the tip and ring from second premise line to P2 connector on the rear of the device or via an RJ11 connector to the P2 port on the front.
8. **After device installation, ensure Telco dial tone is present before leaving subscriber premises.**
9. **RESET:** via 9V across B/Y of P2 or reset button at rear while connected to MTA. Reset needs to be held for approximately 20 seconds until LED flashes RED.

Installation / Wiring Configuration Information



Digital Phone Connect Intercom Switch (DMDPCIW):

Installation / Wiring Configuration Information (cont'd)

